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A detailed portrait of John Locke, an elderly man with long, wavy, grey hair and blue eyes. He is wearing a dark green, textured coat over a white, ruffled shirt. The portrait is set against a dark background.

JOHN  
LOCKE

*The Philosopher as Christian Virtuoso*

VICTOR NUOVO

John Locke



# John Locke

## *The Philosopher as Christian Virtuoso*

Victor Nuovo

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*To Betty*

‘Not for a year,  
But ever and a day’



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# Acknowledgments

The idea for this book first occurred to me about two decades ago as I was trying to imagine how the same author could have written *An Essay concerning Human Understanding* and *The Reasonableness of Christianity* not by mere circumstance but by design, or how these works could be united in a single intellectual program. Not long after that I discovered Robert Boyle's *The Christian Virtuoso*, and the idea received a name and grew into a theme, which has been developed in this book.

But the book would not have been written without a great deal of help. It was my good fortune to meet Michael Ayers, who enlisted me to be an editor of *The Clarendon Locke*. This appointment gave me access to all the Locke manuscripts in the Bodleian Library. It also brought me into contact with the General Editors of the series, M. A. Stewart and John Milton, who taught me much not only about the art of critical editing, but also about John Locke and his contexts. It brought me new friends, scholars who came to be a constant and reliable source of wisdom and knowledge: Peter Anstey, Bruce Eichinger, Eric Eve, Mark Goldie, Sarah Hutton, Antonia LoLordo, John Price, John Rogers, Paul Schuurman, Luisa Simonetti, Tim Stanton, Christopher Star, John Stephens†, Jonathan Walmsley, John Walsh, Maurice Wiles†, and Richard Yeo.

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Finally, I owe more than I can say to my wife, the honorable Betty Nuovo, who for over three score years has been my dearest friend, my confidant, and my inspiration. She willed this work to be, and so it is properly dedicated to her.

For any who do not recognize them, the words in my dedication are lyrics from a venerable Gershwin song.



# Abbreviations

<i>Conduct</i>	John Locke, <i>Of the Conduct of the Understanding</i>
<i>Correspondence</i>	<i>The Correspondence of John Locke</i>
<i>Drafts I</i>	<i>Drafts for the Essay concerning Human Understanding and Other Philosophical Writings</i> , vol. 1
<i>DRN</i>	Lucretius, <i>De rerum natura</i>
<i>DSCBP</i>	<i>Dictionary of Seventeenth-Century British Philosophy</i>
<i>Education</i>	John Locke, <i>Some Thoughts concerning Education</i>
<i>Essay</i>	John Locke, <i>An Essay concerning Human Understanding</i>
<i>LL</i>	<i>The Library of John Locke</i>
<i>OED</i>	<i>Oxford English Dictionary</i>
<i>OFB</i>	<i>Oxford Francis Bacon</i>
<i>A Paraphrase and Notes</i>	John Locke, <i>A Paraphrase and Notes on the Epistles of St Paul</i>
<i>The Reasonableness</i>	John Locke, <i>The Reasonableness of Christianity</i>
<i>SEH</i>	James Spedding, Robert Leslie Ellis, and Douglas Heath, eds, <i>The Works of Francis Bacon</i>
<i>Toleration</i>	John Locke, <i>Epistola de tolerantia</i>
<i>Two Treatises</i>	John Locke, <i>Two Treatises of Government</i>
<i>Vindications</i>	John Locke, <i>Vindications of the Reasonableness of Christianity</i>
<i>WR</i>	John Locke, <i>Writings on Religion</i>



# Introduction

What follows is an essay on the interpretation of the thought of John Locke. My purpose is to show how Locke's philosophical work is clarified and explained when it is considered as the production of a Christian virtuoso, which is to say, of a seventeenth-century English experimental natural philosopher, an empiricist and naturalist, who also professed Christianity of a sort that was infused with moral seriousness and with Platonic otherworldliness overlaid with Christian supernaturalism, and so was persuaded that the material and temporal world is irremediably imperfect and cannot satisfy the desire of the person to achieve moral or cognitive perfection in this life. Christian virtuosi were confident that their dual profession of Christianity and natural philosophy was not only coherent but also that its main parts, notwithstanding their opposite tendencies, could be made integral, complementary, and mutually sustaining. They endeavored to justify this confidence in their writings.

The vocation of a Christian virtuoso was not Locke's invention. Therefore, its antecedents must first be identified and its idea clarified before it can be effectively applied. The circumstances of its origin must be described, its ancestry discovered, its main proponents identified, their motives explained, and the problematic nature of Christian virtuosity exposed, together with the challenges of uniting its principal parts and integrating them in a single body of thought. This is what I have tried to do in Chapters 1, 2, and 3, which comprise the first part of this book. Its results are employed in the second part as hermeneutical guides for interpreting Locke's writings, which is the main purpose of this book.

My main endeavor throughout has been to discover Locke's thought in his writings. In this regard, my method does not involve attending to selected extracts which appear pertinent to philosophical themes that may have been of concern to early modern philosophers and which may also be of interest to contemporary ones. Rather I approach them as whole works which become reliable expressions of an author's thought only when studied in their proper contexts, taking into account, as much as possible, their origin and development.

Among Locke's antecedents in Christian virtuosity was his mentor, friend, and occasional collaborator Robert Boyle, who coined the expression 'Christian virtuoso', and who labored to clarify its idea and to justify its practice, and who endeavored to live it and doubtless encouraged others in his circle to do the same, leading them by his

example.<sup>1</sup> Francis Bacon preceded him. He was regarded, justly I believe, as the honorary patron of seventeenth-century virtuosi and of the Royal Society of London, whose mission was the improvement of natural knowledge. He too was a professing and practicing Christian, and, as I hope to show, anticipated in practice the very idea of Christian virtuosity. It was Bacon who insisted that the renewal of all learning must build upon a well-founded natural philosophy pursued from a purely naturalistic standpoint, and who, in this connection, established the cardinal rule of virtuosity,<sup>2</sup> that one must not mix theology with natural philosophy, naturalism with supernaturalism, or confuse natural causes with supernatural ones, and that in the search for the natural causes of things, one must employ only empirical methods. Yet, as will be shown, Bacon found justification of this rule and this method in a context replete with theological meaning and purpose. In this respect, if Boyle is the archetype of Christian virtuosity, Bacon is its prototype.

I found no ready-made exposition of either of these two figures that I could appropriate or comfortably cite as I approached my chosen subject. It became necessary that I fashion my own interpretations, which I hope are faithful and apt. Hence, Bacon and Boyle, the principal proponents of the idea of Christian virtuosity, each required a separate chapter.

Bacon prescribed that natural philosophers be not only naturalists and empiricists, but also historians and archeologists of philosophy. He tasked them with the recovery of a prehistoric ancient natural wisdom of fabulous memory, which, he discovered, was first brought to philosophical expression by the Presocratic natural philosophers, chief among whom was Democritus. According to this standard, Bacon proposed a reevaluation of the philosophical traditions of antiquity. The hegemony of Aristotle was overturned; Plato was exiled to a realm of spirits somewhere above nature where he would preside as the patron saint of philosophical superstition; Socrates, who is reported to have spurned natural philosophy, almost disappeared from view.<sup>3</sup> Democritus rose to pre-eminence among the philosophers of antiquity. The goal

<sup>1</sup> For Locke's connections with Boyle, see M. A. Stewart, 'Locke's professional contacts with Robert Boyle,' *Locke Newsletter* 12 (1981), 19–44.

<sup>2</sup> By 'virtuosity', I mean the practice of the investigation of nature and the expertise, largely empirical and experimental, proper to it.

<sup>3</sup> One obvious reason for Socrates' recess from the minds of virtuosi was his turning away from natural philosophy toward questions concerning civic and moral virtue, from nature to the city. Yet it must not be overlooked that Socrates was the founder of moral religion, and, if Plato's *Apology* be regarded as an authentic source of his moral outlook, that tradition, handed down from there, found expression in the moral philosophy of Christian virtuosi, especially John Locke. The principle of Socratic morality is an individual's station in life: 'wherever a man stations himself, thinking it best to be there, or is stationed by his commander, there he must, as it seems to me, remain and run his risks, considering neither death nor any other thing more than disgrace' (*Apology of Socrates*, 28D, trans. H. W. Fowler (Cambridge, MA: Harvard University Press), 1914, 104–5). The two modes of choosing a station, by what seems best, or by command of a superior, specifically a god, lead to the same end. There is one station common to all human beings, and from it proceed all the duties of a man and a citizen, beginning with telling the truth and acting justly. One place where the influence of Socratic moral religion is most evident in Locke's second *Treatise*, Ch. 2, §6, and, as I hope to make clear in Chapters 7 and 8 in this volume, Locke's mature moral theory

of natural philosophical explanation was reduced to a description of the motion and disposition of tiny material particles or atoms. This philosophical revolution was in correlation with what has come to be regarded as a scientific and technological revolution, if indeed the two were separate and distinct, which, in Bacon's mind, they were not.

One consequence of this philosophical revolution was that the ancient sources of atomism gained special prominence among the so-called new philosophers. Because the writings of Democritus and all the other Presocratics were lost—Bacon, as will be seen, proposed that they be retrieved, and he outlined a plan to achieve this—Hellenistic and Roman sources served in their place, especially Book X of Diogenes, *Lives of the Eminent Philosophers* and Lucretius' *De rerum natura*. The philosopher whose opinions these works conveyed was Epicurus, who was Democritus' principal heir and expounder of what became known as 'the Atomicall philosophy'. These became primary texts of the new natural philosophy, and their influence was direct and unfiltered, so that even the least allusion to one of them would have had a fuller meaning in its seventeenth-century context than it has now to us. They became seventeenth-century philosophical texts, profoundly contributing to the revival of natural philosophy, and serving as convenient sources of concepts, arguments, and interpretations of nature. They became standard textbooks of philosophy, offering a logic of empirical enquiry, an ontology, a system of ethics, and a theory of politics. They were well received and highly regarded, in spite of the fact that the philosophers whose opinions they recounted denied the divine creation of the world, its providential governance, and the immortality of the soul—in spite of the fact that these denials amounted to atheism.

It is in this respect that the underlying problem and challenge of Christian virtuosity comes into view. The underlying problem is the incompatibility of Democritean naturalism and its Epicurean successor with Christian supernaturalism. It became the task of a Christian virtuoso to reconcile them and to show how these pagan sources might even be made to serve as avenues to faith and as suitable guides in the common life.

However, the relationship remained problematic. This becomes evident in the reception of Lucretius' *De rerum natura*. The concepts and arguments so forcefully made in this work were not only found useful to explain the natural or material causes of things, they proved to be effective weapons against the claims of Christian theism, and to some libertines, a perfect antidote to it. The new natural philosophy caused a crisis, one that threatened fundamental beliefs and values: belief in God, divine creation, providence, right reason, and the foundations of morality, law, and civil society.

follows suit. It is noteworthy that the same ambiguities that remain in early modern moral theory are present in Socrates' remarks. There is a tension between voluntarism and rationalism, between divine command and rational judgment. Why, then, was Socrates ignored? In the case of Locke, it may be that he had not read the *Apology*. He preferred Latin sources of ancient moral teaching and seems far better read in Cicero and Seneca than in Plato. But there is another reason, which should become clear in succeeding chapters. For Locke, the chief teacher of morality was not Socrates but Jesus Christ. The Socratic moral tradition was appropriated by Christian moralists and adapted to fit biblical revelation. How this came about would require a long historical account, which must be left for another time and place.



Christian virtuosity was conceived as an effective way to resolve this crisis. Hence, its idea and the motives leading to it are incomplete until all this is taken into consideration. This is the purpose of third chapter of the first part of this book.

With these matters settled, I approach Locke. The first chapter of the second part of this book sets the stage for an extended exposition of *An Essay concerning Human Understanding* that follows it. My purpose is to describe the first beginnings of Locke's principal philosophical work, by recovering those 'hasty and undigested thoughts' from which the *Essay* evolved. These he wrote down, for his own and his friends' use. Those recorded thoughts were inscribed in an Urtext, about whose once real existence we have Locke's own testimony. Following a suggestion of Richard Aaron, that Locke's Urtext is probably embedded in the early part of Draft A, I have attempted to retrieve it, with, I hope, some success. By means of an exposition of this and the earliest surviving draft of the *Essay*, Draft A, I endeavor to show that at the outset, Locke undertook to explain, as a natural philosopher, through experience and reason, how human knowledge originates, by identifying the elements of thought, knowledge, and belief, by clarifying their nature as positive elements, or primary perceptions, incapable of definition, by explaining how they entered the mind, and how they combine to denote things and their causes, and how from these sources propositions are formed, as definitions and as causal descriptions. The method is experimental, and individuals, beginning with the author, are able to return to themselves and try the descriptions and explanations offered.

However, as Locke explains in his reminiscence of the occasion of these first thoughts, what occasioned all this was a crisis of doubt that confronted him and several of his friends whilst discoursing on a topic remote from this one. This remote topic concerned the principles or grounds of morality and revelation. Hence the first or original motive of the *Essay* was moral and theological. Notwithstanding this, in my exposition I show that the Urtext and Draft A are austere naturalistic in executing their task. Nevertheless, there are to be found in both texts indicators, parenthetical and incidental, showing that Locke had not forgotten this original concern. They are explicit and assertive in Draft B, which anticipates the course that Locke would follow over the next three decades writing and enlarging the *Essay*. In this trajectory, the virtuosity of the Urtext and Draft A is more and more overshadowed by Christian morality, and its original naturalism, by supernaturalism.

The next three chapters describe this development through a series of expositions of different aspects of the *Essay* that, when combined, present to the discerning reader a complete system of philosophy: Logic, Physics, and Ethics. These chapters are intended to provide a synoptic view of Locke's Christian philosophy.

The first of these shows that Locke did not discard his original intent, and that essentially the *Essay* is a logic of empirical enquiry, treating the elements of thought, terms, propositions, and judgment, preliminary to an assessment of the scope of knowledge. These are topics that a natural philosopher should master before venturing on any enquiry into the nature of things. However, applying his logic of enquiry to the physical

world, Locke was led to the conclusion that mankind could never hope by these means to achieve a science of nature, and that the proper business of mankind in this world is therefore morality, which he believed to be impossible to realize without religion.

In both his speculative physics and his ethics, Locke's constant motive was to defeat atheism, and to upturn its theoretical roots in materialism and ethical naturalism. In this endeavor, the theories of the Cambridge Platonists, in particular of Ralph Cudworth, provided him with insight and motive. Platonism, however, was not a complete guide for him to transcendent things; it was insufficient to ease his doubts concerning the real substance of things; his inability to distinguish matter and spirit persisted and led him to the New Testament, in particular to St. Paul or more generally to revelation, for resolution. The resolution was a skeptical one: the natural mind has no clear distinction between matter and spirit, which, for all we know, may be the same thing.

Thus, having discovered the limits of knowledge and belief through his logical investigations, and having concluded that a science of nature is not attainable, but that a science of morality is, Locke seems also to have lost confidence in attaining even that, and sought clarity and definition in the moral teaching of Jesus Christ. It turns out, then, that the proper conclusion of Locke's philosophical endeavors is to be found in revelation. In the final chapter, I offer interpretations of *The Reasonableness of Christianity* and the unfinished *Paraphrase and Notes on the Epistles of St Paul*, in this context. These are not only the major works of John Locke; rather, they represent the culmination of his earthly thought.



PART I

The Christian Virtuoso  
and His Atheist Shadow



# 1

## Francis Bacon and the Origins of Christian Virtuosity

To God the Father, God the Word, God the Spirit, we pour out our humble and burning prayers, that mindful of the miseries of the human race and this our mortal pilgrimage in which we wear out evil days and few, they would send down upon us new streams from the fountains of their mercy for the relief of our distress; and this too we would ask, that our human interests may not stand in the way of the divine, nor from the unlocking of the paths of sense and the enkindling of a greater light in nature may any unbelief or darkness arise in our minds to shut out the knowledge of the divine mysteries; but rather that the intellect made clean and pure from all vain fancies, and subjecting itself in voluntary submission to the divine oracles, may render to faith the things that belong to faith.<sup>1</sup>

And therefore the natural philosophy of Democritus and others, who removed God and Mind from the structure of things, and attributed the form thereof to infinite essays and proofs of nature (which they termed by the name of Fate or Fortune), and assigned the causes of particular things to the necessity of matter . . . seems to me to have been, as regards physical causes, much more solid and to have penetrated further into nature than that of Aristotle and Plato; for this single reason, that the former never wasted time on final causes, while the latter were ever inculcating them.<sup>2</sup>

If all scientific knowledge were lost in a cataclysm, what single statement would preserve the most information for the next generation of creatures? How could we best pass on our understanding of the world? [I might propose:] 'All things are made of Atoms . . .'<sup>3</sup>

### The Challenge

In what follows, 'virtuoso' signifies an experimental natural philosopher of the sort that flourished in England during the seventeenth century, and who was associated with

<sup>1</sup> Prefatory prayer to *Temporis partus masculus sive Instauratio magna imperii humani in universum* (*The Masculine Birth of Time or The Great Instauration of the Dominion of Man over the Universe*), *SEH*, iii, 527; English translation by Benjamin Farrington, *The Philosophy of Francis Bacon* (Chicago: University of Chicago Press, 1964), 59.

<sup>2</sup> Francis Bacon, *De dignitate et augmentis scientiarum*, Bk. iii, ch. 4, Eng. transl., *SEH*, iv, 364.

<sup>3</sup> Richard Feynman, quoted by Bernard Pullman, *The Atom in the History of Human Thought* (Oxford: Oxford University Press, 1998), frontispiece.

the Royal Society of London, which was founded in 1661. ‘Virtuosity’ signifies his philosophical stance and expertise, including objects and modes of enquiry, key interpretative concepts, and methods of proof.<sup>4</sup> ‘Christian virtuoso’ was an expression coined by Robert Boyle *c.* 1670,<sup>5</sup> although its idea is older. It signified Boyle’s vocation, which he cultivated and practiced ever since he became a natural philosopher, *c.* 1649, but to which he had no need to assign a name until he was challenged to defend it.

The challenge came from two virtuosi, active members of the Royal Society whom Boyle identified only as ‘Dr. W. and Mr. N.’ They were perplexed that Boyle, whom they esteemed as ‘a diligent Cultivator of Experimental Philosophy’, should also be ‘a concern’d Embracer of the Christian Religion.’ They were doubtful that it was possible to be ‘addicted’ to Christianity and also be a lover of truth.<sup>6</sup> Hence, they feared that Boyle’s serious engagement with Christianity would prove a dangerous distraction, filling his mind with thoughts about things ‘above the Sphere of Reason’, diverting his attention from ‘Objects of Sense’, which are the proper objects of natural philosophy, and confounding his thoughts about them and their proper causes. From the manner in which Boyle writes of them, Dr. W. and Mr. N. were well respected by their peers, so that their challenge could not be easily dismissed. A likely guess is that they were Christopher Wren and William Neile.<sup>7</sup>

It should not be supposed that Dr. W. and Mr. N. harbored anti-religious or atheist sentiments, or that they were motivated by anything more than a strong commitment to the investigation of nature and the integrity of their natural scientific procedures. Boyle did not seem to think so. He did not confuse them with ‘some Virtuosi’ who use the new philosophy to justify their infidelity and immorality, who ‘boast much of the Principles of the New Philosophy’ in their ‘Prophane Discourses and Licentious Lives’, and who employ these principles to undermine religious belief and practice. He imagined, or at least suggested, that they were as offended by ‘Resolved Atheists’ and ‘Sensual

<sup>4</sup> For the etymology and meaning of virtuoso, and its use in seventeenth-century England, see articles in the *OED* ‘virtuoso’, ‘virtuous’.

<sup>5</sup> One of the supposed challengers, William Neile, died in 1670; see the footnote 7.

<sup>6</sup> To be addicted or an addict to something is to have a very strong commitment to it; see *OED*, ‘addicted’.

<sup>7</sup> Robert Boyle, *The Christian Virtuoso, The First Part, Works*, xi, 291. Christopher Wren (1632–1723) was a founding member of the Royal Society; William Neile (1637–70) was elected FRS in 1663. Both attended Wadham College, Oxford, and were members of John Wilkin’s circle. Wren was closely associated with Sir Paul Neile, William’s father. (See Oldenburg, *Correspondence*, iii, 374n; see Mordecai Feingold, ‘William Neile’, *DSCBP*.) For Wren, see J. A. Bennett, ‘Christopher Wren’, *DSCBP*, and Jim Bennett, *The Mathematical Science of Christopher Wren* (Cambridge: Cambridge University Press, 1982), especially ch. 3, 14–25, which details Wren’s associations with natural philosophers at Wadham in Wilkin’s circle and in London, and his relation to Boyle; see also Michael Hunter, ‘The Making of Christopher Wren’, in Hunter, *Science and the Shape of Orthodoxy* (Woodbridge: Boydell Press, 1995), 45–65, esp. 46, ‘Wren, perhaps more than any of his English contemporaries, exemplifies the sheer excitement of the new science and the opportunities which it appeared to offer to the generation who were first fully exposed to it in the middle years of the seventeenth century.’ If my identification of Mr. N. is correct, then the first part of *The Christian Virtuoso*, or at least a portion of it, must have been written before August 24, 1670, when Neile died. There is an earlier reference to a Mr. N. entertaining similar sentiments in *The Excellence of Theology*, Boyle, *Works*, viii, 11, and it is likely he is the same person. The remaining manuscripts of the first part of *The Christian Virtuoso* were written after 1675; see Boyle, *Works*, xiii, xlvi–ix.

Libertines' as he was.<sup>8</sup> He no doubt also recognized that their concerns were proper and consistent with Bacon's rule that one must not mix natural philosophy with theology. What I call 'Bacon's rule' is expressed in various ways in Bacon's writings: as a warning, sage advice, a prayer, blame. It has two faces: it grants to naturalists complete liberty or autonomy to investigate nature guided solely by the light of nature, whilst it prohibits them from pretending by this same light, to discover truths of revelation or from relying on revealed truths to interpret nature. Its dual purpose is to safeguard the integrity of nature and its operations and to insure proper respect for sacred mysteries.<sup>9</sup>

Boyle responded to their challenge, and his response grew into an ambitious albeit unfinished book, *The Christian Virtuoso*, which he began writing just about the time that Locke began composing early drafts of his *Essay*. Both works are germane to my theme. And they are complementary, so that affinities in the one or the other might as well be explained as influence, from either side on the other, or as simultaneous discovery.

Boyle conceived *The Christian Virtuoso* as a grand defense of his vocations as a virtuoso and a Christian. He attempted to demonstrate not only their compatibility, that 'a great Esteem of Experience, and a high Veneration for Religion, should be compatible in the same person.' He also argued that they were mutually sustaining, for both a Christian and a virtuoso lives an experimental life and greatly values experience. They were mutually sustaining because they operated in the same domain of experience, shared methods, were both attentive to facts, and were mindful that the ultimate objects of knowledge of nature and divinity were things unseen, be they minute corpuscles of matter or the divine spirit. He labored over this book intermittently for more than two decades, anxiously hoping to complete it, but failing in the end. Only the first part appeared in his lifetime.<sup>10</sup>

Boyle's task was made more difficult in part because, as seems evident from the challenge, prominent virtuosi had come to regard Bacon's rule more single-mindedly and one-sidedly as a safeguard against any intrusion of theology and ecclesiastical authority into natural philosophy, and because it fostered in natural philosophers a sort of methodological autonomy leading to a methodological atheism, and along with this a sense of indifference toward the imperatives of Christianity whilst engaged in the investigation of nature. Besides, as will be seen, natural philosophy, following Bacon's direction, had taken a materialist turn manifested in an avowed preference for

<sup>8</sup> Boyle surmised that sensual libertines, although they espoused the new philosophy, were not seriously engaged in it, nor were they speculative atheists. His case against them went something like this: sensual libertines take comfort in atheism, because of the assurance it provides that they will not be judged for their immoral deeds, and they justify their atheism by appealing to the new philosophy, which presumes to explain all things by the operations of matter.

<sup>9</sup> *Novum organum*, I, §65, 100–3; see also Steven Matthews, *Theology and Science in the Thought of Francis Bacon* (London: Ashgate, 2008), 110–14, and John Henry, *Knowledge Is Power* (London: Icon Books, 2002), 86.

<sup>10</sup> *The Christian Virtuoso*, I, was published in 1691; the Appendix to the first Part and the Second Part were not published until 1744 as part of an edition of Boyle's works edited by Thomas Birch. It is unfortunate that all the parts of *The Christian Virtuoso* have not been gathered together and published as a single work.



a corpuscular or atomic theory; corpuscularism, the theory as well as the term, was generally favored by virtuosi and by Boyle also, and adopted by them as the basis of the new philosophy, which aimed to found causal explanations of natural things on the subtle operations of primary particulate matter.<sup>11</sup> In nature, all efficient causes were supposed to be material, and their discovery and use became the primary concern of the virtuoso.<sup>12</sup>

In defending his vocation, Boyle could have appealed to Francis Bacon, who was greatly esteemed by virtuosi of the Royal Society, whom they celebrated as the titular founder and prophet of their enterprise, their Moses, who led them from the abject slavery of superstition, through a wilderness of ignorance, to the borders of the promised land of a great renewal of learning founded on a restored natural philosophy.<sup>13</sup> He might have observed that Bacon never supposed that natural philosophy and Christianity could not coexist in an individual mind—two practices unconfused in the same person, that Bacon intended only to safeguard the integrity of both endeavors, that he did not mean it as a warrant for natural philosophers to ignore Christian divinity or for Christian divines to ignore natural philosophy, that, since Christian motives caused him to issue his rule, he could not have meant it to keep virtuosi from being actively engaged Christians. Boyle might have contended that Bacon's figuration of man as servant and interpreter of nature anticipates the character of the Christian virtuoso, and that Christ is the archetype of both, that human nature was not merely natural, and that the great instauration was a program of restitution closely analogous to divine redemption and connected to it by a special providence.<sup>14</sup> Had he done so, he might have saved himself much labor. But he did not, perhaps because he assumed, not unreasonably, that his own authority was sufficient.

But if Bacon in his own way managed an accommodation between Christianity and natural philosophy along the lines drawn above, then it is important that this be brought to light, for at the very least it will provide a clearer view of the context in which Boyle conceived his idea and offer clarification of his motives and intentions. I shall

<sup>11</sup> For a clarification of the meaning of the terms 'corpuscularism' and 'atomism', see in this chapter 'Naturalism and the Revaluation of Ancient Philosophy'.

<sup>12</sup> Leibniz, writing c.1669, acknowledged Bacon's rule and admitted that he too accepted it. See 'Confession of nature against Atheists', *Philosophical Letters and Papers*, ed. Leroy E. Loemker, 2nd ed. (Dordrecht: Springer, 1969), 110: 'At the beginning I readily admitted that we must agree with those contemporary philosophers who have revived Democritus and Epicurus and whom Robert Boyle aptly calls corpuscular philosophers, such as Galileo, Bacon, Gassendi, Descartes, Hobbes, and Digby, that in explaining corporeal phenomena, we must not unnecessarily resort to God or to any other incorporeal thing, form, or quality but that so far as can be done, everything should be derived from the nature of body and its primary qualities—magnitude, figure, motion.' He goes on to ask, forecasting his case for theism, 'But what if I should demonstrate that the origin of these very primary qualities themselves cannot be found in the essence of body?'

<sup>13</sup> Abraham Cowley, Dedicatory poem, in Thomas Sprat, *The History of the Royal Society of London* (London, 1667), B2'. The veneration of Bacon was not confined to England. Huygens reminisced that he held him in 'a sort of sacred respect', Eric Jorink, *Reading the Book of Nature in the Dutch Golden Age, 1575–1715* (Leiden: Brill, 2010), 4.

<sup>14</sup> See *De sapientia veterum*, 'Ducalion, sive Restitutio', *SEH*, vi, 661/737.

attempt to accomplish this in what follows, and from there trace lines of continuity and perhaps also of influence leading from Bacon to Boyle and Locke.

## The Origin and Purpose of Bacon's Rule

The purpose of Bacon's philosophical program, 'the great instauration,' is the restitution of commerce, both intellectual and practical, between the mind and natural things.<sup>15</sup> To achieve this, he believed it was necessary to free the mind as much as possible from unproductive and misleading practices and intellectual habits that cause error. These are described in the first book of *Novum organum*, in his account of the idols of the mind, and of signs or instances of erroneous theoretical practices and assumptions that inhibit learning. Among the remedies that he proposes to overcome these obstacles is a rule against mixing religion or theology with natural philosophy, which I have called Bacon's rule. Of the three main corruptions of philosophy, a rational preference for generalities and indifference to particulars, a fixation on preferred experiments with often unusual results, and mixing theology with philosophy, he regards the last as the most harmful, for whereas 'the Sophistical family of philosophy ensnares the intellect' and distracts it with unproductive received opinions, and the narrowly empirical entertains it with 'freakish' notions, 'this other one, fantastical, swollen, and almost poetical, deludes it,' which is far more dangerous.<sup>16</sup> Here the rule is put in the service of uninhibited empirical naturalism.

Yet, as I have observed, the rule has two faces, one naturalist and the other supernaturalist. The prayer standing at the head of this chapter reveals its supernatural, and in Bacon's account of it, more commanding face. Bacon's worry expressed here is just the opposite of the worry that beset Dr. *W.* and Mr. *N.* Its situation is significant. The prayer introduces an earlier version of *The Great Instauration*, the renewal of learning on the grounds of a revived natural philosophy. In his prayer Bacon addresses not the corruption of philosophy by the intrusion of theology or other impediments, which is the main theme in the text that follows it; rather, it is about infidelity, an unintended but nevertheless real consequence of the liberty granted by Bacon's rule.<sup>17</sup> A revised version of the prayer appears in the preface to *The Great Instauration*. It is placed at the close of remarks offering reasons justifying a new beginning in philosophy and describing the austere empirical method that must be followed to achieve it. Bacon's primary objects

<sup>15</sup> *Novum organum*, OFB, xi, 2–3.

<sup>16</sup> *Novum organum*, I, §§63, 64, 65.

<sup>17</sup> The curious title *Temporus partus masculus* is explained in a comment that Bacon makes to the King in his dedication to *Novum organum*. There he modestly describes his work 'more as the birth of time than of talent' (*Novum organum*, OFB, xi, 6–7); elsewhere he describes time as 'the author of authors' and truth its daughter (*Novum organum*, I, §84; OFB, xi, 132–3; see also Bacon's 'Writer's Prayer', *SEH*, vii, 259–60). We may conclude from this that Bacon, as author of *The Great Instauration*, is the accidental father of truth, whose birth is parthenogenic. But time is the author of authors, and no doubt is meant here providentially. This may seem a joke, but I do not believe it would have seemed so to Bacon. All of this is related to Bacon's theory of sacred history, about which I will have more to say below.

are bare natural things and their covenants,<sup>18</sup> with which the mind is to have renewed commerce, theoretically and practically. Here also Bacon worries that the reopening of ‘pathways of sense’, and a refulgence of the light of nature, now shining ever brighter, may be the cause of a ‘night of unbelief’. He clearly recognized his project’s ambivalence, which may explain why he was, as we shall see shortly, so outspoken in declaring its complete innocence.

Bacon’s declarations were theologically grounded. Indeed, the very idea of the great instauration as restitution is theological. In another forerunner of *The Great Instauration*, *Valerius terminus*, Bacon describes it as ‘a restitution and reinvesting (in great part) of man to the sovereignty and power (for whenever he shall be able to call the creatures by their true names he shall again command them) which he had in his first state of creation.’<sup>19</sup> Bacon is referring to Gen. 2:19–20, which he conflates with Gen. 1:28, which on his interpretation is a divine grant to Adam and his progeny of dominion over nature, his right to establish the Kingdom of Man, which is a human counterpart of the Kingdom of God, the former rightly coming under the dominion of the latter. In the first chapter of *Valerius terminus*, he argues from theological premises that there can be no limit or restriction in the investigation of nature or of exploiting it to create works that benefit mankind, once its secret powers have been discovered. Notwithstanding Adam’s sin and the curse placed upon him, these activities remain innocent and uncorrupted as they were before Adam sinned.<sup>20</sup>

To be sure, after Adam’s sin, the work becomes more difficult. The way is hazardous, for there is now insufficient light; no longer enjoying the unencumbered light of paradise, Adam and his progeny must proceed ‘through the woods of experience and of things particular, guided by the uncertain light of sense which sometimes flares up and at others dies down.’<sup>21</sup> Their goal is unseen, hidden in the depths of nature, and in any case too subtle to be perceived.

Yet, of such labor, so long as it is performed for the good of mankind, there can be no excess, and hence no sin. Of course, Bacon relies on this assurance to defend his project against theologians who warned that mankind should not pry into the mysteries of nature any more than they should into divine mysteries, for they worried that such prying leads to vain pride and infidelity. Bacon had a different worry, which is expressed in his prayer, that an unrestricted concern with human things may cause the neglect of things divine. The antidote anticipates Bacon’s rule: it is to purge the natural mind of metaphysical fantasies, superstitions, and useless learning, and, each confined to its proper sphere, let faith be faith and nature, nature—yet, as we shall see, it was not Bacon’s intention that the twain should never meet. His prayer ended, he offers as advice to his readers what he just prayed for: let them ‘restrict the sense to its proper

<sup>18</sup> ‘ad res ipsas, & rerum foedera’, *Novum Organum*, 20, line 26; the expression is reminiscent of Lucretius, *DRN*, 1.586, 2.302, 3.781, 5.310, 6.906.

<sup>19</sup> *Valerius Terminus of the Interpretation of Nature*, *SEH*, iii, 222.      <sup>20</sup> *SEH*, iii, 217–24.

<sup>21</sup> This state alludes to what Bacon would later describe as the idol of the tribe; see *Novum organum*, I, §§ 41, 50.

sphere, and not trespass into divine matters. For the sense (like the Sun) illuminates the face of the terrestrial globe but blots out and closes up the face of the celestial.<sup>22</sup>

Similarly, Bacon prefaces the *Novum organum* with a short prayer of consecration. Its theme is human creative activity through the mastery of nature. The prayer is addressed to God the Father<sup>23</sup> who created visible light on the first day of creation and created man on the last, culminating his labor by breathing intellectual light into his face, which reflects the image of God. Here also Bacon recalls Adam's innocence and power, but he also looks forward to the end of history as the fulfillment of the human labor prescribed in *The Great Instauration*. Bacon observes that God the Father rested and contemplated the goodness of all he had made. He laments that mankind's acts of creation bring upon him 'only vanity and vexation of spirit', and that they are, in any case, never finished. Because mankind's work is God's work after all and has a reward that only God can bestow; 'Wherefore if we sweat and strain in our works, you will make us to share in your vision and sabbath.'<sup>24</sup> In sum, the work that Bacon proposes that mankind undertake has its archetypal counterpart in eternity, in the Divine Trinity, where the work of creation was conceived, enacted, and is everlastingly enjoyed.

Bacon's rule may be assigned a regulative and a constitutive function. It is regulative so far as it keeps a virtuoso's intentions pure. It prevents superstition, which is the ill effect upon the mind of mixing natural and supernatural causes in explaining natural events. But by doing so, it also fosters a virtuoso's growth in practicing his vocation, it purifies his vision of nature from all but the natural. Furthermore, it enables him to be a more faithful Christian, by not intruding on the authority of divine revelation. It is one of the seeds from which this double and ambiguous vocation springs. There are other seeds, embedded in Bacon's theology, which are formative of it, most especially the figure of Christ, who is the archetype of the Christian virtuoso and of mankind in general.

## Bacon's Theology

I begin with a brief account of Bacon's opinions concerning the role of reason in religion and continue with a more substantive account of his theological beliefs, focusing on his *Confession of Faith* with supplements from his other writings.

<sup>22</sup> For a similar warning, see Bacon's account of the fable of Pentheus, who was 'struck with madness' for attempting to spy on the mysteries of Bacchus, a proper punishment inflicted upon 'those who with rash audacity, forgetting their mortal condition, aspire the heights of nature and philosophy... For since the light of nature is one thing and the light of divinity another, they are as men that see two suns...'; *De sapientia*, *SEH*, vi, 646/719.

<sup>23</sup> It should be noted Bacon's practice is always to address his prayers to one of the persons of the Trinity, as here, or to all of them together, as in the epigraph; he did not suppose that the Godhead was proper object of address or an agent. It will become clear shortly that he does the same in his theological reflections; for other prayers and for Bacon's translations of select Psalms, see *SEH*, vii, 259–86; in translating the Psalms Bacon follows the biblical usage, addressing 'God' and 'Lord', i.e., *Elohim* and *Yahweh*.

<sup>24</sup> *OFB*, xi, 44–7; vii, 259–60; see also *De operibus dei et hominis, Meditationes sacrae*, *SEH*, vii, 233, 243.

First Bacon accepted that natural reason reflecting on the works of nature rightly infers the being, power, and wisdom of God. But these are the mere rudiments of divinity. They are sufficient to refute atheism, 'but not to establish religion,' which supposedly is God's prerogative, and which is achieved by a positive revelation of the divine will.<sup>25</sup> By establishing religion Bacon meant piety and its proper expressions through doctrine and forms of worship. Moses and Jesus came bearing not only the law and God's rule, but also a complete cultus. True religion is established only by revelation. All its primary doctrines, which are rooted in mystery, are positive and above reason. These include the Divine Trinity, Incarnation, Divine Sacrifice, Sin and Redemption, and many more, indeed, every doctrine put forth in Sacred Scripture, which is the sole record of divine revelation. Bacon likens revealed doctrines to rules of a game, which players accept without questioning if they wish to play, and which they steadfastly observe. Yet revelation does not diminish natural reason but enlarges its scope.<sup>26</sup>

Bacon's account of revelation is especially interesting here, for, as will be seen, he anticipates Locke on the role of reason in revealed religion. To understand revelation, reason must turn itself every which way, as it were, posturing itself the better to apprehend the mystery. But this is possible only if 'the mind be enlarged, according to its capacity, to the grandeur of the mysteries, and not the mysteries contracted to the narrowness of the mind.'<sup>27</sup> 'Reason enlarged' is the formula that Locke uses to describe the human reception of revelation. The enlargement of the mind no doubt means increasing its scope by adding the experience of supernatural things to natural experience. Bacon does not tell us what sort of motions reason must go through to gain understanding of these things. However, it is evident from the way he employs metaphor, analogy, allegory, literary allusion, and historical precedents, the more ancient the better, that it engages all the activities of the mind with the full assistance of the imagination.

With respect to inferences from revealed dogma, Bacon's main point is that inferred doctrines, although they may increase understanding, must not be made principles of orthodoxy or fundamentals that one must believe to be a Christian. Fundamentals must be biblical and positive. This criterion anticipates Locke's method in *The Reasonableness of Christianity*.<sup>28</sup>

In Bacon's *Confession of Faith*, we encounter the main fundamental doctrines of Christianity, explained, clarified, and systematized, as positive truths. The title requires comment, for, as Brian Vickers has observed, it was unusual for a private individual, a layman, to issue such a statement under this title. As Vickers has noted, confessions of faith are ordinarily corporate and public statements issued by Protestant sects or civil states to affirm their orthodoxy and secure for themselves a strong identity and advantage in the public sphere. Bacon's *Confession* has none of these purposes; this use of the

<sup>25</sup> *De augmentis*, iii, 2, *SEH*, iv, 341.

<sup>27</sup> *De augmentis*, ix, 1, *SEH*, v, 114.

<sup>26</sup> *De augmentis*, ix, 1, *SEH*, v, 114.

<sup>28</sup> See Chapter 8, *The Reasonableness of Christianity*.

genre seems to have originated with him.<sup>29</sup> Also, it may be taken as a sign of the emergence of a lay theology, whose proponents professed to be motivated by a love of truth and who believed that divine revelation and its repository, the Bible, were a source of truth open to all, requiring only ordinary rational methods to receive and interpret it. Their authority derived from their learned interpretations of this source. Moreover, being a theologian was for them not a living but a pure vocation, or the essential part of one. For Bacon, and after him, Boyle and Locke, lay theology has its own authority deriving experience and reason and their exercise in natural philosophy.<sup>30</sup>

Bacon's *Confession* is remarkable in other ways. It is complete and comprehensive,<sup>31</sup> exquisitely crafted, and original in its design. It is also unequivocally Trinitarian, focusing on the economy of the Trinity rather than its ontology. This is consistent with his biblical positivism.

Its content is presented in the form of a narrative, a theology of history that is played out over three periods or times, or, as Bacon prefers to call them, 'parts of eternity':<sup>32</sup> 'the time before beginnings, when the Godhead was only', that is, alone by itself; 'the time of the mystery', which encompasses the period from the creation of the world until its dissolution; the consummation which follows and which will be everlasting without change. The time of mystery is the time in which we live; the objects of our theological enquiries are things unseen, comprehended only indirectly, much like the hidden depths of nature are for an enquirer subject to the bounds of sense. Mystery for Bacon includes a sense of expectation that drives the study both of nature and revelation. Locke would think similar thoughts toward the end of his life.

Bacon's *Confession* is also a remarkable synthesis. Notwithstanding his Biblicism, he manages to integrate the God of Christian revelation with the Platonic God and with the metaphysics of Parmenides, although surely this was not his deliberate intention. By calling it a synthesis, I do not mean to suggest that all of these elements are blended together into a homogeneous mix, or that they are made to follow from a common set of first principles. Bacon's *Confession* has rather the coherence of a treaty, or of a positive legal agreement, or an ecclesiastical confession of faith. Philosophical concepts play a role not unlike legal terms in a contract. I will try to illustrate all this shortly.

First, I consider the occasion or purpose of this very formal document. There is no definitive biographical evidence from which an answer might be drawn. Circumstantial evidence suggests a terminus ante quem of March 24, 1603.<sup>33</sup> It was in this year that

<sup>29</sup> For the text of Bacon's *Confession of Faith*, see *SEH*, vii, 215–26, with a preface by Spedding; and Brian Vickers, ed., *Francis Bacon, The Major Works* (Oxford: Oxford University Press, 1996), 106–12; Vickers has also provided an introduction and extensive notes, 560–72, which are indispensable and which I follow here.

<sup>30</sup> Boyle, *The Christian Virtuoso, Works*, xi, 284 and *passim*.

<sup>31</sup> Spedding has remarked that it rivals the great Scholastic *Summae* in comprehensiveness, and that Bacon does not seem to have taken any known confession as a model (*SEH*, vii, 216).

<sup>32</sup> Bacon imagines eternity as everlastingness rather than as a timeless present.

<sup>33</sup> See Vickers, 560, who cites Spedding (*SEH*, vii, 216), who conjectured that it was published sometime before 1603, before Bacon was knighted by James I (March 24, 1603).

Bacon became actively engaged in initiating his program for the renewal of learning, whose first fruit was *The Advancement of Learning*, published in 1605.<sup>34</sup> Judging from the dedicatory prayers above, it would have not been out of character for Bacon to compose a document like this to ensure that he did not succumb to the irreligious temptations or tendencies mentioned in them. Support for this purpose may be gathered from the *Confession* itself, where an ‘underlying concern with natural philosophy’ or with nature itself is evident.<sup>35</sup> Two places in particular are worthy of note. The first two paragraphs are illustrative. They introduce the first two periods of history.

I believe that nothing is without beginning but God: no nature, no matter, no spirit, but one only and the same God. That God as he is eternally almighty, only wise, only good, in his nature, so he is eternally Father, Son, and Spirit, in persons.

I believe that God is so holy, pure, jealous, as it is impossible for him to be pleased in any creature, though the work of his own hands; So that neither Angel, Man, nor World, could stand, or can stand one moment in his eyes, without beholding the same in the face of the Mediator; And therefore that before him with whom all things are present, the Lamb of God was slain before all worlds; without which eternal counsel of his, it was impossible for him to have descended to any work of creation; but he should have enjoyed the blessed and individual society of three persons in Godhead only for ever.<sup>36</sup>

Compare the attributes of God in these two paragraphs. In the first, they are mainly ontological and philosophical. They are intended to represent the divine nature in and by itself, its being before and above time, ‘when the Godhead was only’. We discover among them principal attributes of Parmenides’ being: one, ungenerated, self-same, perfect, and unperturbed. Wise, and good, are also philosophical attributes.<sup>37</sup> The nature or being of God is supplemented by the attribution of three persons from which the activity of God proceeds. The *homousia* of the divine persons is implied.

The second paragraph introduces a different sort of attribute and a different mood; they represent not abstract philosophical qualities but numinous powers: holy, pure, jealous, threatening, annihilating power directed toward anything that does not participate in the divine substance, to whatever is creaturely. The mood is purely religious.<sup>38</sup> Moreover, whilst ‘God’ in the first paragraph is used generically, in the second and subsequent paragraphs it denotes God the Father, who represents a certain sort of divine agency.

<sup>34</sup> Bacon had already become informally engaged in this project by 1692; see his letter to Lord Burghley, *SEH*, viii, 108–9; Vickers, 20–1. His mention of Anaxagoras in this letter shows that he had been reading Diogenes Laertius and, in particular, the opinions of the Presocratics.

<sup>35</sup> This has been observed by Vickers, 563.

<sup>36</sup> Vickers, 107.

<sup>37</sup> Almighty is an attribute of power, and perhaps should be placed next to the attributes cited in the second paragraph, for it likens God to a world ruler.

<sup>38</sup> See *OED*, ‘numen’, numinous’. In his classic work, *The Idea of the Holy* (Oxford: Oxford University Press, 1923), Rudolf Otto described the numen and its attributes as ‘non-rational’, not subject to analysis or definition. They evoke sentiments, the ambivalent sentiments of religion, terror, and fascination.

In subsequent paragraphs Bacon writes that God the Father was moved to become a Creator for benevolent motives and with good feeling, out of his 'eternal and infinite goodness and love', and out of a desire to communicate with creatures, and that, when the work was done, he took pleasure in contemplating what he had made. He supposed the creation of the world to be an altogether free act of God.

Nonetheless, God's freedom to act is not unimpeded. Bacon's explanation of how this impediment is removed is interesting in itself, but it has special interest here, for in it we shall discover a theological source of the idea of a Christian virtuoso.

Bacon imagines a divine dilemma. God the Father purposes to create a world so that he may communicate with it eternally. Yet, his very nature, in particular, his holiness, threatens to confound this purpose. Divine holiness is an annihilating power, an obstacle to God's benevolent purposes. Overcoming this impediment appears to require the work of a priest or mediator and the availability of a sacrifice, which, to be effective, must originate within the Godhead. Such a means is just what the eternal counsel of God has ordained. The divine Son assumes the role of eternal sacrifice ('the Lamb of God') and other sacerdotal roles, such as priest and sacrificer. This act enables the creation of the world. The world had to be redeemed even before it could be created.

The opinion that a divine sacrifice is a necessary condition of the creation of the world seems to be unique to the theology of Francis Bacon.<sup>39</sup> At least, I have found nothing like it in the writings of leading Reformed theologians or in Protestant catechisms or confessions of faith, or in medieval or patristic theology I have consulted, albeit randomly.<sup>40</sup> In all of these official summaries of theology, the sacrifice of the Son of God is meant to appease divine justice and is necessitated by Adam's fall from grace. Bacon adds to this, although he doubtless assumed biblical authority for what he had written.<sup>41</sup>

Thus Bacon has enlarged the office of mediator beyond soteriology, which is its customary place, to encompass all divine creative activity. By the action of the divine Son, God the Father is able to venture outside of his very being and create a world, which

<sup>39</sup> However, Bacon's remarks about God could be read as a gloss on Calvin, *Institutes of the Christian Religion*, I. ii. 1, 2; in the former, Calvin remarks that a consequence of the Fall is that one cannot imagine the mercy of God except through a mediator. The second is more to the point: he remarks that even if there were no Hell or the fear of it, the mind is so fashioned with an innate sense of divinity that 'it would still shudder at offending him alone.'

<sup>40</sup> The related question whether the incarnation of the Son might have been necessary had Adam not sinned was raised by the heterodox reformed theologian Andreas Osiander (1498–1552), although there is no evidence that Bacon read Osiander. On the other hand, he was doubtless familiar with patristic thought, which entertained a universal role of the Son or Word of God as mediator, in particular Irenaeus of Lyon (d. 202); for discussion and conjectures concerning Bacon's sources see Steven Matthews, *Theology and Science in the Thought of Francis Bacon* (Hampshire, England and Burlington, VT: Ashgate, 2008), 41–50.

<sup>41</sup> Bacon's assertion that the Lamb of God 'was slain before all worlds' is a paraphrase of Rev. 13:8, where it is stated that the Lamb of God 'was slain from the foundation of the world', at its very beginning. But the text is ambiguous, which would not have escaped Bacon, who was no doubt familiar also with 1 Peter 1:20, which states only that it was foreordained from before the foundation of the world that the Lamb of God be sacrificed. We must regard Bacon's interpretation of this passage, assuming he had it in mind, as non-standard, which is not surprising given the originality of his *Confession of Faith*.



was also accomplished through the mediation of the Son, the divine Logos, and to communicate with it. As Bacon aptly sums things up, the 'virtue of the Mediator' is 'the great mystery and perfite centre of all God's ways with his creatures, and unto which all his other works and wonders do but serve and refer'. I believe that the idea of mediator is, among other things, an archetype of the Christian virtuoso.

The mediator has other roles also: he is an instrument of communication between God and creatures and the facilitator of creation.

... out of his eternal and infinite goodness and love purposing to become a Creator, and to communicate with his creature, [God the Father] ordained in his eternal counsel, that one person of the Godhead should in time be united to one nature and to one particular of his creatures [i.e., in Jesus Christ, in whom the Word becomes incarnate]: that so in the person of the Mediator the true ladder might be fixed, whereby God might descend to his creatures, and his creatures might ascend to God: so that God, by the reconcilment of the Mediator, turning his countenance towards his creatures (though not in the same light and degree) ...<sup>42</sup>

Furthermore,

by the virtue of this his eternal counsel touching a Mediator, [God the Father] descended at his own good pleasure and according to times and seasons only to himself known to become a Creator; and by his eternal Word created all things, and by his eternal Spirit doth comfort and preserve them.<sup>43</sup>

Because mankind is assigned a special role in the divine plan, the progenitor of the species is created last and in a special manner. Whereas his body is fashioned from matter, his soul is directly infused, hence spiritual by nature. He is an exception among corporeal creatures.

Human nature is selected to be part of this union by divine grace, and the one particular creature in which all this occurs is Jesus Christ. Here, I believe, one finds a theological or, more precisely, Christological ground of human exceptionalism and humanism, which was commonplace among virtuosi and served them as an authorizing principle; there are tokens of it in the *Instauratio magna*, where man is designated the minister and interpreter of nature, his dominion over nature asserted, and the kingdom of man, in turn a token of the Kingdom of God, as the chief goal of their scientific work. Like all divine things, this union is supposed to be perfect, so perfect that no other union can exceed it. Yet it is equaled in two special instances: in the unity of the persons of the Trinity as one God, and the unity of Christ with his Church, by which Bacon meant not any particular historical institution, but the congregation of the elect. The latter anticipates the conclusion of Bacon's sacred history, when the elect shall enter into the divine Sabbath rest and be free of labor and vexatious activities. The period of mystery ends and is succeeded by transcendent and triumphal age; when

<sup>42</sup> Vickers, 107; the parenthetical expression indicates that divine communication with his creatures is not universally the same.

<sup>43</sup> Vickers, 108.

everything will be transfigured and incorporated into the divine life, there will be no need for change, and eternity will be the rule.

It is fitting, then, that man, who is created last in the order of created things, but is first in dignity, and destined to be united with God, is made in a manner unlike that of other creatures. Humankind was not, like other natural things, created in droves, ordered to spring forth from the primary elements: heaven, earth, or the waters. Rather, God crafted an archetype, Adam, by forming his body out of earth, and enlivening and enlightening him by his own breath, or spirit. Hence human nature is dual: body and spirit.<sup>44</sup> Even here, creation by exhalation does not produce another divine being, but one that is godlike, hence spiritual, and, on account of his spiritual nature, immortal.

It is also asserted in the *Confession* that mankind was created in the image of God, a distinction that encompasses certain powers: reason, free agency, innocence, and sovereignty over nature. As ruler of nature Adam is a mediator, where the cognitive powers that are part of the image come into play. He is also endowed with a perfect cognition of all things, by intuition. His original knowledge of things is purely contemplative intelligence, since there is no need to produce things to improve the condition of life. This is what it means to partake in the divine Sabbath. His act of naming of things depended on his 'pure and unstained natural knowledge [scientia naturalis]'; when it was still possible for our progenitor to view things in their original goodness. Hence, there was a perfect science of nature before the Fall. Adam's sovereignty was part and parcel with it; his character was that of a priest-king rather than of a philanthropic industrialist, for the well-being of his species required no industry. The Fall brought upon the change, which is manifest not only in such ills as death and corruption, but also in cognitive disability. Indeed, it is at this point that the 'time of the Mystery' begins, which is to say that at this moment the ways of God are hidden, and must be found out. Before the Fall, when Adam dwelt in paradise, he engaged in nothing more arduous than thought and reflection, 'that is, when the end of work is but for exercise and experiment, not for necessity... there being then no reluctance of the creature, nor sweat of the brow, man's employment must of consequence have been matter of delight in the experiment, and not matter of labour for the use.'<sup>45</sup>

It is noteworthy that among the things God ordained when creating the world was nature itself to be governed by 'constant and everlasting laws'. These laws, though modified in different periods of the history of creation, remain inviolable. Even God respects them, and thus, while exercising provident control over all things, 'his working [is] not immediate and direct, but by compass; not violating nature which is his own law upon the creature.'<sup>46</sup> It is as though God were observing Bacon's rule.

Indeed, we learn elsewhere that divine providence applies only to mankind. Bacon attributed to an ancient wisdom or relict of an original revelation the belief that mankind is the special work of divine providence, and that accordingly is the agent of

<sup>44</sup> *De augmentis*, iii, 4, *SEH*, iv, 360.

<sup>45</sup> *Adv. L.*, I, Vickers, 149.

<sup>46</sup> Vickers, 108.

worldly providence, which is seated in his mind and intellect, from which it follows that mankind may be regarded as 'center of the world with respect to final causes' so that

if man were removed from the world, the rest would seem to be all astray, without aim or purpose, to be like a besom without a binding,<sup>47</sup> as the saying is, and to be leading to nothing. For the whole world works together in the service of man, and there is nothing from which he does not derive use and fruit. The revolutions and courses of the stars serve him both for distinction of the seasons and distribution of the quarters of the world. The appearances of the middle sky afford him of prognostications of weather. The winds sail his ships and work his mills and engines. Plants and animals of all kinds are made to furnish him either with dwelling and shelter or clothing or food or medicine, or to lighten his labour, or to give him pleasure and comfort; insomuch that all things seem to be going about man's business and not their own.<sup>48</sup>

He represents Adam's Fall as a usurpation of prerogative; Adam succumbs to the temptation to imitate God by assuming moral autonomy, claiming for himself the role of arbiter of the grounds of good and evil, ignoring his dependency upon God's will and striving to live by his own lights. In consequence, God caused mankind's lights to become darkened, curtailed his powers, and degraded his dominion. 'Death and vanity', which are, as it were, new natures imposed on the original goodness of things, entered the world, along with misery and ruin. The image of God was 'defaced', but not entirely obliterated. Human powers became frail and fallible, while remaining functional. With respect to cognitive powers: Adam and all his progeny, who became inheritors of the 'curse', were deprived of the power to intuit the forms of things directly; instead they depended upon observation and inference, or, with respect to supernatural things, on inspiration, which was forthcoming only by divine pleasure. Also, it now required hard labor to reap the benefits of heaven and earth on which human well-being depended. No longer innocent, mind and body were clothed with pretense.<sup>49</sup> And, as a fitting punishment of his sin, God consigned mankind to autonomy, to the necessity of making his way in the world seemingly on his own, by his own resources, yet guided by a diminished light of nature and with an impaired will. Because Adam's usurpation was not entirely willful, but motivated by the devil's enticement, God mercifully decreed that he should be redeemed. Hence, the divine curse was followed by the promise of redemption.

It is evident, then, that Bacon conceived of two versions of the science of nature. One represents mankind's progenitor and archetype before the Fall, which, consistent with the blissful state of paradise, encompassed the real knowledge of things and the laws of their constitution by contemplation; 'the work which God worketh' was on display before him in the things that God had made viewed under the bright sun of paradise. Bacon would not have objected to designating this sort of natural philosophy

<sup>47</sup> 'besom without a binding', an unbound broom, *OED*.

<sup>48</sup> *De sapientia veterum*, *SEH*, vi, 670/747; see also Reid Barbour, 'Remarkable Ingratitude: Bacon, Prometheus, Democritus', *Studies in English Literature, 1500–1900* 32/1 (Winter, 1992), 79–90.

<sup>49</sup> See *Novum organum*, *Distributio operis*, *OFB*, xi, 26–7, where Bacon characterizes innocence as a nakedness of mind as well as of body.

'pastoral'.<sup>50</sup> This is comparable to the Sabbath rest of God. The other, better described as the philosophy of nature, involves 'vanity and vexation', it proceeds from ignorance, depends upon the critical accumulation of experience and evidence drawn from vexatious experiments, and its purpose is to satisfy needs, for without this mankind would be indigent, the sons of men would have nowhere to lay their heads.<sup>51</sup> Yet because such labor retains its innocence, so long as it is pursued not for worldly gain or glory, but out of charity to benefit mankind, it is a route toward redemption perfectly suited to man 'the servant and interpreter of nature'.

With respect to the rest of creation, 'their armies', that is, the hosts or hierarchies of spirits or angels, and 'generations' of natural things, God created them all through the Son 'and gave them constant and everlasting laws, which we call Nature', according to which the formation of things and all other natural operations should proceed. Here it should be noted that God's manner of creation is by legislation, by ordaining the laws of operation of all things. This is epitomized in the 'summary law of nature', which is 'the work which God worketh from the beginning to the end' (Eccles. 3:11).

As a consequence of Adam's Fall and the divine curse, the 'laws of Creation' are diminished in their power, they became lax and often appear frustrated in their purpose, laws of perfection overruled by corruption and death; hence the production of monsters, prodigies, and other malformed things, which Bacon designated 'Praetergenerations', creatures of excess, that exceed the norms of nature, monsters. These consequences are supposed to be in accordance with divine justice.

Elsewhere, Bacon describes three different accounts of the origin of nature; each of them may be taken as true so long as care is taken to refer them to their proper time and object. According to the first, nature is the offspring of the divine word 'in the beginning' as confirmed by Holy Scripture but also 'entertained by all the more divine [pagan] philosophers';<sup>52</sup> hence it may be regarded as a principle of natural theology. Secondly, if one attends only to the material principle of things, nature is also the offspring of matter, arising out of chaos, a confused state of things at the very beginning of the world. Lastly, if one attends to the state of things after Adam's Fall, nature may be regarded as the product of God and sin, for it was on account of Adam's sin that death and corruption gained a foothold in nature's operations. This last account, although derived from 'ancient wisdom', of which more will soon follow, does not count as natural knowledge, hence its origin must be traced to biblical revelation, in which secrets were made manifest.<sup>53</sup>

During the time of mystery, which is subsequent to Adam's Fall, God continues to act providentially in the world in order to 'accomplish and fulfill his divine purpose in

<sup>50</sup> Bacon applied the label to Telesio, 'for his [philosophy of nature] contemplates the world calmly as if in idleness', without regard to 'man along with the mechanical arts which vex nature'; see *De principiis*, OFB, vi, 250–1 and editor's note, 431–2; the theme, as Rees observes, is also present in the distinction between Abel and Cain, between the contemplative and active life, or the pastoral and the civic life.

<sup>51</sup> See Matt. 8:20.

<sup>52</sup> Gen. 1:1; John 1:1–3.

<sup>53</sup> *De sapientia veterum*, SEH, vi, 637/709; see also *De principiis*, OFB, vi, 250–1.

all things great and small, singular and general, as fully and exactly by providence as he could by miracle and new creation'—that is, by omnipotence. Yet God's action is not an 'immediate and direct' and hence unambiguous display of creative power but indirect, and in particular 'by compass, not violating Nature, which is his own law upon the creature'.<sup>54</sup> These laws, which now govern not only the flourishing of things, but corruption and death, 'remain and govern inviolably until the end of the world', whence a new law will be established 'the manner whereof has not yet been revealed'. God's actions are a divine counterpart to Christian virtuosity.

Divine providence, like all the works of God, is purposeful action involving lawlike processes ordained by God. Miracles, however, are acts of direct creation, and therefore belong to a different class of divine actions and their purpose is disclosed in the act itself. Hence, whereas, during the time of mystery, natural philosophers should consider only natural things and their natural causes and the regularities of their occurrence, miracles reveal God's higher purpose with nature, beyond the natural order of things.

When, during this time, God acts providentially he acts within the laws of nature, which he ordained, although they are now diminished, and therefore he acts without notice, for sentient creatures have grown accustomed to his lawlike ways, and in such a way that those persons and things, which are instrumental to the accomplishment of his purpose, operate or go about their business unaware of or even indifferent to the divine purpose for which they have been made unwitting agents.

For as in civil actions he is the far greater and deeper politician that can make other men the instruments of his ends and desires and yet never acquaint them with his purpose (so as they shall do what he will and yet not know that they are doing it), than he that imparts his meaning to those he employs; so does the wisdom of God shine forth more admirably when nature intends one thing and Providence draws forth another, than if he had communicated to all natural figures and all motions the characters and impressions of his providence.<sup>55</sup>

Thus, when God acts providentially, he does not alter the natural operations of things nor the purposeful actions of free agents who may be unwitting parties to a providential episode, rather he superadds his purpose to theirs employing his superior power,<sup>56</sup> and it is noteworthy that divine agency is not *mixed* with natural or human ones; they are kept separate and apart. God acts with admirable cunning. Bacon considered such events supremely admirable.<sup>57</sup> The same could be said of a clockmaker, who must know the power of the materials he uses to make a clock and the laws of nature pertaining to them, and must obey them, in order that he may exploit them and adapt them to his purpose. A clockmaker, like any other mechanical artist, must know his materials and the laws that govern their operations, and hence cannot avoid working from the bottom

<sup>54</sup> Vickers, 108.

<sup>55</sup> *De augmentis*, iii, 4, *SEH*, iv, 364; see also, *Advancement of Learning*, *OFB*, iv, passim.

<sup>56</sup> 'Superaddition' is a key term in Locke's physics, see Chapter 6.

<sup>57</sup> See my 'Locke on St Paul, Messianic Secrecy and the Consummation of Faith', *Christianity, Antiquity, and Enlightenment* (Dordrecht: Springer, 2011), 103–26, and my 'Introduction' to *Vindications*, xxvii.

up and, therefore, becoming expert in matters that, on the face of it, have little to do with the art of clock-making.

This point would not have been lost on Boyle, for he employs this pattern of explanation to interpret final causes. Just as he accepted on theological grounds that mankind is exceptional among creatures, indeed blessed (Gen. 1), he believed it also on naturalistic grounds. Like God, and because he bears the image of God, man also acts providentially, which is to say with foresight and planning in pursuit of his own purpose or of even greater purposes beyond his comprehension. He also, like a clockmaker or any other clever craftsman, has power to co-opt natural things and natural laws, to fulfill these purposes. However, unlike God who has ordained them, he must not only respect them, he must obey them. His power over nature depends upon his observance of nature's laws, and in that respect he is nature's servant, a naturalist, or a physicalist, or a materialist.

## Naturalism and the Revaluation of Ancient Philosophy

A cardinal principle of Bacon's program for the renewal of learning was that all the sciences be founded upon a renovated natural philosophy, which he represented schematically as a pyramid broadly based upon the natural history of things, which is an empirical and experimental gathering of natural phenomena systematically arranged and to that end provisionally interpreted. Physics, which treats the material and efficient causes of things, is founded upon this rich resource. Next comes metaphysics, which is about forms and final causes.<sup>58</sup> At the apex of the pyramid is God, whose role in all this is expressed by the summary law of nature, 'the work which God worketh from the beginning to the end.'<sup>59</sup>

Although Bacon employs the standard Aristotelian terms for the causes of things, the meanings he attaches to them are not Aristotle's. This is evident in his notion of matter, its active and passive powers, represented in myth and fable as Cupid and Chaos. His notion of form is also different. The forms that concern him are primary natures, which may be few in number, but which can enter into infinite combinations, like letters of the alphabet and words. These simple elements of natural things are primary physical states or qualities, such as dense and rare, hot and cold, heavy and light, volatile and fixed, 'which (like the letters of the alphabet) are not many and yet

<sup>58</sup> This hierarchy of learning corresponded roughly to the parts of Bacon's scientific program, *Novum organum*, 'Distributio operis' (*OFB*, xi, 27). It warrants comparison. The second part of the great instauration combines natural history, physics, and metaphysics, which are the first three levels of his pyramid; his purpose in this part is 'to illuminate the discovery of causes and nourish philosophy with its mother's milk.' 'Now I do not just bring out a history of bodies, but ... put my efforts into a separate history of those very virtues which (I say) can be regarded as cardinal in nature and which clearly constitute the primordia of nature and, indeed, the primary passions and desires of matter, viz. *Dense, Rare, Hot, Cold, Consistent, Fluid, Heavy, Light*, and quite a few others besides' (*OFB*, xi, 39).

<sup>59</sup> Eccles. 3:11.

make up and sustain the essences and forms of all substances.<sup>60</sup> These concepts constitute the ‘*abecedarium*’, or ‘alphabet of nature’, and are expressions of a way of interpreting reality in terms of the perceived qualities of the phenomena of nature that would become standard in the new natural philosophy of the seventeenth century, and yet, as will be noted shortly, are of greater antiquity than Plato and Aristotle, and yet at the same time are prescient of modern naturalism. Bacon likens the *abecedarium* to a ladder by which the mind ascends to higher levels of understanding.<sup>61</sup>

Bacon’s removal of finality from physics and his relocating it in metaphysics was intended to avoid the confusion of cause with consequence.

For to introduce such causes as these, ‘that the hairs of the eyelids are for a quickset and fence about the sight;’ or ‘that the firmness of the skins and hides of living creatures is to defend them from the extremities of heat and cold;’ or ‘that the bones are for columns or beams, whereupon the frames or the bodies of living creatures are built;’ or ‘that the leaves of the trees are for protecting the fruit from the sun and wind;’ or ‘that the clouds are formed above for watering the earth;’ or ‘that the thickness and solidity of the earth is for the station and mansion of living creatures’, and the like, is a proper inquiry in Metaphysic, but in Physic, it is impertinent. Nay, as I was going to say, these discoursing causes . . . have in fact hindered the voyage and progress of the sciences . . . and have brought it to pass that the inquiry of physical causes has been long neglected and passed in silence.<sup>62</sup>

In this regard, ‘Democritus and others’ receive praise for their pure naturalism, for removing ‘God and Mind from the structure of things’, and attributing the form of things, or the alphabet of nature, ‘to infinite essays and proofs of nature . . . and assigned the causes of particular things to the necessity of matter.’ After Democritus, he represents nature not as the product of intelligent design, but as an infinite series of experiments and trials that produce more or less durable worlds. The ‘others’ referred to here are Epicurus and his Roman followers, most importantly, Lucretius. That we must pretend atheism in order to understand nature correctly is surely a bold recommendation. This is one of the motives behind Bacon’s rule, and it was this version of it that was in the mind of Boyle’s challengers. It is rooted in the recognition that, God excepted, nature is the supreme reality, and that she must be understood on her own terms, which Bacon, Boyle, and the virtuosi of the Royal Society supposed was in terms of atomism, or as Boyle preferred to call it, corpuscularism, whose forerunner was Democritus.

Mention of Democritus is a reminder that Bacon chose to follow a different philosophical path from the ones traveled by Scholastic and Renaissance philosophers. The center of gravity of ancient philosophical learning was shifted to the period of the early

<sup>60</sup> *De augmentis*, iii, 4 (*SEH*, iv, 361), also *Novum organum*, ii, 1 (*OFB*, xi, 201); analogical use of the alphabet is reminiscent of Lucretius (*DRN*, 1.823–9 and *passim*), and anticipatory of Locke, for whom simple ideas are primordia of thought and expression.

<sup>61</sup> See his late unfinished work, *Abecedarium novum naturae* [new alphabet of nature], *OFB*, xiii, 171–225.

<sup>62</sup> *De augmentis*, iii, 4, *SEH*, iv, 363.

Greek natural philosophers and settled upon Democritus, one of the founders of ancient atomism. It is important to pause and take notice of the revaluation of Greek philosophy that Bacon envisioned. Whereas it is commonplace, if not received wisdom, to regard the Presocratic philosophers as at most antecedents to the golden age of Greek philosophy, inaugurated by Socrates, who was Democritus' contemporary, and perfected by Plato and Aristotle, Bacon took the opposite view. The Presocratics, even if, as he supposed, their methods and conclusions were childish and their historical career short-lived, were the true innovators and high achievers in philosophy.<sup>63</sup> And this was in large part because they were, in his judgment, consistent naturalists, and in accordance with his purpose, proposed, as part of his great program for renewal, a recovery of their doctrines and opinions. Always the promoter of projects that could not be completed in his lifetime, he proposed a scholarly collection of the many quotations and testimonies that may be found in classical authors, and Church Fathers, with which he was himself well acquainted, in a manner anticipating the great work of Hermann Diels.

Therefore I wish a work to be compiled with diligence and judgment out of the lives of the ancient philosophers, the collection of *placita* made by Plutarch, the citations of Plato, the confutations of Aristotle, and the scattered notices which we have in other books, both ecclesiastical and heathen (Lactantius, Philo, Philostratus, and the rest), concerning *ancient philosophers*. For I do not find any such work. But here I must give warning that it be done distinctly, so that the several philosophies may be set forth each throughout by itself, and not by titles packed and faggoted up together as has been done by Plutarch.<sup>64</sup>

Complementing this he proposed a critical collection of the opinions of moderns who in various ways appropriated the theories of the Presocratics and turned them against Plato and Aristotle. He tried to do this himself in *De principiis atque originibus*, to which I now turn.

At the outset of this work Bacon narrowed his focus on the Presocratics and Democritus even more, looking beyond their persons or doctrines to the ultimate object of their enquiry, to generative matter, to the atom and its productive power.<sup>65</sup> In it, he sets Democritus' thoughts about the atom in the context of an ancient wisdom, his version of a *prisca sapientia*, figuratively preserved and transmitted in fables or myths concerning the gods.<sup>66</sup> These myths, at least those concerning the physical universe, although containing a prehistoric wisdom, were not supposed by him to be of supernatural origin; rather they depended 'on the authority of reason alone, and in accordance with the credit of sense', which is to say, they were products of experience

<sup>63</sup> *Novum organum*, I, §79, OFB, vi, 124–5.

<sup>64</sup> *De augmentis*, iii, 4, SEH, iv, 359.

<sup>65</sup> OFB, vi, xxviii–xxxv; the text of *De principiis atque originibus* with English translation by Graham Rees is printed on pp. 196–267 of this volume; Rees suggests a composition date of 1610–12.

<sup>66</sup> Earlier, in 1609, Bacon had published *De sapientia veterum*, a collection of mythical-philosophical essays; they are written in a style, self-deprecating, tentative, and ironic, that belies its philosophical seriousness and depth. Farrington regards it as 'one of the deepest of [Bacon's] works', *The Philosophy of Francis Bacon*, 15.



and reason applied to things.<sup>67</sup> Bacon's understanding of this ancient wisdom is not, as some of his contemporaries, Paracelsus in particular, supposed, a relict of an original revelation. It is pure natural knowledge.<sup>68</sup> Bacon was, perhaps, the first modern to recognize the Presocratics' discovery of nature.

*De principiis atque originibus* was intended to offer a philosophical exposition of two myths, one concerning Cupid and the other Caelus, or Uranus. As its title indicates, the theme of these myths was the physical or material origin of things, the principal theme of the Presocratics, adopted by some moderns.<sup>69</sup> Bacon observes that the natural philosophy enshrined in these myths, particularly in the myth of Cupid, which is as far as he got in this abortive work,<sup>70</sup> differs little from the philosophy of Democritus, and then only in style, which in the former is settled, whereas the latter is restless and in need of a tighter rein. These myths record neither relicts of revelation nor philosophy, but a sort of not yet reflected natural knowledge.

Cupid is 'matter itself, its power of nature, and in fine the principle of things.'<sup>71</sup> He is without a cause. There follows a summary of this doctrine, which consists of three principles: first, that primary matter is the uncaused cause of causes; second, that it is heterogeneous, unlike any other sort of thing that we know by experience. Hence, we must imagine it to be without qualities resembling the qualities of ordinary things, its motion and virtue altogether unlike anything else in nature, knowable only by a method of exclusion; third, it is also a distinct and positive thing, the starting point of all natural philosophical enquiry, a principle of 'empirical faith', and we approximate its nature by a kind of learned ignorance. There is an interesting comparison here. Natural theology and natural philosophy, in search of their respective ultimate objects, God and prime matter, use the same method of exclusion or denial to reach them. Theology

<sup>67</sup> *De principiis et origine*, OFB, vi, 198–9.

<sup>68</sup> However, as Rees has shown, Bacon borrowed heavily from Paracelsus' theory of matter in formulating his own tentative speculative physics; see OFB, vi, xxxvi–lxix. However, as Rees cautions, it was a tentative and provisional theory, incidental to the main work of the great instauration. For a balanced, learned, and lucid account of Paracelsus' contribution to the science, in particular to medicine, see Walter Pagel, *Paracelsus* (Basel, 1958).

<sup>69</sup> According to Graham Rees (*Novum organum*, Introduction, OFB, xi, xliii), whose authority in these matters is unsurpassed, Bacon intended *De principiis atque originibus* as a critical assessment of ancient and modern learning concerning the theory of matter, its nature, properties, and powers. The doctrine of Cupid or the atom, which I will explain shortly, was to act as a criterion by which to judge the opinions of other philosophers, according as they attributed qualities to primary matter, or how they clothed naked matter (see OFB, xi, 208–9). He did not get very far with this, however, before he must have realized that this task would be interminable. Instead, he chose another approach, a philosophical history of scientific learning, whose principles are presented in *Novum organum* in his doctrine concerning idols, signs, and instances with special powers, whereby the misadventures and opportunities of natural philosophical enquiry are explained. Unfortunately, as Rees has observed, Bacon's remarkable achievement has gone unnoticed. With respect to this present study, I find no evidence that Locke was aware of it.

<sup>70</sup> There is a chapter on each in *De sapientia veterum*, SEH, vi, 649–50, 654–7.

<sup>71</sup> Or, it is the active material principle, see *De principiis atque originibus* (OFB, vi, 208–9), 'Now the parable demonstrates that the primary matter has some form in this way: that *Cupid* is a person, yet in such a way that matter as a whole, or the mass of matter, was once without form: for Chaos is without form, *Cupid* is a person.'

never arrives at a positive end, whereas natural philosophy does: bare generative matter, or the atom.

Now of primary matter, and its proper virtue and action there can be no cause in nature (for we always except God), for nothing came before this very thing. Therefore there was no efficient or anything prior to it in the order of nature, and consequently neither genus nor form. For this reason whatsoever in the end this matter and its power and cooperation may be, it is a thing positive and beyond rational explanation, and must be taken just as it is found, and not judged by any preconception. For if its mode of existence could be known it still cannot be known by cause, since after God it is the cause of causes, itself causeless . . . Now there is much in this—indeed I am inclined to think that it is the greatest things of all. For nothing has corrupted philosophy as much as this inquiry about *Cupid's* parents, i.e., philosophers have not accepted the principles of things as they are found in nature and embraced them as a positive doctrine and as if they were articles of an empirical faith.<sup>72</sup>

Now this *Cupid* is truly an egg hatched by Night, for knowledge of him (all that may be had) proceeds by exclusions and negatives. But proof made by exclusion is kind of ignorance . . . For this reason *Democritus* made the admirable claim that atoms or seeds, and their virtue, were quite different from anything subject to the senses . . . Therefore he proclaimed concerning them, that

*They [i.e., atoms] do not resemble fire of anything else  
Besides that which can send bodies  
To our senses or be felt by our sense of touch*<sup>73</sup>

In short, matter (or collectively, atoms) is inferred from the solidity of things, a notion that greatly impressed Locke, whether from this source or from elsewhere, I do not know.<sup>74</sup> Bacon finds fault with Democritus for not being consistent, not with regard to the solidity of matter, but because he, or Epicurus, attributed to them ordinary perceivable motions, viz. the descent of heavy bodies and the ascent of light ones. His adherence to a strict heterogeneity of qualities in atoms is intended to counteract the tendency to suppose that primary matter consists of homoiomerous parts, as Anaxagoras supposed. Rather, the forms and qualities of things are products of the motion of qualitatively naked atoms, that is, the effect of their powers.

From this Democritean moment of insight in the history of philosophy,<sup>75</sup> Bacon perceived a decline and corruption of this primitive truth of nature. Plato mixed natural

<sup>72</sup> *De principiis atque originibus*, OFB, vi, 198–9; the lines of verse are from Lucretius, DRN, 1.687–9; Lucretius is Bacon's principle source; also 250–1: 'For a person who philosophizes according to the sense alone may assert the eternity of matter but deny the eternity of the world as we see it; and this was the opinion both of the most ancient wisdom, and of the man who comes nearest to it, *Democritus*. Holy Writ bears witness to the same thing, but with the crucial difference that whereas Holy Writ holds that matter comes from God, the ancient philosophers represent it as something original to itself.'

<sup>73</sup> *De principiis atque originibus*, OFB, vi, 200–3.

<sup>74</sup> *Essay*, II, iv; note that Locke distinguishes solidity from hardness, which is the property of a compound bodies, and not a primary quality of matter.

<sup>75</sup> '[T]his was a man who indeed enjoyed the highest admiration in his day, and was called *Pentathlus* on account of his manifold knowledge, and by common consent was considered among all the philosophers

philosophy with theology and rendered it superstitious;<sup>76</sup> Aristotle was infatuated with his definitions and reduced philosophy of nature to dialectic and unprofitable discourse.<sup>77</sup> Their theories were inadequate to refute Democritus nor to overshadow him. Bacon observes that atomism continued to flourish in Roman times, an allusion no doubt to Lucretius, who is his main source here for Democritus. Neither Plato nor Aristotle were able to refute atomism and cause its decline, rather it was Genseric and Attila, leaders of the barbarian invasions of Europe, who caused the ‘shipwreck’ of all learning. The philosophy of Democritus, being of weightier substance, sank to the bottom, whereas ‘these planks of *Aristotelian* and *Platonic* philosophy, as being made of lighter and windier material were preserved and came down to us, while the more solid ones sank and almost passed into oblivion.’<sup>78</sup> Now, in this age of new learning, Bacon proposes that one of the initial tasks of philosophy is to revive the best of Greek philosophy, which is to say, the Presocratics, for ‘almost all the ancients, *Empedocles*, *Anaxagoras*, *Anaximenes*, *Heraclitus* and *Democritus*, though differing in other respects about primary matter, were as one in maintaining that matter was active, had some form and imparted its form, and had the principle of motion within itself. Nor would it be possible for anyone to think otherwise, unless he wanted to abandon experience itself.’<sup>79</sup> Bacon makes no mention of Socrates here, but elsewhere he is credited, or rather blamed, for having ‘turned men’s minds’ from natural philosophy.<sup>80</sup>

## The Great Instauration and Meaning of History

The great instauration was supposed to be a renewal of all the arts and sciences, but Bacon believed that their renewal depended collectively upon the renewal of natural philosophy. The expressions ‘great mother of the sciences’ and ‘root’ signify that it is a continuing and necessary relationship, the source of their vitality, for mothers not only conceive and give birth, but also nurse and nurture, and roots are roots. If this relation is severed, arts and sciences may be refined and made useful, but they will not increase.<sup>81</sup> How is this relationship supposed to work? Bacon does not anywhere spell it out.

the greatest student of nature, so that he also acquired the name of Magus.’ *De principiis atque originibus*, OFB, vi, 204–5.

<sup>76</sup> *Novum organum*, I, 65, OFB, xi, 100–3, 518–19; among those contributing to superstition in natural philosophy, Bacon includes Paracelsus and the Coimbrans, without naming them, for trying ‘to build natural philosophy on the first Chapter of Genesis, the Book of *Job* and other sacred writings, *seeking the living among the dead*’.

<sup>77</sup> *Novum organum*, I, §63, OFB, xi, 98–101: ‘*Aristotle* who with his dialectic corrupted natural philosophy when he fashioned world from categories.’ Bacon also finds fault with Aristotle for his self-serving account of the Presocratics: *De principiis atque originibus*, OFB, vi, 204–5, ‘the fisticuffs and furious assaults of *Aristotle* (who *Ottoman* fashion trembled for his own philosophical kingdom until he had killed off his brothers, and who also trembled, as his own words show, in case posterity should have any doubts left over)’.

<sup>78</sup> *De principiis atque originibus*, OFB, vi, 206–7.

<sup>79</sup> *De principiis atque originibus*, OFB, vi, 208–9.

<sup>80</sup> *Novum organum*, I, §79, OFB, xi, 124–5.

<sup>81</sup> *Novum organum*, I, §79, OFB, xi, 124–5.

However, in *De augmentis*,<sup>82</sup> he offers an important clue. He is writing about the various divisions of knowledge, which accord with the three objects of knowledge—God, nature, and ourselves—and three modes of knowing, which he compare to three sorts of rays. Our knowledge of God is indirect—and here he is speaking of natural knowledge; it is refracted through a medium; nature is perceived directly; finally, persons perceive themselves in a mirror, by reflection.<sup>83</sup> Thus there are three divisions of philosophy: natural theology, natural philosophy, and human philosophy. But above them or prior to them is another division of philosophy, namely First Philosophy or Wisdom, to which Bacon applies the epithet ‘common mother of all’. The inconsistency in his use of this expression is only apparent. First philosophy, which Bacon remarks has been neglected in his time, is supposed to consist of principles and notions on which all the sciences depend, namely, general axioms and principles. They are mostly derived from mathematics and physics, for example: ‘things that are equal to the same are equal to each other’, ‘the nature of everything is best seen in its smallest portions’, ‘things are preserved from destruction by bringing them back to their first principles’, ‘whatever is preservative of a greater form is more powerful in action’, ‘all things are changed and nothing is lost’. Transcendentals such as ‘great and small’, ‘same and different’, ‘possible and impossible’, ‘is and is not’, also belong to the province of first philosophy. They are not a priori principles but are themselves products of observation and induction.<sup>84</sup> In this respect, natural philosophy, through enquiries peculiar to itself, becomes the outfitter of all the sciences, through a process that enables each of them to extend the scope of their knowledge. Bacon preferred Presocratic philosophy over philosophy after Socrates, because in the pursuit of natural knowledge the Presocratics were the first to fashion and refine the instruments of learning, which, in his judgment, they did more efficiently than Aristotle.

In another way also, natural philosophy plays a fundamental role among the sciences, through the reduction of all natural things to their primary elements. The positivity of matter, evident in the solidity of things that we can directly take in hand, is the endpoint of natural enquiry. Having arrived there, we find that there is nothing further to be explained, merely acknowledged. Yet, according to Bacon, this inexplicable primary generative matter and its character point us to the summary law of nature, ‘the work which God has worked from beginning to the end’, thereby confirming the axiom, ‘It is the work of omnipotence to make somewhat nothing, and to make nothing somewhat.’<sup>85</sup> The positivity of matter, then, regarded ultimately, is a sign of omnipotence par excellence, and yet, consistent with Bacon’s rule, neither principle exceeds the boundaries of either natural philosophy or theology. The summary law of nature is not an explanatory principle, but an expression of the mystery of being, its bare positivity

<sup>82</sup> The full title of this work is *De dignitate et augmentis scientiarum*.

<sup>83</sup> This may well be the source of Locke’s use of the term ‘reflection’ as in ‘ideas of reflection’.

<sup>84</sup> *De augmentis*, iii, 1, *SEH*, i, 539–44; iv, 336–40.

<sup>85</sup> *De augmentis*, iii, 1, *SEH*, i, 541; iv, 338; also *De principiis atque originibus*, *OFB*, vi, 200–1.

unmolested by speculative fancies.<sup>86</sup> Its role in Bacon's philosophy of nature is as a regulative and not a constitutive principle.<sup>87</sup>

Other evidences of the essential role of natural philosophy are its practical benefits. The great instauration was conceived as an enterprise of good works founded upon natural knowledge whose goal was to improve the human condition everywhere in a world that was increasingly opening up to commerce and communication. Its purpose was to reestablish the empire of man, which is an earthly counterpart of the kingdom of heaven, and which we enter in a similar manner, by becoming like children, our minds innocent of prejudice, and of the presumption that received opinions are truth, and not, even if they have been experimentally arrived at, merely a stage on the way to truth.<sup>88</sup> The improvements aimed at were good health, long life, and better things for better living. It involved the two capacities that, Bacon believed, could still be employed innocently after Adam's Fall, although this required purging the mind of corrupting dispositions and predispositions.<sup>89</sup> These capacities could be performed in innocence, because they were not subject to the rule of moderation: nothing too much. There could never be an excess of good works for there is no limit of charity, nor was there any proper limit to the search for natural knowledge, of material and efficient causes of things and the laws of their operation, so long as it was pursued by a mind free of vanity and superstition, whose only motive was a love of truth. Hence these activities could never give offence to God or man, all the more so because there was reason to believe that these two potentially innocent activities were united in a revolution in learning, providentially arranged, which was to be accomplished by man, the servant and interpreter of nature. The pursuit of natural philosophy, theoretical and practical, was a restoration of human innocence.

This was in accordance with divine providence. Only God can forgive sin, abolish death, restore immortality, renew nature to a state in which it would be free of corruption, and overall revoke the curse of Adam's sin and remake heaven and earth. Bacon believed that, leading up to the time when these things would be accomplished, providence had assigned to mankind the task of restoring innocence in those spheres where it was still possible, after the Fall, to achieve it.

<sup>86</sup> See, for example, his censure of alchemists, chief among them Paracelsus, in *The Masculine Birth of Time*: 'I see the Alchemists arrayed, Paracelsus among them conspicuous for his braggart air. His presumption calls for a particular reproof . . . your stock in trade is portents. In meteorology, O you rival of Epicurus, what drunken oracles do you not pour forth! Indeed, Epicurus, like a man dropping off to sleep or with his attention fixed on something else, utters words at random. But your utterances are too silly to be random.' Further on, he has praise for his namesake Roger Bacon, whom he counts among the alchemists: 'There is among them a valuable group, not utterly devoted to their theories, which tries, by subtle applications of mechanics, to extend the range of discoveries. Such a one was Roger Bacon. Opposed to them is the criminal and accursed type, for ever canvassing for applause on the strength of their theories, and roping in religion, hope, and imposture to support their cause'; transl. Benjamin Farrington, *The Philosophy of Francis Bacon*, 64, 67.

<sup>87</sup> The distinction is appropriated from Kant, but employed here 'precritically'; see *KdV*, B221–2; *Critique of Pure Reason*, transl. Norman Kemp Smith (London, 1933), 210–11.

<sup>88</sup> *Abececlarium*, *OFB*, xiii, 173; *Novum organum*, I, §68, *OFB*, xi, 109.

<sup>89</sup> Much of the first book of *Novum organum* is devoted to this, in particular the Idols and Signs; see Rees, Introduction, *OFB*, vi, 1–1x.

Bacon believed that the renewal of learning did not depend upon the genius of any individual, nor even upon that of a group of them, however distinguished, but upon time, by which he meant the accumulation of knowledge through experience, experiment, and reason through the ages, and the circumstances that these accumulations framed for human living in their various arrangements and dispositions, the preservation of this knowledge in writing, and its expression in other great works of human ingenuity, and in institutions, which prompt new adventures and progress in learning. Time, rightly regarded, is 'the author of authors and indeed of all authority. For truth is rightly called the daughter not of authority but of time.'<sup>90</sup> And, it might be said that, for Bacon, 'Time marches on.' To venerate ancient learning is to misuse it, and to miss the opportunity that time, by bringing it forward, offers for the advancement of learning.

Hence, the paradox of antiquity, which appears both young and old:

For the dotage and old age of the world should be taken for antiquity in its right sense, and ought to denote our times, and not the springtime of the world when the ancients lived. For in relation to ours that time was old and greater, but in relation to the world itself, new and slighter. And just as we expect greater knowledge of human affairs and maturity of judgment from an old man than from a youth, because of his experience and the variety and abundance of things he has seen, heard and thought about, so in the same way much greater things could reasonably be expected from our time (if it knew its very powers and chose to test and apply them) than from the earliest ages, as is natural from the greater age of the world and from the countless experiments and observations which have been built up and stockpiled.<sup>91</sup>

A true scholar must in all things be opportunistic, as was Bacon, who founded his program of the great instauration upon a survey of the state of learning of his time, and from this devised a program of research, experiment, and the advancement of science.

In *Novum organum*, Bacon observed that opportunities for learning are rare, or at least, are not often seized. In the vast stretch of time, before his time, there were only two 'revolutions or periods of learning, the first with the Greeks; the second with the Romans.' But only the Greeks pursued natural philosophy with the proper care and energy, and that episode was short-lived.<sup>92</sup> He also believed that his own time would experience a 'third visitation' of learning. 'Visitation' implies that providence is at work. At the conclusion of the eighth book of *De augmentis*, Bacon gives reasons for this historical expectation. He is addressing the King, promoting his program of learning, which, if it were to be launched, would require the creation of institutions of government dedicated to this end, and their financial support, for, complementary to his notion of history, Bacon's theory of knowledge was institutional as has been properly acknowledged.<sup>93</sup>

<sup>90</sup> *Novum organum*, I, §84, OFB, vi, 132–3.

<sup>91</sup> *Novum organum*, I, §84, OFB, vi, 132–3.

<sup>92</sup> *Novum organum*, I, §§78, 79, OFB, vi, 122–5.

<sup>93</sup> This has been well explained by Benjamin Farrington and Stephen Gaukroger; see Farrington, *The Philosophy of Francis Bacon*, 38–44, Gaukroger, *Francis Bacon and the Transformation of Early-Modern Philosophy* (Cambridge: Cambridge University Press, 2001), 10–18.

In support of his expectation, he enumerates the signs: 'the vivacity and sublimity of the many wits of this age', recovered 'monuments of ancient learning', the invention of printing, 'which brings books within the reach of men of all fortune', world travel, which yields a vaster knowledge of human experiments in living than was available to the ancients, and increases the scope of natural history, a leisure class, peace among the warring nations, the king's learning, and the culture of his court. There is one other advantage that the two previous periods of great learning did not have, which is the Christian revelation. He imagined, then, a new age in which human knowledge would surpass all previous boundaries, well founded upon a vaster field of natural philosophy than was ever before, a time during which natural learning would be supplemented by supernatural learning so that the true end of life, the Sabbath rest, might come into view, the better to guide mankind in the conduct of their lives. The third visitation was a time of Christian virtuosity.

## 2

# Robert Boyle, Christian Virtuoso

Since therefore we so much prize a little Knowledge, of things that are not only Corporeal, but Inanimate; methinks we should not undervalue the Studies of those Men, that aspire to the Knowledge of Incorporeal and Rational Beings, which are incomparably more Noble, than all the Stars in the World, which are, as far as we know, but Masses of Senseless and Stupid Matter. Since also the *Virtuosi* deservedly Applaud and Cherish the laborious Industry of Anatomists, in their Enquiries into the Structure of the dead, ghastly, and oftentimes unhealthfully as well as offensively Foetid, Bodies: Can it be the Employment improper for a *Christian Virtuoso*, or unworthy of him, to endeavor the Discovery of the Nature and Faculties of the Rational Mind; which is That, that Enobles its Mansion, and gives Man the Advantage he has of *the Beasts that Perish*.<sup>1</sup>

But withal, I declare, that to embrace Christianity, I do not think I need to recede from the value and kindness of I have for Experimental Philosophy. . . . And I hope it will appear, that If the Experimental way of Philosophising I am addicted to, have any things in it that indispose a man to assent to the Truth, and live according to the Laws, of the Christian Religion; those few things are more than countervail'd by the peculiar Advantages, that it affords a Man of a well-dispos'd mind, towards the being a good Christian.<sup>2</sup>

There is another thing, that is too pertinent to the main Scope of this Discourse to be here pretermitted: and it is, That both the Temper of Mind, that makes a Man most proper to be a *Virtuoso*, and the Way of Philosophising, he chiefly employ's, conduce to give him a sufficient, and yet well grounded and duly limited, Docility; which as a great Disposition to the Entertainment of Reveal'd Religion.<sup>3</sup>

And, for my part, when I am employed about the duties and function of a Christian, methinks I do not much recede from my old practice; and that I am still but *trying an experiment*, namely this: *Whether by constantly endeavoring to lead a Christian Life, and perform the conditions of the gospel, a man may obtain peace of conscience and contentment of mind in this life, and endless felicity in the next*.<sup>4</sup>

<sup>1</sup> Robert Boyle, *The Christian Virtuoso, The First Part, Works*, xi, 286.

<sup>2</sup> Boyle, *The Christian Virtuoso, The First Part, Works*, xi, 291.

<sup>3</sup> Boyle, *The Christian Virtuoso, The First Part, Works*, xi, 304.

<sup>4</sup> Boyle, *The Christian Virtuoso, The Second Part, Works*, xii, 431.



## Introduction

Before Robert Boyle became an experimental natural philosopher, he aspired to be a Christian moralist, and during the half-decade, from 1644 to 1649, he produced a substantial body of writing on moral and religious themes and employed a wide-ranging use of genre from learned treatises to a divine romance. Had he continued on this course, there seems little doubt that, given the intensity of his endeavor and his precociousness, he would have become pre-eminent among modern British moralists.<sup>5</sup> However, by the summer of 1649, after a false start, Boyle had launched himself upon a new career as an experimental natural philosopher. The change has been characterized as a conversion.<sup>6</sup> Certainly, it set him on a new course from which there was no turning back. However, Robert Boyle did not altogether abandon his previous pursuits. He remained a sincere moral Christian and a Christian author, who had now also become a zealous advocate of the new experimental natural philosophy.

Boyle's moral and religious zeal found a new outlet in his scientific work. But whereas before he had aspired to be a moral philosopher whose main theoretical interest was to fashion an idea of virtue suitable to his religious aspirations, which was the theme of his most ambitious work of this period, *Aretology*, now his chief vocation became natural philosophy and his chief task, to discover through experimental means the physical constitutions and hidden operations of natural things that explained their characteristic phenomena. The change in vocation brought with it a corresponding change in his literary style, if indeed Boyle's later style can be called a style at all.

The metaphors that he uses to describe his new vocation express the intensity and power of his engagement in it. In a letter to his sister, he likens his newly equipped laboratory to Elysium, and himself as one who, having drunk the waters of Lethe, had forgotten his literary labors, among them a promised discourse on the usefulness of natural philosophy for theology, or as a newlywed, committed until death to his consort.

<sup>5</sup> Boyle's writings during this period are collected in *The Early Ethics and Essays of Robert Boyle*, John T. Harwood, ed. (Carbondale and Edwardsville: Southern Illinois University Press, 1991); other texts from this period are presented in Boyle, *Works*, xiii, 3–144. Harwood's introduction is an indispensable starting place for the study of these writings, especially his account of Boyle's sources, xxiii–xli. The major work among Boyle's remains is *Aretology*, a theory of virtue; Boyle's ethics belongs to the tradition of virtue ethics. His primary source is the ethical portion of Johann Heinrich Alsted's *Encyclopaedia*, 7 vols. (Herborn, 1630); but he relied either directly or indirectly on other sources as well, in particular pagan authors, among them, Aristotle, Cicero, Seneca, Epictetus, and Marcus Aurelius. Like Alsted and most other Christian humanists, Boyle was an eclectic. His acute conscience, shaped and informed during this period, is reminiscent of Calvin, who was also a Christian humanist, and whose *Institutes of the Christian Religion* Boyle studied under the tutelage of Isaac Marcombes (1644–84).

<sup>6</sup> See Michael Hunter, 'How Boyle Became a Scientist', *Robert Boyle (1627–91): Scrupulosity and Science* (Woodbridge: Boydell Press, 2000), 26, who uses the expression to highlight the suddenness and irreversibility of Boyle's change of mind; for an extended narrative that offers detailed information on Boyle's sources and influences, see, in addition to the above, also Hunter, *Boyle, Between God and Science* (New Haven: Yale University Press, 2009), esp. chs. 4 and 5, 57–103. Hunter is careful in both places not to overstate the discontinuity between the two stages of Boyle's career.

Vulcan has so transported and bewitch'd me, that as the Delights I tast in it, make me fancy my Laboratory a kind of Elizium; so as if the threshold of it possess the quality the Poets ascrib'd to that Lethe their functions made men taste of before their Entrance into those seats of Blisse; I there forget my Standish and my Bookes and allmost all things, but the unchangeable Resolution I have made of continuing till Death.<sup>7</sup>

Boyle's choice of expression is somewhat like putting new wine into old wineskins, for the hard experimental facts and observation were like a corrosive solvent that would eat away the decorative rhetorical fabric that were used to contain them.

Almost coincidentally, Boyle experienced what could be described as a second religious reawakening. Late in life, he would credit Archbishop Usher, Christian humanist, scholar, and Calvinist theologian, as the cause of this change.

Upon Archbishop Ushers reproaching him that was so studious for his ignorance of the Greek he studied it and read the N[ew] Test[ament] in that Language so much that he could have quoted it as readily in Greek as in English.<sup>8</sup>

He proceeded to tell how this led him to acquire in a short time a mastery of Hebrew and the related Semitic languages, and a critical understanding of the biblical texts and their transmission. Thus, Boyle became a Christian scholar, an orientalist, and biblical philologist. The process may be aptly described as bringing virtuosity into his understanding of Christianity. One of the main purposes of this chapter is to show how these two learned endeavors were given unified expression in Boyle's *Christian Virtuoso*.

Three texts comprise Boyle's major literary output during this transitional period, 1649–52: 'On the Study of the Booke of Nature', 'Essay of the Holy Scriptures', and 'Of the Atomical Philosophy'. Their titles suggest that Boyle was rethinking his vocations in the light of his new vocation and attempting to give them definitive expression. Taken all together, they present the idea of the Christian virtuoso *in nuce*. Brief expositions of these writings are presented in the next section. In particular, I address the question whether Boyle's idea of his vocation disregards or deliberately violates Bacon's rule. I argue that it does not. I take Boyle's adoption of the atomic hypothesis, a material system of nature, as crucial evidence of this. Next, I consider Boyle's effort to supersede Aristotelian naturalism and replace it with atomism as the preferred hypothesis of the new experimental philosophy. This will involve an exposition of *The Origine of Forms and Qualities*, first published in 1666, which is arguably Boyle's most systematic philosophical work. Here we find Boyle offering a modern experimental alternative to Aristotle's classical account of the basic natural operations of generation, corruption, and alteration. Finally, I offer an interpretation of Boyle's *Christian Virtuoso*. This most mature account of his vocation shows Boyle to be a consistent Baconian, endeavoring to reconcile his virtuosity and his Christianity by enlarging the scope of experience and experiment.

<sup>7</sup> Boyle to Lady Ranelagh, August 31, 1649; Boyle, *Correspondence*, i, 83.

<sup>8</sup> 'The Burnet Memorandum', *Robert Boyle by Himself and his Friends*, ed. Michael Hunter (London: Pickering and Chatto, 1994), 27.

## Boyle's Vocations

In 'On the Study of the Booke of Nature' Boyle represents his new vocation as a religious duty that involves the act of representing nature to mankind, 'the Considering of the Creatures; to all Men fitted with requisite Abilities & Opportunities,' which is to say, representing how nature should be studied, piously, by men of parts.<sup>9</sup> Hence, the study of nature is cast 'under the Notion of an Act of Piety & an Instrument of Improvement.' These are integral goals. Piety disposes the mind to apprehend nature's works as vivid proofs of the power, wisdom, and goodness of God, and these discoveries perfect the mind by directing it to its true object and to its ultimate transcendent destiny to perceive God directly in all his power and magnificence. The mind's true object comprises the divine attributes imagined in all their transcendent creative power.

Complementary to this, the world is imagined to be God's temple; and mankind its priest. Hence, the vocation of virtuoso is a priestly office, a divine duty, performed in the world and for the world's sake, for the virtuoso as priest is nature's discoverer of its divine origin and hence its best interpreter. Boyle uses the title 'great-High Priest of Nature,' an allusion to the figure of Melchizedek, who is also a type of Christ, thereby introducing Christian eschatological themes, whereby the devotional acts of the virtuoso are represented as anticipations of the life to come, when the creaturely mind will be made perfect and will find its consummate expression in perpetual praise.

when we shall questionlesse glorify God exactlyest; we shall neither need or use Fayth, Prayer Liberality & resembling Graces but our Performances will chiefly consist in elevated soaring Notions & prostrate Veneration of God's Omnipotence Wisdome, goodnesse, & other Perfections: & such is the Present Condition of those Blessed Spirits, whose Obedience is (in the Lord's Prayer) propos'd for Pattern to our very Wishes...<sup>10</sup>

Boyle is alluding to the petition in the Lord's Prayer that God's will be done on earth as it is in heaven. A virtuoso does God's will on earth by enquiring into the nature of things and their causes, and having succeeded in this by offering praise to the supreme cause of everything.

Mankind is especially fit for this role because he is a microcosm. The 'Resembling' is its best 'Representer,' because of his rational nature, for reason 'is a Natural Dignity; & Knowledge a Character that can conferre Priesthood without Unction or Imposition of hands.'<sup>11</sup>

<sup>9</sup> 'Of the Study of the Book of Nature', *Works*, xiii, 150; the main discourse begins here at the second paragraph. This is preceded by a theological introduction (147–50) addressed to divines and lay scholars, which gives pre-eminence to the divine interpretation of nature offered in Scripture and which commends the use of reason in a secondary role, as 'handmaiden'.

<sup>10</sup> 'Of the Study of the Book of Nature', *Works*, xiii, 150.

<sup>11</sup> 'Of the Study of the Book of Nature', *Works*, xiii, 152–3; see also *Usefulness*, I, *Works*, ii, 203–4: 'for as anciently among the Jews, by virtue of an Aaronical Extraction, Men were born with a Right to Priesthood; so Reason is a Natural Dignity, and Knowledge a Prerogative, that can confer a Priesthood without Unction or Imposition of Hands. And as for Reason, that is so far from making us judge that Employment unworthy of Rational Creatures, that those Philosophers (as *Aristotle*, *Epicurus*, *Democritus*, &c.) that have improv'd

'Of the Study of the Booke of Nature' is a divine discourse reminiscent of the early Boyle, rhapsodic in its tone and eschatological in its expectation. Yet, it must be emphasized, it is a human discourse. Divine truth is not revealed in it, but aspired to. Boyle did not imagine himself to be Hermes. Notwithstanding that he read the *Corpus hermeticum* and was sympathetic to its doctrines: among them the divine origin of all things, the privileged place of mankind in the order of creation made evident by his reason or intellect, the immortality of the human soul, and the superiority of spirit over matter. As will be seen, as a new natural philosopher, Boyle was faithful to Baconian methods and strictures notwithstanding their hazards, but this was not his main concern in this essay. In any case, the *Corpus hermeticum* served as an antidote to these hazards, which may explain the great interest shown in it. However, Boyle, like Bacon, refused the full treatment. He maintained that mankind exists in a state of mediocrity, which is to say, that human understanding of theological matters must operate by ratiocination and figurative reflection and not by intellectual intuition,<sup>12</sup> which, as just noted, is anticipated but not realized in this world.

Boyle's 'Essay of the Holy Scriptures' complements 'Of the Study of the Book of Nature'; indeed, together they offer a harmony of the books of nature and Scripture. They also anticipate later writings ancillary to his main natural philosophical writings, in particular, *The Usefulness of Natural Philosophy* and *The Style of the Scripture*, writing of a sort that may have caused concern to serious virtuosi with whom he was associated in the Royal Society.

Its opening theme is the laicization of the Bible and universal access to it. In this respect, the Bible is supposed to be a proper supernatural counterpart to nature. No one should be prevented from reading it, and for Christians this is a duty. Just as there is one system of nature divinely created, so there is one book, inspired by God to be the sole repository available to mankind of transcendent divine truths.<sup>13</sup> The metaphor of a book is used as a means, more imaginative than conceptual, to achieve the appearance of consistency. These are familiar Protestant themes intended to give Scripture parity with nature and to accommodate it to the peculiar interests of the virtuoso. So just as nature is intended to instruct mankind of 'all sorts and conditions,' yet virtuosity is requisite to discover its secrets.

Reason to the greatest height, have the most seriously employ'd it to investigate the Truths, and promote the study of Natural Philosophy.' Compare with Locke, 'Discourse on Miracles', *WR*, 47–8.

<sup>12</sup> For some examples of figurative reflection, see 165–8. In 'Essay of the Holy Scripture', as will be remarked shortly, Boyle elaborates on the role of reason in justifying the divine authority of Scripture and in determining its meaning and limits its powers to these activities. He is skeptical of the opinion attributed to Helmont that intuition not ratiocination is the definitive character of mankind in this life and marks his superiority over animals; *Works*, xiii, 187; in this place, Boyle cites J. B. van Helmont, *Ternary of Paradoxes*, trans. Walter Charleton (London, 1650), 48–52, 127–33 and *passim*. Helmont regards the image of God as the soul of the whole man in the state of paradise or final beatitude; it is, hence, like God simple and ineffable in its essence.

<sup>13</sup> 'Essay of the Holy Scriptures', *Works*, xiii, 177.

Gods Wisdome hath so temperd his Bookes, as therein to leave all Ages an Exercise for their Industry: & keepe the Greatest Doctours in a continual need of his Instructions, & a Dependance on his Irradiations by leaving amongst many Passages that stoop to our Weaknesses some that may make us sensible of them. And 'tis an observable Providence in favour of Learning that God so condescends to our inevitable Ignorance, that to engage our Curiosity to an improvement of our Knowledge as a very little Learning may suffice to the saving understanding of the bible so to the perfect understanding of it all Sciences are Conducive & noe small insight into diverse of them, Requisite: the Scriptures being like a River where a Lamb may quench his Thirst, & which an Elephant cannot exhaust.<sup>14</sup>

as The Scripture is termed Light so hath it this Property of what it is call'd that as the playnest Rustikes, may if they will not willfully shut their Eyes, by the Benefit of Light direct their Steps, & that the Deepest Philosophers are puzzl'd & dazl'd with its abstruser Mystery's soe here the Ignorant may learn all requisite knowledge, & the most Knowing learn (& must confesse) their Ignorance.<sup>15</sup>

This combination of dark and light, of obvious and satisfying truth and obscure expressions that lure the scholar, together with its theme of eternal life, make Scripture a fitting object of lifelong study. It may explain the mood that addicted Boyle to the study of Scripture.

Here also the yet to be named Christian virtuoso has a role comparable to the one he plays as a high priest of nature. As a cultivated man of parts, he has a duty, which is to say, a vocation or calling to interpret Scripture. His way is guided by 'an observable Providence' that fits his own time, as it has all times.

God's Wisdome hath so tempered his Bookes,<sup>16</sup> as therein to leave all Ages an Exercise for their Industry... And 'tis an observable Providence in favour of Learning that God so condescends to our inevitable Ignorance, that yet to engage our Curiosity to an improvement of our Knowledge as a very little Learning may suffice to the saving understanding of the Bible so to the perfect understanding of it all, Sciences are Conducive...<sup>17</sup>

What remains in Boyle's essay is a detailed summary of difficulties that confront the scholar and the theologian in interpreting Scripture. The former concern problems of interpretation that follow from the fact that Scripture is written in a foreign language, and in a distant time and place; the latter, problems of belief that are posed by the hard

<sup>14</sup> 'Essay of the Holy Scriptures', *Works*, xiii, 179; see also 'Of the Study of the Book of Nature', *Works*, xiii, 153: 'And so naturall & ally'd seems Religion to Reason that, if you'l credit Pliny he will tell You that Elephants, whose sagacity most approaches Reason, have also a Proportionate sense of Religion & at sett Times pay their Devotions to the Sun & Moone.'

<sup>15</sup> 'Essay of the Holy Scriptures', *Works*, xiii, 180; Boyle's allusion is to the Renaissance theme of 'learned ignorance'.

<sup>16</sup> In 'Of the Study of the Booke of Nature' Boyle refers to three books, nature, Scripture, and conscience. The first two are evident to all, the last is private: 'Both our Divines & our Philosophers, compose Man's Library of three cheife Bookes, which to Expound, apply & Rectify, is the Taske of the rest. Few men ignore that these 3 Volumes, are The Booke of Nature, the Book call'd Scripture, & the Booke of Conscience.' 'Of the Study of the Booke of Nature', *Works*, xiii, 147.

<sup>17</sup> *Works*, xiii, 179.

places of Scripture, those obscure teachings, or narratives of events that violate nature. An important theme of the latter is the tortured relationship between faith and reason, and the decisive role of miracles in establishing belief. I offer here a brief account of the former but postpone until later a fuller account of the relation between faith and reason.

Boyle's brief but detailed account of the philological and historical critical account of problems of interpretation could serve as a checklist for biblical scholars even today: problems arising from the biblical languages, their various dialects, the various styles and idioms of its different books, the complex history of the text, biblical chronology. Boyle's overall aim is theological and not historical. Hence, he is concerned about apparent contradictions that are posed to faith by obscurities and inconsistencies discovered in the text. Coherence and consistency are his overall criterion, since it is taken as a desideratum to prove the divine authorship and the truth of its content. The aim of biblical interpretation is to discover the mind of the author. We shall see that Locke had the same purpose.

'Of the Atomicall Philosophy' differs from the two prior essays not only by its brevity, but also by its style and purpose. Its style is matter of fact, or plain historical. Its purpose is to assert the atomic theory and to prove the existence of atoms. Boyle's reasons for doing this are Baconian. Indeed, from the opening paragraphs, it is evident that he had taken his cue from a recently studied Baconian text, most likely *De originibus et principiis*.

The Atomicall Philosophy invented or brought into request by Democritus,<sup>18</sup> Leucippus & their Contemporaries, tho since the inundation of Barbarians and Barbarisme expl'd out of the roman world all but the casually escaping Perapateicke Philosophy, it have been either wholly ignor'd in the European Schooles or mention'd there but as an exploded systeme of Absurdities yet in our less partiall & more inquisitive times it is lo luckily reviv'd & so skillfully celebrated in divers parts of Europe by the learned pens of Gassendus, Magnenus, Des Cartes & his disciples our deservedly famous Countryman Sir Kenelme Digby and many other writers those that handle magneticall & electricall operations that is now growne too considerable to be any longer laugh't at, & considerable enough to deserve a serious enquiry.

The Atomists seeme not without reason to complaine that the same envy which mov'd Aristotle to represent the Placits of his preceders under a disadvantageous notion has very injuriously represented the opinions of Democritus & Epicurus as if by Atomes they understood those Mathematicall points which being suppos'd absolutely indivisible & without any quantity can not consequently become constituent parts of any body nor by any number of coacervation make up anything consisting of three Dimensions, whereas by Atoms the Assertors of them understand not indivisible mathematical points...but minima Naturalia or the smallest particles of bodies which they call Atomes not because they cannot be suppos'd to be divided

<sup>18</sup> 'to bring into request' is to postulate. Postulates are mathematical or scientific principles once removed from axioms, which is to say, whilst not regarded as self-evident truths, are nonetheless regarded as indispensable explanatory principles; see *OED*, 'request' n1, 4, 'postulate' II. 2. a.

into yet smaller parts but because tho they may be further divided by Imagination yet they cannot by Nature<sup>19</sup>

Boyle's aim here is to declare himself an assertor of atoms or of the 'Atomical Philosophy'. His purpose was not to revive antiquity, but to fashion a new doctrine with an ancient and credible pedigree to supersede the doctrine of Aristotle, with the promise that justification will follow from keen observation and experiment, which is fitting for someone who has 'a great Reverence for Experience'.<sup>20</sup> Thus he allies himself with Gassendi, Magnenus, Descartes, Digby, and others not named. What unites them is the belief that the formation, dissolution, and alteration of natural things occur not by virtue of occult powers and qualities in things, but by the aggregation or disaggregation of microscopically small bodies or atoms, which are physically indestructible, processes that are not discernible, but more imaginable.

The proofs of the existence of atoms that Boyle presents are all modern, although the general argument, that gross bodies give off effluvia, imperceptible outflows of particles, whose affects may be observed, is ancient. The argument was framed by Lucretius, who followed Epicurus.<sup>21</sup> From the examples he gives and his interpretations of them, it is not possible to say what he thought atoms are like, except that they are corpuscular, very small, and indivisible. It does not appear that Boyle considered deeper metaphysical reasons for embracing this doctrine. These are questions that will be considered in the succeeding section and reconsidered in the succeeding chapter. What becomes clear, is that atomism became Boyle's standard hypothesis for explaining physiological phenomena and an essential component of his virtuosity.

## Establishing the Atomical Philosophy

In this section, I consider Boyle's appropriation of atomism as a ruling hypothesis for the interpretation of natural phenomena. It is a defining moment in his virtuosity, involving a clarification of its philosophical foundation. Because of his exalted place among virtuosi, Boyle's stated preference for atomism, albeit generalized, qualified, and tentative, amounted to an establishment of it in the new science, so that, in retrospect, it may be counted also as a defining moment in European intellectual history and determinative of the scientific revolution.<sup>22</sup> By establishment, I do not mean to suggest that atomism was raised to the status of dogma, rather it became the preferred hypothesis of the new science, which purportedly entertained no dogmas. Given the

<sup>19</sup> *Works*, xiii, 227. For the difference between magnetical and electrical attraction of bodies, see William Barlow, *Magnetical Advertisements* (London, 1616), 2 and passim; as will be remarked later in this chapter, Boyle accepted Aristotle's notion of *minima naturalia*, that nature must stop somewhere in the divisibility of matter; he did not seem aware of the Epicurean notion of *minima* as infinitesimal magnitudes; see n. 56 in this chapter.

<sup>20</sup> *Christian Virtuoso, The First Part, Works*, xi, 291.

<sup>21</sup> *DRN*, 1.271–328.

<sup>22</sup> Boyle's establishment of atomism amounted to a revolution in philosophy also, following Bacon's directive that natural philosophy is the only proper ground of philosophical reflection, and that the Presocratics generally, and Democritus in particular, should be preferred over their Greek successors.

character of the new scientific enterprise being established, its acceptance could only be tentative and its texture open.

At the outset, for the sake of clarity, I offer a brief exposition of three key terms used by Boyle in his natural philosophical writings: 'Atomical', 'Corpuscular', and 'Mechanical'. As adjectives, referring to a particular theory of natural philosophy, these terms were often used synonymously by Boyle and by other contemporary writers,<sup>23</sup> notwithstanding their different meanings. 'Corpuscular' signified the corporeal nature of matter generally. It was supposed that all bodies and parts of bodies are corpuscular, but that the ultimate parts of bodies were indivisible, or 'atomical'. 'Mechanical' signifies the mode of interaction between bodies, that is, by local motion and impact; it was further supposed that atoms possessed the qualities of size, shape, solidity, and motion or rest. By the early 1670s, however, Boyle had grown uncomfortable with the term 'Atomical' and preferred 'Corpuscular'.<sup>24</sup> This was probably because 'Atomical Philosophy' applied specifically to the natural philosophy of Epicurus, who denied the divine creation of the world.<sup>25</sup> Boyle was well aware of the Epicurean connection when he wrote 'Of the Atomical Philosophy' and the *Origine*. In the latter work, he counted Lucretius, whom he described as Epicurus' 'Paraphrast', as a virtual philosophical contemporary of the proponents of the new corpuscular philosophy and a close ally in his theoretical endeavor.<sup>26</sup> Lucretius' atheism did not prevent Boyle from recognizing the natural philosophical credibility of the system he preferred.<sup>27</sup> It should be obvious that Boyle never embraced the whole of Epicurean naturalism, nor is it likely that he was ever tempted to do so, for it would have required accepting that matter was eternal and self-moved, and that its power was sufficient to create worlds and everything in them, that the human soul was material and mortal, and, finally, that there is no enduring reality except matter and void. These were all doctrines that were vetoed by his hyperactive Christian conscience. Boyle did not think of his theological commitments as impediments to being a naturalist, or that natural philosophy must lead one to atheism, and he found support for his convictions from Descartes and from certain Presocratics.<sup>28</sup>

<sup>23</sup> Among them the author of the publisher's preface to the *Origine*, see *Works*, v, 283.

<sup>24</sup> However, compare this with Boyle's account of the terms in *Certain Physiological Essays* (first published in 1661), *Works*, vii, 87, where he uses 'corpuscular' to denote the Cartesian and Epicurean systems, 'atomical' to apply specifically to Democritean or Epicurean atomism, and 'mechanical' to both together.

<sup>25</sup> Another concern, expressed by Cudworth, was the determinism of Democritus' atomism, 'Democritean fate', which Epicurus denied also, see Lucretius, 2.251–71.

<sup>26</sup> This is vigorously affirmed in *Origine*, *Works*, v, 295, 'I would not in the least disparage those excellent and especially those modern Authors, that have professedly opposed the *Aristotelian* Physicks: (such as *Lucretius*, *Verulam*, *Basso*, *Des Cartes* and his followers, *Gassendus*, the two *Boots*, *Magnenus*, *Pemle*, *Helmont*):' Boyle does not claim that he has read all of these authors; he singles out Gassendi's *Syntagma philosophiae Epicuri*, but admits that he had not found time to read it. See *Certain Physiological Essays*, *Works*, ii, 12f., where Boyle explains his reluctance to study systematic treatises on natural philosophy.

<sup>27</sup> Epicurus and Lucretius after him count as atheists because they denied the divine creation of the world and divine providence; whilst they allowed that gods exist, they denied that they had any concern for mankind; I discuss this at length in the next chapter.

<sup>28</sup> 'I, who am not wont to think a man the worse Naturalist for not being an Atheist, shall not scruple to say with the Eminent Philosopher of Old, whom I find to have propos'd hath revived amongst Us, That the



In the exposition that follows, ‘atomism’ will be my preferred term to stand for the corpuscular or mechanical hypothesis in general, except where the context requires otherwise. I do so for a number of reasons. First, because it is more descriptive of Boyle’s considered opinion about the nature of physical reality, which gives priority to indestructible primary bodies or atoms; of the three terms, ‘atomical’, ‘corpuscular’, and ‘mechanical’, the first best applies to Boyle’s claims *de rerum natura* and makes more clear his place in the history of science;<sup>29</sup> it is also historically correct, inasmuch as Boyle’s hypothesis is evidently a refinement of classical antecedents, Democritean and Epicurean; finally, ‘atomism’ is a more recognizable term, and, what is more, is easier to write and to say than ‘corpuscularism’.

*The Origine of Forms and Qualities according to the Corpuscular Philosophy* will be the primary focus of this section. It is the most philosophical of Boyle’s writings, and, I believe, a pivotal work in the history of early modern philosophy, for in it Boyle makes a compelling case for replacing Aristotelian natural philosophy with the system of Democritus and his descendants.

*The Origine* was first published in 1666, but, like many of Boyle’s works, it had been in process for nearly a decade, and, like them also, it is a somewhat hasty and fragmented rendition of a major intellectual project whose depth and breadth, although belied by its style, should not fail to command the attention of a philosophical reader.<sup>30</sup> The project was supposed to explain the generation and corruption of natural bodies and the alteration of their qualities or affects. And since these are the primary operations of nature, identifying their causes and describing how they operate becomes the fundamental task of natural philosophy. And this leads to the very idea of nature as a material generative process, which was anticipated by Bacon, elaborated by Boyle, and which has come to dominate the modern scientific era. It is an idea whose cogency has increased, as the reality it denotes becomes better known, an idea that appears to be true.

Boyle’s overall method is experimental, an ongoing trial or endeavor that may be best described in his own words, ‘to Try whether by associating Chymical Experiments to Philosophical Notions [viz., atomism] there may not be given at least a more

Origine of Motion in Matter is from God; and not onely so, but that thinking it very unfit to be believ’d, that Matter barely put into Motion, and then left to it self, should Casually constitute this beautiful and orderly World.’ The Greek philosopher referred to is most likely Anaxagoras, who advocated a cosmological theory of intelligent design; see Boyle, ‘Post-Script’, *Works*, xiv, 148–9: the postscript was written for Boyle’s *Free Enquiry into the Vulgarly Received Notion of Nature*, and then discarded; see also David Sedley, *Creationism and its Critics in Antiquity* (Berkeley: University of California Press, 2007), 7–10 and passim.

<sup>29</sup> Boyle’s disclaimer, that in formulating his hypothesis he did not assume that there were ‘Indivisible Corpuscles, call’d *Atoms*, or any *innate motion* belonging to them’, may seem disingenuous, but only if taken out of context. This assertion is part of a general disclaimer of various ‘corpuscular’ philosophies, in particular, Epicurean atomism, and Cartesian physics, and thus indivisible atoms and innate atoms should be considered in the context of Greek atomism. Certainly Boyle’s primary bodies are atoms in everything but name, and although he denies that motion is ‘congenite’ in them, he does regard motion as an indispensable mode for their operations, physical and chemical; see *The Origine*, *Works*, v, 292.

<sup>30</sup> For more historical details, see the introductory works by Hunter and Davis in Boyle, *Works*, v, xxvii–xxxii.

Intelligible and more Practical account' of the forms, states, and qualities of material things 'that has been hitherto afforded us by the Doctrine of the Schools'.<sup>31</sup> His purpose in writing the *Origine* was to offer clarity and direction to virtuosi by introducing them to a working hypothesis, one that, on his account, he had tried experimentally with positive results.

### *Turning the tables on Aristotle and the schools*

The 'Doctrine of the Schools' that Boyle intended to replace included as its principal part Aristotle's doctrine of the generation and corruption of substances, together with supplements, some of which Aristotle would have found repugnant, for example, the doctrine of real qualities. In interpreting Boyle's overall strategy, it is important that Aristotle's opinions on forms and qualities be kept distinct from the additions and modifications of his Scholastic interpreters. For it should be clear to any reader of Boyle, and of *The Origine* in particular, that he had read widely in the Aristotelian corpus and in his commentators, ancient, medieval, and modern. He distinguishes between the works of Aristotle, his Hellenistic commentators, and his Scholastic interpreters, who, he is at pains to point out, have revised Aristotle in un-Aristotelian ways to accommodate their theology. He did not confuse them. He rightly disassociated Aristotle from the 'Champions' of the doctrine of substantial forms as self-subsisting entities; moreover, he imitated Aristotle, by referring to the shape of artificial things, for example, statues, as examples of the forms of natural things. In this respect, Boyle's own account of natural things builds on Aristotle. Boyle, however, moves beyond the Aristotelian notions of substance and accident by observing that whilst the form of a thing is a function of its accidents, its accidents and hence its observable form are the products of the unseen disposition and operation of its material parts; further, like Democritus, on the basis of this material scheme, he differentiates between primary and secondary qualities, anticipating Locke in this and other ways.<sup>32</sup> There is no doubt that when he conceived of *The Origine*, he had the works of Aristotle close at hand, in particular *De generatione et corruptione*. He cites it directly only once in *The Origine*,<sup>33</sup> but other less specific references to it should be evident to anyone familiar with both texts; furthermore, it should also be clear that Aristotle's account of Greek atomism was, if not his starting point, a place of constant reference for concepts and arguments.<sup>34</sup>

<sup>31</sup> *The History of Fluidity and Firmnesse, Works*, ii, 119.

<sup>32</sup> *Origine, Works*, ii, 340. Boyle's concluding comment is noteworthy: Aristotle 'seems to me upon the whole matter, either to have been irresolv'd, whether there are any such Substances [i.e., independently existing forms], or no, or to speak ambiguously and obscurely enough of them, to make it questionable, what his Opinions of them were'. It shows that Boyle had come to view Aristotle as a philosopher in his own right and not as part of a tradition. He viewed Democritus and Epicurus in the same way.

<sup>33</sup> *The Origine, Works*, ii, 356n.; I will comment on this shortly. For other citations of this work by Boyle, and of other works by Aristotle, see Boyle, *Works*, General Index, ad loc., xiv, 459.

<sup>34</sup> For example, the central concepts of the order and posture of primary bodies: 'as I remember, Aristotle in his *Metaphysics*, lib. I, cap. 4. recites this Example out of the antient Corpuscularians, That A and N

The experiment involving saltpeter was key in this endeavor, for, according to Boyle's account of it, it yielded empirical proof that the generation and destruction of substances and the alteration of their qualities depended on the association and disassociation of their parts or by a reordering and rearrangement of them. Boyle maintained that the experiment provided empirical evidence of atomism by showing that generation and corruption are the result of the association, dissociation, and reconfiguration of the material parts of a thing, of bodies joining and separating and being reshaped, and, because all bodies except atoms are porous, by readjusting their pores, thus altering their receptivity to other bodies swirling around them.<sup>35</sup>

The experiment was conducted in three stages: purification, destruction, and reintegration. The product of the first stage, following the 'usual way of Solution, Filtration, and Coagulation,' consisted of purified crystallized niter (potassium nitrate). The second stage effected the destruction of the purified substance by combustion (by dropping burning charcoals—a carbon source—into the mix). Its product was 'Fix'd Nitre' (Potassium Carbonate). Boyle next divided the fixed niter into two parts; one he infused with water, the other part was set aside, allowing it to liquefy *per deliquium*, that is, by absorbing moisture from the air. Upon each part, in turn, he poured 'Spirit of Nitre,' a solution whose active component was nitric acid (the so-called aqua fortis) and, probably also, nitrous acid. In the first case, the consequent 'hissing and ebullition' of the mixture (evidence of the internal motion of its otherwise insensible parts) was allowed to run its course, and what was left was exposed to the air and let stand for a day. A large portion of the residue was tested and found to be purified saltpeter.<sup>36</sup> The second part of the fixed niter was also doused with the spirit of niter, and allowed to stand for a month. It produced mixed results. One half of it resembled saltpeter in the shape of its crystals and its flammability, but it had a different taste; the other half was unlike any known salt.<sup>37</sup>

In his reflections, Boyle remarked that the mixture underwent changes in qualities or affections that were evidently the result of the motion of its parts, as though this were the best explanation. The changes he observed were in its sensible qualities: heat and cold, sound, color, smell, and taste, which he would later designate as secondary qualities. These he took to be the affects of the 'mechanical Affections,' which are the primary modes or affections of body in general, viz., size, figure, motion, and the order and disposition of parts, which, he concluded, also underwent change.<sup>38</sup> From the same observations, Boyle suggested, against the 'Chymists' or alchemists, that inflammability was not a consequence of 'a distinct Sulphureous ingredient,'<sup>39</sup> but of 'such a contrivance

differ in Figure, and A N and N A in Order, Z and N in Scituation: and indeed Posture and Order seem both of them reducible to Scituation,' *The Origine*, Works, ii, 316.

<sup>35</sup> *A Physico-Chymical Essay containing an Experiment with some Considerations touching Parts and Redintegration of Salt-Petre*, in *Certain Physiological Essays* (1661), Works, ii, 93–114; see also William R. Newman and Lawrence M. Principe, *Alchemy Tried in the Fire* (Chicago: University of Chicago Press, 2002), 241–4.

<sup>36</sup> *A Physico-Chymical Essay*, Works, ii, 93–4. I am grateful to Bruce Eichinger for tutoring me about the chemical processes in which Boyle was engaged.

<sup>37</sup> *A Physico-Chymical Essay*, Works, ii, 93–4.

<sup>38</sup> *A Physico-Chymical Essay*, Works, ii, 98.

<sup>39</sup> *A Physico-Chymical Essay*, Works, ii, 102.

of parts, as that thereby the particules of the Concrete are dispos'd to be set a moving by the adventitious whether Fiery or Calorific Corpuscles of another body, in such numbers, and with such celerity, as may put them into that Scheme of matter which we call Flame.<sup>40</sup> He observed that this was an unexpected outcome, contrary to what would be 'vulgarly' or commonly expected, and one that could not be predicted from the observed qualities of the substances involved, and whose best explanation is offered by the hypothesis under consideration.

... our own experiment informs us, that Salt-Petre (which not only is inflammable, but burns very fiercely and violently) may be produc'd by the coalition of two bodies, which are neither of them inflammable; the one being a fix'd Salt [i.e., fixed nitre], that to become such has already suffer'd the loss of all that the fire could deprive it of, and the other being a Spirit abounding with acid particles [i.e., the spirit of nitre], which kind of Salts have been observ'd to be more apt to quench than foment fire.<sup>41</sup>

Against the Aristotelians, he contended that these changes of affect were not due to any form or formative agency other than the matter itself and its mechanical affections, and hence not attributable to substantial forms.

Boyle's conclusions and reflections on the experiment involving saltpeter, then, provide us with the experimental background of *The Origine*, and, as will be seen, of one of the main arguments of *The Christian Virtuoso*. However, there is a further theoretical background to all this that also requires consideration, if his intentions are to be fully understood. This is to be found in Aristotle's *De generatione et corruptione*. There is a wonderful irony about this. Boyle seems to have taken a page, or more precisely, a chapter, from Aristotle's book and used it, as it were, to turn the tables against Aristotle. The place in question is Chapter 2 of Book I of Aristotle's book.<sup>42</sup>

In this chapter and the one preceding it, Aristotle is reviewing the philosophical opinions of his predecessors, the Presocratics and Plato, on the themes of generation, corruption, growth, and alteration of qualities. Aristotle finds their opinions inadequate, either because they are presented without sufficient empirical evidence to support them, or because they are conceptually inconsistent in their overall theoretical scheme. Aristotle especially faults his predecessors for failing to differentiate the process of generation and corruption from alteration, or, whilst accepting the difference, for failing to give an account of how the processes differ consistent with their own principles. Aristotle believed that generation or corruption *simpliciter*, viz., the coming to be or passing away of a primary being or substance, is a natural process wherein one substance replaces another, for example, vinegar becoming wine, which might be termed an ordinary non-miraculous transubstantiation. Alteration, also a natural process, involves a continuing substance undergoing a variety of changes, under the governance of its form, that is, its quality, size, disposition, relation, and so on, accidents identified in his categorial scheme.

<sup>40</sup> *A Physico-Chymical Essay*, Works, ii, 102.

<sup>41</sup> *A Physico-Chymical Essay*, Works, ii, 102.

<sup>42</sup> Aristotle, *De gen. et corr.*, I.2; 313a26–317a32.

Among his predecessors, however, Aristotle reserves special praise for Democritus for two reasons. First, because he was an astute physiologist, basing his natural philosophical opinions on empirical observation, rather than dialectic, and second, because he perceived the difference between generation and alteration, and so explained them differently. Democritus purportedly explained generation and destruction as the consequence of the association or dissociation (σύγκρισις καὶ διάκρισις) of material parts; alteration involves a change in the order and disposition of the material parts of a thing, Aristotle added favorably that after all this, Democritus made a cogent argument to support his conclusions, which he summarized.<sup>43</sup>

The argument that Aristotle attributes to Democritus is an empirical one that is raised against the *a priori* claim that material bodies are infinitely divisible, which, the argument proceeds, if it were really possible to do would reduce everything to points or joints, which have no dimension, or to nothing at all, from which nothing can be generated into being. Moreover, although it is evident that bodies can be divided into ever smaller and smaller magnitudes, one finally reaches a natural limit. It follows, then, that indivisible atomic magnitudes exist. Generation and corruption of things arise from the association and dissociation of these natural minima.<sup>44</sup>

It is ironic also that Aristotle's criticism of his predecessors, including Plato, and his praise for Democritus are reminiscent of Bacon's criticisms of Aristotle—theories founded on limited experience, expounded and defended dialectically according to a favored ontological scheme. Aristotle does not make clear why he finds Democritus' theory incoherent, but this need not concern us.

Against Aristotle, Boyle presents a modified and updated version of Democritean atomism, amplified from his reading of Lucretius and supported with modifications by experimental evidence gathered by him and others. This successful marriage of ancient doctrine and modern experiment is a credit to Boyle's genius.

That Boyle had Aristotle's *De generatione and corruptione* particularly in mind is supported by his obvious familiarity with the work as he proceeds in the *Origine*, by his choice of terms in describing his preferred theory as one that explains the natural processes of generation and corruption and alteration, by the very title of the work, which distinguishes between forms and qualities, and their generation and alteration, by his acknowledgment that the ancient atomists are forerunners of the hypotheses he is proposing, their explanations, in particular, the explanations attributed to Democritus by Aristotle, anticipating his own. He makes this very explicit in the following remark:

...we need not deride the antient Atomists, for attempting to deduce the *Generation* and *Corruption* of Bodies from the fam'd σύγκρισις καὶ διάκρισις, the *Convention* and *Dissolution*, and the *Alterations* of them, from the *transposition* of their supposed Atoms: For though indeed

<sup>43</sup> *De gen. et corr.*, I.2, 315b3–15; David Sedley provides a detailed exposition of Aristotle's favorable review of Democritus in 'On Generation and Corruption I.2', in Frans de Haas and Jaap Mansfeld, eds., *Aristotle's On Generation and Corruption I* (Oxford: Oxford University Press, 2004), 65–89.

<sup>44</sup> *De gen. et corr.*, 316b28–34; see also H. H. Joachim, *Aristotle on Coming-to-be and Passing-away* (Oxford: Oxford University Press, 1926), 84.

Nature is wont in the changes she makes among things Corporeal, to imploy all three ways, as well in *Alterations*, as *Generations* and *Corruptions*, yet if they had only meant, as probably enough they did, That of the *three* waies propos'd, the First was wont to be the Principal in the *Generation* of Bodies, the second in the *Corruption*, the third in their *Alterations*, I shall not much oppose this Doctrine.<sup>45</sup>

Whatever other theories stand in the background, in particular those of the 'Chymists', and however much Boyle may have been disposed to accommodate himself to them, or surreptitiously to borrow from them, the clear conceptual frame of the theory he proposes is atomist.

Boyle's presentation of his preferred hypothesis is made in the 'Theoretical Part' of *The Origine*.<sup>46</sup> His discourse is too prolix and rambling and would require a running commentary to account for all its twists and turns. I will proceed directly to the final section, VIII, in which Boyle offers his readers a summary followed by a summary of the summary. It is headed by a title stating its theme: '*Of Generation, Corruption, and Alteration*', which is about as clear a reference to Aristotle as one can get.<sup>47</sup> The hypothesis is summarized as follows.

The summary begins with the material constituents of the physical world: atoms and molecules. Atoms are virtually indivisible, 'Insomuch, though [they] be *mentally*, and by Divine Omnipotence divisible, yet by reason of [their] Smallness and Solidity, Nature doth scarce ever divide [them]'.<sup>48</sup> This virtual indivisibility justifies calling them '*Minima* or *Prima Naturalia*', the primary material parts of physical bodies.<sup>49</sup> The primary attributes, or primary modes of atoms, and of molecules also, since they too are bodies, are the so-called mechanical attributes, size, shape, solidity, and motion or rest. Boyle, however, is reluctant to regard motion as an essential attribute of bodies, or as 'congenite' to them, for two reasons, one empirical, the other theological. Since we see gross bodies sometimes at rest, and sometimes in motion, it may not be the case that motion is an essential quality of body in general. And, there is the theologoumenon, which Boyle attributes to Descartes, that God is the author of motion in bodies, which, of course, is not inconsistent with motion being 'congenite' with them if God created them such. His purpose is merely to reserve ultimate creative power to God, which is not a scientific motive. Elsewhere, Boyle admits that at the micro-level of material existence, insensible bodies may indeed be constantly in motion, even if at the macro-level they appear to be at rest.<sup>50</sup>

<sup>45</sup> *The Origine, Works*, ii, 328; Boyle's remark, 'yet if they had only meant, as probably enough they did . . .', suggests that Boyle suspected that Aristotle's account of Democritus' theory was simplistic and overly neat, and so did not represent the full picture of atomism and the truth of nature that it represented.

<sup>46</sup> *The Origine, Works*, ii, 305–35.

<sup>47</sup> That this heading is printed in parentheses may signify that it was inserted by the publisher and not by Boyle. Only this section and the one preceding have headings; VII has the heading, also in parentheses, (*Of the Nature of a Forme*). The account of form given in Section VII may be, indeed most probably is, the physiological basis of Locke's theory of simple ideas of substances or things.

<sup>48</sup> See Aristotle, *De gen. et corr.*, 316a15–317a2. <sup>49</sup> *DRN*, 1.325–6.

<sup>50</sup> For Boyle's attribution of this doctrine to Descartes, see *The Origine, Works*, v, 306; see also *Of Absolute Rest in Bodies* (London, 1669), *Works*, vi, 193–211, where he allows the plausibility that atoms are never at

The addition of molecules to the class of primary natural bodies is not included in Aristotle's account in *De generation et corruptione* I.2; it derives from Lucretius and was appropriated by modern atomists. Boyle, then, asserts that in the constitution of nature, there are, in addition to atoms, larger, albeit imperceptible, bodies, 'Concretions or Clusters' or 'Primary Clusters' of atoms having their own size and shape, which, whilst destructible, are stubborn and enduring composite bodies.<sup>51</sup>

[Their] Bulk is so small, and their Adhæasion so close and strict, that if each of these little Primitive Concretions or Clusters (if I may so call them) . . . is singly below the discernment of Sense, and though not absolutely indivisible by Nature into the *Prima Naturalia* that composed it . . . yet for reasons freshly intimated, they very rarely happen to be actually dissolv'd or broken, but remain entire in great variety of sensible Bodies, and under various forms of disguises.<sup>52</sup>

They are 'as it were the Seeds, or immediate Principles of many sorts of Natural Bodies'. The notion is reminiscent of Lucretius, to whom Boyle may be alluding.<sup>53</sup> These primary clusters in turn combine to form greater clusters that finally are able to affect the senses.

It should be noted, as further evidence that Boyle had Aristotle's account in *De generatione et corruptione* I.2 in one way or another before him, that he introduces the doctrine of atoms in response to the paradox that bodies, being extended, must be infinitely divisible, and he accepts Aristotle's resolution of it. He also adopts Aristotle's notion of natural minima that is implied here, which differs from the doctrine of minima proposed by Epicurus, and which may or may not have been the doctrine of Democritus.<sup>54</sup>

Generation and corruption of things occur as follows. Atoms and primary clusters move about in such a way that they continuously connect and combine into groups, or they separate, and in each case, the corpuscular products of their motions change in size and shape, and in motion, thus making them fit or unfit to affect other bodies by acquiring or losing a 'congruity' or aptness to combine with other bodies by entering their pores or natural openings, most of which are too small to be discerned. Likewise the pores of these bodies, through these processes of association or disassociation, widen or narrow to receive or shut out approaching bodies.

rest and that bodies generally may possess at least an endeavor to their proper motion, giving experimental instances why one might believe this; these are notions that echo Lucretius, *DRN*, 308–32.

<sup>51</sup> 'Primary Cluster', 'Primitive Concretions or Clusters' are Boyle's terms for molecules, a term that he did not use, but which was given currency by Gassendi; see *OED*, 'molecule', 'molecula', lit. 'a small mass'.

<sup>52</sup> *The Origine, Works*, v, 326.

<sup>53</sup> *DRN*, 2.581–99, 700–29; Lucretius refers to these larger composite elements as seeds (l. 585) and 'first bodies' (l. 589); see also 2.133–7. Lucretius, following Epicurus, supposes nature is self-regulating and the maker of its own laws; the natural form of things as well as the founding laws of civil societies are terms covenants. It should be noted that Lucretius uses the term 'seed' to denote atoms also, *DRN*, 1.160, 185, 206.

<sup>54</sup> Lucretius, following Epicurus, identified natural minima as the infinitesimal parts of atoms; he described them as indivisible aggregates or compound bodies consisting of infinitesimally small parts or minima, *DRN*, 1.599–634.

Local motion is the operative force in all of this. It is constant and, as it were, endeavors to communicate itself throughout all material bodies throughout the cosmos. The changes in compound bodies are through the impact of moving particles, which cause them to alter in size and shape, or cause a separation or new association of parts, or by a widening or narrowing of pores, resulting in a change not only in their size and shape, but also in their sensible accidents, by which particular substances are identified and gathered into sorts.

So that... *Local Motion* hath, of all other affections of Matter, the greatest Interest in the Altering and Modifying of it, since it is not only the Grand Agent or *Efficient* among Second Causes, but it is also oftentimes one of the principal things that *constitutes the Forme* of Bodies...<sup>55</sup>

The final summation of the process of generation and corruption involves a revision or perhaps deliberate correction of Aristotle's account of Democritus. Generation and corruption, and alteration of qualities as well, are the products of the same complex operation of atoms and molecules, combining, separating, reconfiguring, increasing or decreasing in magnitude, reordering, and resituating themselves, so that there is not only change at the micro-level of primary qualities, but corresponding change at the macro-level of perceptible primary and secondary qualities. All this is the product of atomic and molecular motion. This is Boyle's atomic hypothesis in a nutshell.

#### *A postscript on the idea of substance*

One important feature that deserves special notice is Boyle's deliberately ambiguous employment in the previous discussion of the term 'substance'. He uses the term in two senses, one chemical, the other categorial or ontological. In his account of generation, he asserts, against Aristotle, that no new substance comes into existence with the generation of a thing; its material parts, atoms, and molecules, remain substantially the same. What changes are the figure and size, and motions of grosser bodies, and, accordingly, their sensible qualities or accidents, and it is from a concurrence of these that, by convention, names are assigned to them and they are taken to be things or substances of various sorts. In this respect, a new substance does indeed come to be in generation, but its being and character do not make up a substantial form, but a concrete perceptible object, which is an object of discourse. The following sums it all up:

And as a Body is said to be *generated*, when it first appears clothed with all those Qualities, upon whose Account Men have been pleas'd to call some Bodies *Stones*; others, *Mettals*; others, *Salts*, &c. so when a Body comes to loose *all* or *any* of those Accidents that are *Essential*, and necessary to the constituting of such a Body, it is then said to be *corrupted* or destroy'd, and is no more a Body of *that* Kind, but loses its Title to its former Denomination. Not that anything *Corporeal* or Substantial *perishes* in this *Change*, but onely that the Essential Modification of the Matter is destroy'd: and though the Body be still a *Body*, (no Natural Agent being able to *annihilate* Matter,) yet 'tis no longer *such a Body*, as 'twas before...<sup>56</sup>

<sup>55</sup> *The Origine, Works*, v, 326.

<sup>56</sup> *The Origine, Works*, v, 329.



To be sure, a substance is a body physically constituted by substantial parts, that is, it is real in its material parts and their configuration, but its name and what it is taken to be, that is, its categorial substantiality in its kind, which is decided by its accidents, are matters of perception, convention, and discourse.

## Cosmical Qualities, an Addendum to the Hypothesis

The main theme of *The Origine of Forms and Qualities* is the generation of things or substances by the acquisition of accidents that are not inherent in the atoms and molecules that comprise them. These include the accidents by which visible bodies are taken to be particular sorts of things; but they include much more, for, on reflection, Boyle had concluded that, excepting the primary modes of bodies, viz., size, shape, and motion or rest, and, perhaps impenetrability, 'the Qualities of particular Bodies . . . do for the most part consist in Relations' and that these relations are not limited to the particular or parochial circumstances of bodies but extend to the limits of the world.<sup>57</sup> This insight allowed him to consider other kinds of qualities and relations, which he designated chemical and medicinal, for example, the susceptibility of certain metals to particular solvents, gold to aqua regis, or the susceptibility of certain medications to a patient's health.<sup>58</sup> 'Cosmical qualities' denote another set of relational qualities that pertain to the susceptibility of bodies to the system and laws of the material cosmos, to the way the world is or happens to be disposed over time, or to how a thing is situated in the world. This is the theme of *Of the Systematicall or Cosmicall Qualities of Things* and its appendix, 'Cosmical Suspicions'.<sup>59</sup> The idea considered in this work is not a new one; rather, its scope has been greatly enlarged.

The things whose affections or qualities most concern Boyle are terrestrial bodies, whose cosmic situation is such that they are affected by subterranean parts of the earth, by the atmosphere surrounding it, and by celestial bodies, especially the sun. The aim

<sup>57</sup> *Cosmical Qualities, Works*, vi, 287. On relational and non-relational qualities in Boyle's natural philosophy, see Frederick J. O'Toole, 'Qualities and Powers in the Corpuscular Philosophy of Robert Boyle', *Journal of the History of Philosophy* 12/3 (July 1974), 290–315, esp. 302, and 306, n. 63. O'Toole uses the terms 'inherent non-relational qualities' to signify Boyle's primary modes, and 'non-inherent relational qualities' to signify secondary qualities and all other 'Systematicall or Cosmicall qualities', which includes the powers and capacities of things, which are, of course, partly dependent upon their primary modes. Among the latter, O'Toole also includes impenetrability, the term signifying a relation to another body that cannot penetrate it. This seems forced; moreover, it overlooks Boyle's first article of his theoretical discourse, which includes impenetrability among the properties of 'Catholic or Universal Matter', *The Origine*, 305. Nevertheless, Boyle does not include it in his oft-repeated list of primary qualities; this may be, however, a gesture to avoid excluding Descartes. Overall, O'Toole provides a careful exposition and analysis of Boyle's fundamental theory, which I have found most useful. On the other hand, I have found John Henry's treatment of this theme forced and fanciful and unheededful of Boyle's intentions in *Cosmical Qualities*, see his 'Boyle and Cosmical Qualities', *Robert Boyle Reconsidered*, Michael Hunter, ed. (Cambridge: Cambridge University Press, 1994), 119–38.

<sup>58</sup> *An Introduction to the History of Particular Qualities, Works*, vi, 268–8.

<sup>59</sup> One of the tracts published in the collection, *Tracts written by the Honourable Robert Boyle. About The Cosmical Qualities of things . . .* (Oxford, 1670), Boyle, *Works*, vi.

of a systematic study of these things is to discover natural 'Laws and Customs' directing the operations of these major parts of the cosmos in determining the qualities of things. Boyle's use of the 'Laws and Customs' signifies his interest not only in universal or cosmic operations and the laws governing them, which he recognized were capable of mathematical description, but also in regional influences, whose regularities were more like local customs than general laws, and whose operations were better described chemically than mathematically, periodic changes, and the unruly 'boisterous' and 'exorbitant' operations of material things, for example, when the sun 'vomits out great quantities of opacious matter'.<sup>60</sup> Boyle mentions these things to define the scope of his subject for experiment and enquiry, but also to differentiate his universe, or the universe as he sees it, which is full of disorder and chance aggregations, from the Aristotelian cosmos, which was supposed to be perfect.<sup>61</sup>

The particular sorts of enquiries to which the experimental study of cosmical qualities apply consist of the effects of regionalism, periodicity, and turbulence; these are studies of the earth's magnetic force, climate, and epidemics. And, consistent with a more disorderly view of nature, Boyle imagines, at the micro-level, they extend to the elements of cosmic effluvia: celestial, atmospheric, and subterranean, whose primary operations suggest the existence of another sort of minute particle, 'fited to have considerable operations when they find congruous Bodys to be wrought on by them,' 'peculiar sorts of Corpuscles that have yet no distinct name, which may discover peculiar Faculties, and Ways of working, when they meet with Bodies of such a Texture as disposes them to admit, or to concur with the Efficacy of these unknown Agents'.<sup>62</sup> All of this represents Boyle's thinking outside the box, but not beyond the atomic hypothesis, which it was his intention to establish.

There is, however, a remark in 'Cosmical Suspitions' that is worthy of special attention, and with which this particular discussion will conclude. I quote his remark in full:

It may now therefore be not unseasonable to confesse to you, that I have had some faint Suspicion, that besides those more numerous and uniform Sort of minute Particles that are by some of the new Philosophers thought to compose the Æther I lately discourse of; there may be some other kind of Corpuscles fited to have considerable operations when they find congruous Bodys to be wrought on by them.<sup>63</sup> But though, 'tis possible, and perhaps probable, that the Effects we are considering, may be plausibly explicated by the Æther, as 'tis already understood; yet I somewhat suspect that those Effects may not be due solely to the Causes they are ascribed to; but that there may be, as I was beginning to say, peculiar sorts of Corpuscles that have yet

<sup>60</sup> 'Cosmicall Suspitions' (Appendix to *Cosmicall Qualities*), *Works*, vi, 311.

<sup>61</sup> For Boyle's description of the universe according to the 'Mechanical Hypothesis', his peroration on his favored theory, see *Origine*, *Works*, v, 331–2: 'And here we have a fair occasion of our Mechanical Hypothesis: for since according to our Doctrine, the World we live in is not a Movelesse or Indigested Mass of Matter, but an *ἄυτόματον*, or *Self moving Engine*, wherein the greatest part of the common Matter is alwaies (though not still the same parts of it) in Motion.'

<sup>62</sup> *Origine*, *Works*, v, 303.

<sup>63</sup> Boyle is referring to his previous critical discussion of Descartes's theory of ether in *The Origine*, 290–6.

no distinct name, which may discover peculiar Faculties, and Ways of working, when they meet with Bodies of Such a Texture as disposes them to admit, or to concur with the Efficacy of these unknown Agents.<sup>64</sup>

This is the first of three suspicions or conjectures that come as afterthoughts to Boyle's more formal treatment of cosmical qualities. The other two concerns: the first is about laws of nature, which Boyle considers to be more numerous than one might suppose, more parochial, and less regular; the second concerns the periodic motions of celestial bodies. All three conjectures are endeavors to try the atomic hypothesis by extending its scope. It is a set of trials more like thought experiments, the endeavor of hypothetical thinking to extend its domain. In this first conjecture, Boyle attempts to move beyond Descartes's representation of the productive power of ether in the generation of the world. He is imagining a set of very subtle bodies that are able to penetrate the smallest pores of the bodies, and therefore 'discover,' that is make evident, capacities and powers in them whose origin we would not be able to explain. Thus Boyle's thinking outside the box is not here thinking beyond atomism, corpuscularism, or mechanism.

## Observing Bacon's Rule

I conclude this section with some places in *The Origine* where Boyle considers matters pertaining to Bacon's rule.

When railing against the natural philosophy of Aristotle and his Scholastic commentators, Boyle accuses them of preferring logical and metaphysical subtleties over 'Physical Observations and Reasonings,' and complains that the result of this is to retreat further into obscurity.<sup>65</sup> It may also be the case that Boyle's nominalism made him intellectually insensitive to the possibility that forms and qualities may have something other than a material existence, and that, as has been suggested, he materialized them.<sup>66</sup> If so, it was not anything that concerned him. He was not disposed to the metaphysical accounts of conceptual realists. He did not trust them. His chief objection to these doctrines was that they appeared to be invented to support a theological program. This was especially evident in the doctrine of real qualities, which, Boyle recognized is as far from Aristotle as it is from the truth.

<sup>64</sup> 'Cosmical Suspitions,' *Works*, vi.303.

<sup>65</sup> *Origine*, *Works*, v, 292; see also 295: 'For I look on Aristotle as one (though but as one amongst many) of those fam'd Antients, whose Learning about Alexanders time enobled Greece; and I readily allow him most of the prayes due to great Wits, excepting those which belong to clear-headed Naturalists'; these are lines that Bacon could have written.

<sup>66</sup> Here I follow the suggestion of Benjamin Hill, in his article 'Substantial Forms and the Rise of Modern Science,' *Saint Anselm Journal* 5/1 (Fall, 2007), 1; electronic source: [www.anselm.edu/Documents/Institute%20for%20Saint%20Anselm%20Studies/Abstracts/4.5.3.2c\\_51Hill.pdf](http://www.anselm.edu/Documents/Institute%20for%20Saint%20Anselm%20Studies/Abstracts/4.5.3.2c_51Hill.pdf). See also Boyle, *Origine*, *Works*, v, 340: 'But the summe of the controversy betwixt US and the Schools is this, whether or no the Forms of Natural things, (the Souls of Men always excepted) be in Generation *educed*, as they speak, *out of the power of Matter*, and whether these Forms be true *substantial Entities*, distinct from the other substantial Principle of Natural Bodies, namely Matter'.

What concerned him was that the doctrine of real qualities, according to which accidents can exist independently of the substance in which they properly inhere, was developed to defend theological doctrines, such as the eucharistic doctrine of transubstantiation.<sup>67</sup> That these doctrines had any independent philosophical value did not ever seem to have occurred to him.

Early in *The Origine*, Boyle reveals his personal theological ‘Perswasions’ that ‘the Origine of Motion in Matter is from God’, who also established the laws of motion of matter that may be perceived in its operations. He also asserts that God guides ‘the first Motions of the small parts of Matter’, whether directly or indirectly he does not say, so that they would come together in the formation of the world—the implication here is that there is only one world—and fashioned and designed the bodies of living creatures, endowing them with the power of propagation. Yet, having said this, Boyle excuses himself from the need of saying anything more about God’s role in these natural theological themes, since, it being his purpose only to suppose what is necessary to explain the origin of forms and qualities, he will base his comments on one principle, that the local motion of atoms, having the properties of size, shape, situation, and texture, is ‘the Grand Agent of all that happens in Nature’. And indeed he keeps to his word by abiding by this principle. To be sure, his excuse in leaving all this out is that his intention in writing *The Origine* is not to offer a complete discourse on the principles of natural philosophy. The natural theological parts that are missing in *The Origine* show up in his writings on the usefulness of natural philosophy. But these discourses are ancillary to the basic work of scientific interpretation of nature and indeed have proved to be dispensable, an outcome that would not have pleased Boyle, but which his careful scientific work facilitated. What Boyle achieved in his hypothetical reflections in *The Origine* and *Cosmological Qualities* was a pure naturalism. It was a remarkable achievement that goes unnoticed because it has become so commonplace.

## *The Christian Virtuoso*

*The Christian Virtuoso* is an unfinished work. Boyle labored over it intermittently for over two decades, composing and assembling its several parts sheet by sheet.<sup>68</sup> During this period, and despite variations in genre, his general purpose remained unchanged; he endeavored to clarify and defend his dual vocation as an experimental natural philosopher and a practicing Christian layman. He began the work in response to a challenge

<sup>67</sup> Briefly, the doctrine of transubstantiation involved acceptance that in the miracle of the Eucharist the substance of the consecrated bread and wine is converted to the body and blood of the incarnate Christ, whilst its accidental qualities remain unchanged. Since body, blood, bread, and wine are material things, it was unavoidable that natural philosophical notions would be employed in an endeavor to explain the theological event. For an account of the late Scholastic discussion of this doctrine and its implications, see Robert Pasnau, *Metaphysical Themes, 1274–1671* (Oxford: Clarendon Press, 2011), 185–90, ch. 10 *passim*, and ch. 19.

<sup>68</sup> For Boyle’s account of his method of composition, see ‘Advertisement’, *The Christian Virtuoso, The Second Part, Works*, xii, 419–30.

made by two virtuosi, who doubted that one could do both. He heeded their concern and wrote his book with a deep seriousness that went well beyond any concern for reputation or public approval. *The Christian Virtuoso* is a long and unfinished apology by a compulsive apologist, whose theme was his vocation, which was his reason for being.<sup>69</sup>

*The Christian Virtuoso* consists of two parts. The First Part was published in 1690.<sup>70</sup> In 1744, Thomas Birch published the Second Part together with an appendix to the First Part, in his edition of Boyle's works. The text was prepared from Boyle's manuscripts by Henry Miles.<sup>71</sup>

That the challenge was made at all and that Boyle took it so seriously is indicative that a crisis of atheism was looming, which was brought on, albeit only in part, by the practice of the new science and its natural philosophical underpinnings, which threatened to undermine all religion. In a previous work, *A Free Enquiry into the Vulgarly Receiv'd Notion of Nature*, Boyle had attempted to deflect criticism of atomism, which was appropriated as the new philosophy of nature, by arguing that the real cause of the rise of atheism was rather a revival of pagan natural philosophy, which attributed generative powers to nature.<sup>72</sup>

Notwithstanding Boyle's failure to publish the whole work during his lifetime, and in spite of the misadventures and disarrangement of its parts, Boyle's overall plan is not hard to discover in the work itself. Its theme is given in the title: *The Christian Virtuoso: Shewing, That by being addicted to Experimental Philosophy, a Man is rather Assisted, than Indisposed, to be a Good Christian*. In *Of the Study of the Booke of Nature*, Boyle mentions the common notion of the three books, 'The Booke of Nature, the Booke call'd Scripture, & the Booke of Conscience'. The contents of the book follow this order. The First Part of *The Christian Virtuoso* treats the books of nature and Scripture. The Second Part attends to the book of conscience; it consists of meditations on nature and biblical revelation. Read as a whole, *The Christian Virtuoso* is a work of high intelligence and profound piety. More than any other work, it exemplifies the complexity and deep intellectual conflicts of the age.

A natural philosopher or virtuoso is an interpreter of the book of nature. In the First Part, Boyle argues that a virtuoso is well disposed by his empirical methods of observation and experiment to discover the chief principles of natural religion: God, immortality

<sup>69</sup> On Boyle as apologist, see Michael Hunter, 'Self-Definition through Self-Defence: Interpreting the Apologies of Robert Boyle', *Scrupulosity and Science*, 135–56.

<sup>70</sup> *The Christian Virtuoso: Shewing, That by being addicted to Experimental Philosophy, a Man is rather Assisted, than Indisposed, to be a Good Christian* (London: John Taylor, 1690); see Michael Hunter and Edward Davis, Introductory Notes, *The Works of Robert Boyle*, xi, xlv–lxvii. There is manuscript evidence that Locke read at least the First Part of Boyle's book prior to its publication; see MS. Locke c. 27 fols. 67–8, 'Boyle, Observations on his treatise 81'; M. A. Stewart surmised that the notes recorded in this manuscript referred to the *Christian Virtuoso*, 'Locke's "Observations" on Boyle', *Locke Newsletter* 24 (1993), 21–34, at p. 25; Peter Anstey confirmed this, 'The Christian Virtuoso and John Locke', *On the Boyle* 2 (1998). Locke's notes, inscribed in 1681, focus on an early section in which Boyle explains the varieties of experience, which is a topic to be treated shortly.

<sup>71</sup> Michael Hunter and Edward Davis, Introductory Notes, *The Works of Robert Boyle*, xii, xlix–l.

<sup>72</sup> *A Free Enquiry into the Vulgarly Received Notion of Nature* (London: John Taylor, 1685/6); *Works*, x, 437–581; Boyle began the work in 1666. For further discussion of this work, see the final section of the next chapter.

of the soul, and providence, and these predispose him to divine revelation, to a rational desire 'for a Supernatural Discovery of what God would have him Believe and Do', which, once discovered, he is well prepared by empirical practice to establish its truth.<sup>73</sup> Boyle continues this argument in the Appendix to the First Part, contending that the cultivation of reason and experience make the virtuoso more fit to interpret Scripture and to defend its authenticity and doctrine.<sup>74</sup> In the Second Part, he attempts to show that, by virtue of his virtuosity, a virtuoso will excel in the practice of Christianity. As is clear from the final epigraph, Boyle undertook a bold experiment, 'trying by experiment . . . Whether by constantly endeavoring to lead a Christian life, a man may obtain peace of conscience.'<sup>75</sup> It was a dangerous experiment and it required great courage to attempt it.

The lynchpin in all these parts is experience, which a virtuoso esteems and reveres, for Boyle's apology depends upon his ability to show that in explaining and defending Christian things, it is not necessary for a virtuoso to go beyond experience and experimental practice. In the most innovative section of the First Part of *The Christian Virtuoso*, Boyle shows how he plans to accomplish this. His strategy is to enlarge the scope of experience, and thereby also to enlarge reason, by awakening the mind to things that it would not ordinarily encounter in everyday experience.<sup>76</sup> An interest in things beyond the ordinary and the superficial is precisely the state of mind of the true virtuoso, who unlike 'Superficial and Desultory Wits', may be compared to a skillful diver 'that cannot only fetch those things that lye upon the Surface of the Sea, but make his way to the very Bottom of it; and thence fetch up Pearls, Corals, and other preceious things, that in those Depths lye conceal'd from other men's Sight and Reach'.<sup>77</sup>

He observes that of 'the three grand Arguments' for the truth of Christianity, two of them are grounded on matters of fact, 'and consequently are likely to be the most prevalent upon those that have a great Veneration for Experience'. To this end, he proposes to 'enlarge the Signification of the Word [experience] beyond its commonest limits', which he accomplishes by division.<sup>78</sup> There are three sorts of experience. The first personal or immediate, which includes everything that the mind acquires by sensation or by attending to the operations of the mind. The second is historical experience, which is all that we learn from the testimony of others about things that they have directly experienced and transmit from others. To these secular commonplaces, Boyle

<sup>73</sup> *The Christian Virtuoso, The First Part, Works*, xi, 303.

<sup>74</sup> *An Appendix to the First Part of The Christian Virtuoso, Works*, xii, 369–425.

<sup>75</sup> *The Christian Virtuoso, The Second Part, Works*, xiii, 431.

<sup>76</sup> See, 'A Letter to H. O. . . about the good-Offices Revelation does to Reason', *Works*, xiv, 268, 'In the first place, Revelation grafifys & obliges Reason by disclosing to it divers excellent, desirable and to us important, Truths that Reason of it self could never have discover'd, such as the *order & Time* of the Creation of the World. . .'

<sup>77</sup> *The Christian Virtuoso, The First Part, Works*, xi, 306.

<sup>78</sup> *The Christian Virtuoso, The First Part, Works*, xi, 306–27. As noted above (n. 70), this is the section of Boyle's work on which Locke made critical comments. In this regard, Boyle's comment in this section about the mind being like 'Blank Paper' is noteworthy. Boyle attributes the doctrine to Aristotle and the Scholastics, and is non-committal concerning its truth. However, he concedes that notions that are supposed to be innate 'are but very few' in comparison to what is needed to judge matters of natural philosophy and theology; *The Christian Virtuoso, The First Part, Works*, xi, 325.

now adds theological or supernatural experience, the experience of events of divine revelation, whether by the immediate intervention of God, as in the revelation to Moses and Job, and Jesus Christ, or by the mediation of angels, prophets, apostles, or other inspired persons, which Christians receive by the testimony of Holy Scripture, the credibility of which depends upon certain matters of fact, among them, miracles.

Boyle's reason for accepting reports of such matters of fact as true is this. He notes that it is not uncommon that by personal or well-attested historical experience we come to believe things that previously we might have believed to be impossible or contrary to reason. Experience is the great enlarger of the scope of human knowledge and belief. But if this is so in secular matters, then it may be so also regarding supernatural things that we discover by well-attested reports. Here also the virtuoso has expertise in appraising the credibility of witnesses and their testimony.

The final and most remarkable part of *The Christian Virtuoso* is the Second Part. There, as I have already observed, Boyle examines the book of conscience, which is to say, his own meditations on the books of nature and Scripture. The longest section by far consists of his meditations on the nature of things.<sup>79</sup> There he displays his vast natural philosophical learning, with detailed descriptions of cosmological, anatomical, and psychological phenomena with appended thoughts about their theological significance as evidences of intelligent design. In subsequent sections, he describes personal experiences about moral and religious belief, and makes much of human consciousness and its instrumentality in achieving supernatural experience. His introduction to this theme is worth quoting in full, for it is reminiscent of a central theme of Locke's *Essay*, human consciousness, the domain of the mind and the person to which access is gained by reflection.<sup>80</sup>

To clear the way, for divers passages of the ensuing discourse, I shall, in this place, observe, that though it be a very common error, yet, it is one, that I think very prejudicial, not only to physics, but to divers things, that are of a moral nature, to suppose, that no experience, or at least none considerable (or useful) can be had, but of things, that are *without* us; that is, of external things, and their operations upon one another, and upon our bodies. Where, indeed, divers of the most certain, and perhaps of the most important notices, we have, by experience, are afforded us, by the *internal* operations of our own faculties, and the perceptions we have, of what passes within ourselves. So that, for an experimental knowledge of several things, that highly concern us, we need, neither mathematical instruments, nor chemical furnaces, but only a due attention to those things, that are transacted within ourselves, and make impressions on us, whereto we can scarce avoid the finding of ourselves conscious.<sup>81</sup>

<sup>79</sup> *The Christian Virtuoso, The Second Part, Works*, xii, 423–507.

<sup>80</sup> There is no evidence that Locke read any of the Second Part. Any coincidence in their points of view must be due to the familiarity and mutuality between them. There can be no doubt that Boyle and Locke were each aware of the other's intellectual projects, Boyle of Locke's *Essay* and Locke of Boyle's *Christian Virtuoso*.

<sup>81</sup> *The Christian Virtuoso, The Second Part, Works*, xii, 508.

### 3

## Epicurus, Lucretius, and the Crisis of Atheism

Thou great *Lucretius*! Thou profound Oracle of Wit and Sence! thou art no Trifling-Landskip-Poet, no Fantastick Heroick Dreamer, with empty Descriptions of Impossibilities, and mighty founding Nothings. Thou reconcil'st Philosophy with Verse, and dost, almost alone, demonstrate that Poetry and Good Sence may go together.<sup>1</sup>

Nature, if this you rightly understand,  
Will thus appeare free from the proud command  
Of soveraigne power, who of her own accord  
Doth all things act, subjected to no lord.  
The Gods doe in eternall calmnesse rest  
Their holy lives with quiet pleasures blest.<sup>2</sup>  
*Lucretius* Englished, Natures great *Code*  
And *Digest* too, where her deep Laws so show'd,  
That what we thought mysteriously perplex'd,  
Translated thus, both *Comment* is and *Text*;  
This polishd Key opens and lets us in  
To her Conclave, Treasure and Magazin,  
Where she majestick in bright rays appears,  
Unveil'd o'th'Cloud of seventeen hundred years. . .  
How spruce (thus trimm'd) Philosophy looks now,  
Which was *morose* before in beard and grow?<sup>3</sup>

If I am not mistaken, the distinguishing Character of Lucretius; (I mean of his Soul and Genius) is a certain kind of noble pride, and positive assertion of his Opinions. He is every where confident of his own reason, and assuming an absolute command not only over his vulgar Reader, but even his Patron *Memmius*. For

<sup>1</sup> Thomas Shadwell, *The Virtuoso* (London: Henry Herringman, 1676), 1.

<sup>2</sup> Lucretius/Hutchinson, 2.1118–23; see also Hutchinson's marginal comment: 'Of the undisturbed quiet of the Gods and the free actings of nature ———Horribly Impious——'. See also Edmund Waller, who expresses similar sentiments in his dedicatory poem to Evelyn's Lucretius, John Evelyn, *An Essay on the First Book of T. Lucretius Carus De rerum natura* (London, 1656), 3: 'Lucretius. . ./Comes to proclaim in English Verse/No Monarch Rules the Universe;/But chance and Atomes make this *All*/in Order Democratical,/Where Bodies freely run their course,/Without design, or Fate, or Force'; and in a marginal note, 'not that the Interpreter doth justify this irreligiion of the Poet, whose Arguments he afterwards refutes'.

<sup>3</sup> Sir Richard Brown, Dedicatory poem, Evelyn, *An Essay on the First Book of T. Lucretius Carus*, 1.



he is always bidding him attend, as if he had the Rod over him; and using a Magisterial authority, while he instructs him ... From this Sublime and daring Genius of his, it must of necessity come to pass, that his thoughts must be Masculine, full of Argumentation, and that sufficiently warm. But he was bent on making *Memmius* a Materialist, and teaching him to defie an invisible power: In short, he was so much an Atheist that he forgot sometimes to be a Poet.<sup>4</sup>

... for understanding this crabbed poet, became my shame, & I found I never understood him till I learnt to abhorre him, & dread a wanton dalliance with impious bookes.<sup>5</sup>

For there is no doubt to be made, but that there hath been atheism lurking in the minds of some or other in all ages; and perhaps some of those ancient Atheists did endeavour to philosophize too, as well as they could, in some other way.<sup>6</sup>

Forasmuch as God Almighty is incomprehensible, it followeth that we can have no conception or image of the Deity; and consequently all his attributes signify our inability and defect of power to conceive any thing concerning his nature and not any conception of the same, excepting only: *that there is a God.*<sup>7</sup>

And though some over-credulous persons have been so far imposed upon ... as to conclude, that there was hardly any such thing as an Atheist any where in the world, yet they, that are sagacious, may easily look through these thin veils and disguises, and perceive these Atheists oftentimes insinuating their atheism even then, when they most of all profess themselves Theists, by affirming, that it is impossible to have any idea or conception at all of God...<sup>8</sup>

## Introduction

The task of the history of philosophy, which is a special branch of intellectual history, is to represent the coherence and plausibility of philosophical thought, or the lack thereof, during a particular period of the past. This is what I want to achieve here. Coherence involves the overall rational consistency achieved in combining diverse elements of thought, key ideas and their contexts, that comprise the intellectual or philosophical content of a particular work or system or school of thought. Plausibility is the likelihood of their truth, of parts and wholes and their syntheses. In all respects, coherence and plausibility are regarded as they would have been judged by a rational person who lived in the period under review. Interpretations of this sort can never be certain, but I am confident, by careful reading of texts in their proper contexts and by

<sup>4</sup> John Dryden, *Sylvae, or The Second Part of Poetical Miscellanies* (London, 1693), Preface, A6<sup>r</sup>–A7<sup>r</sup>; Dryden's translations from *DRN* appear on 52–99; these translations of 1.1–40; 2.161; 3.830–1090; 4.1052–287; 5.221–34.

<sup>5</sup> Lucy Hutchinson, Dedication to her translation of *De rerum natura, The Works of Lucy Hutchinson*, Reid Barbour and David Norbrook, eds. (Oxford: Oxford University Press, 2012), i, 13.

<sup>6</sup> Ralph Cudworth, *The True Intellectual System of the Universe, to which are added the Notes and Dissertations of Dr. J. L. Mosheim*, 3 vols. (Bristol: Thoemmes Press, 1995), i, 34.

<sup>7</sup> Thomas Hobbes, *The Elements of Law Natural and Politic*, A. H. Gaskin, ed. (Oxford: Oxford University Press, 1994), Part I, Ch. xi, 65.

<sup>8</sup> *True Intellectual System*, i, 105–6.

critical reflection on what one discovers from this, that significant progress can be made toward this goal. If I have failed in this endeavor, either because of poor scholarship or because I have labored at an impossible task, I am sure reviewers will say so and, I hope, give reasons for their judgment.

In the previous two chapters, I have identified the elements combined in the idea of Christian virtuosity so far as this is evident in the work of two of its most outstanding proponents. There, I have attended more to the coherence of the parts and the ingenuity displayed in combining them than to their plausibility. The present chapter is more concerned about the strained plausibility of the idea, the uneasy fit of the parts. Here my main purpose is to represent the obstacles to achieving a plausible synthesis of Christianity and virtuosity. I will do this by showing that representatives of Christian virtuosity were embroiled in an intellectual crisis that they could not ignore, and for which, because of their vocation, they were responsible. Atheism was a shadow that they could not escape, for it was their very own.

The crisis arose out of a perceived incompatibility of two key ideas central to their program: the sufficiency of material nature, and the omnipotence of God. The atomism of Lucretius was for them the most plausible theory of the nature of things; it became the hypothetical anchor that enabled them to portray the depths of nature; a hinge upon which all their thoughts about the real world could turn. The omnipotence of God was the foundation of all their hopes for life in a world to come, the assurance of things not seen.

Here as in the previous chapters, my focus will be on particular individuals and their writings, which I take to exemplify the conflict and the intellectual crisis that arose from it.<sup>9</sup>

The crisis, as signified in the title of this chapter, was an intellectual one in which settled opinions concerning God, nature, religion, right reason, morality, the norms and bonds of civil society, and, overall, the meaning of existence became unsettled. I call it a crisis of atheism, because as things then stood, belief in God as creator and governor of the universe was commonly supposed to be the lynchpin of all the other beliefs and obligations that pertained to human kind and its place in the nature of things. I could just as well have called it a crisis of Epicureanism, because the favorable reception of Epicurean naturalism made it seem plausible in the minds of many that beliefs in divine creation and providence, and in human immortality, were false. Of

<sup>9</sup> The crisis has not been dealt with adequately by two leading English schools of interpretation. One, represented by Jonathan Israel in his *Radical Enlightenment* (Oxford: Oxford University Press, 2001) and subsequent works; the other by Dmitri Levitin, *Ancient Wisdom in the Age of the New Science* (Cambridge: Cambridge University Press, 2015), who represents the so-called Cambridge school of intellectual history. Israel rightly acknowledges the presence of atheism. But he polarizes the figures involved: those who are radical, following Spinoza, and all the rest, who are held back by traditional modes of thought. Levitin rightly disputes this aspect of traditionalism, and calls attention to the ingenuity of Bacon, Boyle, Locke, and Newton. But he is complacent in his acceptance of their syntheses, as though they were unaware of its problematic nature. Moreover, whereas Israel has allowed retrospect to play too great a role in his interpretations, Levitin seems to be under the illusion that one can understand the past without regard to its outcome.

course, this is an oversimplification. The relation between philosophical beliefs, moral rules, religious hopes, and social conventions and institutions is not mechanical and unidirectional, as though they were aligned like dominoes. Nevertheless, I am confident that the explanation I have given sufficiently describes the intellectual context for virtuosi and other cultivated persons during the seventeenth century in England, and I believe that for them it was first and foremost an intellectual crisis with broad social and psychological effects.

I should add that the personages whose thought is represented in this study were very much aware of this crisis and struggled to overcome it. This effort is evident in the remarkable synthesis achieved by Francis Bacon, and in Boyle's modeling and exemplifying of the character of a Christian virtuoso and other ingenious efforts to deflect the full force of materialism and naturalism. In the second part of this study, I will explore the several ways that Locke confronted the crisis and sought to overcome it or at least find relief from it.

Epicurus was an atomist. Atomism had its roots in antiquity, in the speculative trials of the Presocratics that reached fruition in the natural philosophies of Leucippus and Democritus. It was subsequently adopted and modified by Epicurus, and was transmitted to early modern Europe through a number of classical Greek and Roman sources, chief among them Book X of Diogenes Laertius' *Lives of Eminent Philosophers* and Lucretius' *De rerum natura*.<sup>10</sup> The philosophical preeminence of Epicurean philosophy was, in part, although not altogether, a consequence of the revolution in philosophy wrought by Francis Bacon. It was on account of Bacon's revaluation of the philosophical tradition of antiquity that atomism, or one or another of its close cousins, came to be established as the ruling hypothesis of the new natural philosophy, replacing Aristotelian physics. And with this recognition there arose an interest in the classical sources of Epicurean philosophy, in the Presocratics and especially in Democritus.

The crisis of atheism arose because atomism provided a plausible account of the sufficiency of nature, of the sufficiency of generative matter to cause all things, and not only physical things narrowly conceived, complex bodies and their effects, but also, by virtue of emergent powers inherent in it, reason, morality, human society, religion, law, and the institutions of government; and because it supposed that nature's affects, the sentiments of pleasure and pain, rather than its causes are the principles of good and evil, which, like all other sorts and conditions of things, are not everlasting, but contingent and subject to revision.<sup>11</sup>

<sup>10</sup> See Stephen Greenblatt, *The Swerve: How the World Became Modern* (New York: W. W. Norton & Company, 2012) for an entertaining account of the recovery of Lucretius' text and its broad modern influence.

<sup>11</sup> I disagree with claim made by A. P. Martinich that it was difficult during the seventeenth century to be a theoretical atheist 'because there were virtually no atheistic models of reality from which a philosopher might draw inspiration to construct his own', *The Two Gods of Leviathan* (Cambridge: Cambridge University Press, 1992), 40, which overlooks the influence of Epicureanism, and the general acceptance of Lucretius' *De rerum natura* as a natural philosophical work of great merit. This oversight is puzzling given the theme of Martinich's work, which in every other way is useful and informative.

Strictly speaking, neither Epicurus nor Lucretius was an atheist. They affirmed that gods exist and that their existence was common knowledge. But the Epicurean gods were products of nature, like everything else, material, and they were altogether lacking in interest and power to intervene in human affairs. Epicurus claimed that real images of divine beings were commonly perceived by the mind; these were the effluvia of divine bodies, which, being too subtle to affect the senses, passed unnoticed through the body's pores and reached the inner sensorium of the mind, where they were cast, as it were, on the screen of the imagination, whence they were perceived in dreams and reveries, and engendered fantastic beliefs.<sup>12</sup> These gods or spirits of the air provided no benefit to mankind but images of tranquility and contentment, a benefit that could be valued only by learning, from the nature of things, that the gods care nothing for us and do nothing for us. Epicurus counseled that we, like the gods, should learn to find contentment in the simple pleasures that nature provides and not to seek our happiness beyond it. One of the great gifts that Lucretius, Epicurus' poet-evangelist, has bequeathed to European culture is memorialized in his descriptions of pastoral serenity and physical joy.

Furthermore, Epicureans denied the divine creation of the world and its providential government. And because of this, like Spinoza, they were regarded as atheists.<sup>13</sup> They were also anti-humanists, who perceived no privileged place of power or dominion for mankind in the universe let alone beyond it. They were deniers of human immortality, of intellect and reason as cosmological principles, of divinely appointed eternal laws of nature, of promises of reward and threats of punishment as motives for living well. Rather, Epicureans maintained that there is nothing eternal but matter and void, that the universe consists of an infinity of worlds of limited duration, chance configurations of matter in the infinite void, yet sublime objects of contemplation in their infinite setting, whose existence is the product of the impact and concurrence of atoms, guided by nothing else but chance and necessity, preserved for a limited duration by inertia and opportunity, existing without purpose; they imagined that all laws of nature were the outcome of trials and experiments, natural covenants of limited duration, coalitions of insensible particles, unforeseen and unplanned. Likewise human laws and institutions were rules of convenience, established by convention,

<sup>12</sup> On Lucretius' account, the gods were presumed to be sensible, intelligent beings, and immortal because of their beauty and stature, and because their images always showed them to be the same; see *DRN*, 5.1169–82.

<sup>13</sup> The key text concerning Spinoza's theism is the Appendix to the first book of his *Ethics*. Unlike modern Epicureans, Spinoza accepted intellect and reason as cosmological principles, and 'God's Idea' as the necessary order of all things. Yet he denies final causes and providence, attributing all things not to the free will of God but to his absolute nature, which is nature itself, and which is unaccommodated to human desires. Like Lucretius, and perhaps after him, he denies that God created the world for man so that man might worship God, affirms the eternity of nature, through the course of which the generative power of nature creates all possible varieties and combinations of things, without any purpose; see *The Collected Works of Spinoza*, 2 vols., Edwin Curley, ed. (Princeton: Princeton University Press, 1985, 2016), i, 439–46; *DRN*, 5.414–508, and *passim*. This is to reduce or to elevate—depending upon one's preference—God to nature; for further discussion, see the final section of this chapter.

covenants, tried by experience, for they were experimental products of living. Epicurean philosophy reduced everything to nature, which, as a whole, is infinite in expanse and of eternal duration, and, with an irresistible and sublime simplicity, it showed how every natural thing was a product of the generative power of matter.

Notwithstanding attempts to Christianize Epicureanism, or to spiritualize it, its pagan sources were prominent reminders of the power and efficiency of unvarnished Epicurean doctrine, of its pure naturalism.<sup>14</sup> The undisputed excellence of Epicurean literary sources, their clarity, and the self-assurance, moral integrity, and sublimity of their descriptions of nature, and the self-assurance of their author's voices commended their doctrine to virtuosi and the cultivated elite, all of whom were schooled in humanist traditions. Editors and translators of these classical writings were, because they embraced Christianity and yet were committed to classical learning, conflicted in their minds and ambivalent toward their subject. Their examples prove that the reception of Epicurean works was ambiguous and contradictory.<sup>15</sup> The writings of Epicurus and the sublime poem of Lucretius were like forbidden fruit that could not be resisted.

This chapter is about the reception of Epicurus and Lucretius and its effects on those who received it during a limited period and in a particular place.<sup>16</sup> It falls into three parts. First, I examine the case of translators of Lucretius' work, whose ambivalence toward it may be taken as a symptom of the crisis of atheism. Next I consider the reception of Epicurus and Lucretius among the libertine wits. I will focus on the most eminent of these, John Wilmot, the second Earl of Rochester. Rochester allows us to view the multidimensional character of the crisis of atheism, but because my concern here is with an intellectual crisis, I will focus on his philosophical opinions, which were not lacking in sophistication. Finally, I will consider briefly some philosophical contributions and responses to the crisis.

From all of this, I hope to show that the receivers of *De rerum natura* were fully cognizant of its philosophical doctrine and its implications, that they experienced a

<sup>14</sup> The arch-Christianizer was Gassendi; what is often overlooked is that alchemists and 'chymists', such as J. B. Van Helmont, appropriated from Lucretius their notions of material spirits, that is, subtle minute seeds that flowed throughout the body, leaving it at death, and transferring to another gross body; see Walter Pagel, *The Religious and Philosophical Aspects of van Helmont's Science and Medicine* (Baltimore; Johns Hopkins University Press, 1944), 22–3, n. 70. It would highly misleading, therefore, to regard them as providing an alternative independent source of a modern theory of matter.

<sup>15</sup> As David Norbrook so aptly put it, 'In the reception of *de rerum natura*, ambiguity and contradiction are the rule rather than the exception'; Introduction, *The Works of Lucy Hutchinson*, i, xviii.

<sup>16</sup> Had I the time, space, and competence, I would have preferred to base this account on a more comprehensive account of the *fortuna* of the Epicurean writings, especially Lucretius during Late Antiquity and the European Renaissance down to the early modern period, following the example of Charles B. Schmitt; see his *Cicero Scepticus* (The Hague: Martinus Nijhoff, 1972), 1–5; Schmitt describes a three-stage process of reception of a text consisting of its diffusion or distribution, influence, and transformation. Under influence he includes translations, commentaries, and the use of concepts and terms. Transformation signifies the appropriation, adaptation, and assimilation of the content received in the point of view of the receivers. I have more or less followed this scheme. But a fourth stage must be added to this, namely, the disturbances and crises that were brought on by the reception of certain works or that made them receivable. This is a major part of my concern here.

deep and irresolvable ambivalence toward it, and yet, in the end, made accommodations with it. Needless to say, almost all of these personages were convinced of the plausibility of Epicurean naturalism and desired to make it compatible with their Christian faith.

## The Poets

Four complete translations of *De rerum natura* into English were done during the seventeenth century, three in verse and one in prose: John Evelyn (1620–1706), Lucy Hutchinson (1620–81), Thomas Creech (1659–1700), and an anonymous prose translation. John Dryden (1631–1700) translated parts of it.<sup>17</sup> I will consider only Evelyn and Hutchinson, for their responses best highlight the crisis of atheism.

### *John Evelyn's ambition*

While still relatively young, Evelyn considered translating Lucretius as an opportunity to make his reputation as translator of a work by a sublime poet on what was, next to God, the most exalted of themes.<sup>18</sup> To his father-in-law, Richard Brown, who contributed a dedicatory ode, the poem mattered, because it contained 'Natures great *Code* and *Digest* too', which now after 1,700 years had been revived and was about to be offered to the world in English. It would be a monument to this enlightened age. Evelyn said as much and more: 'For our *Poet* seems here to have been of counsel with *Nature* herself when she disposed the Principles of things... and framed that beautiful *Machine*, which we daily contemplate with so much variety and admiration... In this Piece, it is *She* who sits triumphant...'<sup>19</sup> But he had other interests besides and perhaps above natural philosophy. There was the work itself. As Edmund Waller put it, verse translations of the great Roman poets, Horace, Lucan, Ovid, and Virgil, had already

<sup>17</sup> The Bodleian Library possesses an anonymous prose translation of *De rerum natura*, which may have been done in the early seventeenth century: Bodl. MS. Rawl. D. 314; an extract from it is printed in *Lucy Hutchinson's Translation of Lucretius*, Hugh de Quehen, ed. (Lansing, MI: University of Michigan Press, 1996), 237–40.

<sup>18</sup> Evelyn published only his translation of the first book of Lucretius with a commentary in 1656; translations of Books 3–6 remained in manuscript. He was in his thirties, which was not so young, but see his letter to Meric Casaubon, July 15 [1670?]: 'I was very young, & therefore very rash, when I adventur'd upon that knotty piece', quoted by David Norbrook, *Works of Lucy Hutchinson*, i, cx–xi. For a searching account of the young John Evelyn's ambitions, see Michael Hunter, 'John Evelyn in the 1650s: A Virtuoso in Quest of a Role', *Science and the Shape of Orthodoxy* (Woodbridge: Boydell Press, 1995), 67–98. For the texts of Evelyn's translations and his commentary to Book 1, see *John Evelyn's Translations of Titus Lucretius Carus De rerum natura*, Michael M. Repetzki, ed. (Frankfurt: Peter Lang, 2000), hereafter referred to as Repetzki.

<sup>19</sup> 'The Interpreter to Him that Reads', Repetzki, 6; see also Brown's concluding verses: "'Tis thus, Inspir'd Lucretius, alone,/Is th' Oracle of all that can be knowne;/Steward to Fate, Creations Notary, / Truths Register, Natures Secretary./Proceed (dear Youth) and in thy noble Verse/Perfect this Canon of the Universe,/For great example to thy self prefix/That Architect, which wrought from one to Six', Repetzki, 8.

been made. Only Lucretius remained to be translated; it was the most formidable task, but more worthy than all the others.<sup>20</sup>

There was no doubt in Evelyn's mind that Lucretius was a great poet: 'our *Carus* hath erected this everlasting *Arch* to [Nature's] memory, so full of Ornament and exquisite Workmanship, as nothing of this kind hath ever or approached, or exceeded it'.<sup>21</sup> Hence, he labored to gain glory and fortune for himself by going after 'the rich *Lucretius*', whose poem he likened, in a Baconian mode, to a new continent, abundant in resources, in need not only of a discoverer but also of a conqueror, which for a time, he imagined he might be.

'Tis true, Perswaded that there was rich Ore,  
I boldly Launch'd, & would new Worlds explore:  
Deep Mines I saw, and hidden Wealth to lie . . .  
I saw a fruitful Soil, by none yet trod,  
Reserv'd for *Hero's*, or some *Demi-God*;  
And urg'd my fortune on;  
'Til rugged billows, and a dang'rous Coast  
My vent'rous Bark, and rash Attempt had Crost;  
When Landing, un-known Paths, and hard access,  
Made me despond of Pre-conceiv'd success;  
I turn'd my Prow, and the Discov'ry made,  
But was too Weak, too Poor my self to Trade,  
Much less to make a Conquest and Subdue . . .<sup>22</sup>

In the end, the venture proved too dangerous for him, his resolution paled, and he lost courage.<sup>23</sup>

What sort of riches did he seek? As already noted, they concerned poetry and philosophy. Evelyn's desire was no doubt to present to the world an interpretation of Lucretius' poem that was profoundly instructive, edifying, and ennobling; it would

<sup>20</sup> Edmund Waller, dedicatory poem, Repetzki, 9: '*Ovid* translated, *Virgil* too/Shew'd long since what our Tongue could do;/Nor *Lucan* we, or *Horace* shar'd/Onely *Lucretius* as too hard./*Lucretius*, like a Fort did stand/Untoucht, till your Victorious hand/Did from his head this garland bear,/Which now upon you own You wear:/A Garland made of such new Bays/And sought in such untrodden ways,/As no man's Temples ere did Crown,/Save this great Authors and your own.'

<sup>21</sup> Repetzki, 9.

<sup>22</sup> Ode to Thomas Creech, Repetzki, 234.

<sup>23</sup> That Evelyn was motivated by literary ambition did not go unnoticed by Lucy Hutchinson, who in the dedication of her translation contrasts her modesty to Evelyn's masculine vanity: '(though a masculine Witt hath thought it worth printing his head in a lawrell crowne for the version of one of these books [Book I of *De rerum naturalia*]) I am so farre from glorijing in my six'; see her dedication (*The Works of Lucy Hutchinson*, i, 5); when admonished by Meric Causabon that his time might have been better spent translating a more acceptable author, Evelyn responded in a similar vein: 'I was very young, & therefore very rash, or ambitious, when I ventur'd on that notty piece', Hutchinson, *The Works of Lucy Hutchinson*, i, cx. Prominent among the risks that Evelyn faced was that he would be accused of being a mortalist, a defender of the doctrine that the human soul, like the body, is naturally begotten and, like it, mortal; see David Norbrook, 'Introduction', Hutchinson, *The Works of Lucy Hutchinson*, i, lxxvii–viii, who makes a very good case for this. Norbrook reveals that Evelyn was encouraged to advocate this doctrine by William Rand, a physician and member of the Hartlib circle, who gave enthusiastic support to the Epicurean doctrines of infinite space and matter, and the infinity of worlds.

become a great monument of the English language. The richness of the poem made him sure that it could be done.

But, in his mind, reaching this goal required a hazardous journey. The 'rugged billows' that he had to cross were all those things that were incompatible with his Christian theist outlook, but which had been woven into the fabric of Lucretius' poem. In his 'Animadversions' to the first book of *De rerum natura*, he suggests that it might be possible to rescue Lucretius from Epicurus, by correcting his doctrine in an accompanying commentary. He writes that Epicurus had 'infected' Lucretius with the doctrine of divine indifference, that God or the gods take no notice of human affairs, are ignorant of petitions or sacrifice, have no interest in the good or evil actions of men, and play no part in the operations of nature.<sup>24</sup> Good and evil are matters of convenience and are mere conventions. He quotes Lactantius:

*Dissolvitur autem religio, si credamus Epicuro illa dicenti, Be this our Faith, and farewell all Religion, as Father Lactantius hath it, reciting this passage... For it is a sad truth, that the Doctrine of Epicurus had infected our Carus, though not with a positive belief (as some will have it) that there were indeed no Gods at all; yet with an opinion, that they did not interest themselves in humane affairs, or were at all concerned with the productions of Nature; which they affirmed came to pass from other causes, and sine delicto, as it were, good and bad sharing alike in this world.*<sup>25</sup>

Yet in his preface, he seems unworried and invokes the tradition of classical learning. He is scornful and dismissive of any detractors. He responds to the objection that Lucretius' poem is '*Irreligious and Prophane*' and, hence, unfit to be read by Christians, by casting the objectors as arrogant fools, peevish, and nice. One might as well get rid of all the classics of antiquity.

I would likewise enquire, why those nicer and peevish spirits should at all approve, or in the least make use of any other *Heathen Writer* whatsoever? The *Stoicks* affirmed God... to be fast linked to a *Series of Second Causes*... *Plato* was a *Leveller*, and would have *Wives* and most other things to be profane and by no means improper: *Aristotle* bears us in hand that the *World is Eternal*... In fine, why do we read any *Poet* of them all, since there is not exempt of the most gross and absurd fictions, apparent *Levities*, and horrible *Impieties* imaginable? ... And if our *Poet* have any one passage (as where he prevaricates on *Providence*, the *Immortality of the Soul*, the spontaneous coalition of *Principles* and some other sublime points of speculative *Theologie*) which seems to concern, or be any whit obnoxious to our *Faith*; he hath a thousand more, where amongst the rest of his most excellent *Precepts*, and rare discourses, he persuades to a life the most exact and *Moral*.

<sup>24</sup> 'Gods in their Nature of themselves subsist/'Tis certain; nor may ought their peace molest,/For ever, unconcern'd with our affairs./So far remote, void of our grief or cares,/Need not our service, swim in full content,/Nor our good works accept, nor bad resent,' Repetzki, 25; Cicero argued that a well-founded belief in divine providence, in the gods' care and direction of human affairs, is the foundation not only of piety, holiness, religion, but of all the civic virtues as well, *De natura deorum*, I.i-ii.

<sup>25</sup> *An Essay on the First Book of Lucretius Carus De rerum natura* (London, 1656), 104.



He concludes by quoting Gassendi, who was his friend, who admonished detractors of his revival of the philosophy of Epicurus, that it is unworthy of civilized mankind to blot out so much good to get rid of a little evil; it would be like destroying a rose garden on account of the thorns.<sup>26</sup> But this is an understatement of the problem. The evils Evelyn mentions are not minor: Stoic determinism denied both divine and human freedom, Aristotle maintained that the universe was eternal and therefore had no need of a creator, Plato desecrated marriage and denied social privilege, and Lucretius denied divine creation, providence, and human immortality. In sum, any reason that justified banishing Lucretius from our minds must apply with equal force against any Greek or Roman philosopher. This consequence was unthinkable to him. But he left unanswered the question why read any of the classics? This remains a question that intellectual historians must answer if they are fully to explain the intellectual conflicts and controversies of early modern Europe.

What should be clear from all this is that Evelyn was well aware of the fundamental incompatibility of Lucretius' naturalism, not to mention of classical culture, with the moral world of Christianity, and yet he held both to be true. He did not naively suppose that they could be easily harmonized and, finally, he may have despaired over this. Yet his Christian interests were not powerful enough to cause him to turn his back on Lucretius or on classical learning altogether. Thus, while it is no doubt true that the dictates of the Christian religion were impressed upon his conscience, it is also true that the full array of classical culture, all of its dictates and sentiments, moral and aesthetic, were impressed there also. Neither could be effaced, nor did he desire it.

### *Lucy's Hutchinson's regret*

Lucy Hutchinson thought otherwise, although probably not at first. Like Evelyn, her translation was done during the 1650s.<sup>27</sup> The only surviving copy of it is one inscribed about two decades later, which she prepared and presented to Arthur Annesley, first Earl of Anglesey (1614–86), at his request or 'command'. The preparation and circulation of manuscripts were an alternative mode of publication widely practiced during the seventeenth century.<sup>28</sup> The manuscript is undated, but in the dedication Hutchinson refers to Anglesey as Lord Privy Seal, an office that he held from 1673 to 1682. Hutchinson died in 1681.

Both her translation and her dedication to Anglesey, written more than two decades later, are remarkable literary achievements in their own right and they are invaluable sources for an understanding of the conflicted philosophical, religious, and political situation of the period, all the more so because they are by the same author and about the same subject, Lucretius' *De rerum natura*. It shows that the crisis of atheism was not only a public matter, but had taken its seat in the mind. The translation and the dedication

<sup>26</sup> Repetzki, 6.

<sup>27</sup> The only sure reference to it dates from 1658; see *The Works of Lucy Hutchinson*, Introduction, i, xxiii.

<sup>28</sup> See Harold Love, *Scribal Publication in Seventeenth-Century England* (Oxford: Oxford University Press, 1993), ch. 1 and passim.

express two conflicting moods, one of cultivated curiosity, the other of sheer contempt. Together they reveal a divided mind.

Hutchinson's translation excels those of Evelyn and Creech in clarity and precision of its philosophical content, which is presented with an economy of words and fidelity to Lucretius text.<sup>29</sup> In the dedication, she appears to demean her work as translator by conflating it with other tasks purportedly more suitable for a woman in her situation, like overseeing the tuition of her children, or doing needlework.<sup>30</sup> Like Evelyn, she excuses herself by describing her motive to translate Lucretius as 'youthful curiosity', although both were over thirty when they produced their translations; their minds were well cultivated and their consciences well formed. There is no doubt curiosity moved her, but what she accomplished shows that it was a sophisticated philosophical curiosity. In remarks written near the end of her life, she writes that she became curious about the origin of things, which suggests an interest in natural philosophy, not as a virtuoso perhaps, but as a cultivated gentlewoman of parts.<sup>31</sup> In her *Memoirs of the Life of Colonel Hutchinson*, she writes approvingly that her husband spared no cost on the education of his sons and daughters 'in languages sciences musick dancing and all other quallities befitting their fathers house'. Commenting on this, David Norbrook writes, 'In this atmosphere of refined pedagogy, Lucy Hutchinson's translation of Lucretius, an author of fashionable interest in the 1650s, fitted into a larger pattern.' He imagines that the Hutchinsons' country house at that time was a place of philosophical quietness of a sort that may have prevailed in Epicurus' garden, and that life in the Hutchinson household 'resembled on a smaller scale the houses kept by John Hutchinson's Royalist rival William Cavendish, the earl of Newcastle, a centre for the display of fine works of art, ingenious landscaping and cultivated recreation', and one should add, philosophical conversation.<sup>32</sup> And this is just the mood that the translation itself conveys. The whole work reveals a patient effort to convey what Lucretius had written, and most especially his philosophical doctrine. Her presentations of the doctrines and arguments of Lucretius are objective, discerning, and sensitive, so that one not only meets clear and precise meanings, but also gains a tangible sense of the realities

<sup>29</sup> See David Norbrook, Introduction, *The Works of Lucy Hutchinson*, i, xcvi: 'At a very basic level, [Hutchinson] tries to follow [Lucretius'] processes of thought, aiming at a Latinate concision, so that she can render those stretches of the poem line for line.' In what follows, I have relied heavily on the critical edition of Hutchinson's Lucretius edited by Reid Barbour and David Norbrook (*The Works of Lucy Hutchinson*, vol. I/i); the introduction to this edition was written by Norbrook; Barbour prepared the text and commentary.

<sup>30</sup> *Works of Lucy Hutchinson* i, 7; more discussion of this remark follows below.

<sup>31</sup> '[T]he vain curiosity of youth has drawn me to consider and translate the account some old poets and philosophers give of the origin of things: which though I found it necessary to have recourse to the fountain of Truth, to wash out all ugly wild impressions, and fortify my mind with a strong antidote against all the poison of human wit and wisdom that I have been dabbling withal'; *Order and Disorder*, David Norbrook, ed. (Oxford: Blackwell, 2001), 3; there is only one surviving manuscript of *Order and Disorder*, which is dated 1664; it belonged to the Countess of Rochester, the mother of John Wilmot, the second earl; the first five cantos of this work were published in 1679 along with the preface, from which these remarks are extracted.

<sup>32</sup> David Norbrook, Introduction, *Works of Lucy Hutchinson*, i, xxvii–viii.

they represent and the passions they evoke, calm or exalted. The arguments that she wrote as a preface to each book and, with notable exceptions, the marginal notes are plain, expository, and non-judgmental.

Proof of all of this is in the work itself, where she faithfully renders without comment doctrines that would become odious to her, such as the indifference of the gods, the infinity of space, the eternity of matter and its sufficiency through random motion and impact to create worlds and the manifold creatures that inhabit them, the mortality of the human soul. I quote one instance that seems especially cogent. In the following, Epicurus is represented as hero and savior, who has navigated the vast extent of the universe, attained supreme knowledge of all things, their duration and their powers, and by this delivered mankind from oppression, trampling *religio*, here translated as superstition, underfoot.

When humane life on earth was much distrest,  
 With burth'some superstition sore oppress,  
 Who from the starry regions shewd her head,  
 And with fierce lookes poore mortalls menaced,  
 A Greek it was that first durst lift his eies  
 Against her, and oppose her tyrannies;  
 Whose courage neither heav'ns loud threatnings quelld,  
 Nor tales of Gods, nor thunder bolts repelld,  
 But rather did his valour animate,  
 To force his way through natures closeboard gate;  
 Wherefore his vigorous soule prevaield, and farre  
 He went beyond those flaming walls which are  
 Bounds to the Universe, his conquering thought  
 Searcht into every depth, from whence he brought  
 The knowledge of all things to light, and taught  
 What could admitt beginnings, what could not,  
 What powers are limited, and what are free,  
 And why the bounds of things still fixed be.  
 Thus in her turne now superstition lies  
 Trod downe, while victorie heav's us to the skies.<sup>33</sup>

There is no doubt that she must have found some of Epicurus' doctrines cogent and congenial. It must have pleased her to imagine pagan religion trodden underfoot by truth; and she clearly grasped the significance of this not only for religion but also for politics. Lucretius' opinions concerning human corruption, the mortality of the world, the vanity of kings and tyrants were congenial to her own; and his accounts of the trials

<sup>33</sup> *Works of Lucy Hutchinson*, ii, 21–3, ll. 62–80; Gassendi expresses a like sentiment in a letter to Galileo; indeed, he seems to be alluding to this very passage: 'First, my Galileo, I would like you to consider yourself assured that I embrace your Copernican opinion in Astronomy with so much mental pleasure that because of it, I seem to be liberated and wander with free mind through the immense spaces, the barriers of the common system of the world having been broken off', quoted by Antonia LoLordo, *Pierre Gassendi and the Birth of Early Modern Philosophy* (Cambridge: Cambridge University Press, 2007), 25.

and misadventures of civil societies must have seemed prescient to her.<sup>34</sup> These were all matters that harmonized easily with her Puritan and Republican sentiments and with England's troubles. Yet neither partiality nor disdain, but only curiosity and a translator's fidelity are expressed in her achievement.

By the middle of the 1670s, when the presentation copy was made, Hutchinson had undergone a profound change of attitude toward *De rerum natura* and her translation of it. This change of mind is plainly expressed in six marginalia that differ in tenor from all the rest. They accuse Lucretius of madness, and his poem of gross impiety and obscenity. The Epicurean doctrines of the indifference of the gods to human affairs and of the autonomy and self-sufficiency of nature are labeled 'impious' and 'horribly impious.'<sup>35</sup> In another place, Lucretius' explanation of the origin of religious terror evoked by natural portents is dismissed as atheist prejudice.<sup>36</sup> In two other places reference is made to the tradition seized upon by the early Christian Fathers of Lucretius' chronic madness, purportedly caused by a love potion given him by his wife—she makes no mention of his suicide—which was part of this tradition. In one place, Hutchinson attributes a hiatus in the Latin text to an eruption of madness; in another, madness is the cause of Lucretius' endeavor to 'put out the dimme light of nature.'<sup>37</sup> Finally, Lucretius is accused of obscenity, which is the reason given for deleting sexually explicit passages, which are described as appropriate to the 'obsceane art' of a midwife.<sup>38</sup>

The dedication is no less bald in condemning Lucretius' poem, but here Hutchinson's judgments are set in a knotted fabric of contradiction and ambiguity. Consider her opening sentence:

When I present this unworthy Translation to your Lordship, I sacrifice my shame to my obedience, for ('though a masculine Witt hath thought it worth printing his head in a lawrell crowne for the version of one of these books) I am so farre from glorijng in my sex, that had they not by misfortune bene gone out of my hands in one lost copie, even your Lordships command, which hath more authority with me, than any humane thing I pay reverence to, should not have redeemd it from the fire.<sup>39</sup>

The context should make clear that what made Hutchinson's translation seem unworthy to her was not a deficiency in her art, but the work itself, because its content was an abomination; this made her ashamed: the whole work became 'one fault.' These are judgments of a quickened Christian conscience, which, because they were grounded

<sup>34</sup> *DRN*, 5.1105–203.

<sup>35</sup> *Works of Lucy Hutchinson*, i, 145, 305.

<sup>36</sup> 'Having sung the Encomium of his author, now, with his usuall Atheisme, he seeks to fortifie his friend, against any impression of the terror of God that might arise from thunders or any wondrous worke of God in heaven or earth.'

<sup>37</sup> *Works of Lucy Hutchinson*, i, 79, 205.

<sup>38</sup> *Works of Lucy Hutchinson*, i, 281; see also Commentary, *Works of Lucy Hutchinson*, i, 672; Barbour argues from textual evidence that Hutchinson had originally translated the deleted passages, but removed them when preparing her presentation copy for Anglesey; another deleted line, previously translated, is 6.795, which indirectly refers to menstruation; see Norbrook, Introduction, i, xciv and Barbour, Commentary, i, 764.

<sup>39</sup> *Works of Lucy Hutchinson*, i, 6, ll. 8–16.

in revelation, should have overruled any human authority, including that of Anglesey's command, however high she regarded it. His authority was that of an unrivaled patron of the arts, 'the justly celebrated Maecenas of our days', whose patronage of sober and serious learning was a refuge, perhaps the only refuge, 'in this drolling and degenerate age'. So this shameful work of translation was still to be regarded as sober and serious. The refuge was a physical place, Anglesey's great library. Readers should be reminded that in the mid-1670s, when this dedication was written, no complete English translation of Lucretius had been published. The parenthetical remark refers to Evelyn's translation of Book I of Lucretius, which was published in 1656. Creech's translation would not appear until 1682. Anglesey's command was motivated by a desire to fill the void in his library. Hutchinson rationalized her obedience by explaining that she would not have sacrificed her shame to her obligation to obey if she were sure that all other copies were in her possession or under her control, and hence under her power to destroy. So there is the issue of being in control of one's own work. Her use of the term 'sacrifice' is paradoxical: that a piously induced shame should be sacrificed to human authority.<sup>40</sup> Would she really have destroyed her work, in which she took great pride? While disowning any desire for glory or grand pretense toward her achievement, she boldly compares her six books to Evelyn's mere one, and her woman's work to that of a 'masculine Witt', and his cosmetic crown to her laurel bestowed by a nod from Anglesey.

Gender adds complexity to her situation. She is a woman who has stepped out of her sphere, and although, as she freely admits, the 'more becoming virtue' of her sex is silence, she has no intention of retreating into it. Or, if she has stepped back into the nursery, she has taken the unbecoming work of scholar and translator with her.

Her demeaning of her work as something done casually in a nursery is another place of tangled contradiction and ambiguity.

Afterward being convinc'd of the sin of amusing my selfe with such vain Philosophy (which even at the first I did not employ any serious study in, for I turn'd it into English in a room where my children practiz'd the severall qualities they were taught, with their Tutors, & I number'd the syllables of my translation by the threds of the canvas I wrought in, & sett them downe with a pen & inke that stood by me; How superficially it must needs be done in this manner, the thing it selfe will show,) but I say afterward as my judgment grew riper, & my mind was fixt in more profitable contemplations, I thought this booke not worthy either of review or correction, the whole worke being one fault.<sup>41</sup>

David Norbrook makes a very good case for irony in Hutchinson's parenthetical comment, that in this account of the origin of her poem, she 'is also subtly revealing her grasp of the poem.' Her intention is to demonstrate that embroidery and knitting, the interweaving of material things to create a durable texture, are apt, perhaps more so than anything men may do, in preparing the mind to understand the material

<sup>40</sup> See Barbour's comment on Hutchinson's use of 'sacrifice', Commentary, *Works of Lucy Hutchinson*, i, 459.

<sup>41</sup> *Works of Lucy Hutchinson*, i, 7, ll. 40–51.

processes of the formation of things, which is the predominant theme of *De rerum natura*. On this account, her concluding parenthetical remark, ‘How superficially it must needs be done in this manner, the thing it selfe will show’, is less about the value of her work than of its method. She seems to be referring to Lucretius’ use of weaving as a metaphor of poetical creation. ‘The weft of the poet’s ideas or *ratio* is woven through the warp of the hexameter line with its six feet [in Latin, or, in English pentameter line with its five feet] and constrained distribution of vowel-quantities. And this process is analogous to the manner in which atoms conglomerate...’<sup>42</sup>

Elsewhere she suggests that had she the good fortune to have chosen a more worthy subject for her labor, one that merited glory and would bring honor to her sex, she could apply to Anglesey for his patronage with an easy conscience. It is odd that someone who believed so devoutly in divine providence and considered it the duty of a Christian to interpret all events as providential should pass off her choice of subject as a matter of fortune.<sup>43</sup> Or perhaps she meant providence all the while, ‘fortune’ being a mere label to affix to the uninterpreted face of events. I believe that is the case. The argument that she makes in the remainder of her dedication bears this out.

There are two lines of argument that converge in the end. One is about Lucy Hutchinson’s progress toward enlightenment, or toward a true understanding of her subject, the other concerns the utility of her discovery as an antidote for the ills of her degenerate age.

Her enlightenment came about as a result of renewed study of Christian theology, in particular, the divine creation of the world and providential government of it. Her primary source was the Bible, with help no doubt from John Calvin (1509–64) and her contemporary John Owen (1616–83), whose work she translated.<sup>44</sup>

As by the study of these I grew in Light & Love, the little glory I had among some few of my intimate friends, for understanding this crabbed poet, became my shame, & I found I never understood him till I learnt to abhorre him, & dread a wanton dalliance with impious bookes. Then I reaped some profit from it, for it shewed me that sencelesse superstitions drive carnal reason into Atheisme, which though Pollicy restrains some from avowing so impudently as this Dog, yet vast is their number, who make it a specious pretext within themselves to think religion is nothing at all but an invention to reduce the ignorant vulgar into order & Government.<sup>45</sup>

Her claim that she did not truly understand Lucretius’ poem until she had learned to abhor it applies not to the veracity and fidelity of her translation, for which she reaped glory from her friends, but to her carnal understanding of it. She did not see in it ‘a dreadful prospect of the misery of lapsed nature’. Now that she abhorred Lucretius, she found in his poem proof that ‘unregenerate, unsanctified reason makes men more

<sup>42</sup> Norbrook, Introduction, *Works of Lucy Hutchinson*, i, xcii–vi, esp. xciv.

<sup>43</sup> See the Dedication, *Works of Lucy Hutchinson*, i, 13: God’s ‘ever active Providence’ is described as ‘conducting all that appears most casual to us and our narrow comprehensions, to the accomplishment of those just ends for which they were made’.

<sup>44</sup> See David Norbrook, Introduction, Lucy Hutchinson, *Order and Disorder*, xvi–xvii, xix–xx.

<sup>45</sup> *Works of Lucy Hutchinson*, i, 13.

monstrous by their learning, then the most sottish brutish idiots; while they employ the most excellent gifts of human understanding, witt, & all the other noble endowments of the soule, as weapons against him that gave them'. Thus she came 'to hate all unsanctified excellence.'<sup>46</sup> In a very special way, Lucretius, her chosen poet, whom she came upon by chance or providence, proves the depravity of classical learning by reducing the whole of it to atheism. Through her new and spiritual understanding, Lucretius' poem can be employed as an instrument to unmask the poets and philosophers of antiquity by revealing their essential meaning. In this endeavor, she found support from Rochester.

What made the age degenerate was the favorable reception of classical learning, especially its philosophy, among the clergy and university tutors and its incorporation in their theology and curricula. In the former instance, mixing theology with pagan philosophy generates heresies; in the latter, youths are misled, their tender and unformed minds, 'yet unsettled in Principles of Devine Truth', are easily debauched and seduced by foppery.

Another danger she discerns in her present age is the rise of natural religion, to which she attributes pagan roots. It may be that she had Lord Herbert of Cherbury (1583–1648) in mind, for she appears to be summarizing his five points of moral religion.<sup>47</sup>

Finally, it should not be surprising that Hutchinson regarded experimental natural philosophy, its reliance on the atomical hypothesis concerning the generation of natural things by the motion and disposition of atoms, as pure foppery.

In the light of Hutchinson's divine enlightenment, one final paradox can be dissolved. The paradox arises from the incongruity between her abhorrence of Lucretius' doctrines and the fidelity that she continued to exercise in preparing the presentation copy of her Lucretius. She personally supervised the preparation of the presentation copy of her translation. To understand what is at issue, we must examine the work itself.

Preliminary to this we must consider her motives to submit to Anglesey's command. The first book of Evelyn's translation was out, and she probably expected that more would follow. Her excuse that a copy of her translation had gone delinquent must be taken seriously here. She must have known about scribal publication, and her fear was that it would be circulated without proper antidote. First, it must be noted that Hutchinson oversaw the production of the presentation copy. The antidote was provided in her dedication and in a few marginal notes. But in order for it to be effective, the explication of the text had to be made pure. She had already had achieved that in her translation. To ensure that readers would not miss the abhorrent meaning of Lucretius text, she placed at the head of each chapter summaries of the argument, plain expositions, and marginal notations, which with a few exceptions were of the same character.

<sup>46</sup> *Works of Lucy Hutchinson*, i, 13.

<sup>47</sup> *Works of Lucy Hutchinson*, i, 9–10; see my article, 'Lord Herbert of Cherbury', *DSCBP*, i, 409–16.

Hence, it is necessary first to examine the manuscript of the presentation copy of Hutchinson's Lucretius.<sup>48</sup> It is the only surviving manuscript of her work. If there were other copies, they are all lost. The text of the manuscript is inscribed in two hands. Books I–V of *De rerum natura* are in the hand of an unknown scribe. The dedication, summaries of the arguments of each book, and the marginalia are inscribed in Hutchinson's hand. She also transcribed Book VI. In her dedication, Hutchinson relates that she is presenting Anglesey with a copy of the translation done many years before. From this it seems likely that all or most of the text of Lucretius' poem was copied from a manuscript dating from an earlier period, perhaps the original or a copy of it. There is no evidence that she revised or altered her translation, except in one instance, a deletion of sexually explicitly lines in the fourth book. In any case, whether she revised the translation or not, it is a straightforward rendering and shows no evidence of an effort to render its content more acceptable to Christian sentiments.

When were the other parts first composed? We can be sure that the dedication was written when the presentation copy was made, in 1675—the date assumed by Norbrook and Barbour. What about the summary arguments and the marginalia? The arguments are purely expository. And so for the most part are the marginalia, with the exception of six marginal notes, which are judgmental and hostile. These marginalia echo the negative judgments of the dedication, which suggests that they are contemporary with it. This change of tone among the marginalia might be taken as evidence that, with the exception of the six judgmental marginalia, Hutchinson composed the arguments and marginalia when she first did the translation; they complement it in tenor and meaning. But if this were so, one might expect that they both would have been part of the manuscript from which the scribe was working and then there would have been no need for Hutchinson to insert them in her own hand, which is what she did. It is more likely that the marginalia and summaries were written in 1675, that they are contemporary with the dedication. What is remarkable is that they are written in a non-judgmental expository voice. Her volte-face notwithstanding, Hutchinson persisted in her endeavor to present a fair and accurate account of the philosophy of Epicurus presented by Lucretius, to preserve his meaning. Perhaps she did this, because she maintained a special interest in its unvarnished atheism. It was necessary for her to understand it with perfect clarity, so that its loathsomeness would be unmistakable.

Hutchinson offers a classic theological hypothesis explaining a willing human receptivity to atheism and its consequences. No doubt, in her mind, the depravity of the earl of Rochester and other court wits was confirmation of it.<sup>49</sup> She was not at all

<sup>48</sup> For a description of the manuscript, which I follow here, see Introduction, *Works of Lucy Hutchinson*, i, cxxiv–cxxxiii.

<sup>49</sup> Rochester's mother, Anne Wilmot, the dowager Duchess of Rochester, and Lucy Hutchinson were confidantes. She was also familiar with Hutchinson's brother Sir Allen Apsley, and suspected of being his mistress. During Rochester's last illness, his mother urged him to repent of his dissolute life and convert to



disposed to consider other hypotheses, for reasons that it would be beyond the scope of this book or the competence of this author to provide.

### *Rochester and atheism*

The task of interpreting Rochester is formidable. Anyone who reads his writings, and the literature about him, and who becomes familiar with his life and times, cannot but be perplexed by the paradoxes presented by his life and art. He was a first-class poet who seemed to care little about his authorship or about owning his oeuvre for posterity. The poems that he wrote present a multitude of personae, of visages and voices, sufficient to themselves, yet none of them seems artificial. In every poem, his voice speaks directly to the reader and with seeming spontaneity, so that one feels no need to go searching for the poet, for he never fails to present himself. This is consistent with Rochester's view of time, a succession of moments in linear direction but without purpose, in which neither past nor future counts, because they do not exist.

His poems are creative moments, and Rochester's oeuvre may be likened to a bundle of moments, produced by someone who took no thought for the morrow or worried about the past.<sup>50</sup> In life, Rochester put Locke's theory of personal identity into action by owning all that he did. These paradoxes are not a hindrance but a key to understanding his philosophical poems. Those in particular that I will consider are a translation of an extract from Seneca's *Trojan Women*, 'Love and Life', 'Upon Nothinge', and 'A Satyre against Reason and Mankind'. They present a coherent metaphysics of materialism that was surely inspired by Lucretius for its general outlook, for although Rochester did not adopt atomism, his representation of religion as vain pride and superstition is Lucretian. His purpose is to subvert, to overturn positive philosophical and theological doctrines and traditions, but what comes from this is not meaningless, but itself a positive doctrine, a robust nihilism, rooted in materialism.

I begin with Rochester's translation of an extract from Seneca's *Trojan Women*.<sup>51</sup> Its theme is the mortality of the soul, along with that of the body. The poem seems to be a metaphysical meditation on Epicurus' dictum that death is nothing to us and on the fear of death. Because death is nothing, we, that is, all humanity, are nothing.

Dead, we become the Lumber of the World:  
And to that Mass of Matter will be swept,  
Where things destroy'd, with things unborn are kept.  
Devouring Time swallows us whole;  
Impartial Death confounds Body and Soul.<sup>52</sup>

Christianity, which he finally did. In all of this, Hutchinson may have had a hand; see David Norbrook, Introduction, Lucy Hutchinson, *Order and Disorder*, xix.

<sup>50</sup> David Hume, *A Treatise of Human Nature*, Bk. I, Part IV, Section vi.

<sup>51</sup> Seneca, *Troades*, ll. 397–408.

<sup>52</sup> *The Works of John Wilmot, Earl of Rochester*, Harold Love, ed. (Oxford: Oxford University Press, 1999), 46.

Rochester elevates Death, or nothing, into a principle of being, which was and is and always shall be. He nullifies all hopes of heaven and terrors of hell, removing any motive to be religious, which, in any case, must arise out of nothing substantive, ‘Dreams, Whimsies, and no more.’

It is noteworthy that the only surviving copy of Rochester’s translation from Seneca is a printed version that appears in Charles Blount’s *The Two First Books of Philostratus, concerning the Life of Apollonius Tyaneus*.<sup>53</sup> Blount (1654–93) enjoyed a measure of notoriety as a contributor to the crisis of atheism, for, whilst professedly a theist, a believer in divine providence and human immortality, and an advocate of natural religion and deism, the themes of his published work tended to undermine these beliefs. He wrote three letters to Rochester, whose only known copies are published in Blount’s *Oracles of Reason* and in his posthumous *Miscellaneous Works*.<sup>54</sup> All of the letters are dated during the last two years of Rochester’s life, and concern the soul and its immortality, and according to Blount’s opening remarks, were written at Rochester’s request, soliciting his opinions on these themes.<sup>55</sup> In the latest of these letters, dated February 7, 1680, Blount reports receipt from a ‘humble servant’, that is, one of Rochester’s correspondents, of a copy of Rochester’s translation. He praises the work, and declares that it alone will ensure his correspondent’s immortality—the irony that verses declaring the soul’s mortality should win immortality must have been intended. He then proceeds to summarize beliefs about the soul’s mortality in Scripture and pagan antiquity, and concludes with his personal affirmation of immortality. This was his style, leaving it to his reader what to decide about critical issues.

‘Love and Life’ begins with a meditation on time.<sup>56</sup> Rochester’s text is taken from Hobbes’s *Leviathan*.<sup>57</sup> In the third chapter of *Leviathan*, whose subject is mental discourse, or the train of thoughts, Hobbes offers a brief metaphysics of time:

The *present* only has a being in nature; things *past* have a being in memory only, but things *to come* have no being at all, the *future* being a fiction of the mind . . .<sup>58</sup>

After which, Rochester wrote,

All my past Life is mine no more,  
The flyeing houres are gone  
Like Transitory dreams given o’re  
Whose Images are kept in sotre

<sup>53</sup> London: Nathaniel Thompson, 1680, 158–9.

<sup>54</sup> London, 1693, 117–25; 152–5; NP, 1695, 117–27, 152–5, 158–68; all three letters are addressed to ‘The Right Honourable, the most Ingenious Strephon.’ They are included in *The Letters of John Wilmot*; see n. 57.

<sup>55</sup> *The Works of John Wilmot*, 35.

<sup>56</sup> *The Works of John Wilmot*, 25.

<sup>57</sup> In what follows, I follow Jeremy Treglown, ed., *The Letters of John Wilmot, Earl of Rochester* (Chicago: University of Chicago Press, 1980), 12–13; see also Harold Love’s comment, *The Works of John Wilmot*, 358, who traces this original notion of real time as existing only in the present moment to St. Augustine.

<sup>58</sup> Hobbes, *Leviathan*, L.iii.7 (18); NB all citations of this work are to the Oxford World Classics edition of J. C. A. Gaskin (Oxford: Oxford University Press, 1996); numerals refer to book, chapter, and paragraph (which Gaskin has numbered), followed by page number in this edition.

By memory alone  
 What ever is to come is not:  
 How can it then be mine?  
 The present moment's all my Lott . . .

Jeremy Treglown describes this as a misappropriation, for Hobbes's purpose is to explain the empirical origins of prudence or practical wisdom, whereas Rochester uses it to justify infidelity—or perhaps, to be more accurate, a fidelity of the moment. But Rochester's use of Hobbes is perhaps better judged to be a friendly inversion rather than a hostile subversion. For Hobbes's skepticism undermines an unambiguous moral reading of his theory of prudence, which he observes, in itself, is mere presumption, for it lacks reliable foresight, a faculty that he attributes properly only to God. If Rochester had accepted Hobbes's reputed atheism as true, he would not have regarded his borrowing as a misappropriation, but as a disclosure of its true intent. Nor would it be correct to suppose that Rochester's use of these lines from Hobbes was intended to justify the pleasure of the moment, for he was painfully aware that such pleasure never satisfies, that the greatest pleasure comes with anticipation, which is always disappointed.<sup>59</sup> A consistent nihilism runs through all of this.

In 'Upon Nothinge', Nothing is personified as an anti-God, an eternal being, who was before creation, who being 'well fixt', is 'alone of endinge not afray'd', a transgendered being, 'elder brother, even to shade', the reluctant mother of all positive beings, the 'hungry womb' to which all things return, herded by time, nature's turncoat, Nothing's secret agent, the destroyer. In this poem, the biblical narrative of creation is retold.<sup>60</sup> 'Nothinge' is not absolutely nothing, rather it is waste and void, or a pregnant chaos that is reminiscent of an even more ancient cosmogony.<sup>61</sup> 'Somethinge, the General attribute of all', a great angel whose prototype is Satan, attempts to seize ultimate power, 'snatches' heaven and earth, and every creature, from 'fruitful Emptinesses hand'. His ultimate fall is foretold. Creation is Fall. This is the great mystery, hidden from the laity, whose narrative is now revealed in a stunning sequence of subversions and ironies, a negative sublime.<sup>62</sup> This is not mere philosophy but anti-myth replenished

<sup>59</sup> See, for example, 'The Platonick Lady', *The Works of John Wilmot*, 35.

<sup>60</sup> That the supreme metaphysical principle should be 'Nothinge' is wonderfully ironic, and there is no doubt that Rochester intended it to be; yet it must not be supposed that we are dealing with a mere poetic conceit and its tradition, as is suggested by Dustin Griffin, *Satires against Man* (Berkeley: University of California Press, 1973), 266–80.

<sup>61</sup> Hesiod, *Theogony*, 123. There is a possible connection with Epicurus here; in Gassendi's life of Epicurus, translated by Thomas Stanley, it is reported that it was on the occasion of reading Hesiod that Epicurus was awakened to philosophy. Enquiring of his teacher, a grammarian, of what chaos was made, if indeed it was made at all, and being told that only philosophers teach such things, Epicurus resolved to go to them, 'for they are the persons that know the truth of Beings', *A History of Philosophy*, 3 vols. (London, 1659), iii, 110.

<sup>62</sup> See Simon Dentith, 'Negativity and Affirmation in Rochester's Lyric Poetry', *Reading Rochester*, ed. Edward Burns (New York: St. Martin's Press, 1995), 84; also in the same volume, Tony Barley, "'Upon Nothing': Rochester and the Fear of Non-Entity", 98–113, upon which I have relied heavily for my own interpretation of Rochester's poem.

with philosophical and theological meaning. The philosophical maxim, nothing comes from nothing, is contradicted, the theologoumenon, that God made everything from nothing, is subverted. Matter, assisted by form, and light, or the lightbearer, Lucifer, bring about the first creation in an act of primal rebellion, whose cosmic adventures time will defeat. The overthrow of Christian theism could not be more thoroughly accomplished.

Into this mythical context, Rochester has woven a coherent metaphysical scheme, which he does not bother to promote, but takes for granted. He maintains that the ground of being is undifferentiated chaos, from which everything proceeds, although not by any necessity in the ground itself, but a persistent vanity. What is, things, or 'somethings', which are always particular entities, emerge, as it were by their own ungrounded impulse; the most general of which is 'Somethinge, the Generall attribute of all', and thence, matter and form, which constitute things, time and place, which are accidents that situate them, and body, which is their product. The whole of reality can be summed up as consisting of an eternal substrate devoid of any property and emergent, finite bodies that generate and die. Thus Rochester was not a Democritean or Epicurean;<sup>63</sup> his concepts are Aristotelian;<sup>64</sup> yet his theology, or anti-theology, is closer to the former than the latter in its mood and subversive intent. Rochester's point of departure for all of this was a reflection on death as nothing, and on discernible reality as momentary and perishing. Like Lucretius, he reconciled poetry and philosophy.

In 'A Satyre against Reason and Mankind', Rochester demolishes the conceit of human exceptionalism, founded on the faculty of reason, which was supposed to set mankind above all other sensible creatures, who rely only on experience and cunning to survive. In this endeavor, beasts do much better than humans, and therefore are in this respect more rational. In the hierarchy of animal life, the human species does not occupy a commanding place. Reason is a vain fantasy of mind, an *ignis fatuus*, and those who follow it are led to scale 'Mountains of whimsy' crowding the brain, they stumble 'from thought to thought', until they fall headlong into 'doubts boundless Sea', where born up by books, 'bladders of Philosophy', they barely escape drowning. Reason's only achievement is a bookish skepticism. In contrast, we have the light of nature, an animal light, which is rooted in sense, a sort of animal cunning, or spontaneous instinct, which rarely fails to identify and gain its prospect.

<sup>63</sup> See Christopher Tilmouth, *Passion's Triumph over Reason* (Oxford: Oxford University Press, 2007), 317–21, also chs. 7 and 8 passim.

<sup>64</sup> This is particularly the case with his notion of 'Nothing'; see Jean Le Clerc, 'Observations on Cudworth', Ralph Cudworth, *The True Intellectual System of the Universe*, iii, 132. Le Clerc observes that some atheists adhere to an Aristotelian notion of matter as formless stuff: 'For to say the truth, the *matter* of the Peripatetic is an undefinable existence; something destitute of all properties and not at all corporeal.'

'A Satyre' is a discourse containing an internal dialogue between a wit, the principal speaker, and his adversarius, a clergyman, a Latitude-man, who is introduced so that his hypocrisy can be unmasked. This is his speech:

What rage ferments in your degenerate mind,  
To make you rail at Reason and Mankind?  
Blest glorious Man! To whom alone kind Heaven  
An Everlasting Soul has freely given:  
Whom his Creator took such care to make,  
That from himself he did the Image take:  
And this fair frame in shining reason drest,  
To dignify his Nature above Beast.  
Reason, by whose aspiring Influence  
We take a flight beyond Material sense;  
Dive into Mysteries, then soaring pierce  
The flaming limits of the Universe:  
Search Heaven and Hell, find out what's acted there,  
And give the World true grounds of hope and feare.<sup>65</sup>

Latitude-men or Latitudinarians were a party within the Church of England, who advocated a settled liturgy, fidelity to the 39 Articles, the Creeds—Apostles, Nicene, and Athanasian—who, accordingly, were staunch defenders of the doctrine of the Trinity, human immortality, and free agency.<sup>66</sup> They sided with Arminius against Calvin. They advocated an established national church, episcopacy, and broad comprehension, that is a policy of inclusion that accommodated doctrinal and liturgical differences, so long as the fundamentals were observed. They were suspicious of all enthusiasms, preferring their religion to be reasonable, which is not to say that they believed all revealed doctrine was reducible to precepts of natural reason, but a religion that did not contradict reason, that could be rationally explained so long as reason could be enlarged through revelation. Philosophically, they tended towards Platonism—they were schooled in Cambridge, and were influenced by Cudworth, More, and John Smith.<sup>67</sup>

They were attracted to the new natural philosophy, and many of them became members of the Royal Society and advocates of its programs. They may be properly labeled Christian virtuosi. Rochester depicts them as readers of Lucretius and imitators of Epicurus, whom Lucretius depicted as transpiercing 'The flaming limits of the

<sup>65</sup> *The Works of John Wilmot*, 58–9.

<sup>66</sup> See the so-called Latitudinarian manifesto: *A Brief Account of the New Sect of Latitudinarians: Together with Some Reflections upon the New Philosophy*, by S.P. of Cambridge (London, 1669). The work is generally attributed to Simon Patrick (1626–1707). However, the author presents himself as a resident of Cambridge University. Patrick left Cambridge in 1655, and, at the time of publication, he was residing in London as rector of St Paul's, Covent Garden, see *Oxford DNB*; also John Spurr, "Latitudinarianism" and the Restoration Church, *Historical Journal* 31 (1988), 61–82.

<sup>67</sup> The leading Latitudinarians: Isaac Barrow, Simon Patrick, Edward Stillingfleet, John Tillotson (Locke's spiritual advisor). John Wilkins and Thomas Sprat, although Oxford men, could be counted affiliates.

Universe' to view the boundless spaces beyond.<sup>68</sup> Thus, by embracing the new philosophy they prove themselves hypocrites. As they are represented here, by adding to their repertory supernaturally grounded notions of fear and hope, they mix natural philosophy with supernatural divinity, confounding both.

In the end, they appeared to have triumphed, for Rochester repented and renounced his former life and opinions and put himself under the pastoral care of Gilbert Burnet, Bishop of Salisbury, a Latitudinarian, who memorialized his dying. It remains uncertain whether his illness drove him mad, or whether his approaching death cleared his mind and he gained a true sense of remorse.<sup>69</sup>

## Some Philosophers and the Crisis of Atheism

In the final section of this chapter, as a prelude to Locke, I consider traces of the crisis of atheism in the work of four philosophers: Thomas Hobbes, Benedict Spinoza, Ralph Cudworth, and Robert Boyle. Each in his way accepted the new natural philosophy as true and compatible with some variety of theism, although none in a way that achieved a general consensus.

### *Hobbes*

Hobbes, who affirmed orthodox Christian theism, was suspected of atheism because of his thoroughgoing materialism and his agnosticism concerning the divine nature, both of which were consequences of his empirical stance. Suspicion of this sort, since it is generally unreflective and in most cases irrational, proves no more than a prevailing opinion or prejudice that materialism and theism are incompatible.

Hobbes moral pessimism, joined to political absolutism, although both were considered harsh doctrines, were not by themselves reasons to suspect him of atheism, for many theologians held similar beliefs, but they were contributors to the odium that was cast upon him, which reinforced the suspicion. His nemesis, John Bramhall, Bishop of Derry, made him out to be a crass materialist, determinist, immoralist, a philosophical public enemy, and an inconsistent thinker, who, all things considered, must also be a denier of God.<sup>70</sup>

Like Locke, Hobbes was a denier of innate ideas and cognitions, further evidence that he did not believe in a God who made provision for human life to flourish. The

<sup>68</sup> DRN, 1.73, Evelyn's translation, which, it should be noted, Rochester quotes.

<sup>69</sup> *The Letters of John Wilmot*, 33–7; also letters written by his mother to her sister describing Rochester's last illness, 248–55; and Gilbert Burnet, *Some Passages of the Life and Death of the Right Honourable John, Earl of Rochester* (London, 1680); Robert Parsons, *A Sermon Preached at the Funeral of the Rt Honorable John Earl of Rochester* (Oxford, 1680).

<sup>70</sup> John Bramhall, *Castigations of Mr. Hobbes his Last Animadversions in the case concerning Liberty and Universal Necessity. With an Appendix concerning The catching of Leviathan or the great Whale* (London: J. Crook, 1658); see also A. P. Martinich, *The Two Gods of Leviathan* (Cambridge: Cambridge University Press, 1992), also Jon Parkin, *Taming the Leviathan: The Reception of the Political and Religious Ideas of Thomas Hobbes in England, 1640–1700* (Cambridge: Cambridge University Press, 2007).

materials of thought, of knowledge and belief, are products of sensory experience, whose chief and only objects are bodies. Although, like Locke, he grants that the mind also reflects upon itself—using the term ‘reflect’ in much the same way as Locke,<sup>71</sup> to signify observation of the operations of our minds and of ideas—he does not infer from this, as Locke did at times, that these operations and the powers that cause them reside in an immaterial or spiritual substance. Indeed, he judged the very idea of such a thing to be incoherent.

Hobbes was a thoroughgoing corporealist. Body was prime in his categorial scheme of things. ‘Body’ meant the same as substance, that is, whatever exists in its own right. Hence, the expression ‘incorporeal substance’ is an oxymoron equivalent to ‘incorporeal body.’<sup>72</sup> The universe is an aggregate of contiguous bodies that in their movements displace others or are displaced by them. The idea of empty space is a mere phantasm; it is what we attribute to a thing as merely existing outside the mind, putting aside or bracketing its other attributes. Empty space is the bare idea of location, a product of the supposition that whatever exists, exists in some place.<sup>73</sup>

Hobbes also asserts that God exists, and offers proof of this from the pure rational reflection on the nature of things and their causes, which leads the mind to conclude that there is ‘a first, and an eternal cause of all things.’<sup>74</sup> True religion consists in honoring God; its aim is exaltation, ‘to think as highly of his power and goodness, as is possible.’<sup>75</sup> However, since we have no perception of God, we have no real idea of him, and because the only idea of beings we have are of bodies, we cannot avoid imagining God to be corporeal.<sup>76</sup> In this way, ideas of God are fashioned by the human imagination.

In his response to Bramhall, Hobbes allows that God is ‘a most pure, simple, invisible spirit corporeal,’ and elaborates: ‘By corporeal I mean a substance that has magnitude,’ but not, as rude common folk might suppose, visible, but so subtle as to be invisible, ‘a middle nature between *infinitely subtle* and *nothing*.’<sup>77</sup> Literally, to assert that God is a body, even if unseen, suggests that he is finite, which would dishonor God. So Hobbes adds that God is infinite. However, his intention is not to claim that

<sup>71</sup> See below, p. 120.

<sup>72</sup> Hobbes, *Leviathan*, III.xxxiv.2: ‘substance and body signify the same thing; and therefore substance incorporeal are words, which, when they are joined together, destroy one another, as if a man should say, an *incorporeal body*’.

<sup>73</sup> Hobbes, *Elements of Philosophy, the first section, concerning Body* (London: Arthur Crocke, 1656), 69: ‘SPACE is the Phantasme of a Thing existing without the Mind simply; that is to say, that Phantasme, in which we consider no other Accident, but only that it appears without us.’

<sup>74</sup> *Leviathan*, I.xi.25, xii.6.      <sup>75</sup> *Leviathan*, II.xxxi.8.

<sup>76</sup> *Leviathan* II. xxxiv.5 and *passim*.

<sup>77</sup> Hobbes, *An Answer to a book published by Dr. Bramhall... called “Catching of the Leviathan”* (London: W. Crocke, 1682), *English Works*, iv, 313; see also Descartes, To Mersenne, January 21, 1641 (*The Philosophical Writings of Descartes*, John Cottingham et al, eds, 3 vols. (Cambridge: Cambridge University Press, 1991), 170–1, who remarks disapprovingly that Hobbes equates Descartes’s subtle matter with spirit, observing that whilst Hobbes ‘shows himself to be an intelligent and learned man, he seems to miss the truth in every single claim which he puts forward as his own’; the letter is cited in A. P. Martinich, *A Hobbes Dictionary* (Oxford: Oxford University Press, 1991), 289.

there really exists an unbounded body consisting of very subtle stuff, but rather to affirm that the divine nature is incomprehensible.

When we say any thing is infinite, we signify only, that we are not able to conceive the ends, bounds of the things named; having no conception of the thing, but our own inability. And therefore the name of God is used, not to make us conceive him; (for he is incomprehensible; and his greatness and power are unconceivable;) but that we may honor him.<sup>78</sup>

From all of this it does not follow that Hobbes's settled opinion was that God is a body.<sup>79</sup> All that Hobbes does is to allow that, our cognitive capacities being such as they are, we can only imagine or conceive (which is the same thing) God as corporeal. We do not say he is an infinite body, for that would be nonsense, but only that he is infinite, that is, incomprehensible, which is to say, we haven't the slightest idea of what a corporeal God would be like, and no idea at all of an immaterial one. If Hobbes was sincere in all of this, then, we must call him an agnostic with respect to the divine nature, but a believer with respect to divine existence and divine revelation, a fideist who accepts articles of faith not as comprehensible truths but as limits of reason.<sup>80</sup>

### *Spinoza*

Hobbes lacked an idea of nature comprehending everything. He was, therefore, not a naturalist. It remained to Spinoza, who was influenced by Hobbes, to work corporealism into a comprehensive philosophical system of nature. He was the first modern philosophical naturalist. The scope of his naturalism includes everything. He reduced the whole of reality to a single substance, which he called God but equated with nature, apart from which nothing can be or be conceived. All things were dependent on natural causes and the laws of nature governing them. 'God or Nature' is the only self-subsistent entity; it is conscious of itself, an infinite intellect, whose object is its universal body and the rules that govern its generative power and operations.<sup>81</sup>

Moreover, his naturalism encompassed themes that others supposed to be properly supernatural. His expositions also of Holy Scripture reduced all supernatural events and powers to natural and political ones. Civil and moral law, religion, and the ethical life as well were all aspects of nature, grounded on mortal reflections of a finite mind whose primary object was its own body, although possessing a capacity to grasp a universal idea.<sup>82</sup> The idea on which the mind comes to settle is the idea of Nature or God. The effect of all this upon conventional beliefs concerning revealed religion, the end of all things, and the special role of mankind in the nature of things, were boldly declared by him in the appendix to the first book of his *Ethics*.

<sup>78</sup> *Leviathan*, I.iii.12 (19).

<sup>79</sup> See Martinich, *A Hobbes Dictionary*, 121.

<sup>80</sup> I am inclined to agree with Martinich in accepting Hobbes at his word and taking him for a 'non-standard' theist; see the previous footnote.

<sup>81</sup> Spinoza, *Ethics*, I.D3, D6, P14, P15, P17, P25, P28, P29, and Appendix.

<sup>82</sup> This is the central thesis of Spinoza's *Theological Political Treatise*, first published in 1670; I give a fuller account in *John Locke: Theological Manuscripts* (Oxford, Clarendon Locke, in preparation).



All the prejudices I here undertake to expose depend on this one: that men commonly suppose that all natural things act, as men do, on account of an end; indeed, they maintain as certain that God himself directs all things to some certain end, for they say that God has made all things for man, and man that he might worship God . . .

. . . from this, prejudices have arisen concerning *good* and *evil*, *merit* and *sin*, *praise* and *blame*, *order* and *confusion*, *beauty* and *ugliness*, and other things of this kind . . .<sup>83</sup>

Which is to say, all values applied to natural things by human imagination and codified in system of thought, metaphysical, moral, and religious, are prejudices and illusions.

### *Cudworth*

Hobbes's materialism and Spinoza's naturalism were hateful to Ralph Cudworth. He scornfully dismissed Hobbes's interpretation of divine infinity as subterfuge, took him for an atheist and an immoralist, because he denied that a coherent idea of God was possible for us, and supposed that religion was founded not on rational principles, but on fear and an ignorance of causes, on ignorant emotions, because he based moral obligation on sentiments of fear and hope and not on an intellectual love of the good, and, finally, because he was a determinist.<sup>84</sup>

Cudworth responded to the crisis of atheism by reviving Platonism in England. He did not do this by himself, or without important antecedents, chief among them Marsilio Ficino, who made available for the first time in Europe the complete corpus of Plato's dialogues in their original Greek and Latin translations.<sup>85</sup> *The True Intellectual System*, Cudworth's major work, is a monumental achievement, a wonder of classical and patristic learning. He was well read not only in classical Greek and Roman literature, which he quotes profusely, but also in the works of the new philosophy: in particular, Bacon's *De originibus*, Descartes's *Principles*, Gassendi's *Philosophiae Epicurii syntagma*, and Boyle's *Origine*, in all of which he saw and feared a trend toward materialism and atheism.<sup>86</sup>

*The True Intellectual System* is a long and difficult work, with manifold purposes. Its principal doctrines are that God exists and is inherently good; the goodness of God is the ground of an eternal and immutable morality; moreover, the human agent is free to

<sup>83</sup> Spinoza, *Ethics*, Part I, Appendix (*Collected Works*, I, 439–40).

<sup>84</sup> Although Hobbes was not an Epicurean atomist—he denied the void, he was a corporealist and ascribed generative power to matter; and he was a naturalist in almost every other way.

<sup>85</sup> See Sarah Hutton, *British Philosophy in the Seventeenth Century* (Oxford: Oxford University Press, 2015), 58–9, 136–43, and *passim*.

<sup>86</sup> Ralph Cudworth (1617–88), Master of Christ's College, Cambridge, and father of Damaris Lady Masham; other leading members of this group were Henry More (1614–87), also of Christ's College, John Smith (1618–52), of Emmanuel College; for others see 'The Cambridge Platonists', *Stanford Encyclopedia of Philosophy*, <http://plato.stanford.edu/entries/cambridge-platonists/>; also C. A. Patrides, *The Cambridge Platonists* (London: Edward Arnold, 1969), which provides a useful introduction and texts of Benjamin Whichcote (1609–83), Cudworth, More, and Smith. John Passmore, *Ralph Cudworth: An Interpretation* (Cambridge: Cambridge University Press, 1951) is indispensable as an introduction to Cudworth and his influence.

follow its dictates. In this connection, he endeavors to refute philosophical materialism, in all of its forms, most especially 'Democritick' and Epicurean atomism, by impugning its historical credentials and proving it to be irrational.<sup>87</sup>

Yet, Cudworth considered Epicurean or Democritic atomism valid enough to attempt to appropriate basic elements of it and incorporate them into a philosophy of nature more accommodating to religion, natural and revealed. In this endeavor, he incorporated atomic theory into an intellectual, which is to say, a Christian Platonic system. The central notion of this system is God, who is the author of existence, whose decrees are not arbitrary acts of will, but rather are invariably determined by an eternal and unalterable good; a God whose creative power is not exercised in the manner of a mere craftsman fashioning each thing by hand, but by endowing matter with a plastic or formative nature, which operates with a seed-like efficiency, shaping things from within and wordlessly directing them to their proper ends.<sup>88</sup> Thus the notion of atomic matter, in Cudworth's system, is destroyed, resurrected, and incorporated into an intellectual system of nature, which is governed by a supreme intelligence, whose drone-like material agents are everywhere present, from the cosmos itself to the least form of existence, to accomplish his purpose. This plastic power inherent in material nature distinguishes it from human art, which must always operate on things from without. 'And thus we have seen the difference between nature and human art; the latter is imperfect art, acting upon the matter from without, and at a distance; but the former is art itself, or perfect art, acting as an inward principle in it.'<sup>89</sup>

### Boyle

Cudworth's material agents, the operators of a plastic nature, worried Robert Boyle, as did all theories that supposed there was an inherent generative and formative power in natural things from worlds to individual organisms.<sup>90</sup> Boyle found fault with such pagan theories, because they imagined a sufficiency in nature that, in principle at least, allowed one to dispense with divine creation and providence. Instead of this 'vulgarly received notion of nature', he proposed a bare mechanism consisting of matter and motion, which, having no reason of existence in itself, must be a divine creation.

I think it probable (for I would not dogmatise on so weighty and difficult a subject) that the great and wise author of things did, when he first formed the universal and undistinguished matter into the world, put its parts into various motions whereby they were necessarily [by divine prescription] divided into numberless portions of differing bulks, figures and situations, in respect of each other. And that, by his infinite wisdom and power, he did so guide and overrule<sup>91</sup>

<sup>87</sup> *The True Intellectual System of the Universe*, i, Preface, xxxiii–xlvi.

<sup>88</sup> For Cudworth's notion of the plastic life of nature, see *True Intellectual System*, I, 217, 280–4; also Patrides, *The Cambridge Platonists*, 288–325.

<sup>89</sup> *The True Intellectual System*, i, 237.

<sup>90</sup> See Michael Hunter and Edward Davis, 'The Making of Robert Boyle's *Free Enquiry into the Vulgarly Receiv'd Notion of Nature*', *Early Science and Medicine* 1 (1966), 260–5.

<sup>91</sup> The verb 'overrule' signifies here the exercise of absolute power over something; see *OED*.

the motions of these parts at the beginning of things, as that (whether in a shorter or a longer time, reason cannot well determine) they were finally disposed into that beautiful and orderly frame we call the world; among whose parts some were so curiously contrived as to be fit to become the seeds or seminal principles of plants and animals. And I further conceive that he settled such laws or rules of local motion among the parts of the universal matter, that by his ordinary and preserving concourse the several parts of the universe, thus once completed, should be able to maintain the great construction or system and economy, of the mundane bodies and propagate the species of living creatures. So that according to this hypothesis, I suppose no other efficient [cause] of the universe but God himself...<sup>92</sup>

Here, Boyle has done nothing more than appropriate classical atomism, replacing chance or randomness with an absolute divine power that operates in ways that reason cannot discover, and, thus to us, arbitrarily. It was an ingenious strategy to deflect criticism of his version of atomism and redirect it toward competing theories that offered a more speculative system of nature.

Boyle's strategy of deflection is forecast in *A Free Enquiry into the Vulgarly Received Notion of Nature*, but it is already forecast in an earlier work, *Some Considerations Touching the Usefulness of Experimental Natural Philosophy*, first published in 1663.<sup>93</sup> I will conclude this chapter with a summary of those thoughts. Boyle's thoughts turn on a distinction between explication and intelligibility. He supposed that all things are intelligible inasmuch as they are created by a divine intelligence; that their intelligibility may be discernible directly by spiritual creatures with intellectual appropriate capabilities, ones that transcend the capabilities of mankind in its present state. Our human capacity, however, is limited by a physical necessity of having to view things externally, lacking access to the inner constitutions of things, and, although we may come to understand them if they were revealed to us by some higher intelligence, we are unable discover them by the methods of experiment and empirical observation, upon which we now rely.<sup>94</sup>

This strategy of deflection serves multiple purposes. It confirms our present cognitive state and its limitations, and hence also supplies us with warrant for an empirical, experimental method. Yet, it also opens up a prospect of a higher intelligibility of things reserved for beings of a higher nature, whose capacities we may hope to realize if it suits the counsels of God. It is a strategy that Locke adopted, perhaps imbibed from Boyle, and which he developed into a method. It is, I believe, the very idea that is the root of his philosophical reflections, which however 'modern' and 'enlightened' they may seem, are driven by persistent theological motives.

<sup>92</sup> Robert Boyle, *A Free Enquiry into the Vulgarly Received Notion of Nature*, Michael Hunter and Edward Davis, eds. (Cambridge: Cambridge University Press, 1996), 39; in the preface, Boyle writes that *Free Enquiry* was written in 1666, set aside in some disorder, retrieved and restored, and published in 1686, 5–6.

<sup>93</sup> As noted by Hunter and Davis in *Introductory Notes to Boyle, Works*, x, li.

<sup>94</sup> *Some Considerations Touching the Usefulness of Experimental Natural Philosophy*, Boyle, *Works*, iii, 257, and *passim*.

PART II

The Philosophy of a Christian  
Virtuoso



# 4

## The Origin of Locke's *Essay*

Were it fit to trouble thee with the History of this *Essay*, I should tell thee that five or six Friends meeting at my Chamber, and discoursing on a Subject very remote from this, found themselves quickly at a stand, by the Difficulties that rose on every side. After we had a while puzzled our selves, without coming any nearer a Resolution of those Doubts which perplexed us, it came into my Thoughts, that we took a wrong course; and that, before we set our selves upon Enquiries of that Nature, it was necessary to examine our own Abilities, and see, what Objects our Understandings were, or were not fitted to deal with. This I proposed to the Company, who all readily assented; and thereupon it was agreed, that this should be our first Enquiry. Some hasty and undigested Thoughts, on a Subject I had never before considered, which I set down against our next Meeting, gave the first entrance into this Discourse, which having been thus begun by Chance, was continued by Intreaty; written by incoherent [unconnected] parcels, and after long intervals of neglect, resum'd again, as my Humour or Occasions permitted, and at last, in a retirement, where an attendance on my Health gave me leisure, it was brought into that order, thou now seest it.<sup>1</sup>

'Tis of great use to the Sailor to know the length of his Line, though he cannot with it fathom all the depths of the Ocean. 'Tis well he knows, that it is long enough to reach the bottom, at such places, as are necessary to direct his Voyage, and caution him against running upon Shoals, that may ruin him. Our Business here is not to know all things, but those which concern our Conduct. If we find out those Measures, whereby a rational Creature put in that State, which Man is in, in this World, may, and ought to govern his Opinions, and Actions depending thereon, we need not be troubled, that some other things escape our Knowledge . . . This was that which gave the first *Rise* to this *Essay* concerning the Understanding.<sup>2</sup>

This, Reader, is the Entertainment of those, who let loose their own Thoughts, and follow them in writing . . .<sup>3</sup>

Since it is the Understanding that sets man above the rest of sensible beings & gives him all that dominion which he hath over them it is certainly a subject even for its nobleness worth ones labour to enquire into (& which perhaps hath been

<sup>1</sup> *Essay*, Epistle to the Reader, 7.

<sup>2</sup> *Essay*, I.i.6, 7 (46–7).

<sup>3</sup> *Essay*, Epistle to the Reader, 6.

less seriously considered then the worth of the thing & the nearnesse it hath too us seems to require) The understanding like the eye whilst it makes us see & perceive all other things, takes noe notice of its self, & it requires art & pains to set it at a distance from its self & make it its own object.<sup>4</sup>

## Introduction

My purpose in this chapter is to retrieve, as far as it is possible, those first 'hasty and undigested thoughts' that Locke inscribed, and which constituted the first beginnings, or Urtext, of *An Essay concerning Human Understanding*, and to trace their progress in the early drafts, the so-called Drafts A and B, all of which were composed in 1671, which may be regarded as Locke's philosophical *annus mirabilis*. I will attend mostly to Draft A.

I take very seriously Locke's claim in the epigraph that these first thoughts were about a subject that he had 'never before considered', namely, how, through sensation, the mind acquires the primary elements of thought, an alphabet of ideas, how, through experience and reason, they become the instruments of our knowledge of things and their causes, and how far such knowledge extends.<sup>5</sup> Thus, the work that Locke set out to accomplish was thoroughly Baconian.

Locke's moment of discovery occurred on a winter's night in 1671. The five or six friends, whose identity he did not reveal, had gathered at his chamber in Exeter House, the London residence of his patron and employer, Lord Ashley.<sup>6</sup> James Tyrrell was one of the friends. We have his testimony in a marginal note inscribed in his personal copy of the *Essay* opposite Locke's reminiscence. He wrote that it was winter. He also recalled the topic of discussion, 'the principles of morality and revealed religion'. He mistook the year.<sup>7</sup> Lady Masham confirmed Tyrrell's presence in her memoir of Locke, and

<sup>4</sup> Draft B, §1, *Drafts I*, 101.

<sup>5</sup> Locke's claim that he had never before considered this subject, if taken literally, is false, for he describes this very subject in the second of his 'Essays' on the law of nature, which treats 'modes of knowing'. Responding to a hypothetical objection that he failed to mention reason as one of the modes, he wrote: 'we respond that our present enquiry concerns the first principles and primordia of all knowledge [*nos hic inquirere de primis principiis et primordiis omnis scientiae*], how the first notions and fundamenta enter the mind'. Reason comes after, not before, this process; it is, rather, a faculty of making arguments. He explains that these fundamenta may enter the mind in three ways, by inscription, by tradition, or by sensation. Later he settles upon the last; *Essays on the Law of Nature*, Wolfgang Von Leyden, ed. (Oxford: Clarendon Press, 1954), 124. Thus it may be correct to say after Von Leyden that the epistemology of *Essays* served Locke 'a convenient starting place' in the discussion with his friends in 1671 (*Essays on the Law of Nature*, 61), but only if this means that he started off as a confirmed empiricist and natural law moralist, although a rather naïve one. It was in the moment of profound doubt that he rediscovered those epistemological principles, and it was as though he came upon them for the first time. It was a sort of quantum leap. Locke made a similar discovery, reading the gospels and the letters of St. Paul; see the preface to *A Paraphrase and Notes*, i, 103, 'Though I had been conversant in these Epistles, as well in other Parts of Sacred Scripture, yet I found that I understood them not'. The *Essays* are academic discourses, lacking in virtuosity.

<sup>6</sup> Soon to be created first Earl of Shaftesbury.

<sup>7</sup> *An Early Draft of Locke's Essay*, R. I. Aaron and Jocelyn Gibb, eds. (Oxford: Clarendon Press, 1936), xii, who quote Tyrrell, 'This was in winter 1673 as I remember being myself one of those that then met there when the discourse began about the principles of morality and reveal'd religion.'

accurately reported the year and the season. She also identified David Thomas as another of the friends.<sup>8</sup> She must have learned this from Locke himself.

The other friends may have included Thomas Sydenham and John Mapletoft, with whom Locke had become associated in London for the study and practice of medicine since 1667, and with whom he formed close friendships. The identity of others is a matter of speculation that is of no concern here. What is noteworthy is that all the friends we can be sure about were virtuosi and Christians of one variety or another.

What prompted them to meet to talk about the principles of morality and revelation? What made it a timely theme? What brought them to an impasse? If we consider the year, it is arguable that the threat of atheism is the most probable cause.<sup>9</sup> The publication of Spinoza's *Theological Political Treatise* must have caught the friends' attention, given its subject and themes, in particular, morality and revelation, which are central to it, and Spinoza's preference for the authority of reason over revelation. Although published in 1670, the *Tractatus* was completed several years before; its general theme and scope were known since 1665 to Henry Oldenburg, the secretary of the Royal Society, who had corresponded with Spinoza and shared his correspondence with Robert Boyle and probably also with other virtuosi in Boyle's circle.<sup>10</sup> Its appearance was expected, and its serious challenge to views of the authority of revelation and the foundation of morality favored by Locke and his friends did not go unrecognized by them.

In the *Tractatus* Spinoza portrayed the Hebrew prophets, purported by believers to be inspired bearers of divine revelation, as enthusiasts, possessed of an exquisite moral imagination, but altogether lacking in philosophical capacity to understand the grounds of the moral precepts they proclaimed or the real causes of events they interpreted or foretold. Moreover, Spinoza represents them as parochial in their interests, and hence unqualified to be regarded as teachers of a universal morality, although they pretended to be proclaimers of divine judgment and upholders of the divine law. He allowed that they were inspired, but he regarded inspiration as a merely natural condition characteristic of minds indisposed to rational reflection, easily swayed by sentiment, exalted by enthusiasm rather than clarified by rational enquiry, which he

<sup>8</sup> 'In the year 1670 or 71, as I am inform'd, Mr Locke began to lay the first foundations of his *Essay concerning humane understanding* at the desire of Mr Tyrrel Doctor Thomas and other of his Friends'; Damaris, Lady Masham to Jean Le Clerc, January 12, 1705, transcribed in Roger Woolhouse, 'Lady Masham's Account of Locke', *Locke Studies* 3 (2003), 178. '1670 or 71' suggests January or February, 1671.

<sup>9</sup> See the discussion in the previous chapter.

<sup>10</sup> *The Correspondence of Henry Oldenburg*, 9 vols., A. Rupert Hall and Marie Boas Hall, eds. (Madison: University of Wisconsin Press, 1965–73), ii, 541–2, 557–8; see also Rosalie Colie, 'Spinoza in England', *Proceedings of the American Philosophical Society* 107/3 (June 19, 1963), 194–5. Locke purchased a copy of Spinoza's *Tractatus* sometime before May 16, 1672, and there are notes referring to the first chapter on prophecy in one of his interleaved Bibles; see my 'Locke's Proof of the Divine Authority of Scripture', *Christianity, Antiquity, and Enlightenment*, 54, n. 7. These events occurred after the winter evening of Locke's discovery; they neither confirm nor disconfirm Locke's acquaintance with Spinoza's work and its challenge. On the reception of Spinoza's *Tractatus* in England and among the remonstrants in Holland, see Rosmarie Colie, *Light and Enlightenment* (Cambridge: Cambridge University Press, 1957), 94–5; for more on the correspondence between Oldenburg and Spinoza, see also A. Rupert Hall and Marie Boas Hall, 'Philosophy and Natural Philosophy: Boyle and Spinoza', *Mélanges Alexandre Koyré*, 2 vols. (Paris: Hermann, 1964), ii, 241–56.



insisted was the only sure way to truth.<sup>11</sup> The prophets were enthusiasts whose purpose was, in final analysis, political. They were teachers of piety, promoters of obedience to a purportedly divine law, which, they claimed, if followed, would deliver peace and justice to civil society along with the assurance of salvation to those who obeyed it.

Spinoza regarded the history of revelation to be a nationalistic fiction. Some intimation of these opinions is given in a letter Spinoza wrote to Oldenburg, which the latter shared with Boyle.<sup>12</sup> The conclusion of Spinoza's argument in the *Theological Political Treatise* is that revelation is an all-too-human invention devised for reasons of political expedience.<sup>13</sup> Radical thoughts like these, so cogently argued, would have induced in Locke and his friends a feeling of cognitive unease, of entrapment within a wall of doubts, and caused them to consider whether reason or revelation was the proper source of moral knowledge, or if both together, where to place the boundary between them and where to locate the source of ultimate authority. A radical solution was needed. Locke's discovery was supposed to provide the basis of it.

This is conjecture, but it provides a plausible context. Spinoza's conclusions about revelation and reason would surely have troubled Locke and Tyrrell, who were advocates of the law of nature, which they equated with divine law revealed in the Bible, and who believed that they proceeded from the same supreme authority, the will of God. Spinoza's subordination of revelation to reason was a fitting challenge to a Christian virtuoso to prove his capability.

## Locke's Urtext

Richard Aaron has suggested that the opening sections of Draft A may contain the content of those 'hasty and undigested Thoughts' that Locke had written down for his friends.<sup>14</sup> What follows is a trial of his suggestion.

Suppose then that the Urtext is largely intact in §1 of Draft A. There are sufficient reasons to warrant this. First, §1 has the standalone quality of an independent discourse, easily separated from what follows it in Draft A. This is not the case with the remaining parts of Draft A, none of which stand alone, and which, absent §1, would lack a proper beginning. The style of §1, its verbal texture, exhibits the character of spontaneity, of words written down hastily to capture an overflow of 'hasty and undigested thoughts'. Further, §1 meets the criterion of remoteness from the original theme of the evening. It is a new topic, not previously considered at length by Locke in any of his previous writings, and it is thematically remote from the natural and supernatural basis of morality.

<sup>11</sup> Locke had read Spinoza's chapter on prophecy, for, as remarked in the previous footnote, he cites it in an interleaved Bible; whether he had read it before the evening when the *Essay* was conceived is uncertain; see *LL* 309, *Bod. Locke* 16.25, p. 18.

<sup>12</sup> Spinoza to Oldenburg, September/October 1665; Oldenburg to Boyle, October 10, 1665; Oldenburg to Spinoza, October 12, 1665, *The Correspondence of Henry Oldenburg*, ii, 541–2, 555–9, 565–8.

<sup>13</sup> Baruch Spinoza, *Theological Political Treatise, Collected Works of Spinoza*, Edwin Curley, ed., ii (Princeton: Princeton University Press, 2016), chs. 1, 2, 12, and 14.

<sup>14</sup> Richard I. Aaron, *John Locke*, 3rd edn. (Oxford: Clarendon Press, 1971), 51.

It adequately supplies the desideratum that Locke recalls was needed: it describes the capacity of the understanding and its proper objects, all of them deriving from the perception of things external to it, and it goes on to consider its cognitive use of them. Furthermore, the account of the understanding given in §1 does not fit easily with the theory expounded in the rest of Draft A, which further confirms its standalone quality. It makes no mention of ideas of reflection, and, given the theoretical scheme it presents, it has no need of them. In this respect, it is more narrowly empirical than its successors, more characteristically the work of a natural philosopher attending to the nature of things.

Besides, we know from Locke's own testimony that there was an Urtext, namely, the sheets upon which Locke inscribed his first thoughts. This was Locke's method, described in the third epigraph to this chapter. Thus, when Locke began to write Draft A, which is the earliest surviving draft of the *Essay*, and plausibly the second draft of the evolving *Essay* coming soon after the Urtext, he most likely did so with these first thoughts before him, written on pages in his own hand. Indeed, it was Locke's practice in writing to work from previous manuscripts and to adapt or incorporate more or less relevant parts of them in successive revisions of a work. It is evident from the successive drafts and editions of the *Essay* that Locke wrote conservatively, that once he had seized his thoughts in a net of words, he was reluctant to let them go, but reused them, sometimes not to the best advantage. A comparison of Drafts A and B and with the *Essay* shows that Locke did not abandon old drafts of a work in progress and start anew, but incorporated what he had already written into an expanding scheme or plan.<sup>15</sup> Also, as will be noted shortly, the additions and deletions in the manuscript may be interpreted as evidence that Locke was working from a previous text. The experiment that follows is an attempt to retrieve Locke's Urtext from §1 of Draft A. Finally, it should be noted that no other section of Draft A qualifies for this trial.

A close examination of the manuscript discovers telltale typographical signs suggesting that it was reworked to fit its new situation. I shall examine these shortly after a presentation of what I take to be Locke's Urtext drawn from §1. This section will conclude with a brief analysis of the content of Locke Urtext and an exposition of its doctrine.

In preparing the text of this hypothetical Urtext, I have regarded all long interpolations and most other insertions as later additions, and have deleted them.<sup>16</sup>

I imagin that all knowledge is founded on or ultimately derives its self from sense which is donne one of these two ways 1° by our senses conversant with particular objects which give us the simple Ideas or Images of things & thus we come to have Ideas of heat or light, hard & soft which are noe thing but the reviving again in our mindes those imaginations which those

<sup>15</sup> For example, we find §§1, 2 of Draft A making their appearance in the middle of §17 of Draft B and continuing into §18. As Von Leyden has shown, Locke made similar use of the *Essays on the Law of Nature*, as a 'quarry' or rich resource, 65.

<sup>16</sup> The reader should consult the critical apparatus, *Drafts I*, 17, for these changes.

objects which have affected our senses caused in us whether by motion or otherwise it matters not here to consider & thus we doe when we conceive heat or light, yellow or blew sweet or bitter &c. & therefore I thinke, that those things which we call sensible qualities are the simplest Ideas we have & the first objects of our understandings. 2° the senses by frequent conversation with certain objects finde that a certaine number of those external ideas go constantly together & are found united in the same subject which therefor the understanding takes to belong to one thing & therefore words following our apprehensions are called soe united in one subject by one name, which we are apt afterwards to talke of & consider as one simple Idea, which is indeed a compilation of many simple Ideas together & soe are all Ideas of substances as man, horse sun water Iron, upon the hearing of which words every one who understands the language presently frames in his imagination of severall simple Ideas which are the immediate objects of his sense, which because he cannot apprehend how they should subsist alone he supposes rest & are united in some fit & common subject which being as it were the support of those sensible qualitys he calls substance or mater, though it be certain that he hath noe other idea of that matter but what he hath barely of those sensible qualities supposd to be inhærent in it (where by the by I thinke I may take notice that the Idea of matter is as remote from our understandings & apprehensions as that of spirit). Thus the Idea of the sun is noe thing but the collection of these severall simple Ideas round, light, hot. haveing a regular set motion a good way from us &c. now because our senses doe not quickly discover to us how many of these simple Ideas or qualities are constantly united in one subject therefor our Ideas of sensible or materiall objects comeing under determinate names and consequently our definitions of such words are often very imperfect & therefor are best made by those who haveing oftenest & with greatest care examind all the sensible qualities of any subject, findes such a number of them certainly & constantly united together. hence a child having been shewd a thing with a bright shining yellownesse & taught to call it gold, is apt to imagin that where ever he meets with that kinde of quality it is sufficient to make that thing which he cals gold & therefor is ready to call brasse that name or a gilded peice of corke gold. a farther familiarity of the senses findes weight joynd with shining yellow, farther examination flexibility then malleableness, then fusibility, then fixednesse, then aptnesse to be dissolvd in a certaine sort of liquor &c & soe at last to a perfect collection of all the simple Ideas united in that one subject which is cald gold, an enumeration whereof is a definition of that word. Now though imperfect Ideas of sensible objects & consequently wrong diffinitions of words affixed to those objects to be the occasion of great errors & disputes yet I thinke they are errors & disputes rather about the signification of words then the natures of things for when a child thinks that gilded corke is gold he thinks noe more than this shineing yellow is the same kinde of shineing yellow which he saw before in a piece of gold if it be all the notion or the only Idea he had of it he is not mistaken & if he call it gold he speaks improperly not using the word as other people doe; but if he take the shineing yellow in brasse to be of the same kinde with the shineing yellow in gold this commonly is an error in comparing the likeness of two sensible Ideas together though not always for brasse or coper may be so orderd that the colour may be very resembling that of gold. However this I thinke is certaine that the first affirmation or negation of our mindes are about these material objects in the framing of our Ideas of them which is noe more but this that where I finde are some of these simple Ideas there are others v.g. gold is ductile i.e. that in that subject where I finde yellownesse with great weight, flexibility & hardnesse in the cold & fluidity in the fire there a certaine sort of sound there also I am sure to find a fitnessse or power i.e. I can by fit

instruments bring it into an almost incomprehensible thinnesse, soe that the first affirmations of our minde is in collecting many simple Ideas for the making of one Idea of some sensible material or as we call it substantiall object & these affirmations are grounded upon the repeated exercise of our senses about that object which we call experience & observation. The next thing coming into our understanding by the observation of our senses is the connexion of causes & effects in some materiall thing viz heat causeth fluidity in wax consistency in clay &c, which is noe more but this i.e. that that thing which hath in it that Idea which I call heat in that thing which hath a certeine kinde of yellow & sweet whereof I have settled Ideas & by the language of my country I am used to, have learned to call wax doth cause another sensible Idea which I call fluidity. Agreeable to this it is very observable that simple Ideas the immediate objects of sense or rather the words expresseing their Ideas have not nor are not capable of any definitions, but those things or rather words which are used to expresse a complication of many Ideas together the reason v.g. by enumerating all the sensible Ideas we have obervd in that thing we call the sun we define the sun or determine the signification of that word, but light or heat we doe not define because the Ideas those immediate objects of our senses produce in us being Simple & by the reiterated exercise of our senses about them being sufficiently fixed in our memory & those names constantly annexd to those Ideas, noe words that stand for or expresse other Ideas can make them soe plaine to our understanding as the Ideas them selves are, which is apparent also in experience as well as the reason of the things for all the definitions in the world & offers at a definition will not give a blinde man any Idea of black or white or blew which simple Ideas being to be conveyd to the minde noe other way but by the senses them selves. nor can all the words in the world produce in a mans minde one new simple Idea unlesse it be of the sound its self. for I demand whether after all the descriptions a traveller can give of the tast of that delicious fruit cald a pine apple a man who hath never had any of it in his mouth hath any Idea of it or noe? or whether if he thinkes he have, it be any new Idea but rather it is not either to that taste of a Pine apple, which Ideas were before produced in his minde by other sensible objects.<sup>17</sup>

### *Telltale signs*

There is set of additions and deletions that occur early in the text, which I consider telltale, because the best explanation of them is that when Locke began writing Draft A he was not just recording his thoughts, but working from a document, an Urtext, which he modified and enlarged. These telltale amendments are noted in the following extract from Locke's manuscript.<sup>18</sup>

§1 1° I imagine that all knowledge is founded on [[or]] and ultimately derives it self from sense \or something analogous to it & may be cald sensation/ which is donne ~~in one of two ways~~ 1° by our senses conversant about particular objects which 1° give us the simple ideas or images of things . . .

<sup>17</sup> *Drafts I*, 1–7.

<sup>18</sup> In the extract above, the following signs are used to signify modifications to the text in the order in which they appear: [[]] signifies deletion by overwriting—in this instance Locke overwrote 'and' upon 'or'; \ signifies an interlinear insertion; ~~strike through~~ signifies a deletion.

First, it should be noted that the numeral '1°' occurs three times in text of §1. The first is located at the head of the section. The other two are internal; they are both marked for deletion. The first by its location complements '2°' located at the beginning of §2, which suggests that it was newly added when Draft A was composed.<sup>19</sup> These numerals, in their respective locations in Draft A, pertain to content; they relate respectively to the two kinds of simple ideas that make up the primary objects of knowledge, ideas of sensation and reflection respectively, which are staples of Locke's mature theory.<sup>20</sup>

It should be obvious that the text of §1, as it currently stands, requires one of the two internal numeral 1°s to complement the internal numeral 2°, which occurs five lines down in the manuscript.<sup>21</sup> But it should also be clear that these internal numerals denote two kinds of ideas, both ideas of sensation: 'those things we call sensible qualities,' which are 'the simplest Ideas we have & the first objects of our understandings,' and those that result from 'frequent conversation with certain objects together which therefore the understanding takes to belong to one thing,' which, words following, are named as one thing. Here we have a complete inventory of the objects of thought, and the passions and actions of the understanding involved in their production: simple ideas of sensation, complex ideas of things, and names. The completeness of this inventory is an additional proof that §1 of Draft A envelopes Locke's Urtext.

Still, it remains to explain why the numeral 1° occurs twice in Draft A, and why Locke decided to delete them both. As has been already remarked, one of them is needed in the text to complement 2°, which follows several lines down. The one that does this clearly and without ambiguity is the first. The only explanation that seems plausible is that 1° was mislocated in the Urtext, that Locke discovered this, when drafting Draft A, deleted it, and inserted a new numeral 1° in its proper place, and preceded it with the words, later deleted, 'in one of two ways,' but that, on further consideration, deleted it also when, to make §1 fit with §2, a new 1° was called for at beginning of the section.

However, even with these changes, §1 and §2 do not easily fit easily together. In context, the topic of §1 is the identification of one kind of simple ideas, viz., ideas of sensation. It does this and more. It goes on to explain how these ideas are combined to form propositions, definitions, and statements of cause and effect, topics whose turn should await a full account of ideas, simple and complex, but this should come only after both sorts of simple ideas have been introduced. Locke must have recognized this, for his reworking of these sections in Draft B, §§17–19, achieves a proper order by removing much of the later content of §1, Draft A.

<sup>19</sup> *Drafts I*, 7: '2§ 2° The other fountaine of all our knowledge though it be not sense, yet is some thing very like it & properly enough be called sensation . . . '.

<sup>20</sup> It should be noted that Locke does not use the term 'reflection' in Draft A. He uses it in a marginal note, distinguishing simple ideas from complex ideas of substance: 'By sense & reflexion we come to have simple Ideas.' *Drafts I*, 83 and note. Thus it can be said to make its first official appearance in §19 of Draft B, *Drafts I*, 129.

<sup>21</sup> See the facsimile of the first page of Draft A, facing *Drafts I*, 1.

One more interpolation introduces an underlying subtheme of the *Essay*, namely, the cognitive parity of body and spirit. The parenthetical sentence that introduces this theme is modified in Draft A to elaborate and clarify the thought and its consequences.

(where by the by I thinke I may take notice that the idea of matter is as remote from our understandings & apprehensions as that of spirit \& therefore from our not having any notion of the essence of one we can noe more conclude its non existence then we can of the other./<sup>22</sup>

In my reconstruction of the Urtext, I have deleted only the inserted matter. It is arguable that the whole should have been deleted, because the remark seems a bare intrusion without context, which neither the Urtext nor §1 of Draft A provides. This requires an explanation, which given the lack of hard evidence must be conjectural.

This is what I suppose. As Locke was composing the Urtext it occurred to him or was brought to his attention that the empirical stance from which he undertook to explain the origin and limits of knowledge was the very same starting place that Hobbes took, and that Hobbes drew the conclusion that the only clear and credible idea of substance we are capable of is body, and that the idea of an immaterial incorporeal spirit is not only unimaginable by us but also incoherent nonsense. Locke, perhaps being made aware of Boyle's strategy of deflection, came to see that his original empirical stance left him with a view only of the externality of things, and without access to their internal material constitution. The parenthetical remark was put in as a placeholder. It was a fateful insertion, which took on greater proportion as the *Essay* developed.

### *Analysis of the Urtext*

The text is divided into four parts. The first two, which are numbered, treat simple sensory ideas and complex ideas of substances, together with the names and definitions of things. The third part, which appears to be a hasty addition or insertion, offers a very brief explanation of the origin of ideas of cause and effect. Had Locke given thought to tidying up the text, he might have inserted the numeral 3° just prior to 'The next thing coming into our understanding,' and replaced 'two' with 'three' in the opening sentence, for the first three parts explain, in this order, (1) how the original elements of thought enter the mind through sensation, (2) how they combine into compound ideas of things, are named, and defined, and (3) the formation of causal propositions. The final part is a conclusion or summation, whose main point is the positivity of simple ideas and the indefinability of terms used to denote them. He reasserts his fundamental empiricism: 'it is very observable that simple Ideas the immediate objects of sense . . . are not capable of any definitions.' Hence they are primordia.

In sum, the objects that Locke treats—ideas and their names, definitions, created by the 'first affirmations or negations' of the mind, and causal statements, or propositions and terms, and the broadly experimental nature of the examples he gives of their

<sup>22</sup> Draft A, 2, lines 5–7 and textual note 3.

discovery—could be taken as the basic ingredients of a logic of empirical discovery, achieved experimentally.

*The doctrine of the Urtext*

The Urtext presents a short theory of the origin of human knowledge. It is a generative theory, based on empirical enquiry and experiment, on induction, describing how knowledge occurs, beginning with its smallest parts and explaining how they come to be arranged in coherent complexes, which convey meaning. Thus in addition to the various sorts of ideas that are the ingredients of knowledge—simple ideas, which are the primordia or first elements of knowledge, and complex ones of things—it includes an account of the mental activities that go along with knowing, and an identification of the faculties of the understanding engaged in it: sensation, memory, imagination, and reason. Sensation is the first faculty, which if not paramount, is at least the most prominent in this empirical theory. It supplies the understanding with its content, simple ideas, which are its 'primary objects', and by their regular gathering in groups, our perception of things. Yet other faculties are mentioned: the imagination, which retrieves ideas from the memory, and intellect, which by the use of words names things, and through whose affirmations and negations the mind assigns definitions to things. All this is offered tentatively ('I imagin'), yet there is no alternative explanation at hand. Hence, such knowledge can be accounted as primary, both physically and metaphysically. It is not Locke's purpose to offer a physics or metaphysics, but to explain, physically, sensationally, and rationally, how we come to know such things, and what it is we really know about them. Yet these ideas, as they are refined and abstracted, are comparable to Bacon's forms, and in this respect, comprise an alphabet of thought, or a metaphysics of meaning.<sup>23</sup>

This is also the first appearance we have of Locke's thoughts about substance. He uses the term twice in the Urtext. In the first instance, it signifies a sort of thing or mass of a material substance: 'man, horse sun, water Iron.' In the second instance, it signifies the underlying substrate of a thing, which serves as a 'support' of sensible qualities, but which is never perceived by itself, and therefore is accounted in the definition of things only as a name or subject. The expression 'substance or matter' here suggests a sort of undefined stuff. Its physical role in the generation of things is not considered here. Thus Locke stops short of a fundamental physics. His interest here is epistemological and logical. Yet another motive shows itself in the comment that we have no other idea of matter but the sensory ideas or qualities of material bodies, which is a very strong denial.

This is followed by the remark, in parenthesis, concerning the cognitive parity of matter and spirit, which introduces things that are not at all subject to empirical scrutiny. I am inclined to think that this parenthetical remark was intended as a rebuke of

<sup>23</sup> Another possible source that may have been present in Locke's mind is Descartes's account of perceiving in the second *Meditation*; Descartes, *Meditations on First Philosophy, The Philosophical Writings of Descartes* (Cambridge: Cambridge University Press, 1991), i, 20–1.

Hobbes, whose materialism and denial that we have any notion of spirit inflamed a latent fear of atheism.<sup>24</sup> This theme, and the motivation for introducing it, will be treated at greater length in the *Essay* and will be considered in its appropriate place. Although we cannot be certain about what prompted Locke to depart from his main theme, it seems likely that it had something to do with the occasion that led to the drafting of these remarks. The claim that the idea of matter is as remote from the understanding as the idea of spirit was not new. Boyle asserted it. So did Henry More, whose assertion of it verbally complements Locke's: 'That the notion of Spirit is altogether as intelligible as that of Body.'<sup>25</sup> More's comment was a rebuke of Hobbes.<sup>26</sup>

In any case, the natural philosophical pedigree of Locke's endeavor is uncompromised. Painstaking observation is encouraged. Perfect definitions are demanded along with a complete inventory of the qualities of things so that ambiguity in referring to species of things may be avoided. And virtuosity is rewarded: the most accomplished definitions are 'best made by those who haveing oftenest & and with greatest care examin'd all the sensible qualities of any subject, findes such a number of them certainly & constantly united together'. Examples given, particularly of change in qualities, are taken from the laboratory.

### *Contexts of the Urtext*

As I have tried to show, Bacon's influence is discernible at crucial places in the doctrine of the Urtext. However, a more proximate source of influence, which comes immediately to mind when reading the Urtext, is Boyle's *Origine*, for its first two parts concern the origin of qualities and forms.<sup>27</sup> However, Locke's account is purely phenomenological.<sup>28</sup> Unlike Boyle, he is not here primarily concerned with a physiological or material explanation of our perception of forms and qualities. Evidently Locke

<sup>24</sup> *Leviathan*, I, xxxiv.2.

<sup>25</sup> Henry More, *The Immortality of the Soul* (London, 1659), 16. More's positive assertion is based on his confidence that the primary qualities of spirit are known, viz., indivisibility and penetrability, which, it just happens, are the opposites of body's divisibility and impenetrability. More presented this theme in an earlier work, *The Antidote against Atheism* (London, 1653, 2nd edn. 1655), Bk. I, ch. 4. Locke did not own a copy of More's *Immortality*; he subsequently acquired a copy of the second edition, *LL*, 2047<sup>a</sup>.

<sup>26</sup> Locke's and More's comments are both reminiscent of Descartes's claim in the *Second Meditation* that the mind 'is better known than the Body' and similarly in the *Sixth Meditation* that the existence of one's own mind, and of God, is more clearly demonstrable than the existence of one's body; see Descartes, *Meditations on First Philosophy, The Philosophical Writings of Descartes* (Cambridge: Cambridge University Press, 1991), ii, 9, 16.

<sup>27</sup> For Locke's dependence on Boyle, see Guy Meynell, 'Locke's Corpuscularianism and Boyle's Corpuscular Philosophy', *Locke Studies* 3 (2003), 133–45.

<sup>28</sup> There is, I believe, an explicit reference to Boyle's hypothesis in Draft A, §17 (*Drafts I*, 32). There Locke observes that all the ideas ordinarily entertained by the understanding are taken by us to be positive things, without any consideration that they may be the products of some underlying disposition of imperceptible parts of matter, and that even though it may be so that 'white or sweet & many other sensations in us be perhaps caused in us constantly by particles of certain figures', this relation would be of proper concern only if his purpose were to explain the physical causes of sensation and not what the understanding does with ideas once the senses have delivered them, that is, how they serve as the primary elements of knowledge and belief.



supposed that a physiological account of perception was not germane to his subject. But he may have had another reason also. His supposition of a substratum or an underlying substance in which the qualities of things inhere to explain how qualities 'rest and are united' in a subject, and his further skeptical comment that all we know of 'that matter' is that it supports a certain set of qualities, followed by his parenthetical assertion of the cognitive parity of matter and spirit—a remark that echoes Boyle's deflection—suggest that from the very inception of the *Essay*, Locke was worried about the progress of materialism fostered by the new philosophy, with its threat to religion and morality. Notwithstanding this, the very nature of the cognitive system that Locke describes is a sort of atomism, the indivisible particles in this instance being ideas, are simple, beyond analysis, incapable of being made, just there in their positivity, and in that respect indestructible. And, because they are sensible objects, they are taken to have material causes.

There is another plausible context that may explain the skeptical attitude of the Urtext, which finds expression in his decision not to seek a physiological explanation of how the understanding works. It is connected to Locke's work as a virtuoso physician. His tutelage under and collaboration with Sydenham during the period 1667–71 may have influenced his thinking. There is no doubt that he had developed a strong intellectual bond with Thomas Sydenham, whom he regarded one of the towering figures of the new philosophy, and whose eminence he acknowledged in the opening discourse of *Essay*.<sup>29</sup> This esteem is best summed up in Locke's later correspondence.

That which I always thought of Dr. Sydenham living, I find the World allows him now he is dead, and that he deserved all that you say of him. I hope the Age has many who will follow his Example, and by the way of accurate practical Observation as he has so happily begun, enlarge the History of Diseases, and improve the Art of Physick; and not, by speculative Hypotheses, fill the World with useless, though pleasing Visions.<sup>30</sup>

Locke's remarks are reminiscent of comments about medical research and practice expressed in *Anatomie* and *De arte medica*, unpublished manuscripts composed in 1668 and 1669 as parts of a comprehensive treatise on the practice of medicine.<sup>31</sup> Their authorship is in dispute: Sydenham or Locke? Both are written in Locke's hand, except for a sentence at the head of *Anatomie*, which is in Sydenham's hand.<sup>32</sup> They were discovered among Shaftesbury's papers and deposited in the Public Records Office in London, which is the repository of a considerable collection of Locke's medical manuscripts from this period, some of them attributed by Locke to Sydenham. Neither

<sup>29</sup> *Essay*, Epistle to the Reader, 9.

<sup>30</sup> Locke to Dr. Thomas Molyneux, November 1, 1692, *Correspondence*, iv, 563; also, Kenneth Dewhurst, ed., *Dr. Thomas Sydenham (1624–1689), His Life and Original Writings* (Berkeley: University of California Press, 1966), 177.

<sup>31</sup> P.R.O., 30/24/47/2 fols. 38–47; Locke, *Correspondence*, iv, 563; also in Dewhurst, *Dr. Thomas Sydenham*, 79–84; I follow Dewhurst's transcription.

<sup>32</sup> It is not, as Dewhurst suggests, an opening sentence, but a comment about the practice of anatomical dissection, and so tells us little about the authorship of what comes beneath it.

manuscript has an attribution of authorship. *De arte medica* is written in the first person, suggesting that it is not a collaborative work.<sup>33</sup> Yet it is an expression of a collaborative effort, in which Locke was undoubtedly a junior partner, but sufficiently engaged so that the opinions expressed in it, even if he were not the ultimate author of them, were ones that he actively appropriated.

The themes that Locke attributes to Sydenham's memory are precisely those of *De arte medica*: 'accurate practical Observation' leading to an enlarged natural history of diseases, and a robust eschewing of speculation. Thus, whether he was the author of this work or not, the program prescribed in it is the same that he had attributed to Sydenham, and it is one to which Locke subscribed. That he should have recalled these thoughts so well is not surprising, for we find them in the *Essay* as foundational thoughts of that work. These thoughts, it should be noted in passing, all pertain to Baconian themes. The same may be said of two related themes, developed in the *Anatomie*, the uselessness of anatomical theory for practical medicine and a deep skepticism of the possibility of a science of nature from the ground up, that is from the level of insensible atoms to an explication of the perceptible operations of bodies, but at the same time a confidence that critical observation and careful practice will yield beneficial results, whether one is caring for a sick patient or conducting the understanding.

Both contexts are instances of virtuosity and may be taken as the proximate historical basis of the sort of virtuosity peculiar to Locke, whose leading characteristics are a narrow empiricism, a skeptical distancing from ultimate material explanations, and a sober confidence in the capacity of human understanding to amass sufficient practical knowledge to enable anyone whose uses it to make one's way in the world. Locke's virtuosity, then, which governed his thinking at this earliest stage of writing the *Essay*, is that of a determined empiricist and virtuoso physician.

There is still another important feature of Locke's Urtext that wants a source. From contents and the order of them, the Urtext seems to offer a very basic logic of enquiry, as distinct from a system of inference: primary concepts, the formation of propositions, viz., definitions and causal statements, the latter exemplified by experimental examples, in particular, the dissolution of metals, all of which is requisite for an enquiry into the nature of things. Having discovered that all our concepts and notions derive from perception and the manner of acquiring them, the mind turns to consider things, collections of perceptions with names, and becomes curious about the unseen underlying reality that is supposed to be the cause of their manner of appearance. This is strongly reminiscent of Epicurus and suggests a general Epicurean influence. By

<sup>33</sup> For an account of these, see *Thomas Sydenham's Observations Medicae and his Medical Observations*, G. G. Meynell, ed. (Folkestone: Winterdown Books, 1991), 2–3. On the authorship of *De arte medica*, see Jonathan Walmsley, 'Sydenham and the Development of Locke's Natural Philosophy', *British Journal for the History of Philosophy* 16 (2008), 65–83, and 'John Locke's "Anatomia" and "De Arte Medica"', New Transcriptions', which argues persuasively if not conclusively for Locke's authorship of these texts: [https://medium.com/@craig\\_walmsley/john-lockes-anatomia-and-de-arte-medica-new-transcriptions-fe368fb5c5b0#.8fcmn1jc0](https://medium.com/@craig_walmsley/john-lockes-anatomia-and-de-arte-medica-new-transcriptions-fe368fb5c5b0#.8fcmn1jc0).

observing that Locke's founding reflections are much like those of Epicurus, I do not mean that he was deliberately following an Epicurean source or model; there is no evidence for this. Moreover, as I have argued elsewhere, on the grounds of affinities with the Stoic theory of ideas and concept formation, it could be argued that Locke was influenced by Stoicism.<sup>34</sup> Locke would have denied that he was following either. The *Essay* from start to finish is a work noteworthy for its originality. It is an original analysis of the mind. Nevertheless, it is also evident that he did not fashion his thoughts out of nothing, but drew from prevailing notions, and these prevailing notions were influenced by the major schools of the Hellenistic period, Stoic and Epicurean. On balance, the greater influence seems Epicurean, because of a general agreement about the limited purpose of logic, an eschewing of formal methods of inference, and because he came to believe that the inner constitution of bodies was determined by the configuration and motion of their unseen parts. One need only regard his Urtext in the light of Elizabeth Asmis's summary of Epicurus' logic or method of enquiry, which she reduces to Epicurus' two rules of enquiry; first, that every enquiry begins by establishing the meaning underlying the terms we use to name objects in question, and second, that these meanings are universal concepts, abstractions, Epicurean *προληψεις*,<sup>35</sup> the products of actual perceptions of external things, bodies and their operations, which reside in the memory, which is the storehouse of all human ideas or images, and from this proceeds to physics, to consider the underlying material causes of things, which remain unseen.<sup>36</sup>

## Draft A

If we attempt to trace the earliest history of the *Essay*, we may be sure of two events, the winter night when the project of *Essay* was conceived and a subsequent meeting not long after, when the friends considered Locke's first thoughts and entreated him to continue to develop them.<sup>37</sup> There followed a sequence of events, involving the composing of Draft A, which probably represents the first draft of the *Essay* after the Urtext. All of this happened during the year 1671,<sup>38</sup> and from an internal reference in

<sup>34</sup> 'Aspects of Stoicism in Locke's Philosophy', *Christianity, Antiquity, and Enlightenment*, 187–9.

<sup>35</sup> The term is usually translated as 'preconception'; it is the ancestor of Bacon's 'anticipation'; see Diogenes Laertius, *Lives*, X.33.

<sup>36</sup> Elizabeth Asmis, *Epicurus' Scientific Method* (Ithaca: Cornell University Press, 1984), chs. 1 and 5, and *passim*; also see below, Diogenes Laertius, *Lives*, X.37–8.

<sup>37</sup> For an analysis of the contents of Draft A, see the Appendix to this chapter; also see Aaron and Gibb, *An Early Draft of Locke's Essay*, vii–ix, and another by Jonathan Walmsley in *The Continuum Companion to Locke*, S.-J. Savonius-Wroth, Paul Schuurman, and Jonathan Walmsley, eds. (London: Bloomsbury, 2010), 234–9.

<sup>38</sup> See *Drafts I*, 1; the first page of Draft A has the following head title: 'Sic Cogitavit de intellectu humano Jo: Locke anno 1671' ['So has John Locke thought about human understanding in the year 1671'], underneath is a further elaboration of the theme, 'Intellectus humanus cum cognitionis certitudine, et assensus firmitate' [Human understanding along with the certitude of knowledge, and the firmness of assent], and beneath this line, the numeral 7[[2]]1.

Draft A, we know that Locke was still at work on this draft in July of that year, for in §27 he fixed a date to the lines he had just written, '10<sup>o</sup> July. 71'. This comment occurs approximately halfway through the modern critical text, but an examination of the critical apparatus reveals that on that day Locke was well beyond the halfway point.<sup>39</sup> The opening sentence of §27 announces that the draft is nearing an end, that the requisite evidence had been presented, and that tentative conclusions were imminent about the capacity and scope of human understanding, which Locke proceeded to do.<sup>40</sup> However, from a reader's perspective, the end was not yet. §§28–42 contain elaborations, clarifications, and refinements of themes already covered. Half way through §39, Locke revisited §27, decided that it was incomplete, and added a long supplement to it. Reference to '10 July 1671' occurs in this addition.<sup>41</sup> §§43–5 introduce objections, and from the concluding memorandum one senses that Locke was planning another draft. In sum, Aaron's conjecture, that Locke completed Draft A during the summer of 1671, had reasons to be dissatisfied with it, and so soon after began writing Draft B, seems very plausible and worthy of acceptance.<sup>42</sup>

What sort of work did Locke intend Draft A to be? Its contents and the order of them reveal it to be a logic of experimental science; like his first ancestor, Aristotle in the *Posterior Analytics*, Locke's concern is with the scope of natural knowledge and its certainty, but unlike him, and more like Epicurus and Bacon, his concern is not to develop a deductive science of nature, but an empirical logic of discovery, definitions, and causal explanations, which do not exceed probability and which leave open the prospect of enlargement of experience and reason as the scope of enquiry increases. His definition of 'demonstration' as of something immediately seen is like an act of defiance. Like Aristotle, and perhaps following him, he considers affirmation and negation, definitions, attributions of existence and cause and effect, and supposed preliminary knowledge upon which all scientific knowledge is supposed to depend.<sup>43</sup> Draft A proceeds in the order characteristic of an epitome of logic.<sup>44</sup> It is a natural continuation of Locke's Urtext, which proceeded from terms, simple ideas, to propositions, definitions, and judgments of cause and effect.

Notwithstanding its repetitions and digressions, Draft A is a well-ordered system, proceeding from its simplest elements to their modes of combination, their operations, and their cognitive and doxastic products. Its method is not didactic, but experimental, the outcome of trials of perception and empirical judgment, which he calls upon his readers to try for themselves. Its tone is tentative, its content seeming to unfold 'without

<sup>39</sup> *Drafts I*, 43.

<sup>40</sup> 'To bring all therefor to our present purpose & consider what is the extent of humane understanding & what it is capable of. I thinke from what hath been said it is evident...', *Drafts I*, 42.

<sup>41</sup> See the critical apparatus, *Drafts I*, 43, n. 5 and passim.

<sup>42</sup> Richard Aaron, *John Locke*, 51.

<sup>43</sup> Aristotle, *Posterior Analytics*, I, ii–iii; 71b9–73a20, and passim.

<sup>44</sup> On the usual parts of seventeenth-century logical textbooks, see also Gabriel Nuchelmans, 'Logic in the Seventeenth Century', *Cambridge History of Seventeenth Century Philosophy* (Cambridge: Cambridge University Press, 1998), i, 105.

design or premeditation,<sup>45</sup> as though Locke were an observer of a real object and its operations that is being newly examined, which indeed he was. His discourse is not that of an expositor or instructor of received doctrine, but of an enquirer. The object to be observed by him and explained, the understanding, is, as he would later remark, not anything one regularly or routinely considers. It involves an unnatural turning; the mind must engage in an activity for which it does not seem to have been designed, like an eye observing itself, which is nearly impossible, and not without the aid of a mirror, hence the metaphor 'reflection.' What Locke meant by this metaphor is that the understanding is an instrument of perception that is not disposed to observe itself. Yet he would find this labor pleasant, albeit heavy.<sup>46</sup> And although introspection is in certain respects uniquely solitary, Locke appears to have had more than a little help from his friends, who made comments and raised objections, and whose influence may be represented in the additions that he kept making to successive versions of the *Essay*. What is important to notice here, if my hypothesis is correct, is that Locke intended to develop a system of logic on the grounds and within the limits of mere perception, through the instrumentality of the rational reflection. Like any other handbook of logic, it would be systematic and descriptive: identifying primary elements, viz., terms and propositions, their origin in experience and their modes of combination; prescribing rules for their proper use and the limits and scope of their cognitive payoffs; lastly offering a diagnostic of errors and ways to avoid them. It would proceed not abstractly, but descriptively, offering tried experimental practices, which readers should try for themselves.

The order of topics is as follows.

- §§1–8: Terms, simple and complex, their origin, and what we may infer from them regarding truth and existence.
- §§9–26: Propositions and their sorts.
- §§27–31: Modes of knowledge and certainty.
- §§32–42: Modes of probability and assent.
- §§43–4: Objections and closing thoughts.

### *Ideas*

What is especially new and noteworthy in Draft A, compared to its hypothetical predecessor, is the announcement or discovery of a second 'fountain of all our knowledge' adding to our storehouse of simple ideas. They result from observing the operations of one's own mind.<sup>47</sup> Locke contends that the way in which these ideas are received may

<sup>45</sup> *OED*, 'casual' 3; the word also signifies chance occurrences, unexpected events that remain to be explained.

<sup>46</sup> *Essay*, Epistle to the Reader, 6.

<sup>47</sup> It is likely that Locke was reminded of this second source of ideas by reading Descartes, *Principles of Philosophy*, Part I, §48, or perhaps this was brought to his attention by one of his friends. This section of the *Principles* may have been one of Locke's guides when enlarging his theory of ideas in Drafts B and C.

be called sensation, 'properly enough' or almost properly, because what flows from it are also matters of experience, although not of sense perception: instances of thought, belief, assent and doubt, love and hate, fear and hope. He supposed that the two sources are alike and so should be treated analogously.<sup>48</sup> The perceptions of qualities of external things on the one hand, and of operations of the mind on the other, are sufficiently alike to warrant this. Hence, both may be regarded as sensation. And because the resultant ideas do not seem self-subsistent, by analogy, we may suppose that they subsist in some underlying thing, a substance. The analogy allows the Christian virtuoso to accommodate experience to immaterial entities, and it provides evidence of the parity of existence of matter and spirit, which is made explicit in the addition to the parenthetical remark in §1: '& therefor from our not having any notion of the essence of one we can noe more conclude its non existence then we can of the other,'<sup>49</sup> elaborated in §2:

The other fountaine of all our knowledg though it be not sense . . . is noething but experience of the operations of our owne mindes within of which very operations being often repeated we frame certaine Ideas . . . which actions of our minde we not apprehending how body can produce are apt to thinke are the actions of some other substance which we call spirit, whereby yet it is evident that having noe other Idea or notion if body but something wherein those many sensible qualitys which affect our senses doe subsist, by supposing a substance wherein thinking knowing doubting hoping feareing &c doe subsist we have as clear a notion of the essence of a spirit as any one hath of the essence of body, the one being supposed to be without knowing what it is the substratum to those simple Ideas that we receive from without & the other supposd (with a like ignorance of what it is) to be the substratum to whose actions we experiment [i.e., experience] in ourselves within.<sup>50</sup>

This is a clear indication of the trajectory Locke's thought will follow in all subsequent drafts and editions of the *Essay*, enlarging the scope of experience, and therefore also of reason, to accommodate spiritual or immaterial realities, yet holding steadfastly to an empirical method of observation and experiment with oneself.

It will be useful to observe more closely how this was done. Locke's method is subtler than Boyle's way of enlarging experience and reason in *The Christian Virtuoso*, where he relied more on real experience than dialectic. Like Boyle, Locke enlarged the domain of experience to accommodate spiritual substances. The operations or actions of our minds are objects of perception, and like the qualities of things perceived by the senses, they are without doubt matters of experience. They are not things, but qualities of things, hence there must be some substratum in which they inhere. However, unlike sensible qualities, these ideas of mental actions do not appear to be things that material bodies can produce, or, at least, Locke supposes that we have no experience of bodies producing thoughts—a claim that seems ironic when considered in the light of Locke's later conjecture concerning thinking matter. Hence, they must be the actions of another sort of substance, which we call spirit, which is as vaporous as thought. That we have no idea of what a spirit is in itself is not a reason to doubt its existence, for neither

<sup>48</sup> See Draft A, §38.

<sup>49</sup> *Drafts I*, 2, n. 12–12.

<sup>50</sup> *Drafts I*, 7.

do we have an idea of the nature of a material body in itself, not because its nature is not material, but because our senses have the power to perceive only surfaces or appearances, and are incapable of accessing the inner constitution of things. Thus it follows that just as from the sensible experience of corporeal qualities we can be sure that some bodies exist, so by the experience of mental actions we can be sure that some spirits exist. Here Locke inserts, parenthetically, the judgment that the idea of matter is as remote from the understanding as that of spirit. The reason for this is implied, because the senses are no more able to perceive the real nature of the one than the other.<sup>51</sup> However, there is a trade-off. Confidence in the existence of spiritual realities is matched by a growing skepticism concerning a science of nature.

Later in the same section, §2, Locke explains how the mind comes to conceive of the idea of spirits in general, and of God. He falls back upon the commonplace of inner and outer experience to contrast the respective locations of the objects of reflection and sense perception.<sup>52</sup> All the ideas that the mind perceives without are related to bodies, which are external to the mind, and thus are taken to be effects of powers inherent in material bodies. The ideas of the operations and powers of the mind are perceived within and these, or a combination of some of them, we regard 'without consideration of matter', and this is all the idea of a spiritual being we have. Our idea of God is substantially nobler, for it exceeds all measurable limits, but it is constituted of the same sort of ideas as the operations of the mind. The operations and powers of the mind that imply perfection, by which Locke means active powers, viz., powers to initiate thought, to will, to act, or to create, are attributed to God 'in an higher & unlimited degree', whose being is we know not what. And because our knowledge of such powers and of the operations of the mind is limited to our own experience 'of our owne minds, or soules, or what ever you will call it', it is not possible to carry an enquiry into the realm of spirits any further, although it is not impossible and hence not unreasonable to suppose that that realm is as full of species as the material realm and may even exceed it in variety.

However, it is not Locke's business to consider such things. The 'matter at hand' concerns how the mind proceeds from its 'principles or originals', which are indeed a sort of matter, viz., from the simple ideas of sensation and reflection, to knowledge, for knowledge consists in nothing more than 'compareing uniteing compounding enlarging & otherwise diversifyeing these simple ideas one with another', a working over or up of the prime matter of sensation, which is received from without.

When the minde which at first tis probable to me is a *rasa tabula*, hath by repeated exercise got the remembrance of severall of these simple Ideas & observd that a certaine number of them

<sup>51</sup> In Draft A (*Drafts I*, 2, lines 5–7) Locke added this gloss, '& therefor our not having any notion of the essence of one we can no more conclude its non existence then we can of the other'. Idea in the previous clause becomes 'notion of essence', which seems more an idea of reason than a configuration of sensible images.

<sup>52</sup> Inner and outer have various uses in Locke and in seventeenth-century thought. On the one hand, the distinction may signify the inner workings of a material thing which, if known, would suffice to explain its outer or visible operations. But it was also used to distinguish the seat of thought or consciousness in general, which is the way it is used here, as opposed to the visible expression of thought through words or actions.

are joynd constantly together it comes as I have said before to looke upon them as the marks effections or concomitants of that one thing, which the child is taught to call by one name. which name is in effect an affirmation & soe are the names of all substances . . . Now concerning these substances or collections of simple Ideas, he knows most of any one in particular who knows the most of the sensible qualitys that are in it or the powers of it which are either active as an ability or aptnesse to produce certaine sensible qualitys in some other subject or else passive i.e. an aptnesse to receive the alteration of some sensible qualitys from an other subject. but the minde or the man comeing to observe a certeine number of these simple Ideas to be found in several particular subjects ranks them together or else finds them ranked together by others under one general name, which we call a species & if more comprehensive a genus or in plaine English a sort or kinde, now the certain precise number of these simple Ideas which belong to any species being hard to be knowne & never almost set downe or agreed on & soe no definitions or the words made. words necessarily come to have a very uncertaine signification & tis merely about the signification of words that most of the disputes in the world are nay even of those which seeme to be about things. v.g whether a bat be a bird or now, is not a question whether a bat be an other thing then indeed it is. . . .<sup>53</sup>

Here Locke is offering an empirical account of the formation of ideas of secondary substances or species, which because it is a set of simple ideas collected under a name functions as a simple element of discourse, although it is a collection of apprehensions, which, unlike it, are absolutely simple. However, when joined together in one complex idea and given a name such collections gain quasi-simplicity in the mind. Altogether, they may be ascribed truth-values; for example, ideas of man, horse, water, or lead are true if all the simple ideas collected under the name belong to the thing perceived, or to the sort of thing properly referred to by the name, whether it be real or fantastical. The ideas themselves, because they are the product of real perceptions, are true.

. . . v.g when I frame the Idea of the legs arms & body of a man & joyne to this a horses head & neck I doe not make a false Idea of any thing because it represents noething without me, but when I call it a man or Tamberlain I then joyne a wrong name to my Idea, or make an Idea which I phansy resembling the thing signified by that name Tamberlain & soe miscall it. or else imagin some such thing to exist without me & soe affirming existence of a thing not existing I erre. which is yet no falsehood of the idea.<sup>54</sup>

*Transcendentals:* Transcendentals are a special class of ideas by virtue of their universality and abstractness. Locke did not devote any article of Draft A to the topic of transcendentals, nor did he use the term.<sup>55</sup> Nevertheless, in different places in Draft A, he identifies a certain class of ideas and terms, which are coextensive with all other ideas and things, and which the mind fashions or invents to facilitate thought about its objects. They are in all but name transcendentals. In medieval metaphysical theory, transcendentals are the most common notions used in the interpretation of being or

<sup>53</sup> *Drafts I*, 8.                      <sup>54</sup> *Drafts I*, 18–9.

<sup>55</sup> See 'Transcendentals', *Stanford Encyclopedia of Philosophy*, <http://plato.stanford.edu/entries/transcendentals/medieval>; also John Wilkins, *An Essay on Real Character* (London, 1668), 26, which Locke may have had in mind when writing what follows next.



existence, which is taken to be the first object of thought. Traditionally, there are three: true, one, and good. Locke's trio include entity, one, and true. I begin with his account of the origin of 'entity' and its synonyms.<sup>56</sup>

The minde, for the conveniency or marshalling its owne Ideas, recording its owne thoughts and observations & signifying them to others being apt to make general words to expresse a great number of particular things [viz., genus and species], doth for the same reason make some universal words for all its Ideas which shall equally belong to each of them such are **Entity Being Something Existing** and the notion of **Being** is but coadequate<sup>57</sup> to the particular Ideas we have gatherd from sense or sensation & can be extended noe farther then they & soe is noe new notion nor an innate Idea but a general appellation of those particular ones that we have got by observation I thinke is evident from hence. that haveing experimented within ourselves the Power of thinkeing moveing ourseves & other things... haveing also by our senses got Ideas of Extension colours sounds smels & tastes &c wherever we finde or suppose any of these to be there we say & conclude is some thing or Being...<sup>58</sup>

Here we find what is perhaps Locke's earliest argument against innate ideas along with one against conceptual realism. The terms 'entity' et al. when they arise in the mind refer to 'no new thing', but rather are general names for groups of particulars. Nor are they innate, for by attending to their use, the mind discovers their origin as ideas of reason invented for its own convenience.

Further on, in §10, he attributes to the general notion of existence another more restrictive role as a predicate, the 'first and most natural' of predicates, whereby the understanding affirms the real existence of the things it perceives on the basis of the testimony of the senses, in particular, of the eyes, which Locke asserts is indubitable.

The first & most natural predication or affirmation is of the existence not of the Idea but something without my mind answering that Idea, as haveing in my mind the Idea of white the question is whether any such quality i.e. that whose appearance before my eys always causes that Idea doth really exist i.e. hath a being without me? & of this the greatest assurance I can possibly have & to which my facultys can atteine is the testimony of my eys, which are the proper & sole judges of this thing, & whose testimony I rely on as soe certaine, that I can noe more doubt whilst I write this that I see white & black & that they they really exist then that I write, which is a certainty as great as human nature is capable of concerning the existence of any thing but a man's self alone, this being according to Des Cartes to every one past doubt that whilst he writes or thinks that he writes, he that thinks doth exist. This certainty I say of a things existing when we have the testimony of our senses for it is not only as great as our frame

<sup>56</sup> In *Essay*, II.xxxii.2, Locke explains the use of 'true': 'both *Ideas* and *Words*, may be said to be *true* in a *metaphysical Sense* of the Word *Truth*; as all other Things, that any way exist, are said to be true; *i.e.* really to be such as they exist. Though in Things called *true*, even in that Sense, there is, perhaps a secret reference to our *Ideas*, look'd upon as the Standards of that Truth, which amounts to a mental Proposition, though it be usually not taken notice of.'

<sup>57</sup> 'Coadequate' is not found in the *OED*; Locke may have coined it; coadequate terms are equally representative of their objects, in this instance, 'entity' et al. represent particular ideas no more and no less than their proper names.

<sup>58</sup> Draft A, §8, *Drafts I*, 19.

can attaine too but as our condition needs for our facultys being suited not to the extent of beings & a perfect cleare comprehensive knowledge of them but for the preservation of us to whome they are given or to whome they are, they serve to our purposes well enough if they will but give us certaine notice of these things that may either help or hurt us.<sup>59</sup>

Here Locke supplements the purely rational necessity of Descartes's 'cogito' with the existential necessity of an animal and the impulse of self-preservation. I will have more to say about this in the succeeding section.

Locke's thoughts about unity as a transcendental idea appear in an incidental remark in §12 of Draft A, which is devoted to the concept of number.<sup>60</sup> He observes that every number is reducible to the unit, or one, for numbers greater than one are merely aggregates or countable collections of ones. He remarks that, by itself, and apart from its function as a primary unit of counting, and from whose regular repetitions numbers are produced, one is 'the most universal Idea we have as agreeing to all things & the most natural to the minde of any other'. As such, it is of no use to the understanding in reckoning about things or describing them quantitatively without a system of signs or words just because of its simplicity. By itself or in the mind, 'the Idea of unity is soe simple . . . and soe exactly like all other Ideas of unity that ever I did or can make, that the repeated Ideas or notions of unity will never be distinguished but be a heape in confusion together, unlesse I have words or markes as 1.2.3. &c. to know & determin them by'. Even so, by itself it has an important metaphysical role to play, of signifying every thing in its own being, without reference to any other.<sup>61</sup> Locke's purpose in introducing these ideas in Draft A is to show that, like all other ideas that fill the mind, they originate in experience, and are not a priori conditions of it, which he goes to great lengths to accomplish.

### *Propositions and demonstration*

The second major section of Draft A, §§9–26, concerns propositions, how they are formed, and their use in demonstration. Locke's method is descriptive and genetic, describing how the understanding creates them out of ideas. He distinguishes between the ordinary and the philosophical employment of them, mentally and verbally. In §9, by way of introduction, Locke explains how propositions are formed by joining two ideas by affirmation or negation, '& in this lies all truth and falsehood'.

§10 treats propositions affirming the existence of a thing, which are the 'first & most natural predication or affirmation' of the mind. In such instances, the testimony of the senses 'containe a certainty as great as humane nature is capable of concerning the existence of any thing', which is exceeded only by the existence of 'a mans self alone, this

<sup>59</sup> Draft A, §10, *Drafts I*, 20–1.

<sup>60</sup> *Drafts I*, 24–6. Here Locke shows a passing familiarity with the work of William Oughtred and John Wallis, although he did not at the time own any of their mathematical works. He did later acquire Wallis's *Institutio logicae* (Oxford, 1687), and his *Letter Touching the Doctrine of the Trinity* (London, 1691); *LL*, items 3126 and 3126<sup>a</sup>.

<sup>61</sup> *Drafts I*, 24.

being according to Des Cartes, to every one past doubt that whilst he writes or thinks that he writes, he that thinks doth exist'.<sup>62</sup> Yet, as has already been observed, Locke also emphatically asserts the authority of the senses against all Cartesian doubt concerning the existence of our bodies and external things. Needs and dangers and the necessity to satisfy the one and to avoid the other and the utility of our senses are causes of an indubitable certainty.

& therefore he that sees a flame is as certeine, that, that light & motion which he has the Idea of, is without him, & that those Ideas are caused by that flame; as having once or twice experimented [i.e., tried] it, he is sure that thing causing producing in him the colour Ideas of such light & such a motion, if he put his finger in it will cause in him the sense of great paine. Which is certainty enough, when no man requires greater certainty to govern his actions by.<sup>63</sup>

By 'greater certainty', Locke means a general or theoretical certainty that depends on intellectual intuition and rational demonstration, which leaves open the question of the use of existential certainty in philosophical argument.

In sections 11 and 12 Locke observes that propositions comparing things of the same apparent qualities, for example, where a thing is perceived and therefore affirmed to be whiter, or hotter, or sweeter than another, although intuitively certain, cannot be generalized, for to proceed further would require resolving those perceived differences into one of 'those grande & universal measures of all things', extension and number. He observes that a way had not yet been found to do this. In cases where they can be measured, universal truths such as the 'general axioms of geometry' can be affirmed. When extension is the standard of measure, the method of demonstration is 'the testimony & assurance of our senses', unless 'one will suppose (which perhaps is true) that the truth of these axioms even in geometry are founded in number', which would be more reliable, for 'demonstrations about number are more evident . . . because the Idea of number is more determinat & precise then in extension'.

Appertaining to this, Locke affirms the general rule of mathematical induction.

The evidence then of demonstration, or the certainty of knowledge we atteine by it is thus, That having from our senses or sensation got the Idea of Extension & number & by repeated observations about them atteind certeine knowledge of aequality or inequality of them copard to one another, which always reteine the same proportion when ever we compare them together, we collect frm hence such propositions which having found to be true we call Maximes, & are indeed truths of eternall verity because where ever those numbers or extensions exist they must necessarily have all those propertyts which we have demonstrated of them.<sup>64</sup>

In succeeding sections, Locke introduces propositions of lesser certainty. Here also, the standard is experience, and the standard by which greater or lesser degrees of certainty are judged is the scope of sensation or perception and the quality of their testimony. §13 treats propositions of attribution, of which definitions are a subset. Here we find a distinction between what has come to be known as analytic and synthetic propositions.

<sup>62</sup> *Drafts I*, 21.

<sup>63</sup> *Drafts I*, 21.

<sup>64</sup> *Drafts I*, 25.

The former, attributing to a subject a quality that is included in its definition, for example, man is rational, conveys only a verbal truth or conceptual truth, which does not instruct us of the nature of things. Particular attributions are true only so far as one is conversant with the particulars involved. 'The hare I saw yesterday was grey & the milke I drinke now is white' are true because I have perceived them. Universal attributions are true and certain if they proceed from knowledge of the concept of the thing, but such attributions deriving from regular experience may be taken to be true only if they are regularly perceived to be the case, but then they cannot be deemed certain.

§§14–16 concern powers and capacities of things and causal relations in general. Locke's concerns here are natural philosophical. The powers and capacities of things that mainly concern him in §14 are of that sort and he observes that our knowledge of them consists entirely of experimental observations, or sequences of ideas following regularly upon each other: 'active powers are noe more but this, that this thing knowne to me under the name of v.g. fire will when applied in certain degrees to Lead produce in it fluidity i.e a new simple Idea of a quality whereof I have the idea ...'. 'The passive potentialitys are when any subject that hath ordinarily one sort of Ideas is capable by the application of something else to it to have those simple Ideas changes into others v.g. wax which is ordinarily hard or consistent is fusible i.e is capable by the application of certain degrees of heat to be made fluid ...'.<sup>65</sup> Locke assesses the degree of certainty of such experimental knowledge in §15. Here again, of particular perceptions, for example, this wax became fluid in the fire, we may be certain, but of universal propositions joining cause to effect, he concludes, 'I cannot be assured that they are true', and further on 'a comprehensive knowledge of causes & effects... is I thinke out of the reach of humane understanding', except in definitions of things, which while certainly true, cannot be said of 'things really existing without me'.<sup>66</sup> Yet, in §16 Locke affirms that nothing can be created, generated, or artificially made—the three sorts of causality that Locke admits—without a cause.

§§17–26 treat of relations. §17 is transitional. Hitherto, Locke writes, he has considered ideas and the substances in which they are supposed to inhere as 'simple positive Ideas', that is, as they are directly perceived by the senses, uninterpreted with respect to their underlying, 'uncertain philosophical' causes. He calls them positive because they cannot be defined. This is the way everyone should regard them. Ordinary folk would have no need of a definition; a philosopher, if he were, like Locke, an empirical natural philosopher, would interpret their positivity as a rule. Instead of defining them, he would refer these appearances to their underlying real causes, namely, configurations of insensible particles. But such causes are 'uncertain'. And there the matter ends. Here, I think, Locke was alluding to the theme of Boyle's *Origine*. His purpose is to differentiate his theme from Boyle's: the former, to explain how we come to have ideas of forms and qualities, the latter, to explain how things themselves come to have forms and

<sup>65</sup> Drafts I, 29.

<sup>66</sup> Drafts I, 30.

qualities.<sup>67</sup> Both are physiological processes, and although Locke would have agreed, that it was necessary for Boyle to consider this sort of process as a hypothetical explanation of qualities in things, he did not believe it necessary that he do the same. Boyle would have agreed, perhaps.

In §19, Locke provides a list of relative terms. They consist of a comparison of observable positive things or the ideas of things, which are either unalterable, as in the case of fathers or sons; alterable, like husband and wife, who may divorce; actions and rules, which makes a place for morality. He adds, tentatively, cause and effect, for this is not a relation of positive things or ideas, but of a quality with a power, which is unperceived.

§26 concerns morality and the law of nature. Locke's treatment of it is casual and programmatic. He begins by observing that all of the relations of common human life, which he has considered in the previous sections, with the exception of natural familial ones, involve rules that are established by convention or common consent. They are rules of convenience or expediency. However, moral rules depend upon 'something without us & not in our power & so not made by us but for us.' This external 'something' must have the authority to command and the right and the capability to punish or reward, bring good or evil, happiness or misery—of what duration Locke makes no mention here. This power and authority has the capacity to oblige us to obey. However, Locke goes on in a way to suggest that this may be beyond the scope of the present enquiry.

But because we cannot come to a certain knowledge of these rules of our actions, without first making knowne a lawgiver with power & will to reward & punish & 2° without shewing how he hath declar'd his will & law I must only at present suppose this rule till a fit place to speake of those god the Law of nature & revelation & only at present mention what is to our present purpose viz that this rule of our actons or law of our Lawmaker being knowne the relation of our actions to it i.e the agreement or disagreement of anything we doe to that rule is as easily & clearly known as any other Relation.<sup>68</sup>

Locke added a proof of God's existence and of his powers in the enlarged *Essay* but it is only in his theological writings that he shows how God 'hath declar'd his will & law'.

### *The scope of human knowledge*

Following propositions, terms, and demonstration, §§27–31 treat human knowledge. §27 is the longest section in Draft A, and the most critical. The cause of its excessive length is an addition, which is twice the length of the original. When Locke inserted the addition, he was already midway in the composition of §39.<sup>69</sup> I shall use the designations 27A and 27B to refer respectively to §27 in its original state and its expanded portion.<sup>70</sup>

<sup>67</sup> An account of Boyle's *Origine* is given in Chapter 2.

<sup>68</sup> *Drafts I*, 41–2.

<sup>69</sup> For clarification of this, see *Drafts I*, 43, n. 5 and the reproduction of p. 74 of Draft A.

<sup>70</sup> In *Drafts I*, the text of §27A runs from p. 42, line 4 through p. 43, line 6, where it is interrupted by the interpolated addition, §27B. It resumes on p. 51, line 17 and runs through page 54, line 9. §27B runs from

§27A summarizes in eight points the cognitive compass of the understanding, which is the 'present purpose' of the entire discourse.<sup>71</sup> The first two points concern simple and complex ideas, which comprise the 'materia substrata', the underlying matter or substance of all possible knowledge. The expression is telling. The analogy that Locke uses to describe his theory of the understanding is atomism, although in this instance, the 'atoms' of thought are directly perceived. In any case, simple ideas, which the understanding is capable of 'receiving retaining & reviving in its self' are 'gathered only' by experience of the internal external bodies or of internal operations of the mind. It is observed that the mind has the capability to 'unite, combine, inlarge compare' simple ideas whereby it fashions out of them 'new complex' ideas. Because it is the 'maine businesse' of the understanding to distinguish true and false, and because these qualities apply properly to propositions, these actions of combining, enlarging, and separating (for what the mind can join together it can also disjoin) may be interpreted as acts of affirmation and negation, hence to fashion them in propositions, which may be mental or verbal.

Points 3, 4, and 5 concern the immediate cognitive implications of perception. The understanding knows that it exists so long as it thinks, reasons, or imagines, from which the mind is certain 'that there is something that knows & understands'; this is Descartes's 'thinking thing'; Locke acknowledges Descartes as the proprietor of this insight and concurs with it, adding that the mind can entertain a no more certain and undoubted proposition than this. He goes further, acknowledging that ideas exist when and where they are thought, and our knowledge of their existence is certain and indubitable. Finally, having reduced Cartesian ideas to instances of thought, he adds, rejecting Cartesian doubt, that the understanding 'infallibly knows' that the ideas of things or, better, the things that produce them exist.<sup>72</sup> Points 6, 7, and 8 treat knowledge derived from joining ideas in various ways. First, there is knowledge of things by means of their regularly perceived qualities, for example, whiteness, fluidity, and sweetness unite in our perception of milk. Next, he considers what he calls 'mathematical demonstration', that is, knowledge attained by comparing ideas of the same sort that occur in different things, which upon observation display a measurable quantitative difference, so that we know them to be 'more lesse or equall' with respect to that idea. The final point concerns our knowledge of relations between things that agree or disagree with respect to the ideas that are perceived in them.

The remainder of §27A concerns verbal knowledge,<sup>73</sup> propositions consisting of words of settled or conventional meaning, which can yield certain and infallible knowledge, but tell us nothing of the truth of things, hence verbal truths. To illustrate, Locke refers to a theme common to metaphysics, school divinity, and 'some sort of natural phylosophy', which when discoursing about the soul, employ these terms: 'anima forma *ἐντελέχεια*, homo, rational, animal, substantia', but which fail to prove

p. 43, line 7 through p. 51, line 16. To reconstruct how this all played out in the manuscript, see the critical apparatus, especially on p. 43.

<sup>71</sup> *Drafts I*, 42–3. <sup>72</sup> See nn. 60, 61.

<sup>73</sup> By remainder I mean the critical text, from p. 51, line 17, and runs through p. 54, line 9.

the existence of god, spirits, or bodies. Aristotle is the source here, and Locke overlooks an important conclusion that Aristotle drew from his observations concerning the soul: that soul is not a substance, but the first entelechy of a living body, its inherent vital power, not derivative from its material constituents, but a power superadded to body which makes it an actual living thing.<sup>74</sup> Whether Locke was aware of this, I do not know, but it is curious that he employs a similar idea in his speculative physics.<sup>75</sup>

In this summary of the sorts of knowledge in eight points, Locke failed to mention causal knowledge. One of the purposes of §27B is to make up for this deficiency. This he does handily, descriptively, and concretely in a sentence comprising a ninth point added to the other eight.

That a thing where in such & such simple Ideas are found being after a certain manner applied to an other thing wherein other simple Ideas are found the simple Ideas of one or both of them are soe & soe changed. & this is the knowledge of causes & effects.<sup>76</sup>

The remainder of this long addition together with §§29–31 touches upon the central theme of sensory experience and its limits and of the limits of science.

... all that man can certainly know of things existing without him is only particular propositions, for which he hath demonstration by his senses the best ground of science he can have or expect & soe comes to his understanding, he receives as certain knowledge & demonstration.

By particular propositions, Locke means those describing a state of affairs at a particular moment and place. For example,

... having seen water yesterday I shall always know that water did exist 10<sup>o</sup> July. 71 as it will be equally true to me & undoubted, that a certain number of very fine colours did exist at the same time I saw a buble of that water but being now quite out of sight both of the water & bubbles too, It is no more certainly known to me that the water doeth exist then that the bubbles or colours thereon do exist,

And the reason is,

... because there is no necessary connection of the existence of anything one moment with the existence of it the foregoing moment & it is noe more necessary that water should exist today because it existed yesterday then that the colours on a buble existe today because they existed yesterday though it be exceedingly much more probable because I have constantly (& all other men too) observd water to endure & continue in existence but bubbles & the colours on them not...

The critical importance to Locke of this conclusion is perhaps evident in the extravagancy of his claim and the verbosity with which he asserts it.<sup>77</sup> What he intends is summed up in this rule, which allows an important exception.

<sup>74</sup> Aristotle, *De anima*, 412<sup>a</sup>12–23.

<sup>75</sup> I discuss this in Chapter 5.

<sup>76</sup> *Drafts*, I, 43.

<sup>77</sup> Locke's memorandum to himself confirms this: 'Memorandum that what I have writt in part of §27 & in §28. 29. 30. 31 [concerning the varieties of knowledge] Ought to come in under the method I have observd in the three foregoing pages v. 81. 82. 83 [i.e. 43–51 of the Clarendon text] & be as much as is fit of it inserted in its due places', *Drafts I*, 50.

That a man can certainly know the existence of particular things without him about which his senses are or have bin conversant, & noe farther excepting only the existence of a 1st cause.<sup>78</sup>

Thus, the pursuit of natural knowledge is radically curtailed. Since the scope of human knowledge is so limited, to the degree that we cannot have certainty of the existence of anything beyond the passing moment of our perceiving it, and then only be certain of its having been, we must make our way in the world by means of probabilities, and it is to this theme that he turns next.

If real knowledge is unattainable except in the very limited way of immediate sensory perception, then natural philosophers and others must fall back upon probabilities.

### *Probability*

The situation is this. We can have certainty only of particular propositions, which depend upon the so-called testimony of the senses, or direct perception of a particular object, whether immediately at the present moment or something that we recall having perceived at some time past, such as water on July 11, 1671. The truth of general propositions, with the exception of those pertaining to mathematics, is certain only so far as they are expressions of verbal or conceptual truths. Of propositions about things in general, which might be instructive about how things are, we cannot be certain, for certainty concerning things external to us applies only to particulars. This is what Locke has labeled 'the best ground of science'. But it is a very narrow ground. The knowledge that is conveyed by sense certainty is not only particular, it also extends no farther than to superficial ideas and qualities and does not penetrate to the supposed hidden operations of matter, which are the powers in things that affect our senses in certain ways and produce ideas in us.

It seems, however, that we regard some general propositions as so nearly certain that they are past doubt. They are probable, but probability means likeness to truth, and there seem to be degrees of it, indeed, a quick survey of the inventory of belief shows that they range from the virtually certain to the impossible. What follows in §§32–42 is a short discourse on probability, which more properly belongs to moral epistemology than to natural philosophy. There is a change of focus. Locke's interest is no longer cognitive and theoretical but practical. His main concern is life's journey. A well-founded science of nature was not necessary for this practical purpose, and in any case, what Locke has discovered is that mankind lacks the cognitive means to achieve it. Certainty that there is a God and supreme lawgiver establishes morality and opens the door to divine revelation, which will be found to be beyond doubt. These become the dominant themes of Locke's thought, which are evident in his enlargement of the *Essay* and his major theological writings.<sup>79</sup>

<sup>78</sup> *Drafts I*, 43–4; the concluding clause is a later insertion.

<sup>79</sup> See Nicholas Wolterstorff, *John Locke and the Ethics of Belief* (Cambridge: Cambridge University Press, 1996) and my review in *Journal of Theological Studies* 48/1 (April, 1997), 334–8.



Locke divides his discussion into probabilities of matters of fact or observation, and probabilities concerning things unobservable by us. The former range from claims of matters of fact that by universal consent and one's own constant experience are 'so near certain knowledge' that we accept them as such,<sup>80</sup> to reported events of an extraordinary nature, in particular, miracles, whose probability depends on two grounds, the veracity of the eyewitnesses coupled with their utility to the ends of 'him who had power to produce such irregularitys', that is, extraordinary events that derive their meaning from the revealed will of God, a subject that Locke postpones for later consideration.<sup>81</sup>

The cognitive parity of matter and spirit comes into play in dealing with things incapable of observation and testimony. These things include the nature and operations 'insensible materiall things', such as 'Stars out of our sight' or the 'Effluviiums of a load stone whereby it draws iron', as well as the nature and operations of God and immaterial spirits. Probability of their existence and operations depends on the same ground of experience and testimony. Assurance of the reliability of these evidences is reduced to a more fundamental theological confidence.

... yet I doe not doubt but that the being of a God may be made out more clearly & with greater assurance then of any thing even immediately observeable by our senses. And that the common things of our dayly experience if our facultys are but carefully & orderly imploid about them, will lead us to clear apprehensions of a Greater & Wiser Being. But of this I shall have fitter opportunity to speake here after when I have come to threat of things them selves & not of the ways and limits of our understanding about them.<sup>82</sup>

These are anticipations of enlargements in the *Essay*, including a promissory note fulfilled in *Essay* IV, x, where Locke presents a deductive proof of God's existence. Also anticipated are the many natural theological exhortations throughout that work, reminders to his readers that God has arranged all things according to the ends that he has willed for us. The treatment of things themselves defines the subject of physics.

*Objections:* The last section of Draft A concerns two challenges to Locke's empiricism. Both have to do with mathematical ideas. The first objection pertains to ideas in the mind that cannot be traced back to sensation or reflection, for example, the ideas of odd and even numbers, and the knowledge that all numbers are either one or the other. Their purely abstract nature suggests that they may be innate. Locke had already covered this issue in §27B in dealing with proponents of universal axioms who claimed that these first principles of every science must be innate on account of their universality and self-evidence. Here, a similar case is made for the mathematical axiom that all numbers are either odd or even. Locke responds by showing that this principle can indeed be discovered and learned by experience and reason, by reflecting upon simple ideas of sensation and reflection. As he had already observed, unity, which is the foundation of all numbers, is, like existence, given with every perception of the mind. Further, we perceive also that every number is a set of one or more unities or indivisibles,

<sup>80</sup> §34, *Drafts I*, 63.

<sup>81</sup> §37, *Drafts I*, 65.

<sup>82</sup> §38, *Drafts I*, 66.

which are reducible when divided into parts that are invariably either equal or unequal.<sup>83</sup> Hence, we learn the meaning of 'odd' and 'even' by dividing numbers, which is a form of reasoning about them. These ideas of number, odd, and even, are simple and unalterable, which, Locke imagines, gives them an irrefutable authority. Anyone, having learned these ideas by experience—for they are notions that every 'schooleboy may learn by dividing his cherry stones'—will have no difficulty comprehending the proposition 'Every number is odd or even.' It requires simple Baconian induction.<sup>84</sup>

The second objection is raised by certain men, who claim to have in their minds a 'positive idea of Infinity', which, since it is not anything that the senses can perceive, must be innate. Locke's response is that a positive idea of infinity cannot be formed in the mind, and therefore the objection is of no merit.<sup>85</sup> Nevertheless, he allows that the infinite can be conceived as an indeterminate idea, and that when applied to duration does have important theological utility.<sup>86</sup> And whilst dismissing the idea of an infinite body as incoherent, and also noting that infinite extension is of no use applied to a spirit, he allows that infinite duration can be attributed to God, if only as a way of expressing how far above our understanding is the nature of the divine being.<sup>87</sup> There is also a universal truth expressed here: no person, except perhaps Leviathan, desires to be a body without limit, but eternal life is surely something 'devoutly to be wished'.

### *Concluding memoranda*

Locke concluded Draft A with a sequence of memoranda, consisting of clarifications of principles and a summary of his doctrine of ideas. These were probably meant as notes or directives to himself. Without exception they express a robust affirmation of empiricism without qualification.

First, he reaffirms the thesis that our knowledge of existence pertains only to particulars and adds that knowledge of universal propositions that affirm the properties of sorts of things, for example, that the sum of the angles of every triangle is equal to two right angles, always presupposes the existence of particulars and that their truth

<sup>83</sup> On 'indivisibles', see John Wallis, *The Arithmetic of Infinitesimals (Arithmetica infinitorum)*, Oxford, 1656), Jacqueline A. Stedall, ed. and transl. (New York: Springer, 2004), 1 and passim. Wallis (1616–1703) was one of the leading mathematicians of his day, a founding member of the Royal Society and from 1649 until his death Savilian Professor of Geometry at Oxford; he was also a theologian, and is most noted for his letters on the Trinity, in defense of which he employed mathematical ideas.

<sup>84</sup> Wallis describes this method in *The Arithmetic of Infinitesimals*, 13–4; see also J. F. Scott, *The Mathematical Work of John Wallis*, 2nd edn. (New York: Chelsea, 1981), 30.

<sup>85</sup> I have been unable to determine who these men are. It should be noted that Locke also foists upon these men the idea of eternity as an eternal moment, as a *punctum stans* rather than as an everlasting duration.

<sup>86</sup> Locke employs it in developing an idea of God, *Essay*, II.xxiii.33–6 (314–16).

<sup>87</sup> Here Locke may be following John Wallis, *Eight Letters concerning the Blessed Trinity* (London: Rivington, 1840), 12, who uses the analogy of a cube and its dimensions, hypothetically extended to infinity, to explain the doctrine of the Trinity: 'Here are three infinite dimensions, and but one infinite cube; there being no limits in nature, greater than which a cube cannot be; and these three dimensions though distinct, are equal each to other, else it were not a cube: and though we should allow that a cube cannot be infinite, because a body, and therefore, a finite creature; yet a spirit may; such as is the infinite God...'

derives from such particular knowledge. Hence, the truth of universal propositions is reached by induction.

Next, Locke clarifies his use of the term 'idea.' He notes that it has an external and an internal use. In both instances ideas signify perceived qualities. When applied externally to things, they signify their constitution, or configuration of parts in them that produces a certain idea in our mind. When applied internally, they signify 'the very perception or thought we have there,' what might be called 'the idea proper.' He also distinguishes between actual and potential qualities of a thing. These relate to the powers and capacities of things. The former relate to the direct effect of a substance on our senses, for example, the taste or smell of salt or honey; the latter relate to the capacity of a thing to cause a change in another thing or to suffer change by the power of another, for example, salt to corrode iron or to dissolve in water. Observations of these sorts of things all relate to our ideas of the qualities of things.

Finally, in a marginal note Locke summarizes his basic doctrine of the origin of ideas. The three principles are the very ones presented in the Urtext, with the addition of ideas of reflection.

## Draft B

If it were my purpose to write a history of Locke's *Essay*, then what should follow here would be a comprehensive analysis and interpretation of Draft B showing in detail how Locke reworked parts of the previous draft into a new web of words, which included also many new thoughts, and how this new draft anticipated the first edition of 1690. This would require a very long and detailed chapter in itself, or a commentary. Because I have a different purpose, which aims to represent Locke's philosophy as an expression of Christian virtuosity, there is no need to do that here. Nor does it seem necessary to offer a running account of the contents of Draft B, as I have done for Draft A, which may already try the reader's patience beyond measure. However, three themes, new to Draft B, are especially germane to the theme of Locke's Christian virtuosity.

The first of these themes is expressed in the opening sentence of §1 of Draft B.<sup>88</sup> It was common practice among Renaissance authors to introduce a learned discourse by celebrating the dignity or nobility of its subject. Locke followed suit, and having become aware, in writing Draft A, that he had embarked upon a philosophical project of great magnitude, chose as his introductory theme the dignity of man, for as he observed, 'it is the Understanding that sets man above the rest of sensible being & gives him all that dominion which he hath over them.' This is also very Baconian. But it should be recalled that, for Bacon, the dignity of man also had theological roots. Man was created separately from the rest of creatures, and at his creation, God infused in him the divine breath, an immortal soul, so that every member of the species, in this respect, is conceived by the divine spirit and hence a son (and perhaps daughter) of

<sup>88</sup> *Drafts I*, 101.

God, bearing the image of God, as a child the image of its parents. Thus the dignity of man was not for Bacon or for Locke a secular theme, but one profoundly religious and Christian.

This special dignity of mankind has a bearing upon Bacon's rule and its limits. The rule applies to the study of nature, but because the human species is not in all respects a part of nature, and because we humans become aware of our exceptional place in the realm of creation whenever we reflect upon ourselves as thinking beings—a point made very clear by Descartes and appropriated by Locke with modifications—then to bring theological topics into a discussion of human understanding and the meaning of its ideas, especially those concerning moral relations, is not to trespass, but an enlargement, particularly so when a commitment to empirical methods is adhered to. Theological themes, then, both natural and revealed, may be brought in and assigned a proper place. This I take to be a fundamental hermeneutical principle for any interpreter of the *Essay*, and I shall employ it in the subsequent chapters.

Draft B also includes a refutation of innatism, as a prelude. By denying innatism, Locke was going against the widely accepted theological opinion that ignorance of God or of the divine law was a consequence of human depravity, the effacement of an original endowment of the mind by the corruption of sin. Calvin, whose opinions on this matter were widely recognized and surely known to Locke, claimed that God had implanted in the human mind of every person a perception of divinity (*sensus divinitatis*), which acts as a seed of religion, and that common experience testifies to the truth of it, for its fruits, such as they were, are evident everywhere in profligate variety.<sup>89</sup> Indeed, Locke's account of the extent, variety, and vulgarity of ideas of divinity and of religion are very much like Calvin's, and perhaps not by accident. In contrast to Calvin and other theological innatists, Locke assumed that every human being was born into the world with a mind free of any religious notion, that the ideas of God were inventions of fancy or reason and experience, which once introduced spread rapidly throughout the world because of the 'dignity of the subject', of which there can be none greater, and the interest that everyone must have in it, once having learned of an exalted divine being and its exceeding power over all things. In sum, we learn of God by experience, and by that experience, which includes our reflections on what we perceive, we imagine a sublime object, the greatest that can be imagined.

Calvin, and those who believed like him, claimed that this sense of divinity, however much it may have been effaced, remained an operative principle in everyone's conscience, and on this ground, on the day of judgment, even the reprobate will be justly condemned for not having paid heed to it. But Locke, whose empiricism and naturalized epistemology had removed this notion, and yet who accepted a universal divine law, and a last judgment, had to reestablish this belief, or something very much like it, and all the rest of religion natural and revealed on empirical grounds. In brief, he had to become a virtuoso theologian. The remaining chapters will show how he achieved this.

<sup>89</sup> John Calvin, *Institutes of the Christian Religion*, I.iii.1, iv.1.

The third topic concerns reflection. Locke did not use the term 'reflection' in Draft A to refer to an activity of the mind in forming simple ideas, except in a concluding marginal note. He formally introduces the term in §19 of Draft B to signify an internal sense, corresponding to external sense. If we go by the *Oxford English Dictionary*, this seems to be an original use of the term introduced by Locke, who employs it to signify a direct perception of the operations of the mind, which, like sensible qualities, inhere in a substance.<sup>90</sup> It should be noted that this is contrary to Bacon's idea of reflection, which, proper to the metaphor, is indirect perception through a mirror. This new use gives Locke another opportunity to enlarge upon the theme of the cognitive parity between matter and spirit.

Hence it comes to passe that we have noe Ideas nor notion of the essence of matter, but it lies wholly in the darke. Because when we talke of or think on those things which we call material substances as man horse stone the Idea we have of either of them is but the complication or collection of those particular simple Ideas of sensible qualities ... & which are the immediate objects of our sense which we cannot apprehend how they should subsist alone or one in another we suppose they subsist & are united in some fit & common subject, which being as we suppose the support of those sensible qualities we call substance or matter, though it be certaine we have no other Idea of that matter or substance but what we have barely of those sensible qualitys supposed to inhære in it. The same happens concerning the operations of our mind ... by supposing a substance wherein thinking knowing doubting fearing & a power of moving &c doe subsist, we have as cleare a notion of the essence of spirit as any one hath of the essence of body ... 'Tis plain then that the Idea of matter is as remote from our understanding & apprehensions as that of Spirit.<sup>91</sup>

What is particularly noteworthy here is Locke's skeptical conclusion. Instead of claiming that we know both body and spirit by sensation and reflection, Locke draws the conclusion that we know neither, that our uncertainty of the one is neither more nor less than our uncertainty of the other.<sup>92</sup> This skeptical turn requires a complex explanation, which I will not attempt before I have completed my exposition of the *Essay*, in the next three chapters.

<sup>90</sup> *OED*, reflection, II. 7. c.

<sup>91</sup> *Drafts I*, 129–30.

<sup>92</sup> See Chapter 5, Concluding note on Locke and Hobbes.

# 5

## The Philosophy of a Christian Virtuoso i

### The New Countenance of Logic

Logick has put on a Countenance clearly different from what it appeared in formerly: How unlike is its shape in the *Ars Cogitandi*, *Recherche de la Verite*, &c. from what it appears in *Smigletius*, and the Commentators of *Aristotle*? But to none do we owe for a greater Advancement in this Part of Philosophy than to the incomparable *Mr. Locke*, Who, in his *Essay concerning Humane Understanding*, has rectified more received Mistakes, and delivered more profound Truths, established on Experience and Observation, for the Direction of Man's mind in the Prosecution of Knowledge, (which I think may be properly term'd *Logick*) than are to be met with in all the Volumes of the Antients. He has clearly overthrown all those Metaphysical Whysies, which infected mens Brains with a Spice of Madness, whereby they feign'd a Knowledge where they had none, by making a noise with Sounds, without clear and distinct Significations.<sup>1</sup>

The Third Branch may be called *σεμιοτική*, *the Doctrine of Signs*, the most usual where of being Words, it is aptly enough termed also *λογική*, *Logick*; The business whereof, is to consider the Nature of Signs, the Mind makes use of for the understanding of Things, or conveying its Knowledge to others. For since the Things, the Mind contemplates, are not of them, besides it self, present to the Understanding, 'tis necessary that something else, as a Sign or Representation of the thing it considers, should be present to it: And these are *Ideas*. And because the Scene of *Ideas* that makes one Man's Thoughts, cannot be laid open to the immediate view of another, nor laid up any where but in the Memory, a no very sure Repository: Therefore to communicate our Thoughts to one another, as well as record them for our own use, Signs of our *Ideas* are also necessary. Those which Men have found most convenient . . . are articulate Sounds. The Consideration of *Ideas* and *Words*, as the great Instruments of Knowledge, makes no despicable part of their Contemplation, who would take a view of humane Knowledge in the whole Extent of it. And, perhaps, if they were distinctly weigh'd, and duly considered, they would afford us another sort of *Logick* and *Critick*, than what we have been hitherto acquainted with; Which thou oughtest not to envy them, since

<sup>1</sup> William Molyneux, *Dioptrica nova* (London, 1692), A2<sup>r</sup>.

they afford thee an Opportunity of the like Diversion, if thou will make use of thy own Thoughts in reading.<sup>2</sup>

The Logick now in use has so long possessed the chair as the only art taught in the Schools for the Direction of the Mind in the study of the Arts and sciences that it would perhaps be thought an affectation of Noveltie to suspect that rules that have served the learned world these two or three thousand years... are not sufficient to guide the understanding... And I should not doubt but this attempt would be censured as vanity or presumption did not the Great Lord *Verulam's* Authority justifie it; who... did not rest in the lazy Approbation and Applause of what was because it was: but enlarged his mind to what might be.<sup>3</sup>

## Introduction

What sort of work is *An Essay concerning Human Understanding*? In Chapter 4, I argued that from its inception it was meant to be a logical work. The epigraphs confirm this. The first was written by one of Locke's contemporaries, who would not long after he wrote these lines become his friend and intellectual confidant. William Molyneux (1656–98) was a sometime translator of Descartes,<sup>4</sup> a virtuoso, and a strong proponent of the new natural philosophy. His comment situates the *Essay* and identifies its genre: a discourse on the art of thinking and a search for truth rather than a scholastic commentary on Aristotle's *Prior Analytics*, which purportedly was concerned only with syllogism and rules of inference best employed in disputations over received opinions, and, therefore, not suited to enquiry.<sup>5</sup> In contrast, the *Essay* is a work grounded in experiment and observation, and it effectively directs the mind to new knowledge because it is nourished and sustained by new perceptions and enlarged methods of perceiving.

The second and third epigraphs, both by Locke, concur. In the first, without making particular reference to the *Essay*, he offers a generic definition of it and situates it among the sciences, the two others being φυσική and πρακτική—Englished: physics and practics. Σεμιοτική, or semiotics, is about the nature of signs that the mind employs in an endeavor to represent its objects of enquiry to itself and as a means of

<sup>2</sup> *Essay*, IV.xxi.4 (720–1).      <sup>3</sup> Locke, *Conduct*, §1.2, 154.

<sup>4</sup> *Six Metaphysical Meditations... Written Originally in Latin by Renatus Des-Cartes*, transl. William Molyneux (London: Benjamin Tooke, 1680). Molyneux describes the *Meditations* as a 'Physico-Mathematical Argumentation', which he claims is much unlike the philosophical or metaphysical discourses of the schools. In his correspondence with Locke, one finds no trace of his earlier zeal in promoting Descartes or Cartesianism.

<sup>5</sup> Molyneux's references are to Antonin Arnauld and Pierre Nicole, *Logica, sive ars cogitandi* and Nicolas Malebranche, *De la recherche de la vérité*. Martin Smigletius (1562–1618) was a Jesuit theologian, author of a logic text then in current use. Molyneux could also have mentioned Part I of Hobbes's *De corpore*, which was published in 1655, and which covers much of the same territory. Beyond Aristotle, Locke's notion of logic has unacknowledged affinities with late medieval nominalism; see E. J. Ashworth, 'Language and Logic', *Cambridge Companion to Medieval Philosophy*, A. S. McGrade, ed. (Cambridge: Cambridge University Press, 2003), 83.

conveying its knowledge about them to others.<sup>6</sup> Its proper objects are ideas and words; its purpose is to explain their origin and use by the understanding.<sup>7</sup>

The third epigraph is an extract from the introduction to ‘Of the Conduct of the Understanding’, an unfinished work that he drafted as a final chapter to the *Essay*.<sup>8</sup> It states its theme, which may be taken to apply to the *Essay* also—an art of rightly directing the mind to knowledge. Here Locke asserts the novelty of his undertaking, whilst claiming Bacon’s authority.<sup>9</sup> Novelty and a Baconian warrant are hallmarks of the *Essay*, and there is no inconsistency in this, for he is affirming a Baconian novelty—the new science.<sup>10</sup>

What follows divides into three main parts. In the first I consider the primary elements of Locke’s work, ideas and words, how they originate in experience, and their employment. The second part concerns propositions and how they are formed, including definitions: particular, universal, and causal, their respective cognitive values, and how we reason from them. The last section is devoted to Locke’s account of the scope of knowledge and belief, and the startling conclusions he draws concerning the possibility of a science of nature, of morality, and the conduct of life.

## The Elements of Logic: Ideas and Words

To begin with, the *Essay* is a logical work designed to assist in the renewal of human learning. It follows the order of the system of semiotics or logic described in the third epigraph. It is developed in Books II through IV of the *Essay*. Book I is preparatory in theme, a clearing of the ground by removing a prejudice: the supposition that the mind is endowed with innate cognitive principles. It has no constructive role. Locke even

<sup>6</sup> This threefold division of the sciences supposedly established in the Platonic Academy became standard in Hellenistic antiquity, see Cicero, *Academica*, I.iv–viii.19–31.

<sup>7</sup> One must, of course, nor forget that the subject of Locke’s great work as represented in its title is not logic but human understanding. As I hope will become clear in what follows, there is no confusion of subject when describing Locke’s essay on the understanding as a study of logic. What Locke meant by ‘understanding’, or ‘intellectus’, is never made clear. It is not a faculty, of which, according to Locke, there are at least three, ‘sense, perception, and reason’, which are powers of the understanding and not the understanding itself, but just what it is in distinction from these is never made clear by him. see *Essay*, IV.x.1 (619). See also Michael Ayers, *Locke*, i, 47, “Intellect”, like “understanding”, had for him a use no more specific than “mind”; Ayers was referring specifically to his use of terms in *Essay*, II.i.4 (105), but also commenting generally.

<sup>8</sup> Locke to William Molyneux, April 10, 1697, *Correspondence*, vi, 87.

<sup>9</sup> Another Baconian feature that deserves notice is the motto on the title page of the fourth edition, a quotation from Ecclesiastes 11:5, which concludes with the so-called summary law of nature: ‘As thou knowest not what is the way of the spirit, nor how the bones do grow in the womb of her that is with child: even so thou knowest not the works of God who maketh all.’ As Locke most likely understood it, the motto expresses the parity of our knowledge of spirit and material body, and draws a skeptical conclusion.

<sup>10</sup> How Locke may have come to this conclusion is spelled out by Richard Serjeantson, “Human Understanding” and the Genre of Locke’s *Essay*, *Intellectual History Review* 18/2 (2008), 131–71; ‘If one set out to write a book on the nature of human understanding in 1671, and decided not to engage with physical questions about its nature, then the result would be either a work of logic or—more interestingly—a work that attempted to give a better account than school-logic did of how the understanding operates’ (168). Indeed, Locke did both.



questions the necessity of it, for the account of the origin of knowledge that will unfold in the succeeding books should be sufficient to convince an unprejudiced reader, if he should entertain this supposition, that it is not needed. For, having been shown ‘how Men, barely by the Use of their natural Faculties, may attain to all the Knowledge they have, without the help of any innate Impressions’, he would be persuaded to disown them. But if this were not enough, Locke invokes God and good sense, adding that it would be ‘impertinent’, which is to say, irrelevant, inappropriate, idle, silly, stupid, perhaps even irreverent,<sup>11</sup> to suppose that God would have natively endowed creatures to whom he has given sight with ideas of colors; likewise it would be ‘unreasonable’ for anyone to suppose that God has endowed the mind with ‘innate Characters, when we may observe in our selves Faculties, fit to attain as easy and certain Knowledge of them, as if they were Originally imprinted on the Mind’.

Arguments such as this, leaning heavily on ridicule, hardly remove prejudices, rather they inflame them, and it is more likely that Locke intended this and other arguments presented in Book I to serve rather as deterrents than as persuasions of truth.

The argument above is a good example of the rhetorical style of the *Essay*, and before proceeding with the principal subject of this chapter I will pause to consider it. The *Essay* is a highly polemical and rhetorical work. Locke’s arguments both in favor of his own position and against his opposition are extravagant and self-serving and often unconvincing to the sober-minded. There are no doubt reasons for this, which pertain to the politics of the scientific revolution, which explain Locke’s recourse to this sort of argument. It has been suggested that the rhetorical style of the *Essay* is typical of the rhetoric of science practiced during the scientific revolution by virtuosi as a means of establishing the new science. This is largely correct. However, to suppose that this method of argument was also integral to Locke’s philosophical stance is simply false.<sup>12</sup> Indeed, it is nonsense, for philosophy is a search after truth, whereas rhetoric aims at persuading others that something is true or false regardless of its actual truth value, and it takes liberties in accomplishing this end that not only fail to establish truth, but subvert it. And Locke was a philosopher, although an all-too-human one.

Consider the argument above. Locke makes a good point in it, that, if he were able to show how we acquire all the knowledge we have entirely by empirical methods, without having to rely on innate principles, there would be no point in claiming that we have them. Innate ideas would be otiose. But of course, as the very title of the work implies, the *Essay* is only an experiment and not a conclusive one, as Locke would admit. Philosophically and scientifically, the task that Locke took on, so brilliantly in the beginning, is unfinished and ongoing, as he was aware any enquiry from a naturalistic standpoint must be. Besides, Locke was laden with other tasks as well, having to do with morals and religion, which tended to confuse the clarity of his original logical

<sup>11</sup> OED, impertinent, A.3.

<sup>12</sup> See, for example Peter Walmsley, whom I let stand surrogate for others who make this claim, that the rhetorical style of his writing is part of his philosophical method; see his *Locke’s Essay and the Rhetoric of Science* (Lewisburg: Bucknell University Press, 2003), 31, 148, n. 45 and passim.

purpose and in the end to divert him from it. I will consider these in their proper place. The politics of science added further confusion, but this was superficial, a mere matter of words, about which enough has been said.

Books II through IV progress in the proper order of a system of logic: Ideas, terms, the extent and limits of human knowledge and its default, discovery and inference, assent and probability. But, the *Essay* is a not a traditional school logic, rather it is a 'sort of Logick and Critick' quite other 'than what we have been hitherto acquainted with' and probably different also from all that have appeared since. It is novel, eschews 'received Doctrines'; its value derives not from 'antick fashion', but from repeated 'Trial and Examination' that always refer back to primary empirical beginnings. 'And though it be not yet current by the publick stamp'; yet it may for all that 'be as old as Nature, and is certainly not the less genuine', which is to say, its intention is to reacquaint its readers with their native cognitive capacities.<sup>13</sup> It is, therefore, a virtuoso logic, focused on human nature as it really is. Novelty and fidelity to nature are hallmarks of virtuosity.

There is little reason to doubt that Locke was describing the *Essay* when he wrote about this new 'Logick and Critick', which, although a more elaborate work when compared to its earliest surviving draft and its Urtext, is longer and in a different style, yet like its ancestors faithful to the very idea by which it was conceived: of the understanding bounded by the limits of human sensibility. That he described this new study as being as old as nature suggests that he imagined it to be a natural logic concurrent with human thinking, rather than an artificial discipline like the logic of the schools. Its purpose is not to encourage disputation but to facilitate enquiry within proper epistemic boundaries. It is attentive only to its subject, the understanding, its objects, powers, and operations. It is the product of experiment and is supposed to be read experimentally, which is to say, judged by repeated trials of experience. From all this, it is understandable that Locke should have chosen to call his work 'Essay', or trial. But he might also have named it *Novum organum*, for its purpose is to be a new instrument to guide philosophical enquirers, who profess to be well grounded in natural philosophy and the methods of experimental enquiry, through all the domains of knowledge open to mankind, never forgetting that the foundation of all the sciences is natural philosophy pursued according to an experimental method. The idea of naming it after Bacon's great work surely must have crossed his mind. He made a better choice, more closely describing the experimental character of new science.

Locke's *Essay* has also been described as a natural history of the human mind.<sup>14</sup> There is no apparent inconsistency in holding that the *Essay* is in certain respects a

<sup>13</sup> *Essay*, Epistle Dedicatory, 4; Peter Walmsley has observed that Locke's dedicatee, Thomas Herbert, the Earl of Pembroke, was president of the Royal Society the year the *Essay* was published, *Locke's Essay and the Rhetoric of Science*, 17.

<sup>14</sup> See Peter Anstey, *John Locke and Natural Philosophy* (Oxford: Oxford University Press, 2011), 223–5; see also the review article by Jonathan Walmsely, *Locke Studies* 12 (2012), 243–84 and passim; Richard Serjeantson, "'Human Understanding" and the Genre of Locke's *Essay*', 165.

natural history of the mind and also system of logic. It is true that this is not what Bacon intended. According to his plan of the Great Instauration, logic is preparative of natural history and natural history preparative of natural philosophy. However, it should not seem strange or improper that Locke would appropriate a Baconian theme and adapt it to his own purposes; one expects this of an original philosopher, which Locke surely was.

It seems appropriate to designate the *Essay* as a natural history just because its research extends only so far as experience and observation reaches, that subjects the mind to luciferous trials and codifies the results, that makes no pretense to have privileged access to what underlies the operations of mind and determines how its ideas are received. All three conditions are satisfied in the *Essay*. The last is especially pertinent.

I shall not at present meddle with the Physical Consideration of the Mind; or trouble myself to examine, wherein its Essence consists, or by what Motions of our Spirits, or Alterations of our Bodies, we come to have any Sensation in our Organs, or any *Ideas* in our Understanding; and whether those *Ideas* do in their Formation, any, or all of them, depend on Matter, or no.<sup>15</sup>

By 'Physical Consideration of the Mind,' Locke meant a system of matter, or configuration of material particles constituting the body, 'fitly disposed' to accommodate thinking either by itself or in conjunction with a spiritual substance.<sup>16</sup> A speculative natural philosophy would enquire into the essence of the mind, or of its seat, the soul, or if not the soul, then a system of matter to which is superadded the power of thinking and willing, and the subtle corporeal processes by which a mind, be it material or immaterial, receives its content. This would constitute a physics of the mind, rather than an empirical logic.

However, Locke's purpose was not merely descriptive of how the mind receives its ideas experientially, it is also regulative.

... and I shall imagine I have not wholly misemploy'd my self in the Thoughts I shall have on this Occasion, if, in this Historical, plain Method, I can give any Account of the Ways, whereby our Understandings come to attain those Notions of Things we have, and can set down any Measures of the Certainty of our Knowledge, or the Grounds of those Perswasions, which are to be found amongst Men, so various, different, and wholly contradictory...<sup>17</sup>

Locke's declared intention to establish 'Measures' of the certainty of knowledge and the grounds of belief confirm his logical intention. Hence, it is appropriate to say that he intended the *Essay* to be a natural logic of the understanding done according to the method of natural history.

<sup>15</sup> *Essay*, I.i.2, 43.

<sup>16</sup> See *Essay*, IV.iii.6, 540–1.

<sup>17</sup> *Essay*, I.i.2, 44; Richard Serjeantson's caution that the *Essay* is not a prescriptive or directive work is strained, as is his attempt to separate Locke's intentions in the *Essay* from those in *Of the Conduct of the Understanding*; "Human Understanding" and the Genre of Locke's *Essay*, 169.

*A system of logic done according the method of natural history*

To ensure clarity in what follows, it is important to distinguish between elements of logic and elements of natural history so that their interplay in the *Essay* can best be appreciated. The elements of logic are signs, words, and the ideas that comprise their meanings; these are ‘the great Instruments of Knowledge’. Contemplation of them, which is to say, a critical and attentive study of them, is supposed to open up the mind to a view of human enquiry in its whole extent, which, as will become clear, comprises the whole realm of being, and also of action, corresponding to the two substantive parts of human knowledge, physics, and the practical arts. So one would expect an account of ways in which these signs or terms combine into propositions, which then raises questions of truth. All of this is well covered in the *Essay* in due order. Locke’s digressions and prolixity fit the purpose of this ‘essay’ or trial of the understanding. Like Epicurus, he supposed that the purpose of logic or a method of enquiry was to discover truths about nature, and as the title of his work suggests, it is a constant trial of the understanding to show that it can discourse cogently about matters that properly concern it.

Locke tells us nothing about the elements of natural history, nor about what in general a natural history is supposed to involve. To ascertain what these things might be, one must look to Bacon for guidance.

First, with respect to its object, we note natural history is not limited to the study of purely natural things, but also to human art and its products, for these are also grounded in nature, in human natural capacities.<sup>18</sup> Furthermore, it is a generative history, not only describing how things appear, but also explaining how they originate so far as this can be observed. That a history of mathematics should also be a natural history is an expression of the priority that Bacon assigns to natural philosophy among the sciences. Accordingly, natural history may be called ‘primary History’ or ‘Mother History’.<sup>19</sup>

Second, with respect to subject matter; the practice of natural history has as its aim a gathering of the materials of the intellect (*Intellectûs materialia*) as it pertains to the particular phenomenon or topic of enquiry.<sup>20</sup> These must be the primary materials or subject matter or fundamental resources or raw materials of the particular enquiry; they must be presented in their native condition, without any embellishment of learning, traditional or rhetorical, in short, subject matter presented in a historical plain style. They are discovered through observation.

Third, a natural history proceeds experimentally. Indeed ‘natural history’ is synecdochic for ‘natural and experimental history’. Bacon observes that the things that make

<sup>18</sup> Francis Bacon, *Parasceve, OFB*, xi, 450–85. Bacon’s topical catalogue appended to this work includes a whole range of the arts, including geometry and arithmetic, but not logic.

<sup>19</sup> *Parasceve, OFB*, xi, 454–5.

<sup>20</sup> *Parasceve, OFB*, xi, 451–2. See footnote 18.

up a natural history are considered in three ways: first, generatively, with respect to their free operations according to the sort of thing they are and how they originate; second, in the light of certain aberrations or ‘pretergenerations’, an account of error or malformations; third, by experimentation, viz., trying or vexing the things themselves.

Fourth, it must be comprehensive and systematic, aiming at greater and greater generality, which is appropriate for a practice that is preparative of a science of everything.

Fifth, natural history is preparative in a dual sense, both practical and speculative. In the former, its aim is the improvement of the human condition: for example, in the case of medicine, health, in logic, right thinking. In the latter, it prepares and, in certain respects, looks forward to knowledge of things with respect to their fundamental causes.

Sixth, natural history is not supposed to be a solitary, rather is to be done by ‘an army of workers’ over a course of time leading into the indefinite future.<sup>21</sup> Objections that the *Essay* does not meet this prerequisite are answerable, and in what follows this should become clear. In brief, the nature of the thing examined limits the enquirer to introspection, which requires in sequel the work of a host of readers who will do the same. Reading is experiment.

The foregoing survey of what is contained in a natural history is not complete. Lacking are all those things that, while not strictly natural, are proper supplements. Bacon has made a list of these. First, interspersed throughout a natural history are occasional admonitions pertaining to fallacies, errors, or rough spots that enquirers are likely to meet along the way, a regimen of the mind.<sup>22</sup> This includes practical advice on ways to employ the natural history for practical gains. Second, there are rudimentary interpretations, which are anticipations of speculative knowledge, which is the goal of a perfected natural philosophy.

Lastly, although not mentioned, but present in his various attempts at natural history, are acknowledgments of divine wisdom, providence, and grace. It has already been noted that these theological interspersions or enlargements would be in violation of Bacon’s rule, but only if an enquiry were restricted to inanimate and animate things lacking reason. Once human nature is added, because it was fashioned with a purpose that transcends mere nature, these enlargements are fitting if not obligatory.

### *A natural history of signs and a canon of the understanding*

Books II and III offer an inventory of signs by which the mind converses with itself and communicates its thoughts to others: they describe ideas and words, and to a lesser extent numbers, which are used to express them. They also provide a collection of rules for the understanding. The ideas described in Book II are the primordial or primary meanings to which words must be regularly applied to prevent confusion and incoherence. Canonica is Epicurus’ term from logic, which is supposed by him to be

<sup>21</sup> *Parasceve, OFB*, xi, 450–1.

<sup>22</sup> Diogenes Laertius, *Lives of the Eminent Philosophers*, X.31.

preliminary to physics. Epicurus' rules are ideas rather than precepts and in this respect they are the antecedents of Locke's criteria, which are ideas of sensation, simple and complex, feelings of pleasure and pain, and abstract universal notions that are the staple of scientific discourse. These correspond to Epicurus' criteria of sensations, feelings, and preconceptions.<sup>23</sup>

Locke's inventories are well laid out in the tables of content prefixed to the *Essay*, and readers would be well advised before proceeding here to familiarize themselves with them. The inventories unfold their contents in an order of increasing complexity, which, as will be seen in the exposition to follow, is paralleled by ascending degrees of activity of the mind, beginning with bare passivity, in receiving and shaping its ideas and in applying verbal or numerical labels to them, and in prescribing the proper use of all of these things. The sequence is familiar enough: simple ideas of one sense, simple ideas of divers senses, simple ideas of reflection, simple ideas common to sensation and reflection, complex ideas, beginning with simple modes, viz., modifications by the mind of simple ideas, mixed modes, viz., a compound idea that mixes simple ideas and their modes, followed by complex ideas of substances, and various ideas of relation. This order, outlined in the contents of Book II, is followed in Book III also, which treats words, which signify ideas, which signify things.

All this is done in accord with the method of natural history, 'following Nature in its ordinary method' and representing what is perceived in plain descriptive discourse, yet, as we shall see, in cooperation with a plausible hypothesis.<sup>24</sup>

To ensure that any hypothesis put forth be adequately tested, a proper natural history must be broadly extensive, gathering its data from numerous well-described and repeatable experiments. For a natural history of the understanding, these are experiments that the mind performs on itself as it thinks and which readers repeat as they read.<sup>25</sup>

The summary inventory of signs, given in the final book of the *Essay*, declares them to be the 'great Instruments of Knowledge.'<sup>26</sup> The account of signs, their origin and use, given in Books II and III is supposed to be proof of this, which readers, becoming similarly engaged, discover for themselves. Locke describes this process with charming understatement in the Epistle to the Reader:

This, Reader, is the Entertainment of those, who let loose their own Thoughts, and follow them in writing; which thou oughtest not to envy them, since they afford thee an Opportunity of the like Diversion, if thou wilt make use of thy own Thoughts in reading.

<sup>23</sup> Diogenes Laertius, *Lives of the Eminent Philosophers*, X.31–2.

<sup>24</sup> *Essay*, II.xi.14, 15 (161, 162).

<sup>25</sup> See *Essay*, Epistle to the Reader (6–7); also II.xii.15: 'And thus I have given a short, and I think, true *History of the first beginnings of Humane Knowledge*; whence the Mind has its first Objects [viz., simple ideas], and by what steps it makes its Progress to the laying in, and storing up of those *Ideas*, out of which is to be framed all the Knowledge it is capable of; wherein I must appeal to Experience and Observation, whether I am in the right: the best way to come to Truth, being to examine Things as really they are, and not to conclude that they are, as we fancy of our selves, or have been taught by others to imagine.'

<sup>26</sup> *Essay*, IV.xxi.4, 5 (721).

It is no idle remark. It calls to mind, no doubt intentionally, the interplay of ideas and words that is central to the new logic.

In this regard, one must attend to a class of simple ideas that are especially beholden to words, viz., abstractions. Abstraction is a mental activity, whereby simple ideas are removed, in thinking, from all the circumstances of real existence, such as time, place, and context, and come to be regarded only as ‘naked Appearances’. It is in this bare state that particular members of this new species of ideas (one invented entirely by the mind working over its ideas) receive names, which are sortal terms, used to label sorts of kinds of things.<sup>27</sup> They are imperfect or complete ideas, incapable of representing anything in particular, and therefore representing many things at once.

They are also to be interpreted as emblems of human exceptionalism, of a rational capacity that raises humankind above all brutish species, and yet they are also signs of human mediocrity, a state of existence between the mere bestial and the angelic, where the mind can comprehend things in general only by ridding them of their concreteness, as mere ideas that are devoid of the ideal.

Finally, they are also necessary instruments ‘for the conveniency of Communication, and Enlargement of Knowledge’. Thus, whilst a deflation of abstraction and abstract ideas is consistent with Locke’s strict empiricism, his ambivalence toward this mental capacity and its products is religiously applied, reminding us of a better state to come. Christianity and virtuosity thus work hand in hand.<sup>28</sup>

What qualifies the inventory of simple ideas to function as primary criteria or rules of the mind and its discourse is the conviction that all ideas are true.<sup>29</sup> The manner of their origin in sensation and reflection: that they are involuntary, which is to say, they are given in experience and supposed to be caused by particular things outside of the mind and so imply existence, that they are positive, hence impossible to invent, indefinable and irreducible, and, in their original presentation, unalterable.<sup>30</sup> Noteworthy among them are ideas that are not related to anything or to any particular state of mind. They are transcendentals,<sup>31</sup> ideas that apply to every particular idea of perception. They are fundamental to cognition and action. The former are ideas

<sup>27</sup> *Essay*, II.xxxii.6–8 (385–6).

<sup>28</sup> *Essay*, II.xi.9 (159), III.viii.1 (474), IV.vii.9; see also N. G. E. Harris, ‘Locke’s Triangles’, *Canadian Journal of Philosophy* 18/1 (March 1988), 31–41; Harris seems unaware of Locke’s irony in treating abstraction; his claim that Locke’s appropriated his idea of abstraction from Arnauld and Nicole (41, n. 15) is plausible, but barely substantiated.

<sup>29</sup> Locke follows Epicurus in affirming the veridical qualities of ideas, adding reflection to sensation; see Diogenes Laertius, *Lives*, X.38–9; Lucretius, *DRN*, 1.421–5, 4.478–9.

<sup>30</sup> But see *Essay*, II.ix.8 (145), where Locke observes that with maturity the mind led by a tacit and habitual judgment alters its bare perceptions of an object to make them conform to the qualities of an object as it actually exists in itself; judgment is employed here to transform ideas as mere sense data into concepts. On this distinction, see Jonathan Bennett on Locke’s ‘double use of “idea”’, *Locke, Berkeley, and Hume* (Oxford: Clarendon Press, 1971), 25–30; Bennett takes this to be a ‘substantive mistake’ characteristic of philosophical empiricism. But this is to apply in a normative way logical-analytical criteria without warrant. It overlooks that Locke’s method and use of terms are consistent with the physiological, psychological, and developmental method he employs, which is all that I am concerned about here.

<sup>31</sup> See Chapter 4, ‘Transcendentals’.

of existence and unity;<sup>32</sup> the latter pleasure and pain, which are the springs of action, and power, which is our capacity to act. Finally, there is the idea of succession, for perception does not encompass an eternal moment, rather it is momentary following on the heels of its predecessors and hastened on by its successors.<sup>33</sup>

Hence, the inventory of signs presented in the *Essay* encompasses the entire life of the mind and its engagement with the world and with itself, situated within it. It is presented historically, in a narrative that is both biographical and logical. It is also explanatory, showing how the mind comes by 'that vast store, which the busy boundless Fancy of Man has painted on it, with an almost endless variety'.<sup>34</sup> Locke makes passing reference to a child's first sentiments, because they are cognitively foundational, simple ideas, most importantly simple ideas of sensation.<sup>35</sup> What is remarkable about them is that they are invariably distinct. Hence, there is no ambiguity in naming them. They enter the mind 'simple and unmixed'. Whether it be the cold of ice, softness of warmed wax, the sweet taste of sugar, nothing can be plainer 'than the clear and distinct Perception . . . of those simple *Ideas*', which, just because of their simplicity contain in themselves 'nothing but *one uniform appearance* . . . and is not distinguishable into different *Ideas*'. They are their own archetypes, adequate to themselves.<sup>36</sup> They are like atoms, beyond the power of mankind to create or destroy.<sup>37</sup> They are, indeed, logical atoms, the first objects of the mind, simple and unalterable in their self-presentation, the prime matter of the intellect, kept in a storehouse from which they can be retrieved and modified, and to fit them for science, they are gathered into kinds, for example, shades of the same color or varieties of sweet, abstracted and named. Here the interplay of ideas and words begins, along with rational discourse. Because of their simplicity and distinctness, the names by which they are called to mind need never be disambiguated, for they are incapable of any definition except by 'shewing', that is, by ostension,<sup>38</sup> and because, as denoted by general terms, they '*signify always the real, as well as nominal Essence of their Species*'.<sup>39</sup> They are, in any case, innumerable, many of them barely noticed, floating by on the stream of consciousness without ever being named, nonetheless grounded in real experience.

<sup>32</sup> Existence and unity go together or arise in the mind conjointly; whatever we perceive to exist, whether it be an idea or an external object, we also regard as one thing; see *Essay*, II.vii.7, and further discussion on existence, n. 93.

<sup>33</sup> *Essay*, II.vii.1–9 (127–31).      <sup>34</sup> *Essay*, II.i.2 (104).

<sup>35</sup> See also Locke's genetic account of the origin of general terms in children, *Essay*, III.iii.7, 8 (411–12), and below.

<sup>36</sup> *Essay*, II.xxxi.373.

<sup>37</sup> *Essay*, II.ii.1, 2 (119–20); II.ii.2 (120), 'The Dominion of Man, in this little World of his own Understanding, being much what the same, as it is in the great World of visible things; wherein his Power . . . reaches no farther, than to compound and divide the Materials, that are made to his Hand; but can do nothing towards the making the least Particle of new Matter, or destroying one Atome of what is already in Being. The same inability, will every one find in himself, who shall go about to fashion in his Understanding any simple *Idea*, not received in by his Senses, from external Objects; or by reflection from the Operations of his own mind about them'; also II.i.25, where Locke, addressing the same point, refers to simple ideas as 'Beginnings, and as it were materials of Knowledge', which is also reminiscent of Epicurean atomism.

<sup>38</sup> *Essay*, III.xi.21 (519).

<sup>39</sup> *Essay*, III.iv.3 (421).



Locke is quick to notice that they are the objects of a mind that, through the senses, is conversant with bodies in all its waking moments; this is the normal human cognitive state, which, unlike Descartes, it does not seem ever to have crossed Locke's mind to doubt. Cartesian doubt is in any case an instance of pure abstract philosophy, and of no relevance to a virtuoso, whose cognitive interest required a constant engagement with corporeal things. This engagement is no less philosophical, merely less pure, if indeed purity is a philosophical virtue to be prized.

Locke also offers a natural historical account of language. It starts with a natural theological prelude, which is fitting, for the perfection of language is instrumental in setting mankind above all other animals, making it a fitting object of providence. God intended that mankind be a sociable creature, inclined and bound by necessity 'to have fellowship with his own kind', and to this end, endowed him with language 'the great Instrument, and common Tye of Society'. Whereas things, so far as we perceive them, are the source or fountain of all knowledge, words are the conduits, the 'pipes' through which this source is recalled to mind and brought into public discourse.<sup>40</sup> Accordingly, nature equipped mankind with organs capable of producing articulate sounds, and with the power to employ them internally and externally: 'as Signs of his internal Conceptions' and as instruments of communication.

But language would be a very inconvenient and perplexing instrument if it did not undergo 'a farther improvement in the use of general Terms, whereby one word was made to mark a multitude of particular existences', not as labels for an aggregate of particulars, but as names of general ideas. The explanation of how this improvement occurred is pure natural history. Locke imagines the process of abstraction that begins with a child's acquisition of the ideas of significant persons: mother, nurse, father, all of which 'like pictures of them', the names signifying the ideas and denoting the particular individuals they represent. As a child's experience grows, she observes other individuals who, like mother, father, et al., show much the same qualities; thereupon, step by step and by abstraction, she forms a general idea of them to which she applies a name. Locke describes abstraction as a process whereby the mind disassociates an idea from its particular or circumstantial contexts, viz., its time, place, or situation, for example, the domestic situation in which persons, things, and their qualities are originally perceived, so that what remains is a naked idea that retains the quality of something perceived, to which a general name is applied.<sup>41</sup> 'And thus [children] come to have a general Name, and a general Idea.'

<sup>40</sup> *Essay*, II.xi.1, 5 (509–10).

<sup>41</sup> *Essay*, II.xi.9 (159); see also II.ii.1; II.iv.1, 6: it would seem that for Locke the aim of abstraction is not to make perceptions less concrete, but, as it were, to un-mix or un-blend them, and thus to discover 'one uniform Appearance', whether this be the whiteness of a lily, or the stability of the earth beneath us, or the resistance of a flint or a football pressed between two hands; the meaning of names of ideas is thus always recoverable by an empirical trial; thus, II.v: 'we can receive and convey into our Minds the *Ideas* of the Extension, Figure, Motion, and Rest of Bodies, both by seeing and feeling.'

It is a recurring process. As experience enlarges and the power of discernment increases and is applied to it, more general ideas along with their names are fashioned by abstraction. Thus by abstracting from the idea of a man the power of reasoning, but retaining body, life, sense, and spontaneous motion, we come to the idea and the name of animal. And progressing further, certainly if one is a virtuoso or a school philosopher, by abstraction we come by the ideas of body, substance, being, thing, and their names, which are the most general terms.<sup>42</sup> It should be noted that the order of abstraction is the inverse of the order of creation, whose significance I will postpone explaining until later.<sup>43</sup> Also to be postponed is an account of the philosophical misuse of abstract terms. It is enough to note at this point that if Locke's account is true, then it supports the general hypothesis that all the material of our knowledge, particular and general, originates in experience.

*Primary and secondary qualities, or How to clarify the issue concerning the supposed veil of perception*

Much has been written about Locke's account of primary and secondary qualities and the validity and value of the distinction drawn by him. My purpose is not to add to that discussion, which is more about what is Lockean than about Locke;<sup>44</sup> rather I shall attempt to set the distinction in its proper context, which is natural philosophical and historical. Another purpose is to explain how this distinction is related to the problem concerning the veil of perception, or more accurately put, the veil of ideas, for perception is a capacity or faculty of the mind, whose primary objects are ideas; ideas are what the mind immediately perceives, although always with the intimation that there is some underlying reality responsible for the perception.<sup>45</sup> The veil signifies the incapacity of the mind to reach beyond its ideas into this reality, into the internal constitution of the objects it perceives. Here again, I will attend to context. It is supposed that the veil of ideas has been let drop by Locke, whereas Democritus was the first to let it unfold. Its pedigree is natural philosophical also.<sup>46</sup> Finally, I shall consider Locke's purported conflation of ideas and qualities, which is a related problem.

<sup>42</sup> *Essay*, III.iii.6–9 (410–12).

<sup>43</sup> See p. 167; briefly, human understanding proceeds by abstracting from particular positive perceptions, abstraction is a variety of subtraction; in contrast, Locke imagined divine creation as a process of addition or superaddition, beginning with the first creative act of something from nothing.

<sup>44</sup> The distinction between what is Lockean rather than what is about Locke was made by A. John Simmons. A Lockean theory is one that begins with Locke's ideas on a subject and by modifying and improving them makes them more enduring and better applicable to other times, like our own; see Simmons, *A Lockean Theory of Rights* (Princeton: Princeton University Press, 1992), 4.

<sup>45</sup> It is important to keep clear Locke's distinction between sensation and reflection, whose objects are, respectively, material things or bodies, and perception, 'the first faculty of the Mind', whose objects are ideas, which, once having been retained, the mind continues to perceive independent from the occasions that caused them. See *Essay*, II.i.4 (105), and II.ix.1 (143), and II.x.1, 2 (149–50).

<sup>46</sup> For an alternative approach to removing the veil of ideas with different emphases, but which also treats it as a problem of logic, see Thomas M. Lennon, 'Locke and the Logic of Ideas', *History of Philosophy Quarterly* 18/2 (April 2001), 155–77.

A correct understanding of the distinction made by Locke between primary and secondary qualities is possible only if it is put in its proper context, which, as he presents it, is materialist and atomist, and which ultimately derives from Democritic and Epicurean sources, partially mediated by Boyle, sources all for the most part well known to Locke. From this point of view, it appears that the mind acquires sensible ideas because there are things constituted by nature with a capacity to affect our senses, which are designed to receive them through perception.<sup>47</sup> They affect the mind through impulse, through the agency of external bodies or parts of bodies, some of which are too small to be perceived, their effect becoming noticeable or noticed when they have reached the sanctuary of the mind.<sup>48</sup> Thus, notwithstanding Locke's claim that neither in this chapter nor in the *Essay* as a whole is he attempting to offer a physiological explanation of how the mind acquires its ideas, he in fact intimates one, although not carrying it to the point of offering a final theory, but only so far that the distinction between primary and secondary qualities can be clarified.<sup>49</sup>

Why did Locke think it was important to make this clarification? Because it enabled him to distinguish among the ideas in the mind's inventory between those that may be taken to represent external things as they really are and those that do not, a distinction without which one could not represent how things are, or more importantly, how they work, for it is the primary qualities of a body or what they represent that are operational. The whole enterprise is theory-laden. But this is not to discredit the effort; for the preferred theory seemed then the best plausible hypothesis of how material nature does its work, and, more pertinently, how well the mind is situated in its endeavor to enquire into things, the answer to which will be the theme of the next section.<sup>50</sup> Locke's credentials as a virtuoso are richly confirmed here.

Perception, then, is the outcome of a physical process, whereby aggregations of little bodies, having individually and in combination properties of size, shape, solidity, and motion, in various contextures and dispositions, impact upon the human body and invade its sensorium and give rise to secondary qualities.<sup>51</sup> Primary qualities are

<sup>47</sup> *Essay*, II.viii.1 (132).      <sup>48</sup> *Essay*, II.viii.11 (135–6).

<sup>49</sup> *Essay*, II.viii.22 (140): 'I have ... been engaged in Physical Enquiries a little farther than, perhaps I intended. But it being necessary, to make the Nature of Sensation a little understood, and to make the *difference between the Qualities in Bodies, and the Ideas produced by them in the Mind*, to be distinctly conceived ... I hope, I shall be pardoned this little Excursion into Natural Philosophy, it being necessary in our present Enquiry, to distinguish the *primary and real Qualities* of Bodies, which are always in them ... from those *secondary and imputed Qualities*, which are but the Powers of several Combinations of those primary ones.' Locke's apology and the diffidence displayed here and in other similar situations must not be taken as the admission of a fault, but of an unavoidable inconvenience required by the truth of the subject he is endeavoring to explain. On the notion of diffidence in a virtuoso's overall stance, see Rosemary Sargent, *The Diffident Naturalist* (Chicago: University of Chicago Press, 1995), 19, 127.

<sup>50</sup> *Essay*, IV.iii.16 (547).

<sup>51</sup> *Essay*, IV.ii.11 (536), 'But this, I think, I may say, that I cannot ... conceive how Bodies without us, can any ways affect our Senses, but by the immediate contact of sensible Bodies themselves, as in Tasting and Feeling, or the impulse of some insensible Particles coming from them, as in Seeing, Hearing, and Smelling; by the different impulse of which Parts, caused by their different Size, Figure, and Motion, the variety of Sensations is produced in us.'

perceived by those senses appropriate to receive them, for example, shape, which is sensed by sight and touch, solidity, by touch, and so forth.<sup>52</sup> In this way, the mind accumulates a variety of qualities, or ideas, which it supposes to be really in things, although in reality some of them may in fact be only powers or configurations in things to produce certain affects in the mind, which the mind untutored in natural philosophy takes to be real qualities, but which the natural philosopher suspects are the products of a complex interactive process and in some cases even of absences, for example, silence or darkness. This explains the distinction between ideas as perceptions of the mind and ideas, or qualities, as 'modifications of matter in the Bodies that cause such Perceptions in us'. By means of it we are disabused of the naïve belief that all our ideas are resemblances of qualities inherent in perceived objects.<sup>53</sup> Hence, the distinction leads us to consider the physiological basis of all our ideas and by this means it lifts the veil of ideas. In *Essay* II.viii.9–21 Locke offers experimental proof of the distinction: bodies, no matter how divided or pounded into dust, continue to display the primary qualities, yet the colors, smells, tastes, and sounds of things change as the circumstances in which we perceive them are altered.

Thus, the distinction between primary and secondary qualities is shown to arise from these physical circumstances. Primary qualities are shown to be the essential properties of body: size, shape, solidity, and motion or rest, whose motion and texture determine all other qualities. Secondary qualities, which are innumerable, relate to the various senses in several classes: hot or cold, sweet or sour, loud or soft, variations in light and dark or color ranging across the spectrum, arise from the interplay of sense and object; they change as circumstances change.

The difference between primary and secondary qualities also has a theological importance. Whereas primary qualities resemble the state of things, secondary qualities have greater relevance to the perceiver inasmuch as they may be supposed to fit the circumstances of human existence in this world. Considered physiologically, they are merely arbitrary, since they bear no similitude to the motions and dispositions of indiscernible material particles that produce them, nor is human understanding capable of discerning any necessary connections between the supposed material cause and its effect.<sup>54</sup> They are, rather, effects of divine providence, which disposes them to suit his benevolent purpose. 'It being no more impossible, to conceive, that God should annex such *ideas* to such Motions, with which they have no similitude; than that he should annex the *Idea* of Pain to the motion of a piece of Steel dividing our Flesh, with

<sup>52</sup> The Molyneux problem, whether a man blind from birth, who had learned to identify figures by touch, would, his sight restored, visually recognize a cube to be the same figure that he previously identified only by touch. Locke's answer, that he would not, until taking the cube in hand, implies that he believed that the understanding does not mediate between members of its inventory of ideas, that they remain sense dependent; see *Essay*, II.ix.8 (145–6).

<sup>53</sup> *Essay*, II.viii.7 (134).

<sup>54</sup> *Essay*, II.xxiii.12 (302): 'The infinite wise Contriver of us, and all things about us, hath fitted our Senses, Faculties, and Organs, to the conveniences of Life, and the Business we have to do here.'

which that *Idea* hath no resemblance.<sup>55</sup> The will of God is thus accommodated to the arbitrariness of nature, so that the Christian virtuoso is able to move easily from one to the other.

It happens that once ideas enter the mind, whatever category they fall under, they achieve a certain positive equality, regardless of their physical origin, which leads us to another distinction concerning ideas. This distinction is between ideas as they merely reside in the mind, and become available for contemplation and configuration, and ideas as affects, things externally caused. In the first instance, ideas are all equally positive and true,<sup>56</sup> whatever their origin, which accords to the realm of ideas a kind of autonomy or self-sufficiency, although at the expense of serving any cognitive purpose.<sup>57</sup> In the second, as has been explained, ideas differ with respect to their physical causes, they are moments of consciousness.

The expression 'veil of ideas' signifies a cognitive problem that arises from this seeming autonomy of ideas residing in the mind. It signifies the mind's isolation from the very things its ideas are supposed to represent. Locke was well aware of the problem, and, fittingly, employed a variety of metaphors to characterize it. First, he imagined the mind to be a camera obscura.<sup>58</sup> Thus, whilst admitting that all sensible ideas have an external source, there seems to be no way for the mind in its isolation to determine their source or verify their agreement with objects they represent. Similarly, the metaphor of tabula rasa represents the mind as reading reality from its own inventory, not unlike the Platonic prisoner viewing images cast upon the wall of a cave.<sup>59</sup> Still another metaphor, castles in the air, suggests that all the structures that the mind fashions to represent how things are have no real foundation in reality.<sup>60</sup> Still another is the metaphor of the sailor at sea in the vast and for the most part seemingly bottomless ocean of being.<sup>61</sup> And thus we are led into something like Cartesian doubt, of which there can be no refutation, at least not from an empirical standpoint. And although Locke has been accused more than once of attempting this, he was aware that arguments of this sort are unavoidably circular. However, as Jonathan Bennett has suggested, it is possible through criticism to disarm Cartesian doubt, although he claims that Locke failed to do this. He is mistaken. Locke's responses to Cartesian doubters, in *Essay* IV.xi.3 and 8, show that he was quite well aware of the epistemic limitations of empiricism; they are

<sup>55</sup> *Essay*, II.viii.13 (136–7).

<sup>56</sup> *Essay*, II.xxxii.3 (384–5); when ideas are just in the mind, like passing fancies, referring to nothing outside mind; compare with §2: where ideas are said to be 'metaphysically true' insofar as they really are 'such as they exist'. Locke's assertion is too ambiguous to explain.

<sup>57</sup> But, see the instances of the painter and the dyer, *Essay*, II.viii.3 (133), who, Locke supposes, create colors with the finest distinctions, yet remain within the framework of the phenomenal.

<sup>58</sup> *Essay*, II.xi.17 (162–3); IV.iv.1 (563); for a review of current discussion of the veil of ideas, see Yasuhiko Tomida, *Locke, Berkeley, Kant from a Naturalistic Point of View* (Hildesheim: Olms, 2012); Tomida offers a persuasive argument that Locke's naturalism and materialist stance maintain a real connection between ideas and things.

<sup>59</sup> *Essay*, II.i.2: 'white paper, void of all Characters'; see also Draft A, *Drafts I*, 128. However, it should be noted that Locke makes no skeptical use of this metaphor.

<sup>60</sup> *Essay*, I.iv.25 (103).

<sup>61</sup> *Essay*, I.i.6 (46–7).

not refutations, but a sort of mocking or scolding, which is criticism based in practice signifying that one should know better from handling them and deriving pleasure and pain from them that things really are.<sup>62</sup> We are, after all, animals that breathe the air, drink water, and eat food.

Moreover, by pointing to the physical origin of the distinction and through practice, whether it be practice in making physical things or in acting upon or being acted upon by them, one derives assurance that they are real, an assurance that, he supposes, providence intended for our well-being, for it is because of such confidence that we use things to sustain and improve our life. Practice with tangible things, whether it be discovering the meaning of solidity, or creating colors for walls or fabrics, or engaging in natural philosophical experiments, does not refute Cartesian doubt, but it may disarm or unmask it, making it idle, and the product of a self-indulgent malady. Cartesian doubt is a pretense to madness that possesses, imagining the mind to be disembodied. The distinction between primary and secondary qualities serves to unmask it.

Finally, I consider Locke's practice of conflating ideas and their objects, and ideas and qualities. Here also, the physiological context clarifies the issue and removes the fault. His readiness to apologize for these practices may seem an admission of guilt. But to take it as such would be a mistake, for his apologies on occasions are invariably not admissions of guilt but claims for originality.<sup>63</sup>

*Essay* II.viii.8 is a good starting place.

Thus a Snow-ball having the power to produce those *Ideas* in us of *White, Cold, and Round*, the Powers to produce those *Ideas* in us, as they are in the Snow-ball, I call *Qualities*; and as they are Sensations, or Perceptions, in our Understandings, I call them *Ideas*: which *Ideas*, if I speak of sometimes, as in the things themselves, I would be understood to mean those *Qualities* in the Objects which produce them in us.

Here Locke offers a reason for his dual use of 'Ideas'. 'Idea' and 'quality' denote manifestations of the very same productive power of secondary qualities. Jonathan Bennett has given this duality a name: substantive conflation, which, in Locke and other serious philosophers, he regards as an unavoidable philosophical pathos.<sup>64</sup> This explanation excuses Locke and even ennoble him, but does not dissolve the problem.

Locke's own explanations do better. He offers two of them, one is psychological, the other physiological. The psychological explanation appears in Draft A.

When I speak of simple Ideas as existing in things I would be understood to mean such a constitution of that thing which produces that Idea in our minds. Soe that Idea when it is spoken of as being in our understanding is the very perception or thought we have there, when it is spoken of as being without is the cause of that perception. & is supposed to be resembled by it.<sup>65</sup>

<sup>62</sup> Jonathan Bennett, *Locke, Berkeley, Hume*, 63–70.

<sup>63</sup> See *Essay*, II.xii.4 on modes; also *OED*, 'mode' 1.6b.

<sup>64</sup> The expression 'substantive conflation' was coined by Jonathan Bennett, 'Ideas and Qualities in Locke's "Essay"', *History of Philosophy Quarterly* 13 (1996), 73–88.

<sup>65</sup> Draft A, *Drafts I*, 82.

There is a tendency to suppose that perceived objects, because they are taken to be the causes of our perception of them, resemble the very ideas we have of them; it is a common human tendency. It is the effect of the veil of ideas. Thus, it is natural, common, ordinary to suppose that White, Round, and Cold that we take to be in a snowball one holds in one's hand are the same as the ideas of White, Round, and Cold that on that occasion are present to mind. In this comment, Locke also hints at a physiological or natural philosophical explanation, which is spelled out in *Essay*, II.viii.11–13. It is an elaboration of the reason stated briefly above. Bodies produce ideas in us by impulses from the motion of outflows or effluvia, 'singly imperceptible Bodies', whose motion 'must thence be continued by our Nerves, or animal Spirits . . . to the Brains or seat of Sensation, there to *produce in our Minds the particular Ideas we have of them*.' There is, then, a continuity of the power of the perceived object from the object itself to the understanding. Locke's explanation has a metaphysical import: it tends toward materialism but swerves toward theism. Thus, he conjectures that although, in the case of secondary qualities, there is no similitude between particles of various size, shape, and motion, and the ideas that enter the mind through their motions, for example, of color or scent in a flower, it is 'not impossible' that God has joined them together. Indeed, this marriage of ideas and physical states becomes in Locke's scheme of things a regular feature of our experience of the world. I will have more to say about Locke's 'theological swerve' in the next chapter.

### *Concluding scientific prospect on ideas*

At the end of his chapter on power, having concluded his account of 'original ideas', viz., simple ideas and their modes, Locke pauses, and assuming the role of a natural philosopher, reflects briefly on the causes of the vast array under review. And, whilst he advises readers that he will not 'enquire . . . into the peculiar Constitution of Bodies, and the Configurations of Parts, whereby they have the power to produce in us the *Ideas* of sensible Qualities', that is, not delve into the physics of the mind, yet he will provide a philosophical reduction of these original ideas into a rational system. The epithet 'philosophical' signifies that it is a reduction to fundamental principles. The system of ideas consists of eight primary ones: the first three are ideas of sensation, and relate to the qualities of bodies: '*Extension, Solidity, and Mobility*, or the Power of being moved'; the second set of two, ideas of reflection, for which Locke has coined new terms: '*Perceptivity*, or the Power of perception, or thinking; *Motivity*, or the Power of moving'; and a final set of universals: '*Existence, Duration, Number*'. If we analyze extension to include size and shape, then the first set of ideas consists of the primary qualities of bodies, which figure into explanations of secondary qualities. The second set pertains to the powers of the mind, understanding and will, which engage in theory and practice, which relate to the two substantive parts of the system of sciences and the powers of mind to found and execute them. The third are essential properties of all beings. Overall, this is a scheme that perfectly fits the theoretical interests of a virtuoso. Nevertheless, the distinction between mobility (in bodies) and motivity (in mind or spirit) has a telltale

quality. It expresses an anti-materialist sentiment by denying the motive, and hence, the generative power of material bodies, endorsing the primacy of spirit over body, of creation over spontaneous generation, and of theism over naturalism.

## Propositions and Their Cognitive Value

Book IV of the *Essay* will be the principal focus of this section. It covers a connected set of themes: knowledge and its degrees, reality, truth, existence, probability, judgment, and the degrees of assent. It concludes in a system of the sciences, which encompasses the domains within which all human knowledge and justifiable belief reside. I begin with a brief account of these domains, for they offer a framework within which Locke's thoughts about the extent of knowledge and belief may be considered. I have already introduced them by name: physics, practics, and semiotics.

Physics or natural philosophy is the domain of speculative or theoretical knowledge of things or substances, material and spiritual. Hence it searches after truth regarding the 'proper Natures, Constitutions, and Operations' of 'God himself, Angels, Spirits, Bodies, or any of their Affections.' Practics is concerned about the arts of living: how to apply our powers of human agency 'for the Attainment of Things good and useful'. Its object is not the truth of things, but the rightness of actions. Among the practical sciences, ethics is pre-eminent, for it looks beyond convenience and temporal well-being for 'those Rules, and Measures of humane Actions, which lead to Happiness', to a lasting state of well-being. I pass over semiotics, for a great deal has already been said of it and more will follow. Later in this section I shall attempt to show how religious and philosophical motives operate concurrently in Locke's account of the scope and limits of human knowledge within its proper domains.

### *The propositional form of knowledge and belief*

The form of all human knowledge is propositional, which is also the form of thought. Propositions are formed in the mind tacitly, that is without speaking, by joining or separating ideas, or by mentally affirming or denying them in various combinations, or by asserting these connections with appropriate combinations of words, spoken or written, suitably arranged in 'affirmative or negative Sentences'. It is evident that mental propositions are cognitively prior to verbal ones, and so their formation, through '*Putting Together and Separating*', is more easily comprehended by directly observing these operations in oneself. Considered reflectively, propositions are complex ideas that receive verbal expressions. Thus, Locke continues the empirical practice of demonstrating his thesis by citing an experimental instance, as though reviving a neglected practice.<sup>66</sup> For example, he considers two alternate propositions: that the diagonal of a

<sup>66</sup> See *Essay*, IV.vi.1: 'Though the examining and judging of *Ideas* by themselves, their Names being quite laid aside, be the best and surest way to clear and distinct Knowledge: yet through the prevailing custom of using Sounds for *Ideas*, I think it is very seldom practiced.'



square is commensurate, or is not commensurate, with any of its sides. To understand these propositions, it is necessary for the mind to imagine two lines, the side of a square and its diagonal, the divisibility of one into its aliquot parts, such that they can be used to measure the other line with or without remainder. This is another instance of Locke's method of reducing all propositions to ideas, and ideas, if they are complex, to simple ones, and thus, with that complete understanding of what it is the mind is supposed to consider, determining which alternative is true, and which false.

Propositions are true or false when the ideas, which are their principal parts, are joined or separated 'according as the Things, which they stand for, agree or disagree'. There are two kinds of truth, corresponding to the two sorts of propositions: viz., mental or verbal truth. Mental truth pertains to things; it occurs when the mind thinks truly about its real or intentional objects, for example, sides and diagonals of squares and their real commensurability, that is, whether there is an aliquot part of one that can be used to measure the other without remainder. Verbal truth pertains to the truth of verbal propositions: a proposition is verbally true when its affirmation or denial expresses the agreement or disagreement of its constituent ideas. Further, there are two varieties of verbal truth: one purely verbal or trifling, when our knowledge goes no farther than the agreement or disagreement of ideas, and real or instructive, in which instance, a verbal proposition, like a true mental proposition, informs us of how things really are.<sup>67</sup>

In a similar vein, Locke distinguishes between two sorts of certainty: certainty of truth and certainty of knowledge. The former occurs in the mind when words are joined in a general proposition 'as exactly to express the agreement or disagreement of the *Ideas* they stand for, as really it is'. Certainty of knowledge pertains to ideas, it relates to the perception that the ideas joined in the proposition do in fact agree or disagree: we can be certain that 'an Harpie is not a Centaur', and that 'a Square is not a Circle', merely by considering the ideas as they are joined. In such instances, the criterion of truth is consistency.<sup>68</sup>

Propositions are universal or particular, and it is on account of the former that Locke introduced this distinction. Although it applies to all propositions, it is especially relevant to universal propositions. This is because the ideas or terms joined in a universal proposition refer not to particular things, but to species, knowledge of whose real essence is requisite for the certainty of truth. Here, it should be noted, Locke is referring to complex ideas of substances. Real universal truth depends on a prior knowledge of the real essences of such things, and where this lacking, it is unattainable. It is lacking because humankind lacks the capability to perceive essences, which are the inner constitution of things, which sense perception cannot reach. Not knowing the real essences of things, one cannot be sure of the true extension of a general term. Hence the certainty of truth, or certain real knowledge is not attainable of things in general. Yet, by observing particular things and comparing them with things like and

<sup>67</sup> *Essay*, IV.v.5–6 (576–7).

<sup>68</sup> *Essay*, IV.iv.1 (563); 12 (568).

unlike them, we have certain knowledge of them, according to their nominal essences, and thus achieve a certainty of knowledge, or a rather a similitude of it.<sup>69</sup> Such certainty is not the product of idle dreaming, but of attentive observation, by a scrupulous empiricist, who stands like Moses, looking into the promised land of real essences that he will never enter. Locke's description of the cognitive situation of the virtuoso, of the real limits of his capability, is done with exquisite irony, whose effect is deeply skeptical.

I have chosen to explain this uncertainty of Propositions in this scholastick way, and have made use of the Terms of *Essences* and *Species*, on purpose to shew the absurdity and inconvenience there is to think of them, as of any other sort of Realities, than barely abstract *Ideas* with Names to them. To suppose, that the *Species* of Things are any thing, but the sorting of them under general Names, according as they agree to several abstract *Ideas*, of which we make those Names the Signs, is to confound Truth, and to introduce Uncertainty into all general Propositions, that can be made about them.<sup>70</sup>

The purpose of this exercise is to get rid of all scholastic talk of species and essences, and along with it of form and matter, and to prepare the way for a new naturalism in the operations of generative matter that in no way resemble the things that are generated out of them. It is doubly ironic that in this life, we humans can hope to make only probable hypothetical judgments about all this, whereas even now immaterial spirits have the capability to perceive it all directly. Humans have only 'godlike reason', which at its best is a similitude of intuition.

There is another sort of universal proposition, whose truth is certain. This is the whole class of moral propositions, which, for Locke, are summarized by the obligations one owes to God:

So having the *Idea* of GOD and my self, of Fear and Obedience, I cannot but be sure that GOD is to be feared and obeyed by me: And this Proposition will be certain, concerning *Man* in general [i.e. mankind as supposed to be in its nominal essence, as an agent capable of following a rule, and in debt to its creator], if I have made an abstract *Idea* of such a *Species*, where of I am one particular.<sup>71</sup>

As will be remarked below, Locke was certain that it was within the capability of an empiricist to fashion an idea of God, and by deduction to prove God's existence, and on further deliberation, to demonstrate that a finite creature, a self, coming to know this, and having the ideas of fear, a simple mode, and obedience, a mixed mode, is capable of discovering the truth of this universal moral proposition.

<sup>69</sup> *Essay*, IV.vi.4 (580).

<sup>70</sup> *Essay*, IV.vi.4 (581).

<sup>71</sup> *Essay*, IV.xii.13 (638). According to Locke's system of ideas, a simple mode is a variation of a simple idea, in this case, of pain: fear is an emotion that arises in anticipation of pain, and hence itself is painful, in this case the pain of anticipating inevitable punishment; see *Essay*, II.xx passim; a mixed mode is a complex idea, a convention, devised for a purpose, in this instance, to establish a moral relationship, of something owed, see *Essay*, II.xxii.9, 10 (291–3).

Finally, existential propositions, if they convey the certainty of truth, are particular. We know that corporeal things exist because we perceive them through our senses and only because of that. Each individual knows that it exists, because it is conscious of itself, and, by the same means, as will be explained in the next chapter, is sure that it is a continuing being, having endured over time, the same person. Finally, that God exists is capable of deductive proof, but, as will be seen, is also providentially assured in a manner suitable to finite sensible beings.<sup>72</sup>

### *Reason*

*Essay IV.xvii*, 'Of Reason', is a short discourse on logic or ratiocination. Its purpose is to explain how human knowledge is to be enlarged through methods of inference and discovery. A secondary purpose is to regulate assent. Overall, Locke's system of logic, such as it is, is a hybrid: something between a logic of terms and a propositional logic. Locke's examples should clarify my meaning.

Reason, as has been noted, is a dual faculty comprising inference and discovery, illation and sagacity. Inference is a method of deciding truth along a sequence of ordered ideas that agree or disagree in turn, concluding with joining the first idea in the sequence with the last. This, I believe, is very close to Locke's meaning. However, an example given in *IV.xvii.4* suggests that something more is involved in Locke's method of inference than juxtaposing ideas, which works well enough in propositions of attribution, but not in hypothetical ones. The question is whether from the proposition 'Men shall be punished in another world' it can be inferred, 'then Men can determine themselves'. If we take 'then' in the second clause to be inferential, then it would seem that Locke was asking whether the following conditional sentence is true, not in a formal but in a material sense, that is, whether the apodosis of the following sentence necessarily follows from the protasis:

If men shall be punished in another world, then they can determine themselves.

Because this is not self-evident, there must be some intervening inferential moves between the first and second clause.

If men shall be punished (in an afterlife), God is the punisher.

If God is the punisher, the punishment will be just.

If the punishment is just, then the punished is guilty.

If the punished is guilty, he could have done otherwise.

If he could have done otherwise, then he is free.

If he is free, then he is self-determining.

The method employed is one of generation or construction by enlargement, that is, by adding intervening ideas. The faculty of sagacity proceeds by identifying the mediating role of ideas or terms between being punished in the afterlife and being free. He

<sup>72</sup> *Essay*, *IV.ix.1-3* (618-19); *IV.xi passim*.

eschews any formal method, in favor of a material one consisting of the requisite middle terms. What is not explained is the power of illation that carries thought from its factual beginning to its conclusive end.

Locke maintains that his method is more fit than Aristotelian syllogistic in drawing inferences, and that it depends merely on the clarity and distinctness of ideas. Later on he observes that the syllogistic form disarranges the sequence of ideas, so that it is not, as it were, visually evident how one leads to the next. On the other hand, the conditional sentence nicely poses the problem and identifies the terms that need to be connected in order to reach a conclusion that may be certain or merely probable: certain if all the intervening ideas are discovered, probable if not all but sufficient are found to justify assent.

Perhaps, if he had not been preoccupied with the shortcoming of the syllogistic method, Locke might have found in Stoic logic a formal system that served his heuristic purposes most efficiently.<sup>73</sup> But he had no interest in formal logic, in truth conditions and the like, and may very well have supposed that his purpose of discovering truth was better served by eschewing all formal methods of logic, so that he could lay bare the natural rational capacity of the human mind, a native way of imagining truth.<sup>74</sup>

The importance of this becomes clear when one considers the second part of Locke's theory of ratiocination, discovery or sagacity.<sup>75</sup> Sagacity is discovery, and it is by discovering connections between ideas that we come to know anything, and only then are we able to frame a rational proof of it. He illustrates his intention with a geometrical example: the proof of proposition 47 of Book I of Euclid's *Elements*.<sup>76</sup> Locke is referring to the method of proof described by Euclid, which he takes to be illustrative of sagacity or discovery preceding proof and upon which all proof depends. The proposition is a familiar one, the Pythagorean theorem, that the square of the hypotenuse of a right-angled triangle is equal to the sum of the squares of its sides. Locke no doubt imagined that the method of proof would have been familiar to his readers. That method involves no formal logical reasoning, but a discovery of intervening ideas through geometrical construction and the observations of certain equivalences. Thus, Locke no less than Spinoza advocated right reasoning *more geometrico*, in a geometric manner, in Locke's case, because it is a non-verbal method of inference that relies on ideas as images of things and the simple relations of equality and equality.

<sup>73</sup> On Stoic conditionals, see Benson Mates, *Stoic Logic* (Berkeley: University of California Press, 1961) 74–7 and passim.

<sup>74</sup> Like the ancients, Locke was 'not interested in doing philosophy in the formal mode'; see Charles H. Kahn, *Essays on Being* (Oxford: Oxford University Press, 2009), 154.

<sup>75</sup> *Essay*, IV.xvii.6 (679–80). Lest it be supposed that Locke was merely theorizing here, in the next chapter I hope to show that he employed his method of inference in proving the main thesis of *The Reasonableness of Christianity*, that Christianity as delivered in the Scripture is reasonable.

<sup>76</sup> Euclid, *The Elements*, transl. Thomas L. Heath, 3 vols. (New York: Dover, 1956), i, 350; Euclides, *Elements*, Isaac Barrow, transl. (London: William Nealand, 1660), 35.

## The Compass of the Understanding: Scope of Knowledge and Belief

I begin with some preliminaries. First, knowledge, according to Locke, is a state of mind, a conscious awareness whose immediate objects are ideas, which are the products of perception and which invariably bear the marks of experience.<sup>77</sup> They are the *sine qua non* of all human knowledge. Whenever the mind is lacking in consciousness of ideas, it is unknowing; whatever exists, if the mind has no idea of it, then it has no way of knowing about it; whatever knowledge it has consists of ideas arranged in mental propositions, tacit or explicit, which is to say that all knowledge is ‘nothing but *the perception of the connexion and agreement, or disagreement and repugnancy of any of our Ideas*’.<sup>78</sup>

Next, the general scope of human knowledge, ‘all the knowledge we are capable of’, is represented by the several sorts of substantive propositions that assert (1) identity or diversity, that is, the agreement or repugnancy of ideas simple or complex; (2) various relations; (3) coexistence or necessary connection of qualities; and (4) real existence. The first of these is merely a restatement of the form of all knowledge. The second involves a comparison of ideas; it is of unlimited scope; it pertains mostly to practices, the practical domain of science, and involves the relation of actions to some end or their conformity to rules; chief among these are moral relations. The third pertains especially to our knowledge of things, which according to Locke’s system of the sciences is physics: our knowledge of bodies, spirits and God. The last is requisite for the greater part of human knowledge, for it is possible to have real knowledge of such abstract things as moral rules and mathematical principles without transcending one’s thoughts about them; knowledge of bodies, spirits, and God, which comprises all that exists, is impossible unless we know they exist.<sup>79</sup>

Finally, there are degrees of knowledge, although we must take into account Locke’s remark that degrees of difference, compared to differences of quantity, are uncertain because they cannot be precisely measured, so it is unclear just what this difference amounts to objectively.<sup>80</sup> They are, in descending order of cognitive magnitude: intuitive knowledge, which involves the direct perception of the agreement or

<sup>77</sup> Whether this is reason enough to label Locke an imagist, that is, someone who supposes that all ideas are sensory images or their remembered remains, and that the mind does not harbor any ‘purely intellectual, non-sensory concepts’ or a higher intellectual capacity to perceive them, remains an open question; see Michael Ayers, *Locke*, i, ch. 5, 44–5, and passim. There is no doubt that ideas, which derive from sense perception, are for Locke images of something perceived; and this may also be said with regard to ideas of reflection, although in some instances, like the idea of reflection itself, they are represented by metaphors, which are images once removed. What I have labeled as Locke’s transcendentals are pure abstractions that resemble nothing. Yet, in all these instances, Locke never imagined a transcendent realm of archetypes to which every idea must be referred. But this is just to say that Locke was an empiricist.

<sup>78</sup> *Essay*, IV.i.2 (525).      <sup>79</sup> *Essay*, IV.i.1–7 (525–7).

<sup>80</sup> *Essay*, IV.ii.11 (535); Locke gives a brief physiological explanation of the variability of whiteness that is reminiscent of Hooke, *Micrographia* (London: The Royal Society, 1665), 82–3; and of Boyle, *Experiments Touching Colours*, Part II, *On Whiteness and Blackness*, Works, iv, 62; see also Boyle, *Origine*, Works, v, 318.

disagreement of ideas (except where the ideas compared are not clear and distinct, for example, shades of whiteness);<sup>81</sup> rational demonstration, which, whilst relying on intuition throughout, is less certain because the mind cannot contain all the intervening or mediating proofs of demonstration in one momentary thought, so that there is a likelihood of error; the knowledge of existence, which, so far as it depends upon perception of external things, is regarded as the lowest in cognitive value.<sup>82</sup> Locke explains that he has put knowledge of existence last, because some philosophers, Descartes and his ilk, have cited instances when we have the idea of a thing when it is not there, which sufficiently undermines the perception of existence as to require proof of it. Locke's rejoinder, that we are 'invincibly conscious' of the difference between perceiving the sun by day and thinking about it at night, is not a refutation, although in the spirit of empiricism one may say it makes good sense, or common sense.<sup>83</sup> Nevertheless, the existence of particular things outside the mind is something that according to Locke's method we can claim to know, but not as well as we do other things.<sup>84</sup>

The limits of human knowledge are due to a variety of natural conditions, chief among them: the limited scope of human perception, a disadvantageous place from which to observe the universe of things, the shortness of life, and a propensity for error, some of it willful. The last of these can be diagnosed and remedied to a degree, and a great part of the Baconian project was devoted to this purpose. Locke's *Conduct of the Understanding* is a case in point. Shortness of life was remediable by the corporate and trans-generational program of science, a Baconian idea upon which the Royal Society was founded, to which Locke alludes in his exhortation that the 'Industry and Labour of Thought' should be employed not in vain disputations, but 'in improving the means of discovering Truth'.

But the limits of perception are, in the end, insurmountable. This is because, in the first place, ideas of secondary qualities do not reveal how things really are. Hence, even though we may be certain that things we perceive are really there, and, through the industry and labor of empirical enquiry, can verify the distinction between primary and secondary qualities, and through experiment discover evidence supporting the conjecture that underlying the perceived qualities of anything is an essential material system of imperceptible bodies that affect our organs of sensation in ways that cause them to appear to us one way or another, human understanding lacks the capacity to descend to that level of essential being. Moreover, human perception is limited to particulars. The enlargement of ideas through abstraction, as has been noted, has ambiguous results, leaving us dependent upon imperfect ideas to represent general knowledge. For Locke, whose criteria of what constitutes science are intuition and

<sup>81</sup> See the previous footnote.

<sup>82</sup> This is an important change in value from Draft A, where Locke was more positive about the existential value of sense perception, although even there, he displayed a strategic deference to things nobler than bodies, that is, to God and spirits.

<sup>83</sup> Locke's anti-Cartesian stance is reminiscent of Aristotle, *Metaphysics*, *I*, 6; 1011a, 3–14.

<sup>84</sup> *Essay*, IV ii.530–8, passim.

rational deduction, the consequence of this is a profound skepticism that experimental natural philosophy will never attain to the status of science.<sup>85</sup> This is appropriate; if atomism or some variation of it is true, then the Aristotelian model of science and of cognitive certainty must be abandoned, at least in the domain of natural philosophy.

Just what sort of skepticism is this? Historically, it resembles Democritic skepticism,<sup>86</sup> which is significantly unlike the later skepticism of Arcesilaus and Pyrrho, the founders of its two main Hellenistic varieties.<sup>87</sup> Democritus did not, as did they, regard the suspension of judgment as overall a positive philosophical goal.<sup>88</sup> Nor did Locke. Belief and assent were very important in life, and to this end, he may have been influenced by the mitigated skepticism of Carneades, who maintained that there were degrees of assent, and probabilities of sufficient magnitude to be adopted as practical rules. This is the sort of skepticism that Cicero fashioned for himself and is represented by the character of Philo in *De natura deorum*.<sup>89</sup>

But the root of Locke's skepticism, like that of Democritus, lay in the inaccessibility to human perception of the inner constitution of things, including the physical constitution of our sense organs, a knowledge of which was requisite to explaining how things are, and how they appear in various characteristic ways. The human incapacity to realize this led Locke to deny the possibility of a science of nature. Thus he seems to draw back from Baconian optimism that industry and labor will restore human knowledge to a state like that of its first ancestor before the Fall. However, one must be clear about what Locke meant to deny. By a science of nature, he imagined a set of deductions founded on principles that were intuitively certain. This would require a capacity directly to perceive atoms, which was not possible for us, because of their minuteness.

<sup>85</sup> *Essay*, IV.iii.25 (556).

<sup>86</sup> Cudworth, who, like Henry More, appropriated atomism into his Platonic system, interpreted Democritus as a rationalist, see *Eternal and Immutable Morality*, II.vi.3, 'Democritus, who did more thoroughly and perfectly understand this atomical philosophy than Protagoras, makes this to be the proper result and consequence of it, the invalidating the judgment of sense concerning bodies themselves, and the asserting a higher faculty of reason is us to determine what is absolutely true and false', Mosheim, iii, 555–6, Hutton, 47. Although this work was not published until 1731, the manuscript came into Damaris Cudworth's possession after his death, in 1688, along with his other papers (see Hutton, x–xi); it may have been known to Locke during his residence at Oates, which was not until 1691.

<sup>87</sup> In her article 'Locke and Pyrrhonism: The Doctrine of Primary and Secondary Qualities', *The Skeptical Tradition* (Berkeley: University of California Press, 1983), 353–76, Martha Brandt Bolton has argued that Locke was influenced by Pyrrhonism. She does not claim that Locke was a Pyrrhonist skeptic, rather that he appropriated aspects of Pyrrhonist skeptical argument, the 'ten tropes', and that he did this not in order to make a case for skepticism, but to support his physiological hypothesis. There is plausibility in her case, although she fails to establish any sure literary source for Locke's acquaintance with the tropes: the most likely is Diogenes Laertius. Moreover, she altogether overlooks the Democritic/Epicurean sources of the distinction between primary and secondary qualities, which underlie the theory Locke is proposing.

<sup>88</sup> Both Arcesilaus, who headed the Platonic Academy c.266–241 bce, and Pyrrho (360–270 bce), who gave his name to Pyrrhonism, who was his older contemporary, regarded suspension of judgment and calm detachment as the proper goals of philosophical enquiry; see also David Sedley, 'The Motivation of Greek Skepticism', *The Skeptical Tradition*, 9–30.

<sup>89</sup> This and the *Academica* were in Locke's library and doubtless well known to him; *LL* 711, 718; There is evidence that Locke was a close student of Cicero's writing. MS Locke c. 31, 139–46 contains a list of Cicero's writing with notes situating and dating them.

And because atoms are ‘the active parts of Matter, and the great Instruments of Nature, on which depend not only all their secondary Qualities, but also most of their natural Operations, our want of precise distinct *Ideas* of their primary Qualities’, that is, ideas which we could have if we could perceive them directly, we remain of necessity ‘in incurable ignorance of what we desire to know about them.’

I doubt not but if we could discover the Figure, Size, Texture, and Motion of the minute Constituent parts of any two Bodies, we should know without Trial several of their Operations one upon another, as we do now the Properties of a Square, or a Triangle. Did we know the Mechanical affections of the Particles of *Rhubarb*, *Hemlock*, *Opium*, and a *Man* as a Watchmaker does those of a Watch ... we should be able to tell before Hand, that *Rhubarb* will purge, *Hemlock* will kill, and *Opium* make a Man sleep; as well as a Watch-Maker can, that a little piece of Paper laid on the Balance, will keep the Watch from going ... of that some small part of it, being rubbd by a File, the Machin would quite lose its Motion, and the Watch go no more.<sup>90</sup>

For these reasons, Locke concludes that however far experimental natural philosophy may progress, a science of nature will remain ‘out of our reach’.

And therefore I am apt to doubt that, how far soever human Industry may advance useful and *experimental* Philosophy in *physical Things*, *scientific* will still be out of our reach: because we want perfect and adequate *Ideas* of those very Bodies, which are nearest to us, and most under our Command.<sup>91</sup>

It should be noted in passing that what Locke describes as ‘*experimental* Philosophy in *physical Things*’ fits perfectly as a definition of modern natural science. In any case, ideas of these minute imperceptible ‘instruments of nature’ are for Locke ideas of reason derived by analogy from actual perceptions of bodies; their qualities and motions are probable postulates, upon which experimental natural philosophy depends practically and hypothetically.

Like Democritus, then, Locke did not seek an alternative to his empirical stance, although he was clearly aware that a pure empiricism often confounded its own purposes.<sup>92</sup> Unlike Democritus, Locke lived in the expectation that something better would come. Empiricism is a weakness that God will remedy in his time.

These limitations of human knowledge are consequences of the empirical method, upon which, of necessity, humankind is obliged to rely if it is to gain any knowledge at all, and they are the reason why probable belief must be surrogate for knowledge in most realms of enquiry. However, for Locke, the Christian virtuoso, these conditions are symptomatic or, perhaps, emblematic of the mediocrity of the human situation, its place in the chain of being between material and spiritual existence, between beasts and angels. Thus they are providential, and so an individual is free to imagine realms of

<sup>90</sup> *Essay*, IV.iii.25 (555–6).

<sup>91</sup> *Essay*, IV.iii.26 (556–7).

<sup>92</sup> Democritus’ self-accusation, in an impersonation of his sense organs, is apt here: ‘Wretched mind, you get your evidence from us, and yet you overthrow us? The overthrow is a fall for you.’ Fr. D23, *The Atomists*, ed. C. C. W. Taylor (Toronto: University of Toronto Press, 1999), 13; see also in this volume, *Testimonia* 179c, and 179 *passim*; see also Cicero, *Academica*, I.xii.44, II.x.22.



being that are beyond its scope. The true natural philosopher is a pilgrim, and although in this world he is a staunch empiricist, he is consoled and fortified in the acceptance of his limited cognitive situation, because he lives with the assurance that by persevering in the twilight he will, after death, arise in the bright sunlight where the being of everything, at least everything finite, will be entirely transparent and perfectly knowable.<sup>93</sup>

Locke's final judgment, after having laid down the concepts and rules of empirical enquiry, is that a science of nature is not achievable. On the other hand, because he was certain that the existence of God could be demonstrated, which is the first principle of morality, natural philosophy must give way to morality as the supreme science of 'Mankind in general'. Nature and reason lead us to this conclusion.

I deny not, but a Man accustomed to rational and regular Experiments shall be able to see farther into the Nature of Bodies, and guess righter at their yet unknown Properties, than one, that is a Stranger to them: But yet, as I have said, this is Judgment and Opinion, not Knowledge and Certainty. This way of getting, and *improving our Knowledge in Substances only by Experience* and History, which is all that the weakness of our Faculties in this State of *Mediocrity*, which we are in this World, can attain to, makes me suspect, that natural Philosophy is not capable of being made a Science.

From whence it is obvious to conclude, that since our Faculties are fitted to penetrate into the internal Fabrick and real Essences of Bodies; but yet plainly discover to us the Being of a GOD, and the Knowledge of our selves, enough to lead us into a full and clear discovery of our Duty, and great Concernment, it will become us, as rational Creatures, to imploy those Faculties we have about what they are most adapted to, and follow the direction of Nature, where it seems to pint us out of the way. For 'tis rational to conclude, that our proper Employment lies in those Enquiries, and in that sort of Knowledge, which is most suited to our natural Capacities, and carries in it our greatest interest, *i.e.* the Condition of our eternal Estate. Hence I think I may conclude that *Morality is the proper Science, and Business of Mankind in general*; (who are both concerned, and fitted to search out their *Summum Bonum*,) as several Arts, conversant about several parts of Nature, are the Lot and private Talent of particular Men, for the common use of humane Life, and their own particular Subsistence in this World.<sup>94</sup>

<sup>93</sup> *Essay*, IV.iii.27.

<sup>94</sup> *Essay*, IV.xii.10, 11 (645–6). In the light of this conclusion, it is uncertain what place Locke supposed was left to the study of natural philosophy on a grand scale as the early Greek philosophers conceived it and as Bacon endeavored to revive and clarify it. There seems to be no place for it at all. I am reminded of the first clause of the opening sentence of Peter Anstey's fine study of Locke and natural philosophy: 'John Locke was not a natural philosopher' (*John Locke and Natural Philosophy*, 1). Anstey's claim is supported by the lines I have just quoted, which reduce natural philosophy to an aggregate of useful arts that are grounded on experiment and practiced by a class of private men among whom Locke did not count himself, although he had for a few years practiced medicine with Sydenham. Anstey, however, means something else: that Locke cannot be counted among great virtuosi such as Boyle and Newton, or Wallis and Wren, although he kept himself as well-informed as he could of their work, and in general allied himself with the natural philosophical endeavors, and was a very interested bystander. Yet, I think that Locke still supposed the *Essay* as a logic of empirical enquiry was an important part of the overall project of the new natural philosophy, notwithstanding its skeptical conclusions, and that the moral and theological interests that led Locke to them, and which overshadowed and finally diverted the original project of the *Essay*, were shared by the major natural philosophers of Locke's day and were integral to their philosophical outlook.

*Concluding note on Locke and Hobbes*

In *Essay* IV.iii.6, while discussing the limits of human knowledge, Locke cites two examples of unanswerable questions that had been considered by natural philosophers: whether it is possible to construct a circle equal to a square, or to discover a purely material being that thinks.<sup>95</sup> It is curious that Locke should pose these two questions together and noteworthy that he regards them as unsolvable. Locke must have been aware that Hobbes had become notorious by claiming to have squared the circle and by claiming that the animal soul, including that of humans, was material, hence, a body that could think. In the light of his proverbial caution, it is surprising that Locke should have mentioned them together in this way. He must have known that they would remind readers of Hobbes. If Locke did intend this, what message did he want to convey to his readers? The problem becomes more complex, when one considers affinities between Locke and Hobbes; for example, Locke preferred a method of geometric proof by generation or construction, which was advocated and employed by Hobbes; also Locke, like Hobbes, came to believe that the soul was mortal, and that matter and spirit may be ultimately indistinguishable, and, hence, ultimately the same.

What was Locke's purpose in mentioning these two instances of undecidable questions, and to do so in such a way that would suggest to readers his affinities with Hobbes? If we keep to the immediate context, it would appear to be an effort by Locke to put distance between himself and Hobbes. His disavowal on the succeeding page of any intention to deny the immateriality of the soul, and that with respect to such questions it 'becomes the Modesty of Philosophy, not to pronounce Magisterially, where we want that Evidence that can produce Knowledge', suggests this. What is noteworthy is Locke's emphasis on philosophical modesty and his refusal to make magisterial pronouncements, which is just what Hobbes did when he affirmed the materiality of the soul. One must be clear that in the section under review Locke is considering instances of cognitive incapacity to know things of which we have ideas. We have ideas of matter and thinking, 'but possibly never be able to know, whether any material Being thinks or no; it being impossible for us, by the contemplation of our own *Ideas*, without revelation' to find an answer.<sup>96</sup> Locke may have come to conclusions similar to those reached by Hobbes, but he reached them through revelation, specifically by reading St. Paul.<sup>97</sup>

<sup>95</sup> *Essay*, IV.iii.6 (540).      <sup>96</sup> *Essay* IV.iii.6 (540).

<sup>97</sup> Locke concluded that the soul is mortal by reading the Bible; see *The Reasonableness of Christianity*, 6–8; also Bod. MS c. 43, 'Adversaria Theologica', WR, 28–33.

# 6

## The Philosophy of a Christian Virtuoso ii

### Physics

Though GOD has given us no innate *Ideas* of himself; though he has stamped no original Characters on our Minds, wherein we may read his Being: yet having furnished us with those Faculties, our Minds are endowed with, he hath not left himself without witness: since we have Sense, Perception, and Reason, and cannot want a clear proof of him, as long as we carry our selves about us.<sup>1</sup>

[I]f we would emancipate our selves from vulgar Notions, and raise our Thoughts, as far as they would reach, to a closer contemplation of things, we might be able to aim at some dim and seeming conception how Matter might at first be made, and begin to exist by the power of that eternal first being: But to give beginning and being to a Spirit, would be found a more inconceivable effect of omnipotent Power. But this being what would perhaps lead us too far from the Notions, on which the Philosophy now in the World is built, it would not be pardonable to deviate so far from them; or to enquire, so far as Grammar itself would authorize, if the common settled Opinion opposes it: Especially in this place, where the received Doctrine serves well enough to our present purpose, and leaves this past doubt, that the Creation or Beginning of any one SUBSTANCE out of nothing, being once admitted, the Creation of all other, but the CREATOR himself, may, with the same ease, be supposed.<sup>2</sup>

### Introduction

To begin with, it is important to bear in mind that *An Essay concerning Human Understanding* is a preparative work.<sup>3</sup> It was not Locke's intention to present a complete system of philosophy. Nevertheless, because his purpose was to prepare the mind for searches after truth about nature or moral duty, it should come as no surprise that a great many substantive philosophical themes are considered in the *Essay*,

<sup>1</sup> *Essay*, IV.x.1 (619).

<sup>2</sup> *Essay*, IV.x.18 (628–9).

<sup>3</sup> Much of the territory covered in this chapter, and more, has been gone over long ago by Michael Ayers in 'Mechanism, Superaddition, and the Proof of God's Existence in Locke's *Essay*', *The Philosophical Review* 90/2 (April, 1981), 21–51.

and these increased in bulk in successive editions. Perhaps, following Bacon, these substantive philosophical discourses should be regarded rather as anticipations, than as interpretations for which finality could be claimed. However, Locke's anticipations are not disconnected thoughts. They seem to prefigure a system of nature and to provide the basic elements of a scheme of ethics, both of which he believed are founded on a single principle whose truth could be mathematically demonstrated, even though he doubted, in the case of physics, that, in this life and 'from the Notions, on which the Philosophy now in the World is built', a well-rounded science of nature could be attained.

The philosopher of nature remains a pilgrim, whose uppermost concern is meeting obligations placed upon him by his maker, whilst also maintaining a modest curiosity in the surroundings of his present situation and pursuing advantages that accrue from what he is able to discover about them. His ultimate goal is to gain favor with God, so that he may be granted a place in the world to come and ascend to a higher plane of being, as citizen of a spiritual and eternal domain, about which, in a state of mediocrity, located between body and spirit, endowed with fallible powers, little could be imagined or said without the aid of revelation.<sup>4</sup>

The foundation of both Locke's speculative physics and his system of ethics is the knowledge of God: an eternal all-wise, all-powerful being, who is creator, ruler, law-giver, rewarder, avenger, and benefactor over all that he has made. The way in which Locke supposed one could attain this knowledge is the first concern of this chapter. Hence, Locke's demonstration of the existence of God will be closely examined and interpreted. I will endeavor also to show how Locke's religious concerns caused him to acknowledge speculative domains that the discipline of a virtuoso and his adherence to empiricism prevented him from entering but that he could glimpse from afar. The situation of a Christian virtuoso, caught between two states of being, is well represented in the second epigraph, which will be subject to a detailed interpretation in the latter part of the chapter.

*Locke's Speculative Physics and its basis:* To understand Locke aright, it is important to be reminded that he acknowledged a single science of beings, which he labeled physics, and which includes the following:

... the Knowledge of Things, as they are in their own proper Beings, their Constitutions, Properties, and Operations, whereby I mean not only Matter, and Body, but Spirits also, which have their proper Natures, Constitutions, and Operations as well as Bodies. This in a little more enlarged Sense of the Word, I call *φυσική*, or *natural Philosophy*. The end of this, is bare speculative Truth, and whatsoever can afford the Mind of Man any such, falls under this branch, whether it be God himself, Angels, Spirits, Bodies, or any of their Affections, as Number, and Figure, *etc.*<sup>5</sup>

<sup>4</sup> The idea of mediocrity has a metaphysical and a practical sense. Metaphysically, it signifies the place of mankind in the chain of being, between angels and brutes; practically, it signifies a mode of life that balances engagement in worldly affairs and otherworldly pursuits; on the latter, see [Damaris, Lady Masham], *A Discourse on the Love of God* (London, 1696), 126 and *passim*.

<sup>5</sup> *Essay*, IV.xxi. 2 (720).

The aim of physical enquiry is pure theoretical truth concerning how things are. Locke enlarged its scope to encompass the whole of being; hence, it comprises a complete ontology, hierarchically imagined: God, spirits, and bodies, and accounts of their nature and actions. It is, therefore, a comprehensive science of being, concerning the sorts of substances there are and the originating or generative powers whereby every thing and every event will be accounted for. In this accounting of the objects of physical enquiry, 'God', 'body', and 'finite spirit', are sortal terms representing natural kinds whose definitions are determined by experience and reason. Having no direct perception of the divine being, our idea of God is a construction of reason, employing ideas of sense and reflection modified according to the principle that God is the best and greatest of beings.<sup>6</sup>

Thus, having got from reflecting on our selves, the *Idea* of Existence, Knowledge, Power, and Pleasure, each of which we find it better to have than to want; and the more we have of each, the better; joining all these together, with infinity to each of them, we have the complex *Idea* of an eternal, omniscient, omnipotent, infinitely wise, and happy Being.<sup>7</sup>

Thus we may think speculatively about God whilst remaining within the limits of mere empirical reason.

Locke included these three sorts of things, and these three only, in his inventory of things to be known, because we know, or are able to know, that bodies, finite spirits, and God exist, the first two by experience, the third by logical deduction.

Locke provided a more elaborate account of speculative physics in *Some Thoughts concerning Education*. There also, natural philosophy includes the study of spirits as well as bodies. The former study he observes 'is usually referr'd to as *Metaphysicks*', and he adds that in the education of children the former should precede the study of the latter, as an 'enlargement' of their minds 'towards a truer and fuller comprehension of the intellectual World'; which for the most part transcends their immediate sensible surroundings. And because this greater world cannot be reduced to a science, 'methodized into a System, and treated of upon Principles of Knowledge', the best way to teach it is to begin with the Bible.<sup>8</sup> The use of Holy Scripture is to accustom young minds to ideas of immaterial things; it is, in this respect, not a substitute for physics but preparative of it.

If we imagine Locke's system of nature as an edifice, then its principal architectonic element is God and his demonstration of the divine existence and attributes, in Book IV, Chapter x of the *Essay*, is its founding act. This chapter is, as Jonathan Bennett has described it, 'deep, subtle, intricate, and flawed'.<sup>9</sup> The flaws are for the most part logical errors, unwarranted inferential steps, and incompleteness. Locke's most egregious

<sup>6</sup> I do not believe that Locke ever adequately justified the *a priori* use of this principle.

<sup>7</sup> *Essay*, III.vi.11 (445); see also II.xvii.1 (210), II.xxiii.33–6 (314–16).

<sup>8</sup> *Education*, §190 (245).

<sup>9</sup> Jonathan Bennett, 'God and Matter in Locke, An Exposition of *Essay* 4.10', *Early Modern Philosophy*, Christia Mercer and Eileen O'Neill, eds. (Oxford: Oxford University Press, 2005), 161–82.

logical errors have been discussed elsewhere in detail.<sup>10</sup> I will consider only the most notorious of them here and only briefly, for they are not my main concern, which is to offer a plausible interpretation of the whole chapter. The deep, subtle, and intricate aspects of Locke's substantive thought that are explicitly or implicitly conveyed in this chapter are of far greater moment. Indeed, as I will try to make clear, *Essay IV.x* is the speculative center of Locke's constructive thought, whose radii connect to fundamental Lockean themes: matter and spirit, substance, space, time, personal identity, and free agency.

Locke supposed that a system of nature must be grounded on the certainty of an eternal cause of being, God,<sup>11</sup> whose nature includes eminently, if not formally, all the perfections that have been discovered to operate in created beings, plus an original creative power, viz., the power of an 'eternal infinite Mind' to devise things, and an active productive power to create them absolutely from nothing.<sup>12</sup> His demonstration that such a being exists is to his mind a foundational act of science; unlike probabilities, its evidence needs be regarded only once.<sup>13</sup>

Locke's demonstration is offered in phases in *Essay IV.x*.<sup>14</sup> The main argument is given summarily in IV.x.1–6, with repetitions and elaborations in the following sections: IV.x.7 may be described an anti-Cartesian interlude, during which Locke derides without dismissing altogether *a priori* proofs based on a mere idea of God; in IV.x.8–12 Locke argues that God is eternally wise; next, in IV.x.13–17, he proves that God is immaterial; finally, in IV.x.18–19, he proves that God and matter are not co-eternal.

*A cosmological argument:* Locke's main argument belongs to a class or type of proof commonly termed 'cosmological', which aims to demonstrate the existence of a supreme being from some known existing contingent thing or fact about the world.<sup>15</sup> A concurrent purpose of the argument is to show how the world is constituted as an ordered whole or cosmos, involving a hierarchy of classes of beings or substances culminating in a prime mover or creator of the world, which is an unmoved or uncaused, eternal, immaterial, intelligent substance, the source of all existence and all good. It is

<sup>10</sup> Most thoroughly by Bennett, see the previous footnote.

<sup>11</sup> Thus, although God is unique, which Locke endeavors to prove later on, the name 'God' is, in the usage he adopts in *Essay IV.x*, not a proper name but a sortal term signifying a class of beings, which along with finite spirits and bodies constitute the whole of what there is; hence the title 'of our Knowledge of the Existence of a GOD'. Elsewhere, Locke does not use the indefinite article.

<sup>12</sup> *Essay IV.x.18* (630).

<sup>13</sup> See *Conduct*, § 7: 'Where a truth is made out by one demonstration, there needs no farther enquiry, but in probabilities where there wants demonstration to establish truth beyond doubt, there it is not enough to trace one argument to its source, and observe its strength and weakness, but all the arguments, after having been so examined on both sides, must be laid in balance one against the other, and upon the whole the understanding determine its assent.'

<sup>14</sup> Much of what follows is appropriated and adapted with elaborations from my essay, 'Locke against the Epicureans', *Christianity, Antiquity, and Enlightenment* (Dordrecht: Springer, 2011), 207–33; I have tried also to correct and improve that earlier version.

<sup>15</sup> See 'cosmological argument', *Stanford Encyclopedia of Philosophy*, <http://plato.stanford.edu/entries/cosmological-argument/>; for a useful account of the argument and its varieties, see J. L. Mackie, *The Miracle of Theism* (Oxford: Clarendon Press, 1982), 81–101.

an *a posteriori* argument, beginning and concluding with knowledge of real existence. The chief architect of this type of this kind of argument is Aristotle, and its *locus classicus* is Book *A* of his *Metaphysics*.<sup>16</sup>

Locke almost certainly did not bother to consult Aristotle when developing his argument, yet we may be just as sure that he was well versed in the tradition, and was conversant with contemporary versions of it, one in particular offered by Ralph Cudworth, who like Aristotle was intent upon refuting materialism, and more specifically, atomism.<sup>17</sup> We must not forget that putting down materialism is one of the abiding concerns of all who stand in this tradition of argument. But whereas Aristotle's main purpose was to validate a view of the world as self-contained, rationally ordered, and eternal, governed by an intelligent principle that took no notice of it, who contemplated only its own incomparable, intelligible perfection, whose only activity was pure thinking, and whose causal efficacy reposed in being a supreme object of desire, Locke fashioned an argument adapted to accord with the character of the God of the Bible, of Abraham, Isaac, and Jacob, who with unrivaled power acts to achieve his preordained ends, who is never at rest until, in his wisdom, the elect of all he has made are brought to share in his eternal and blissful sabbath. In the meantime, the world that he makes is mutable, impermanent, immeasurable, and altogether dependent upon his omnipotent will. Ironically, given the 'Notions, on which the Philosophy now in the World is built', Locke's biblical god seemed better armed than Aristotle's philosophical one to repel the atomists who were assaulting the citadels of immaterialism.

*The logical form of the argument:* One would expect that in crafting this important argument, Locke would follow the method of rational deduction he proposed in the *Essay*, and he does for the most part. But, because it is an informal method, he does so informally. This method involves thinking one's way through a sequence of propositions, whereby the truth of the beginning premise is transmitted to the conclusion. Thus, the two propositions, 'I think', 'I exist', require no intermediary, for, on his account, it is intuitively certain that they are immutably joined and mutually verifying, the idea of existence being co-adequate with the idea of someone thinking. When two propositions are joined in the mind and this connection is not immediately perceived, Locke's method requires that one or more propositions be interposed to achieve it. The two propositions that Locke proposes to join are 'I exist' and 'there is an eternal being'. The work of mediation is accomplished by the so-called maxim that

<sup>16</sup> *Metaphysics*, Bk. *A*, vi–ix, 1071b3–1076a4; see also Michael Frede, Introduction, *Aristotle Metaphysics Lambda*, Michael Frede and David Charles, eds. (Oxford: Oxford University Press, 2000), 5–6 and passim. A forerunner of this tradition is Anaxagoras, who claimed that the creator of the world was an immaterial intelligence, and who in this connection became the first substance dualist; see David Sedley, *Creationism and its Critics in Antiquity* (Berkeley: University of California Press, 2009), 11.

<sup>17</sup> *Metaphysics*, 1071b33, 1072a2; Aristotle's case against Leucippus is that, whilst he correctly asserted the eternity of motion, he could not account for it, inasmuch he could not overcome the fact that any material substance is, as it were, stuck in potentiality, and therefore cannot be the permanent source of its operations or actuality.

nothing comes into being from nothing. A maxim, being self-evident, requires no justification.<sup>18</sup> It does its work by establishing a necessary connection between a being with a beginning and one that exists eternally. The maxim, by virtue of what it asserts, also establishes a causal connection between the premise and its conclusion, ‘I exist’, ‘nothing comes from nothing’, therefore, ‘there exists an eternal being who is the cause of my existence’.

*The opening premise:* The mode of argument that Locke chose requires as an opening premise a proposition asserting the existence of some contingent thing. Logically, the existence of any causally contingent thing could have served him well enough as a starting point, a pebble or nail clippings,<sup>19</sup> for he had allowed that we are certain of the existence of external things, that is, of bodies, material things, which we everyday perceive by our senses. Yet, Locke supposed that, because our knowledge of the existence of external things is impeachable knowledge—for we may sometimes take a phantasm to be a real body—a proof involving the use of premises of this kind could not be regarded as a demonstration yielding mathematical certainty, which is what he desired of his proof. Therefore, echoing Descartes, he decided to begin his proof with the proposition ‘I exist’.

After Descartes, Locke had come to believe that ‘I think; I exist’ is the most evident instance of real existence available to philosophy, and hence a suitable basis on which to establish the existence of God with mathematical certainty, with a certainty approaching self-evidence, of the sort of truth from which maxims could be made.<sup>20</sup> Thus, having completed his argument, Locke makes two grand assertions.

From what has been said, it is plain to me, we have a more certain Knowledge of the Existence of a GOD, than of any things our Senses have not immediately discovered to us. Nay, I presume I may say, that we more certainly know that there is a GOD, than that there is any thing else without us.<sup>21</sup>

The first claim is ambiguous and needs clarification. It could be interpreted to mean that, having proved God’s existence, we are more certain of the existence of God than we are of sensible objects we have not yet perceived, more certain that God exists than that there are trees in a forest we haven’t yet seen. Another interpretation, and the more likely one, of ‘things our Senses have not immediately discovered to us’ are hypothetical or suppositional things, that our limited capacities do not enable us to perceive, but whose existence we confirm with more or less assurance on the basis of systematic observation and experiment and reason, such as ‘the minutest Particles of Matter’, which like all bodies we take to be solid.<sup>22</sup> A God, who is also unobserved by us, would

<sup>18</sup> See *Essay*, IV.x.3 (620): ‘Man knows by an intuitive Certainty, that bare *nothing can no more produce any real Being, than it can be equal to two right Angles.*’

<sup>19</sup> *Essay*, IV.x.9, 10 (623, lines 2, 15).

<sup>20</sup> *Essay*, IV.ix.3 (619). ‘In every Act of Sensation, Reasoning, or Thinking, we are conscious to our selves of our own Being; and, in this Matter, come not short of the highest degree of *Certainty.*’

<sup>21</sup> *Essay*, IV.x.6 (621).

<sup>22</sup> *Essay*, II.iv.1 (123): Solidity ‘seems the *Idea* [i.e. quality] most intimately connected with, and essential to Body, so as no where else to be found nor imagin’d, but only in matter: and though our Senses take no



also be included in this group if his existence were merely hypothetical, which would be the case without demonstration. Having made this plausible claim, Locke became emboldened to say much more: 'Nay, I presume I may say, that we more certainly know that there is a GOD, than that there is any thing else without us', which is to put mathematical demonstration, or at least this instance of it, on a higher cognitive plain than sense certainty, which seems extravagant, an extravagance that is supported by his Cartesian opening premise.

The opening proposition also becomes the ground or starting point of Locke's speculative physics. This is Locke's refashioning of the Cartesian *cogito*. Locke's preferred route is *a posteriori* and constructivist.<sup>23</sup> And if his method of proof is not as elegantly simple as Descartes's, Locke's thinking person is supposed to have resources that his Cartesian counterpart lacks or fails to consider. They make up for his loss of innate ideas. His portable self includes sense perception as well as reason, so that he is able to make theological use of the various contrivances of nature and events that are testimonies of divine providence, so that his belief in God is regularly confirmed by everyday experience. Furthermore, he can rely on experience to furnish existential situations of great moment, by furnishing thinking beings with words and meanings, which are expressions of the various situations in which human life is involved. He observes that these ideas sink deeper and spread farther depending on the sort of values they express, or power over human affairs, and the emotions they evoke. They are an armory of faith.

... if [an idea] carry with it the Notion of Excellency, Greatness, or something extraordinary; if Apprehensions and Concernment accompany it; if the Fear of absolute and irresistible Power set it on upon the Mind, the *Idea* is likely to sink the deeper, and spread the farther...<sup>24</sup>

Thus, Locke, when speaking of God, can refer to an abundant empirical resource of ideas, which have the currency of psychological and anthropological commonplaces. These ideas gain greater universality and credibility, when they are illuminated by 'the common light of reason', refined, and made credible. In this process, divine power is complemented with natural power, and divine purpose, with the utility of natural things. Natural experience discovers 'a *Deity*', carried by common sense, clarified by common reason, and spurred by human interest, which is everywhere much the same.

notice of it, but in masses of matter, of a bulk sufficient to cause a Sensation in us; Yet the Mind, having once got this *Idea* from such grosser sensible Bodies, traces it farther; and considers it, as well as Figure, in the minutest Particle of Matter, that can exist'. In his chapter on solidity, from which these lines are taken, Locke allows that through the sense of touch we may be assured, by induction and reason, that material bodies are solid all the way down to the atomic ground of their being.

<sup>23</sup> However, Descartes's proof of God's existence in the third *Meditation* is *a posteriori*, proceeding from effect, viz., the idea of a perfect being that I have in my mind, to its only possible cause, God. The Cartesian proof that Locke specifically rejected is offered in the fifth *Meditation*. However, both proofs presuppose innateness. In Locke's case, the idea of God, or of a perfect being, is not something discovered in the mind, but constructed by reason.

<sup>24</sup> *Essay* I.iv.9 (89).

The Name of God being once mentioned in any part of the World, to express a superior, powerful, wise, invisible Being, the suitableness of such Notion to the Principles of common Reason, and the Interest Men will always have to mention it often, must necessarily spread it far and wide; and continue it down to all Generations...<sup>25</sup>

And to this general acceptance, Locke can add the concurrence of ‘wise Men of all Nations’.<sup>26</sup>

*The mediating principle and its sources:* The mediating principle, that non-entity cannot produce a real being, or that nothing can be created out of nothing, is a distinctive feature of Locke’s theistic argument, and, as will become clear, his adoption of it was strategic. The strategy did not originate with him, but with Ralph Cudworth, and there is no doubt that Locke appropriated it from him. I shall present evidence to this effect shortly. Cudworth appropriated or rather aggressively seized the principle from Epicurus. He made it the fulcrum of his argument, hoping to employ it to prove theism and refute materialism. When he seized the principle he changed its meaning to fit his purposes. There is no doubt Cudworth believed that refuting Epicurean materialism was an urgent need, because this ancient doctrine had gained a renewed currency in his own time, and brought with it the threat of atheism. His motives and his strategy are better seen when viewed against this ancient materialism that had been incorporated into the new naturalism.

For Epicurus, ‘nothing comes to be out of non-entity’ is a general principle of nature, which is confirmed by observation and justified by argument. Together with its complement, that no thing, when it passes away, is reduced to bare nothing, and with the supposition that the sum of all things in the universe is the same as it always was and always will be, he infers that the primordial material of the universe consists of an infinitude of indestructible indivisible bodies moving about in infinite space.<sup>27</sup> Epicurean physics is founded on these principles.

Lucretius, who gives a fuller account of the principle that nothing comes to be from nothing and its justification, also thereby shows how it is to be understood as a principle of nature, directing our attention to the order and regularity and overall reliability of natural generation, exciting a curiosity about their generation and its sources. The method of proof is by *reductio ad absurdum*.

For if things came to be out of nothing, all kinds of things could be produced from all things, nothing would require or produce a seed... men could arise from the sea, from the earth scaly tribes, and birds could hatch from the sky... Seeing that there would be no bodies apt to generate each kind, how could there be a constant unchanging mother for things? But as it is, because every kind is produced from fixed seeds, the source of everything that is born and comes forth into the borders of light is that in which is the material of it and its first bodies; and therefore it is impossible that all things be born from all things, because in particular things resides a distinct power.

<sup>25</sup> *Essay* I.iv.10 (89–90).

<sup>26</sup> *Essay* I.iv.15 (93).

<sup>27</sup> Epicurus, *Letter to Herodotus*, Diogenes Laertius, X.38–41.

Besides, why do we see the rose put forth in spring, corn in the heat, grapes under persuasion of autumn, unless because each created thing discloses itself when at their own time the fixed seeds of things have streamed together, while the due seasons are present and the lively earth safely brings out things young and tender into the borders of light? But if they came from nothing, suddenly they would arise at uncertain intervals and at unsuitable times of the year; for there would be no first beginnings to be restrained from generative union by the unfavorable season.<sup>28</sup>

The natural philosopher looks upon nature as it is, as a congeries of more or less stable streams of natural kinds of things. Here, then, is the natural starting place for exploring the generation and corruption of things through experience and reason, and discovering its laws or regularities, the *naturae species ratioque*, the aspect and law of nature, which makes up Epicurean naturalism.<sup>29</sup>

Lucretius' first introduction of the principle includes a denial of divine creation.

The first principle of [the appearance and system of nature] follows from this, that no thing is ever by divine power produced from nothing.<sup>30</sup>

The principle is intended to establish a naturalist stance and an accompanying sentiment. This involves a predisposition to understand all events as products of natural causes, while it purges the mind of the terrors of religion that might otherwise beset it.

Justifying the principle that nothing comes into being from nothing opens the mind to the entire domain of nature. Thus, it becomes a motivating and working principle of empirical naturalism, according to which things come to be not at random or spontaneously by chance, but according to ordered albeit in many instances jerry-built processes, from seeds, and that they cease to be according to a process of destruction, relinquishing their form and vitality, but leaving material remains that are recycled in the ongoing cycle of nature, which, if anything is, is eternal, that is, always was, and always will be. Like Aristotle and Greek naturalists generally, the eternity of matter was integral to the eternity of nature. The wonder of this variety of naturalism is that it is not through formal or final causes, or by divine planning, that things acquire the capabilities and powers that distinguish their species, rather these natural kinds are the products of the trials and experiments of nature, of imperceptibly small bodies impacting and combining in various dispositions of matter, forming molecules and acquiring productive faculties that yield generative seeds from which emerge or evolve ordered albeit impermanent worlds and their hosts of inhabitants. On this account, laws of nature and of species are opportunistic, they evolve and emerge, and once they achieve such stability, these combinations of matter are regulated analogously to the way in which civil societies operate and are regulated by

<sup>28</sup> DRN, 1.159–83, translation modified. <sup>29</sup> DRN, 1.146–264.

<sup>30</sup> DRN, 1.149–50; I have translated *naturae species ratioque* as 'appearance and system of nature'. It is a fundamental principle and law of nature that all events and operations of things have natural causes, including in the Epicurean scheme of things, voluntary agency.

covenants and laws of convenience that after many trials are seized upon because they work the best.<sup>31</sup>

This was considered a plausible worldview by virtuosi, consistent with their enquiries and methods. Boyle's explanation of the origin of forms and qualities is an elaboration of it, and Newton's mathematization of it a further refinement. The challenge was to find a way of fitting divine action into it. However, the mother theory that bore it was based on the supposition that everything, from a mere pebble to an intelligent human life, could be the product of the motions and dispositions of blind generative matter. This is speculative atheism or pure philosophical naturalism. Locke's strategy, like Cudworth's, was designed to refute it, whilst preserving its offspring, an emerging modern naturalism established on empirical principles.

Although Cudworth set about to refute all varieties of materialism, he regarded the refutation of Epicureanism and related varieties of atomism as crucial. He imagined himself a hero coming forward to do single combat with 'the Achilles of the Athiests', that is,

their invincible argument against a divine creation and omnipotence; because "Nothing could come from nothing." It being concluded from hence that whatsoever substantially or really is, was from all eternity of itself unmade or uncreated by any Deity.<sup>32</sup>

Locke was familiar with this argument, and, as will be seen, appropriated it.<sup>33</sup> An entry in Locke's journal, dated Saturday, Feb. 18, 1682, specifically refers to Cudworth's argument, indeed to the very page where Cudworth's remark just quoted appears.

Their argument ex nihilo nihil p. 65 answered p. 738<sup>34</sup>

Cudworth's book was first published in 1678. Locke purchased a copy in December 1681, and notes from it can be found in his manuscripts about the same time as the journal entry just quoted, c.1682.<sup>35</sup>

It should also be noted that Locke's friendship with Cudworth's daughter, Damaris (1659–1708), later Lady Masham, began several months before the journal entry.<sup>36</sup> Although not disposed to Platonism, she was well acquainted with it, 'having spent the Most of my Life amongst Philosophers of that Sect', as she informed Locke. From her

<sup>31</sup> DRN, 5.416–32.

<sup>32</sup> *The True Intellectual System of the Universe*, ed. Mosheim, iii, 79.

<sup>33</sup> Locke's dependence on Cudworth has been observed by others, e.g., Richard Aaron, *John Locke*, 27, 'Much of the fourth book of the *Essay* might have been written by one of the Cambridge school. The argument in iv. x 10 and what follows ... breathes the spirit of Cudworth'—but Aaron makes clear that other contrary influences were at work in Locke's thinking; Michael Ayers, *Locke*, ii, 169–83, John Passmore, *Ralph Cudworth* (Cambridge: Cambridge University Press, 1951), 91–6, who cites Aaron; also W. von Leyden, *Seventeenth Century Metaphysics*, 233, n. 1.

<sup>34</sup> MS Locke fol. 6, p. 19; transcribed in Aaron and Gibb, *An Early Draft of Locke's Essay*, 118; it is noteworthy that on the previous day Locke recorded in his journal for Saturday, February 11, 1682, 'paid for Smith the Select Discourses, 4<sup>o</sup> Cambridge 73', which is the second edition of Smith's work. He also purchased a copy of Lucretius at the same time.

<sup>35</sup> Journal entry, Saturday, February 18, 1682, MS Locke fol. 6, 21; Aaron and Gibb, *An Early Draft*, 118.

<sup>36</sup> See Mark Goldie, *John Locke and the Mashams at Oates* (Cambridge: Churchill College, 2004), 22.

correspondence with Locke during this period, we learn that one of the topics they discussed was Platonism as it related to the epistemology of John Smith, whose *Select Discourses* Locke had recently purchased and was reading.<sup>37</sup> Both of them shared a distaste for enthusiasm, and they wondered whether Smith, a Platonist, was not one of that sect. In their correspondence, they did not discuss the writings of her father.<sup>38</sup>

In Section 2 of Chapter V of *The True Intellectual System*, Ralph Cudworth set out to defeat the Achilles of atheism by disarming him, seizing his weapon and turning it against him. This is the key aspect of his strategy. He reframes the principle and employs it to demonstrate that speculative atheism is impossible, that God, and not mere matter, is the only possible source of existence—there are no other alternatives, and that God created the world out of nothing. He accomplishes this feat by a series of interpretations of the principle that nothing comes from nothing.

The first set of interpretations consists of three causal versions of the maxim, which are consistent with naturalism.

First, that “nothing, which was not could ever bring itself into being,” or that “Nothing can possibly be made without an efficient cause.” Secondly, that “nothing, which was not,” could be brought into being by another efficient cause, than such as hath at least equal perfection in it, and a sufficient active or productive power . . . But the third and last sense is this, that “Nothing, which is materially made out of things pre-existing (as some are) can have any other real entity,” than what was either before contained in, or resulteth from the things themselves so modified . . . and therefore that all natural generations are really nothing else but mixtures, or new modifications of things pre-existing.<sup>39</sup>

These principles are intended to explain natural generation according to natural principles, for example, the efficacy of seeds, common-sense heredity. Cudworth assumed, rightly, that they would be acceptable to most contemporary natural philosophers. In sum, they state that for everything that has a beginning there must be an efficient cause of equal perfection and with sufficient motive power to produce it, and that all corporeal things are mere mixtures or modifications of preexistent, but not eternal, matter.

Next, he introduces a fourth version of the maxim. This is the one, so he tells us, that Democritus and Epicurus used. It echoes the principle as stated by Lucretius that ‘no thing is ever by divine power produced from nothing.’<sup>40</sup> On Cudworth’s interpretation, this principle asserts the absolute impossibility of creating anything new, most importantly a new substance.

<sup>37</sup> John Smith, *Select Discourses*, 2nd edn. (Cambridge: W. Morden, 1673); LL 2701, Bodleian shelf mark, Locke 8.4; Locke’s copy contains three page references in ink on the rear flyleaf; it also is one of the few books in his surviving library with pencil marks in the margin.

<sup>38</sup> Damaris Cudworth to Locke, March 9, 1682, and the same, April 20, 1682 (*Correspondence*, ii, 493, 503); see also De Beer’s note, ii, 470–2.

<sup>39</sup> *True Intellectual System*, iii, 90–1; double commas are Cudworth’s, and used for quotation but to highlight content.

<sup>40</sup> Lucretius, *DRN*, 1.154.

“Nothing, which once was not,” could by any power whatsoever be afterwards be brought into being . . . That no real entity, which once was not could by any power whatsoever be made, or brought out of non-existence into being; and consequently, that no creative power out of nothing can possibly belong to any thing, though supposed never so perfect.<sup>41</sup>

Cudworth’s case reduces to this. If bare matter, an aggregate of atoms, existed eternally, it would, according to all the versions of this principle, lack the power to produce anything new, or even to reproduce itself, for it has no other power than the power to be itself. Likewise, even if there were a god or gods, they would for the same reasons lack any creative power to produce new natural things from nothing. Nature would be eternally a static mass of matter. Cudworth treats this version of the maxim as a double-edged sword. Atheists wielded it to defeat theism by denying divine creation out of nothing. Yet, he contends, the same argument, if it were valid, would defeat materialism also, for if in the beginning there were mere senseless, motionless, and blind matter, lacking any higher vital or intelligent capabilities, then nothing could emerge from it. The universe would be a static mass of matter, which it certainly is not. Hence materialism is refuted.<sup>42</sup> This is what Cudworth believed and hoped, but he begged the question. For, from the very start, he held it to be self-evident that matter lacked generative power, so that the theistic conclusion was never in doubt. Locke followed suit.

Now if there be no middle betwixt atheism and theism, and all things must of necessity either spring from senseless matter, or else from a perfect understanding Being; then is this demonstration of the impossibility of atheism a sufficient establishment of the truth of theism; it being such a demonstration of a God as the geometricians call a deduction ad impossibile. . . . Thus, either there is a God; or else matter must needs be acknowledged to be the only self-existent thing, and all things else whatsoever, to be made out of it; but it is impossible, that all things should be made out of senseless matter: therefore is there a God.<sup>43</sup>

To give added satisfaction to his reader, Cudworth continues with another proof, his triumphal proof, brandishing Achilles’ weapon, showing ‘how the existence of a God may be directly demonstrated also from this very principle, which the Atheists endeavor to take sanctuary in, and from thence to impugn theism’. He then concludes from the principle, *de nihilo nihil*, that it is ‘mathematically certain that “Something or other did exist of itself from all eternity”’, that it is ‘a necessarily existent Being’—for to suppose that it exists contingently is absurd, and because the only sort of being that can have the ‘necessity of existence in its own nature’ is one that is absolutely perfect, it follows that a God, so qualified, exists eternally. The principle is refashioned into a self-evident maxim.

It seems evident that Locke was influenced, perhaps incited, to construct his own proof of the existence of God, and to employ the maxim *de nihilo nihil* by reading

<sup>41</sup> *True Intellectual System*, iii, 91–2.

<sup>42</sup> *True Intellectual System*, iii, 92.

<sup>43</sup> *True Intellectual System*, iii, 121.

Cudworth; that he appropriated from him the strategy of using the materialist's weapon to defeat materialism whilst proving the existence of God, and, as we shall see, of developing a new theory of matter and of the emergence of things in the created world on the grounds of the very same principle.

Like Cudworth, and after him, Locke fixed upon only two alternatives to explain the origin of things, eternal matter or an eternal god. This stark opposition helps to explain the shape of the main argument presented summarily in §§2, 3, and the abbreviated nature of it. This also explains how Locke might have fallen into logical error.

*Locke's main argument:* The main argument proceeds in two stages, one general, the other, special. At the outset he argues that there must be something that always exists, and follows with the argument that whatever exists eternally must be endowed with all the perfections, for example, motion, life, sensibility, that we observe in things. In both instances, he employs the principle that nothing comes from nothing, which, like Cudworth, he has elevated to the status of a self-evident maxim.

In the second stage of his argument he mentions only cognitive powers, but his argument, to be complete, should have included other capabilities, such as mobility, motivity, and various vital powers, which later in the chapter he will represent as superadditions to bare matter. He concludes that the eternal source of being 'must also be the Source and Original of all Power', which is to say that all powers must reside in it, and that 'this eternal Being must be the most powerful'.<sup>44</sup> Thus, he connects the idea of a thinking being with that of a being in whom all powers occurring in existing things reside if not formally then eminently; although he does not state this, it seems implied, for he may have thought it improper to imagine that the eternal source of being has need of metabolic, respirative, and recuperative powers or anything else that implied passivity.

He concludes by affirming once more the mathematical certainty of his demonstration.

It being as impossible, that Things wholly void of Knowledge, and operating blindly, and without any Perception, should produce a knowing Being, as it is impossible that a Triangle should make it self three Angles bigger than two right ones. For it is as repugnant to the *Idea* of senseless Matter, that it should be put into it self Sense, Perception, and Knowledge, as it is repugnant to the *Idea* of a Triangle, that it should put into it self greater Angles than two right ones.<sup>45</sup>

*Locke's logical error?* Simply put, Locke's argument rests on an equivocation, which, perhaps unnoticed, he glided over to an unwarranted conclusion.

This is apparent in his summary of his argument:

If therefore we know there is some real Being, and that Non-entity cannot produce any real Being, it is an evident demonstration, **that from Eternity there has been something;** Since

<sup>44</sup> It is not clear to me what Locke means or should mean by 'most powerful' here. Omnipotence, having infinite and unrivaled capability of action, does not fit the tenor of the argument; what fits is 'has the most powers and capabilities', or is a repository of sorts of all powers that exist in creatures.

<sup>45</sup> *Essay*, IV.x.5 (620).

what was not from Eternity, had a Beginning; and what had a Beginning, must be produced by something else.<sup>46</sup>

The clause ‘that from Eternity there has been something’ may be construed in two ways:

- It has always the case that there is something.
- There is some thing that has always been.

Locke no doubt meant to assert the latter, but at most was warranted in inferring only the former. In a later recapitulation of his argument, he does the same thing.

There is no Truth more evident, than that *something must be from Eternity*. I never yet heard of any one so unreasonable, or that could suppose so manifest Contradiction, as **a Time, wherein there was perfectly nothing**. This being of all Absurdities the greatest, to imagine that pure nothing, the **perfect Negation and Absence of all Being, should ever produce any real Existence**.

It being unavoidable for all rational Creatures, to conclude, **that something has existed from Eternity; let us see what kind of thing that must be**.<sup>47</sup>

Locke’s fault may have been one of omission. Leibniz read it this way:

I find an ambiguity there. If it means that *there has never been a time when nothing existed*, then I agree with it, and it really does follow with entirely mathematical rigour from the preceding propositions . . . But you go straight on in a way, which shows that when you say that something has existed from all eternity you mean an eternal being.<sup>48</sup>

He charitably concludes that Locke was offering only a summary or significant part, a synecdoche, to represent the whole. This seems plausible, because Locke, like Cudworth, assumed that there was general agreement that the source of existence had to be an eternal being, and that there were only two viable alternatives: god or matter. The context seems to support this interpretation. Indeed, it may also be the case that Locke was so focused on these presuppositions that he was unaware of any ambiguity.

*Interlude:* Having presented his main argument, Locke contrasts it with a type of *a priori* proof that proceeds from the idea of a perfect being. He questions its rationality noting sarcastically that this sort of proof may indeed seem persuasive to individuals of a certain temper of mind, of minds that prefer their own thoughts.<sup>49</sup> His point is that if ideas of God are products of human experience and imagination and if there are varieties of them, it would imprudent and, hence, irrational to found one’s certainty of divine existence on just one idea of God, given that ‘some men have none, and some worse than none, and the most very different’. Moreover, he questions the motives of advocates of an *a priori* proof, because ‘out of an over-fondness of that Darling

<sup>46</sup> *Essay*, IV.x.3 (620), emphasis added.

<sup>47</sup> *Essay*, IV.x.8 (622), emphasis added.

<sup>48</sup> Leibniz, *New Essays on Human Understanding* (Cambridge: Cambridge University Press, 1982), 436–7.

<sup>49</sup> This is a veiled reference to the Cartesian method of clear and distinct ideas. Locke seems to want to say that even such ideas are idiosyncratic and vary with the experience and imagination of individuals.



Invention' they 'cashier or at least endeavor to invalidate all other Arguments, in particular, *a posteriori* proofs, which, he observes, has biblical sanction:

For I judge it as certain and clear a Truth as can any where be delivered, That *the invisible Things of GOD are clearly seen from the Creation of the World, being understood by the things that are made, even his Eternal Power, and God-head.*<sup>50</sup>

Thus, although he expresses unqualified certainty about the sufficiency of his own demonstration, he favors a method of multiple proofs, especially the repeatable and cumulative proofs of everyday empirical evidence that demonstrate the wisdom, power, and goodness of God, by their design and utility, which is taken as proof of an intelligent designer. As will be observed later on, Locke also relied upon these sorts of experience as both constant reminders of what his main argument made certain and as a handy means of enabling less philosophical souls to discover God.

In an unpublished manuscript, inscribed in 1696 and intended to replace the section from which I have just quoted (IV.x.7), Locke offers more explicit objections to Descartes's proof.<sup>51</sup> He repeats his complaint that Descartes seeks 'to invalidate all other proofs of a God but his own', and adds to this, 'his shutting out the Consideration of finall Causes out of his philosophie', which together 'does unavoidably draw upon him some Suspition'. Suspicion of what, Locke does not say; perhaps, the suspicion that he is a closet materialist and atheist, or at least that his method of natural philosophy excludes all evidence of divine wisdom and providence. In the light of his further criticism, this seems plausible. Locke does not say that he himself suspects Descartes of these things. But it must have occurred to him that Descartes's mode of proof and his rejection of final causes would, if not invalidate, greatly weaken an entire family of empirical theistic proofs and evidences, visible witnesses to his invisible nature, 'admirable Contrivances, and wonderful Effects, to admire, to admire and magnify the Wisdom, Power, and Goodness of their Author', for on his account it is not the wisdom of God but the operations of material particles according to general natural laws that determine the forms and qualities of things.<sup>52</sup>

The threat of materialism is voiced in Locke's exposition of Descartes's alleged fallacy. The fallacy is one of *petitio principii* or begging the question, by attributing to the object whose existence is to be demonstrated the property of necessary existence, that is, *de re* necessity. Locke's concern is that a materialist could do likewise. If God exists necessarily, then God exists; if matter exists necessarily, then matter exists. Hence, by the same argument, it is possible to demonstrate the eternity of a God and the eternity of matter.<sup>53</sup> Thus far, Locke considers them incompatible conclusions. It should be

<sup>50</sup> *Essay*, IV.x.7 (622), citing Romans 1:20.

<sup>51</sup> MS Locke c. 28, fols. 119–20. The manuscript has the following heading: '*Deus Des Cartes's proof of a god from the Idea of necessary existence examined 1696.*'

<sup>52</sup> *Essay*, II.xix.12 (302).

<sup>53</sup> MS Locke c. 28, fol. 119<sup>v</sup>: 'The Truth is in this way that which should be proved viz: existence is supposed and soe the Question is only beg'd on both sides.'

noted in passing that, as must have been well known to Locke, Spinoza employed virtually the same argument.

He then explains what is at issue:

The Question between the Theists and Atheists I take to be this. viz not whether there has been noething from Eternity but whether the Eternall Being that made and still keeps all things in that order, beauty and method in which we see them, be a knowing immateriall Substance or a Sensless material Substance for that something either Sensless matter, or a knowing Spirit has been from Eternity I think noe body doubts.<sup>54</sup>

And again,

And so far the Atheist and the Theist are agreed or rather there is noe Atheist who would deny an Eternall first being which has necessary existence. That which puts the difference between the Theist and the Atheist is this. That the Theist says that this Eternall Being which has necessary existence is a knowing Spirit; The Atheist that it is blinde unthinking matter: for the deciding of which question the joining the Idea of Necessary existence to that of Eternal first being or Substance does noething.<sup>55</sup>

Thus Locke has clarified the goal of his theistic proof and, as will be seen, of his speculative cosmology or physics.

*The refutation of materialism:* As a prelude to Locke's case against materialism, remarks in *Some Thoughts concerning Education* are pertinent here. As has been noted, he proposed that one should start off the education of children by familiarizing them with ideas of spiritual beings, so that their young minds might be enlarged to include them from the start. Commenting further on this theme, he observes that, because matter is more evident to us, material things being the immediate objects of the senses of which we are constantly aware, 'it is so apt to possess the Mind' as to prejudice it against the admission of '*immaterial Beings in rerum natura*', notwithstanding that even phenomena of the material world, for example gravity or 'Noah's Flood', cannot be explained by the operation of matter, but by 'the positive Will of a Superiour Being, so ordering it'. Further on in *Education* and à propos of the refutation of materialism, Locke recommends Cudworth's *True Intellectual System* as an accurate guide to the opinions of Greek philosophy.<sup>56</sup>

Locke undertakes the task of refuting materialism in §§8–19 of *Essay* X.x. Here his dependence on Cudworth is most apparent. I believe it may be said that Cudworth and Locke, following after him, endeavored not just to refute naturalism as a metaphysical theory, but, because they recognized that material things exist and favored the new science because of its many advantages to mankind, they attempted also to appropriate it and re-establish it on a theological foundation, at the same time preserving the

<sup>54</sup> MS Locke c. 28, fol. 119<sup>r</sup>; also, 'The Idea of the Theists Eternal being is that it is a knowing immaterial Substance that made and still keeps all the being of the univese in that order I which they are preserved. The Idea of the Atheists Eternell Being is Souless matter. The Question between them then is which of these really is that Eternal being that in fact has always been.'

<sup>55</sup> MS Locke c. 28, fol. 119<sup>r</sup>.

<sup>56</sup> *Education*, §192 (246), §193 (248).

virtual autonomy of natural processes to ensure untarnished benefits. In addition, Locke also endeavored to maintain his empirical stance.

He proceeds in three stages. In the first stage (§§8–12), he returns to the theme, already decided in the main argument, that the eternal source of being must possess other attributes besides mere immaterial existence. Locke's empiricist scruples prevent him from relying upon a fixed idea of a God, so that proving God's existence must also involve determining a set of attributes that properly belong to a God. This is what he now sets about to do. Good empiricists must construct their ideas of God.

The main argument established two attributes: eternity and omnipotence, where the latter signifies not a single principle of action but a comprehensive native endowment, the sum of all perfections, which God can communicate to others as native endowments. Now his chief aim is to demonstrate that the eternal source of existence is cogitative or intelligent. The two categories, cogitative and incogitative, which he take to be synonymous with immaterial and material, comprehend the sum of all beings, and because, on the basis of the appropriated principle *ex nihilo nihil* it is impossible that the eternal cause of existence should be incogitative, the former must then be the case. So the eternal being is intelligent and immaterial.<sup>57</sup>

Having established the 'necessary Existence of an eternal Mind', Locke considers how this conclusion leads onward 'into the Knowledge of GOD'; that is, into a knowledge of the requisite divine attributes.

... since it will follow, that all other knowing Beings that have a beginning, must depend on him, and have no other ways of knowledge, or extent of Power, than what he gives them; And therefore if he made those, he made also the less-excellent pieces of this Universe, all inanimate Beings, where his *Omniscience*, *Power*, and *Providence* will be established, and all his other Attributes necessarily follow.<sup>58</sup>

Like its predecessor, the argument comprehends all being, and draws a sweeping conclusion. Also, like the main argument, Locke offers only a summary, which, also like its predecessor, may exceed the formal warrant of his argument. It is a natural theological argument, embedded in the natural history of our species and of the world; it depends upon empirical evidence, of the variety of natural contrivances that prove the wisdom, power, and providence, which is to say divine purpose, which is judged to be benevolent, although he gives no reason for this. The other divine attributes that necessarily follow are undoubtedly ones mentioned in various discourses, and which Locke supposed to be implied by these three.

Matter is the loser of this contest of reason. Locke's case against the premise that matter is the eternal source of existence is a repetition of Cudworth's argument, that if matter were the sole eternal being, the world, such as Locke has described it, consisting

<sup>57</sup> *Essay*, IV.x.10, 'It necessarily follows, that the first eternal Being cannot be Matter' (624, lines 30–1); the conclusion exceeds Locke's intended goal in this argument. The question whether God might be material is addressed in §13.

<sup>58</sup> *Essay*, IV.x.13 (625).

of intelligent beings and other lesser sorts, could not have come to exist; it would be fixed in its original state: 'a dead inactive Lump'. But this is evidently not the case, since the world exists and includes innumerable things active by nature. Locke assumes that there is no evidence in nature of autonomous generative powers. In any case, Locke uses an enlarged version of the maxim *ex nihilo nihil*, viz., 'For it is as impossible to conceive, that ever bare incogitative Matter should produce a thinking intelligent Being, as that nothing should of itself produce Matter'.<sup>59</sup> Matter is thus neither self-existent nor self-produced, spontaneously emerging from nothing, but is a divine creation produced by divine power from nothing. It is a creature only one stage beyond nothingness, a bare inert mass.

What follows from this is a brief summary of the process of creation of the natural world. Locke's purpose is not to describe the creation of the world in any detail, but to present only enough of it to refute materialism. Matter is here supposed to be the first creation, the first created substance. It is without any active power reflecting its origin of having been made out of nothing. Further, Locke reminds us that matter is not a mere homogeneous mass, but an aggregate of individual particles or atoms—he does not use the term, but the sense is obvious—having size, shape, and solidity, but without motion (suspended in space?), until God adds to it powers that it did not in its first creation natively possess; hence God superadds motion to inert matter, and continues adding, ascending the chain of being until he reaches intelligence. Superaddition is the divine activity of making something new, of creating things that were not out of nothing by the exercise of his divine power. Superaddition is a theological counterpart of the philosophical notion of emergence. An atomist, who is committed to the hypothesis that the development all natural things is the outcome of the configuration of atoms, which differ only by size and shape and motion, and operate on each other only through impact, must have recourse to such a notion to explain the evolution of complex and durable species of things.

When he advances to the stage of intelligence, does God then create a second substance, viz., 'a thinking immaterial Substance', which he then joins to a material body? Or does he rather superadd 'to some Systems of Matter fitly disposed, a power to perceive and think'?<sup>60</sup> If the former were the case, then Locke would seem to be a substance dualist. But if the latter were the case, then he would be a monist, but a property dualist. Matter would then become a versatile substance in the hands of God. Its versatility derives from the fact that it is created from nothing by a God who can reconfigure its parts in unimagined ways, fitted out to receive powers of motion, vitality, and thought not native to it in its first creation, and some beyond the scope of

<sup>59</sup> *Essay*, IV.x.9 (623), also IV.x.11: 'For it is as impossible, that incogitative Matter should produce a cogitative Being, as that nothing, or the negation of all Being, should produce a positive Being or Matter.'

<sup>60</sup> *Essay*, IV.x.10 (623–4); IV.x.3 (540–1); this, I believe, is the proper context to consider Locke's conjecture concerning thinking matter. He was not flirting with materialism, but reflecting on how God might have created intelligent animals; at the same time he was imagining how the mind might be of one substance with the body.

physics, viz., incorruptibility. God, of course, is an immaterial being, because he has been shown to be the eternal cause of existence and not a creature, although it is curious that Locke does not in this place in the *Essay* declare God to be a spirit, although he declares him to be immaterial, which is to say, free of inert parts. Indeed, Locke refrains from using the term 'spirit' throughout §§8–12, and, although he allows that the terms 'cogitative and incogitative' are coextensive with 'material and immaterial', he prefers the former to the latter, as though to keep his options open.

The question is of great moment, for it concerns the primary substance of things, or the underlying stuff of being. Locke considered it important, and from his notes and reflections on the theme in the 1690s, it would appear that he tended toward monism. I will examine them shortly, but first it is necessary to proceed through the two remaining parts of Locke's proof, for they have bearing on what will follow. They involve objections that I hope to show have bearing on the outcome of his thinking.

The first objection (§§13–17) concerns the divine substance. Let it be admitted that an eternal cogitative being exists, might not it be a material being after all? Locke's response is that this is not possible, but he proceeds in a roundabout way to give his answer, because he doubts the sincerity of the objector. The cause of his doubtfulness might have been a deep suspicion about contemporary materialists, whose professions of theism were not to be believed, because they seemed to be more devoted to matter and sensual delights than to God. I'm inclined take this as symptomatic of the era in which Locke lived. His strategy against them was to entrap them in their own deceit, which accounts for the circuitous way he proceeds.

First, he imagines his objector to be a crass yet rational and clever materialist, who is compelled by Locke's argument to concede that an eternal knowing being exists, but who, nevertheless, believes that he can exploit the argument to his own purpose.

But, herein, I suppose lies the danger and deceit of that Supposition: There being no way to avoid the demonstration, that there is an eternal knowing Being, Men, devoted to Matter, would willingly have it granted, that this knowing Being is material; and then letting slide out of their Minds, or the discourse, the demonstration whereby an eternal knowing Being was proved necessarily to exist, would argue all to be Matter, and so deny a GOD, that is, an eternal cogitative Being...

At which point, Locke springs the trap.

... whereby they are so far from establishing [the hypothesis of materialism], that they destroy their own Hypothesis. For if there can be, in their Opinion, eternal Matter, without any eternal cogitative Being, they manifestly separate Matter from Thinking, and suppose no necessary connexion of the one with the other, and so establish the necessity of an eternal Spirit, but not of Matter; since it has been proved already, that an eternal cogitative Being is unavoidably granted. Now if Thinking and Matter be separated, *the eternal Existence of Matter, will not follow from the eternal Existence of a cogitative Being*, and they suppose it to no purpose.<sup>61</sup>

<sup>61</sup> *Essay*, IV.x.13 (625–6).

Locke's conclusions are in need of clarification. He seems to imagine the materialist trapped in a situation where, having embraced pure matter, alone by itself, is unable to account for its existence let alone to prove that it is eternal, nor is he able to find a way to endow it with thought; yet, ironically, he is compelled to accept that an eternal cogitative being exists.

From his superior position as entrapper, Locke can be magnanimous. He imagines three ways in which there may be an eternal thinking material being, all of which he finds impossible. They are all instances of thinking matter, or of matter that is by nature thinking. The first two are easily dismissed and need not concern us. The third instance is, however, plausible, and is one to which Locke was himself attracted.<sup>62</sup> It is what most of those who believe in a material God must suppose him to be like, for it is most like us. He imagines a '*certain System of Matter* duly put together'. Its plausibility derives from the fact that this is how we would imagine ourselves to be, if we believed ourselves to be 'material thinking Beings'. It is 'natural'. But attributed to God it is no less absurd than the others, for it implies that 'all the Wisdom and Knowledge' of God is the outcome of a mere '*juxta*-position' of material particles, a configuration of 'unguided motions of blind matter'.<sup>63</sup> God cannot superadd thinking to his own material frame, unless there be a God above God who does this.

The conclusion of all of this is that a consistent materialism results in the irreconcilable separation of matter and thinking, a separation that nevertheless could not be left standing. The materialist is put in an unsustainable metaphysical position. But the dualist, who admits the co-eternity of one immaterial God, finite spirits, and a material world, may be no better off. This is the theme of the second objection.

The second objection, (§§18–19) turns on the inconceivability of the very act of creation. Because it is inconceivable how matter might be made from nothing, which is what is meant by divine creation, then matter must be eternal. Locke offers two responses. I treat them in reverse order.

We find that act of creation out of nothing inconceivable; it is easier to imagine the eternity of matter. However, it would be presumptuous to assume that just because something is inconceivable to us it can't be so, especially when it has to do with the actions of an omnipotent being. Besides, there are examples of inconceivable events in everyday experience. Any mechanist will maintain that impulse is the only known cause of motion in a body, and yet 'constant Experience' provides us with innumerable instances where by 'the free Action or Thought of our own Minds' we cause our own body to move in various ways, whilst how this happens physiologically is inconceivable and incomprehensible to us. If, then, we must admit actions beyond our ken in nature, we cannot deny them to God.

Locke's other response will return us to the previous question concerning the primary substance of things, whether it be one or two. He responds to the objector that creation out of nothing by an omnipotent being may not be as incomprehensible as

<sup>62</sup> *Essay*, IV.iii.6 (540–1).

<sup>63</sup> *Essay*, IV.x.16, 17 (626).

one might think, and hence not implausible. He suggests that a conception, albeit 'dim and seeming', of the original creation of matter may not be beyond our grasp, if only we free ourselves from vulgar notions, 'and raise our Thoughts . . . to a closer contemplation of things.' The things to be contemplated are not particular things. Rather they are abstract entities: substance, qualities, space, and body. This comment first appeared in the second edition of the *Essay* and must have been inscribed sometime between 1690 and 1693/4.<sup>64</sup>

Locke compares the creation of matter with the creation of spirits. The latter requires 'a more inconceivable effect of omnipotent Power', one that to comprehend would require casting off 'from the Notions, on which the Philosophy now in the World is built', and which has served him and his readers well 'in this place', which I take Locke to mean in this chapter and section of the *Essay*, or perhaps, more broadly, the work as a whole. In these places he employs 'Notions, on which the Philosophy now in the World is built', and enquiries 'so far as Grammar it self would authorize.' What did he mean by these restrictions?<sup>65</sup>

First, the notions: I would think Locke means such notions as body, mind, substance, accident, active and passive power, cause, effect, idea, and thing. These common notions have served him and his readers well in this place; by means of them they have come to admit the creation of a substance out of nothing, and to infer from this the creation of all other substances in the same way. The substance whose creation does service for all others is matter, whose creation out of nothing is said to be barely conceivable, but still tangible and real. We must examine Locke's remarks concerning the original creation of matter:

Nay possibly, if we would emancipate our selves from vulgar Notions, and raise our Thoughts, as far as they would reach, to a closer contemplation of things, we might be able to aim at some dim and seeming conception how Matter might first be made, and begin to exist by the power of that eternal first being.<sup>66</sup>

The exhortation to consider things themselves free of the interference of vulgar notions is a commonplace of virtuosity. These notions may be the same as those 'on which the Philosophy now in the World is built'. What is at issue is not the notions but their use. 'Raising our thoughts' is also a commonplace; in this instance, of course, it involves an attempt to comprehend the original beginning of a thing, which is, to a Christian, a divine beginning.

When he referred to the first creation of matter, no doubt Locke was speaking from experience. It was something that he imagined or barely conceived, a speculative thought of fundamental physics. Just what those thoughts were, Locke does not tell

<sup>64</sup> *Essay* X.x.18 (628–9); see also Nidditch, textual critical note to 628, line 30–629, line 9; see also the second epigraph to this chapter.

<sup>65</sup> For another interpretation of this passage, see Jonathan Bennett and Peter Remnant, 'How Matter Might First be Made', *Canadian Journal of Philosophy*, Supplementary vol. 4 (1978), 1–11.

<sup>66</sup> *Essay*, IV.x.18 (628–9).

us. However, there is a recollection of it, albeit indirect. Pierre Coste reports it in a long note.

Here Mr. Locke arouses our curiosity but is unwilling to satisfy it ... Eventually, long after his death, the whole mystery was unveiled for me by Sir Isaac Newton, to whom I happened to mention this part of Mr. Locke's book. Smiling, he told me firstly that it was he himself who had devised this way of explaining the creation of matter, the thought of it having come to him one day when he happened to touch on this question in company with Mr. Locke and an English lord...<sup>67</sup> Here is how he expounded his thought to them. *One could* (he said) *in some fashion from an idea of the creation of matter by supposing that God could through his power prevent everything from entering a certain portion of pure space, space being by its nature penetrable, eternal, necessary, infinite; for thereafter the portion of space is absolutely uniform, we have only to suppose God to have communicated this kind of impenetrability to another similar portion of space, and that would give us some sort of idea of the mobility of matter, another quality which is also utterly essential to it.* So now we are freed from the search for what Locke thought fit to hide from his readers: because this is just what provided him with the opportunity to tell us, *that if we would enlarge our minds, we might be able to conceive, although in an imperfect manner, how matter might at first be made.*<sup>68</sup>

The notions employed here, cause, effect, active and passive power, are sufficient to convey the idea. It is supposed that God created matter, or bodies, by thickening various places of space, endowing each place with impenetrability, a passive power. The other very ordinary idea that is employed here is solidity or impenetrability, which is, according to Locke, the very idea of body, of atomicity.<sup>69</sup> It is the same idea of a material body that Newton presents as his first definition in the *Principia*.<sup>70</sup> This is accomplished with the use of common notions. What is above and beyond these notions, and enables us to imagine the creation of matter, is the very idea divine power itself, which is able to create things from nothing. Superaddition is the act of adding new qualities or powers to some already existing substance, which in this instance is a portion of space. This is what Leibniz supposed was meant.<sup>71</sup> However, this explanation of how matter might first be made should not be taken as Locke's settled opinion concerning how it in fact came to be, but how we are able to imagine it using common notions. It will become

<sup>67</sup> The eighth Earl of Pembroke (1656–1733), to whom Locke dedicated the *Essay*.

<sup>68</sup> Coste's long note to *Essay*, IV.xi.18; translation by Bennett and Remnant (with additional lines appended by me), 'How Matter Might First be Made', 4.

<sup>69</sup> Impenetrability is the reason why atoms are by nature indivisible. The classical Greek idea of the atom was of a compound body consisting of infinitesimally small parts, or *minima*, which cohere in various arrangements that result in different overall shapes and sizes. The parts were so arranged that there was no void or space between them that would allow anything to penetrate them and break them apart, hence their 'solid singleness'; see Lucretius, *DRN*, 1.599–614. Locke's dismissive mention of the idea of impenetrability is consistent with his skepticism about the cohesion of bodies: see *Essay*, II.iv.1 (123), II.xxiii.23 (308).

<sup>70</sup> *Essay*, II.iv.1 (122–3): 'The *Idea of Solidity* we receive by our Touch; and it arises from the resistance which we find in Body, to the entrance of any other Body into the Place it possesses, till it has left it.' Isaac Newton, *Philosophiae naturalis principia mathematica*, Def. 1 (London, 1678), 1.

<sup>71</sup> G. W. Leibniz, *New Essays on Human Understanding*, 442.



apparent from what follows that Locke's mind was far from settled on this and other physical questions.

One could enlarge upon this in a vernacular that would have been familiar to Locke. Space is the original creation, and in its first state it is 'waste and void,' or mere limitless extension. Next, portions of space are thickened and becomes solid bodies; whereby each newly fashioned body also has a place, along with size and shape. Motion is superadded to this, and the processes of nature are set to begin. That infinite space was the first created substance was also a doctrine of the Christian Kabbalah, which I discuss next.

The other restriction, 'so far as Grammar it self would authorize,' I take to mean the rules of discourse. Their authorization is what they will permit us to say. All of this, of course, an angel or other superior spirit would comprehend by direct intellectual perception, thus having no need of ideas or language; so much for the creation of matter. I will have more to say about this restriction shortly.

To conceive of the creation of a spiritual substance requires another set of notions or ideas. What sort of ideas was Locke referring to, and why did he think it unpardonable for him to use them? There is, I believe, substantial evidence that provides answers to both questions.<sup>72</sup> The evidence suggests that in his comment Locke was making a veiled reference to the Kabbalah, an esoteric tradition of Jewish mystical thought, consisting of speculative biblical interpretations, whose primary themes were creation, Fall, and restitution.<sup>73</sup> More precisely, I believe Locke was alluding to a Christian adaptation of this Jewish tradition of speculative biblical interpretation, specifically to Knorr von Rosenroth's *Adumbratio Kabbalae christianae*.<sup>74</sup> Among Locke's manuscripts is one that contains extensive notes and comments on this work.<sup>75</sup> It was probably inscribed c.1693, which coincides more or less with the writing of the comment now under consideration.<sup>76</sup> This was time of intense theological activity by Locke, which culminated in the undertaking of his two major theological works, *The Reasonableness of Christianity* and *A Paraphrase and Notes on the Epistles of St Paul*.

<sup>72</sup> *Two Choice and Useful Treatises: the one Lux orientalis... the other A Discourse of Truth*, by the late Reverend Dr. Rust, Henry More, ed. (London, 1682). Locke cited only Rust as author in his personal library catalogue (LL, item 2256).

<sup>73</sup> For a general historical account of Kabbalah, see Gershom Scholem, *Major Trends in Jewish Mysticism* (New York: Schocken Books, 1974), Lectures iv–viii.

<sup>74</sup> The *Adumbratio* was included in vol. 2 of *Kabbala denudata*, 2 vols., ed. Freiherr Knorr von Rosenroth (vol. 1, Sulzbach, 1677; vol. 2, Frankfurt, 1684). *Kabbala denudata* was a collection of treatises, Jewish and Christian, of late medieval and early modern origin. The *Adumbratio* is the final piece in the second volume and, like all the other treatises, is paginated separately. For further details, see my *Christianity, Antiquity, and Modernity*, 127–46. There are two copies of *Kabbala denudata* in Locke's library, one of them a gift given by Locke to his nephew and executor, Peter King, who inherited half of Locke's library.

<sup>75</sup> 'Dubia circa philosophiam orientalem,' MS Locke c. 27, fols. 75–7; for a transcription and translation of this manuscript, see *Christianity, Antiquity, and Modernity*, 147–62. I take the opportunity to correct a mistranslation in the text: on p. 157, 'Angeli microcopi' should be translated 'Angels of lesser countenance,' not 'Microscopic Angels.' A critical text will be included in my *John Locke: Theological Writings* (Clarendon Locke), in preparation.

<sup>76</sup> 'Locke's "Dubia circa philosophiam orientalem"', *Christianity, Antiquity, and Enlightenment*, 131–3.

Among Locke's notes on this text is one summarizing the idea of divine creation, which provides a good example of this other way of thinking. It is written in English under the heading God:

Infinite inaccessible light filling every place. Withdrew that great brightnesse of his light which noe creature can bare or approach,<sup>77</sup> & soe left a very large space wherein it was an abated light of his infinitely glorious presence & in this he created the Soule of the Messias which possessed all this space & is indissolubly united with that light of god which stil remaind though not in its full luster. This is called the first man<sup>78</sup>

The event that Locke is describing is known among Kabbalists as *Tsimtsum*, a Hebrew term used to signify the concentration or gathering to a single point of the divine splendor or light, or of the divine substance. It was taken over by the Kabbalistic interpreters of Scripture to signify the event of original creation, which they described as one of divine withdrawal to make room for the physical universe, which is formed from the emanation of this primal light.<sup>79</sup> Thus original space, or waste and void, is what is left after an original act of divine contraction, and the first created thing, a primal man, is fashioned from the residue, and other things from emanations of the divine substance into this waste.

The first man, or first creation, Adam Kadmon, is a microcosm of what becomes through a series of emanations or descents, the articulate visible world. Indeed, if there is any purely philosophical notion in this set of mythic or sacred historical ideas, it is that of emanation.<sup>80</sup> When God, who is represented as light, withdraws from a part of infinite space, he leaves a relic of himself, from which the first man is fashioned, and its first product is the soul of the Messiah, a final Adam, who will initiate the process of return. This scenario of the origin of the soul of the Messiah became for curious Christians an important part of Christology.

This first creation, if so it may be called, is an emanation of spiritual substance that thickens as it descends. Thus, matter is the bottom, the lowest outcome of an emanative process. Yet it must not be supposed that this is a philosophical account, but sacred history, which is, of course, the domain of revelation. Kabbalah is the interpretation of revealed truth, hence, of Scripture, and this is how Locke regarded it. On this account, matter and spirit are different phases of a single process of descent and of the same substance, both relics of divine light.

<sup>77</sup> Francis Bacon's remark in his *Confession of Faith*, that the creator cannot tolerate creatures, is pertinent here; see Chapter 1, 'Bacon's Theology'.

<sup>78</sup> *Christianity, Antiquity, and Enlightenment*, 148. The entire note, which is the only one in English, is marked for deletion.

<sup>79</sup> On *Tsimtsum*, see Gershom Scholem, *Major Trends in Jewish Mysticism*, 260–5 and passim; also Lawrence Fine, *Physician of the Soul, Healer of the Cosmos: Isaac Luria and his Kabbalistic Fellowship* (Stanford: Stanford University Press, 2003), 128–34; the version of this creation narrative appropriated by Knorr and summarized by Locke is Lurianic.

<sup>80</sup> See Henry More, *Immortality of the Soul*, 32: 'By an *Emanative Cause* is understood such a Cause as meerly by Being, or other activity or causality interposed, produces an Effect.'

This may explain Locke's reticence of resorting to such an explanation notwithstanding, as manuscript evidence shows, his profound interest in it. The notions he would have to employ to explain the origin of spirit are notions of a mystical school of thought, Neoplatonic notions of emanation and return, joined with mythical notions of divine withdrawal, of primal archetypes, microcosm, and biblical narrative terms of Fall and redemption, to which they are joined, which are all together employed to represent a revelation. Use of such terms to speculate about nature seemed to him unlawful and hence unpardonable if used, assuming vision where there is only sensation. It would be, to say the least, a violation of Bacon's rule, and it would cause rather superstition than true insight. Locke's comment about doing an unpardonable wrong by using such terms must not be taken as a repudiation, but a warning, perhaps to himself first of all. We must also take account of his further comment, equally lacking in lucidity and all the more fascinating, that it would also be unpardonable 'to enquire, so far as Grammar itself would authorize, if the common settled Opinion opposes it'. Here I take Locke to be referring to the system of ordinary grammar that facilitates discourse, a system consisting of nouns and verbs, conjunctions, and adverbs. He seems to be saying that even if we could articulate the consistency or inconsistency between these alternate accounts of divine creation, it may be unpardonable to ask whether the received doctrine opposes the mystical one. The received doctrine teaches the plurality of individual substances that comprise the world, and, perhaps, that there are two sorts of substance, matter and spirit; the esoteric one reduces everything to one divine substance. One is reminded of Spinoza, although I do not think that Locke had him in mind when he wrote these lines. Nevertheless, I believe that his thoughts had carried him to contemplate, and then put aside, but not discard altogether, the possibility that there might be only one substance.

In this light, it may be interesting to ask, did Locke perceive an affinity between Spinoza and the Kabbalists? Did he consider that metaphysically they might be correct that there is only one substance, and that matter and spirit are only attributes of this single reality, and particular bodies and spirits, modes of attributes? And did he imagine that in another cognitive state, it would turn out that this was indeed the truth, but that without revelation, it would be impossible to pursue these issues further? If so, then he might also have considered himself to be duty bound to maintain an empiricist stance, in particular as a Christian, waiting to be resurrected and transfigured. Spinoza's adoption of a single substance metaphysics led not to superstitious fantasies but to atheism. Thus, to be a Christian virtuoso is to stand fast in one's virtuosity, with modest expectations of its capability to achieve truth. And if so, is Locke's skepticism properly to be regarded as an expression of his religion? Consideration of another unpublished manuscript may provide answers.

In 1694, Locke began a new commonplace book devoted to theological questions. He gave it the title 'Adversaria theologica.' One of the longest entries addresses the question whether the human soul is material or immaterial, matter or spirit.<sup>81</sup> It is a

<sup>81</sup> MS Locke, c. 43, 32–3; WR, 28–30.

signed entry, recording Locke's reflections on 1 Cor. 15, whose theme is the nature of the human body, or as Locke clarifies it, the whole man after the resurrection. The answer that Locke gives is that it is neither matter nor spirit but something of both; the soul is not a separate entity, but the power of an animate body, where 'body' stands for an entire animate being. Likewise, matter and spirit are not different substances but distinct states of a single substance, which in this instance is not a soul or a body but a whole human being, a 'body' that exists in three states: either mere insensible matter, or a mortal animal that thinks and requires sustenance to survive for the limited duration of its existence, or 'a thinkeing being or body' that is incorruptible, whose life and vigor endure without need of sustenance.

These answers are not outcomes of philosophical speculation; rather they are attempts to interpret Scripture, hence, they are matters of revelation given with divine authority, and hence true, although accommodated to human understanding, and therefore not the whole truth. They relate to the history of salvation, representing the two states of mankind following Adam's sin and following the final resurrection, which are respectively, mortal and corruptible animal, and immortal and incorruptible spirit; they apply to the same individual substance.

This the context in this XV Cor seems plainly to make out for speakeing of the different state of man before & after the resurrections he says the one is a body animal and corruptible & mortal the other is a body spiritual incorruptible & Immortal as appears to any one who diligently considers what is said from vs. 40. To vs. 55. For the Apostle makes noe distinction here of soule & body material & immaterial as if one died & the other continued liveing the one was raised & the other not but he speaks of the whole man as dyeing & the whole man as raised . . . Soe that immortality is not at all oweing nor built upon immateriality as in its own nature incorruptible. The Apostle knew not that argument which is soe much insisted on but quite the contrary and says this corruptible must be changed & put on incorruption & this mortal put on immortality. Which corruptible & mortal is not meant of the body in contra distinction to the soule but of the whole man . . .<sup>82</sup>

These comments touch upon themes that, for Locke, properly belong to the domain of divine theology, and they will be considered more fully in their proper place. Yet they help to clarify important metaphysical issues, although to express them requires that notions be employed that Locke believed it would be unpardonable to use, not because they are not true, but because they do not suit intelligence in a state of mediocrity; they are things beyond the scope of even an enlarged natural reason. A human being is a collection of attributes, physical and mental, which inhere in a single substance, which is their underlying cause. If material and immaterial are not proper ways to describe it, what sort of thing is it? According to the divine scenario that

<sup>82</sup> 'Adversaria Theologica', MS Locke c. 43, p. 32, WR, 29; the manuscript is dated 1694. It is interesting to note that Locke relied solely on the authority of Scripture to conclude that, in this life, a human being is, body and soul, a mortal animal, which is a fact, one would think, that common sense teaches almost all our waking moments, and which no philosophical naturalist can fail to acknowledge.

Locke presents, one might imagine that in the beginning, God occupied infinite space, thence withdrew from a portion of it to provide a place for creatures, although he left a substantial residue of himself, call it light, which filled the portion of space he vacated. That space was not empty, rather it was filled with the divine overflow, a penumbra, shafts of divine light illuminating the darkness. Then, we might suppose that the creation of matter occurred in a manner that Newton imagined: by thickening the primordial substance in this space, endowing it with solidity, or perhaps those relics of light caused the thickening. Thus, Epicurus' *primordia* may be considered as solidifications of the divine spirit or attributes of divine substance, likewise spiritual bodies; atomism may be spiritualized.

Because Locke chose not to proceed in a way that others less constrained by a Baconian conscience did, it will be worthwhile to examine his chapter on ideas of substance, to determine what he supposed the mind, proceeding only on what it discovers through the experience of things, comes to think about their nature and constitution.<sup>83</sup> I will end this chapter with this enquiry.

One last observation before proceeding: it should be clear that about this time, Locke became a convinced mortalist, that is, convinced that the soul, whatever it may be substantially, dies along with the body, at the same time that he came to see that matter and spirit may not after all be different substances. What effect all of this may have had on his thoughts concerning thinking matter can be only a matter of speculation. Yet it seems highly probable that the possibility that God did in fact, when creating man, superadd the power of thinking to a portion of matter fitly disposed, became more plausible, if not likely, to him.

*Ideas of substances:* What follows, then, is an interpretation of *Essay* II.xxiii, 'Of our Complex *Ideas* of Substances'. It is a complex discourse, mixing modes of explanation: logical, physical, and theological. As the title indicates, it is a discourse explaining how we come to have ideas of substances, ranging from the idea of '*pure Substance in general*' to our ideas of the various sorts of things to which we attribute substantial existence. It is, then, not a metaphysical discourse but a genealogical semantic one, founded on a natural history of common experience of the world, explaining how we humans happen to have this sort of ideas, which clarified and, as it were, made fit for rational discourse, provide us with 'Notions, on which the Philosophy now in the World is built'. Hence, it is also a physical discourse, treating the two general classes of substances that we know directly by sensation and reflection, and identifying their respective primary qualities, that is, those qualities that we suppose inhere in things themselves, in bodies, finite spirits, and God. Finally, it is a discourse in moral theology

<sup>83</sup> The chapter on ideas of substance, *Essay*, II.xxiii, was written well before Locke inscribed these notes in his theological commonplace book, yet in subsequent editions of the *Essay*, although he made minor revisions to it, he did not change it substantially to fit his theological discoveries, and we may take it as representing opinions that represent common understanding and therefore still suitable for a philosopher 'now in this world'.

that reminds us of our proper business in life, fixes the scope of our knowledge of things, and raises the possibility of a higher capability that we can only imagine. In every respect *Essay* II.xxiii is a microcosm of the whole work.

The idea of 'Pure Substance in general', or the general idea of substance, is not, like simple ideas of sensation and reflection, the immediate consequence of impressions of things on the senses or of operations of the mind on itself, rather it is the product of supposing, or tacit judging or conjecturing, that we make in our everyday experience of things. Locke likens it to guessing, urging the mind 'beyond the *Ideas* received from Sensation and Reflections', which although impossible is unavoidable if not imperative, if the mind is to come to any conclusion about what sorts of things there are and how they are to be regarded.<sup>84</sup> This is emblematic of the situation of sentient rational beings in the world. It is pre-philosophical, existential, but it is also a prelude to speculative physics.

First, in order of knowledge, is the general idea of substance. It is 'an obscure and relative Idea', obscure because we cannot directly perceive it, relative, because we suppose a causal relation between it and our perceptions. The idea originates in everyday experience. We regularly perceive that a certain number of simple ideas 'go constantly together' and, to account for this, we *presume* that they belong to one thing, to which we give a name, which by the inadvertency of habit, of having grown accustomed to think and talk of these regularly perceived collections as one thing, we take to signify a simple idea. We do not perceive how this collection of ideas might be self-subsisting, and therefore not being able to imagine it, that is to represent it by means of received ideas, we suppose and also grow accustomed to think that they inhere in some substratum. For Locke, this habitual guessing is a way of being in the world. Of course, this apparently purely empirical account of how the mind comes by the general idea of substance is not philosophically innocent, for its presumptions and suppositions require that it already have ideas of thing, subsistence, and inherence. So the method of natural history is strained, or, perhaps, one might explain it in this way, that when Locke undertook to write his genetic narrative, he plunged *in medias res*, confident that these other ideas could be explained in the same way.

The general idea of substance is prerequisite of other ideas of particular sorts of substances, or ideas of sorts of things, whose nominal definitions are the various collections of ideas that we regularly perceive through our everyday observation of things about us. We suppose that in every sort of thing there resides a power that causes us to perceive it as having certain qualities, which we suppose, in the case of bodies, is determined by the disposition and motion of its unseen parts; or it is an inherent susceptibility to change when affected by an external power, which, when this occurs, results in a modification of its observable qualities. Thus, by experience and reason we come to hold the opinion that the qualities of things are of two sorts,

<sup>84</sup> *Essay*, II.xxiii.13 (304).

primary and fixed, inhering in the thing, and secondary, which vary according to the powers of perception of those who observe them, and their susceptibility to change so far as they are affected by external agents. So then, our cognitive powers being such, we humans take the world to consist of all sorts of things, or of things that, by their likenesses and unlikenesses, which we regularly observe, we gather into classes; we also take notice that some of those observable qualities in things vary with their circumstances and with the powers of their perceivers, and others are permanent inhering in things themselves, as, for example, in the case of bodies: their solidity, size, shape, and mobility of all their parts.<sup>85</sup>

Of the three most general sorts of substances, God, finite spirits, and bodies, Locke is concerned in this chapter mainly with bodies and spirits, with their physical constitution. A body in general is a ‘*thing* that is extended, figured, and capable of Motion, ‘solid’; particular substances possess other qualities regularly observed in them, such as a loadstone, in which we discover are ‘Hardness, Friability, and the power to draw Iron’. The idea of spirit, which we discover in ourselves, is of ‘a *thing* capable of thinking’—other qualities will be added in later sections. But in our thinking and discourse about these sorts of things, we always intimate an underlying substrate, ‘though we know not what it is.’<sup>86</sup> Yet, from this experience, we generally conclude that there are two sorts of substance: body and spirit.

Ideas of particular sorts of substances are better or worse depending on their nearness to being complete descriptions of observable qualities. The ‘perfectest *Ideas* of any of the particular sorts of *Substance*’ involve a collection of ‘most of those simple *Ideas*, which exist in it’. These include all the simple ideas of sensation and reflection, as well as an inventory of their active and passive powers, which are not simple ideas but ideas of relation, and which are hints, as it were, of an underlying substrate, whose idea, if we could know it, would correspond to a thing’s real essence.<sup>87</sup> These are the kind of ideas that a virtuoso would find most interesting, and Locke devotes four sections (§§8–11) to an exposition of them. In these we gain a clearer idea of what he means philosophically of the general idea of substance as substrate.

The general idea of substance that Locke presents in this chapter is not of a thing itself distinct from its qualities, a subject without its predicates; nor it is a metaphysical idea, echoing Scholastic tradition, but a physical idea. Substance as substrate is supposed to have qualities, and, with respect to bodies, these qualities are altogether unknown,

<sup>85</sup> In *Essay*, II.xiii.18–20 (174–5) Locke digresses to consider whether the nature of their underlying substrate is the same for all sorts of things, God, spirits, and bodies, or whether it is different for each class. He comments that to maintain that ‘God, Spirits, and Body, agreeing in the same common nature of *Substance*, differ not any otherwise than in a bare different modification of that *Substance*; as a Tree and a Pebble, being in the same sense body . . . differ only in the bare modification of that common matter’ would be ‘a very harsh Doctrine’. Yet he does not go so far as to reject it, noting that the alternatives are no better, for all our conjectures are founded on something we know not what. ‘So that of *Substance* [as substrate], we have no *Idea* of what it is, but only a confused obscure one of what it does’, which allows open the possibility that the substrate of every sort of thing may be by nature the same.

<sup>86</sup> *Essay*, II.xiii.3 (297).

<sup>87</sup> *Essay*, III.vi.2, 3 (439–40).

despite Locke's protestations to the contrary. What underlies a collection of perceived qualities is taken to be more of the same, the hidden integral parts of the thing, not 'metaphysical parts', matter and form.<sup>88</sup> Locke was a physicist, not a metaphysician, and certainly not an Aristotelian one.

This is the point of Locke's extravagant conjecture (§13). His remarks leading up to it are instructive. In §11, he explains that our incapacity to perceive the underlying substrate of a thing is due to an incapacity in our senses, and he goes on to explain this:

Had we Senses acute enough to discern the minute particles of Bodies, and the real Constitution on which their sensible Qualities depend, I doubt not but they would produce quite different *Ideas* in us; and that which is not the yellow Colour of God, would then disappear, and instead of it we should see an admirable Texture of parts of a certain Size and Figure. This Microscopes plainly discover to us...<sup>89</sup>

But God did not endow us with 'Microscopical Eyes', and hence, it would appear that he did not intend that we should attain 'a perfect, clear, and adequate knowledge' of the real essences of things. In any case, such visual capacity would not suit us for everyday tasks. 'He that was sharp-sighted enough to see the Configuration of the minute Particles of the Spring of a Clock, and observe upon what peculiar Structure and Impulse its elastick Motion depends' could not tell time. From our current endowments, it seems more likely that God has provided us 'with Faculties (dull and weak as they are) to discover enough in the Creatures, to lead us to the Knowledge of the Creator, and the Knowledge of our Duty' and 'to provide for the Conveniences of living'.<sup>90</sup>

In §13, Locke interjects his 'extravagant conjecture' for which he is pleased to claim ownership. It serves several purposes. It is about the cognitive power of angels or finite spirits, who have a place in Locke's inventory of beings that a physicist, if he be also a Christian, might be concerned about. Since angels are spirits, it provides a transition to that sort of thing, so far it concerns us in this life, and as it must certainly in the next. Finally, it pokes fun at the Cambridge Platonists, who were promoters of 'so Wild a Fancy';<sup>91</sup> although Locke also shows also a measure of respect for their doctrine of corporeal spirits by appropriating it. The conjecture concerns finite spirits endowed with a capacity of refashioning their bodies, or more specifically, their organs of sense

<sup>88</sup> On the distinction between integral and metaphysical parts of things, see Robert Pasnau, *Metaphysical Themes* 1274–1671 (Oxford: Clarendon Press, 2011), 9: 'What we want to say is not that the integral parts of a body are its *material* parts, but that they are parts of a body that are themselves *bodies*. Metaphysical parts, are not bodies but instead ingredients of bodies.' The ingredients are not physical, but metaphysical, the product of a metaphysical ascent, which, contra Pasnau, Locke chose not to make because he saw no philosophical need of it.

<sup>89</sup> *Essay*, II.xxiii.11 (301); see also §18 (306): Locke adds the additional physical qualities of cohesion of parts and the communication of motion to his list of the fundamental properties of bodies.

<sup>90</sup> *Essay*, II.xxiii.12 (302–3); see also III.vi.9 (444–5): a knowledge of the real essences of things would be a prerequisite of a science of nature, yet with respect to them, we are as blind men.

<sup>91</sup> For the doctrine of angels as corporeal spirits, see Henry More, *An Explanation of the Grand Mystery of Godliness* (London, 1660), 34; *LL*. 2047<sup>a</sup>.



to fit changing circumstances and purposes, for example to discern the physical constitution of things:

What wonders would he discover, who could so fit his Eye to all sorts of Objects, as to see, when he pleased, the Figure and Motion of the minute Particles in the Blood, and other juices of animals, as distinctly, as he does, at other times, the shape and motion of the Animals themselves.<sup>92</sup>

However, our incapacity to enjoy such wonders is not a consequence of mere nature, but of divine providence. God has made the world 'as is best for us in our present Condition,' fit 'for the Neighbourhood of the Bodies, that surround us.' Nevertheless, Locke's conjecture is not an idle fancy, it is the only way that we can imagine how angels know anything about the material world and move about in it, which is by assuming bodies equipped with various instruments of sense. And to anyone considering the variety and scale of corporeal things, where we see 'no Chasms, or Gaps,' the likelihood that there are also ascending species of finite spirits must seem evident.<sup>93</sup> So thinking about angels enables us to scale the ladder of beings. Moreover, that we attribute bodies to them has the authority of 'some of the most ancient, and most learned Fathers of the Church.' Here, at least, Locke seems willing to allow tradition and fantasy a role in the enlargement of physics. It is curious that his fantastic conjecture considers only what it would take to penetrate more deeply into the nature of bodies, and it altogether ignores what it would take for the mind to gain access to the supposed spiritual ground of its reflections.

The remainder of the chapter is devoted to elaborating and defending the parenthetical remark concerning the cognitive parity of matter and spirit, which, if my reconstruction of his Urtext be correct, Locke inserted without explanation in the earliest draft of the *Essay*. As this chapter shows, it became a critical issue for him. He found it useful in combating materialism. It was also instrumental in a strategy to enlarge the scope of physics to include finite spirits and God, although oddly, from the vantage of a virtuoso, to curtail rather than to promote further enquiry. All things considered, Locke's strong assertion and defense of it seem to me to be disingenuous and philosophically dubious. I will attempt to explain.

In the first place, Locke's case for the parity of body and spirit is tendentious and unpersuasive on his own terms. The idea of body consists of extension, solidity, cohesion of its parts, and mobility; these ideas or qualities, which are perceived by the senses, inhere in a single subject or substance, which is not perceived but supposed; substance is physical ground or cause of a complex body, of its coherence and continuity. The primary qualities of soul are thinking, willing, liberty or freedom of choice, and 'motivity', the power to move itself or other things, including the parts of one's body. They are perceived by reflection or inner sense. These too are taken to coexist in some substance, an immaterial spirit, presumably because we perceive them in ourselves through reflection, hence we take them to belong to one thing. However, Locke easily

<sup>92</sup> *Essay*, II.xxiii.13 (304).

<sup>93</sup> *Essay*, III.vi.12 (446).

imagines what the underlying substance of a body may be like, as characterized by the very same qualities or accidents that we perceive in bodies:<sup>94</sup> as particles cohering with particles all the way down to the ground of corporeal existence and compiled in varying textures. In contrast to this, he offers no way to imagine what a soul or spirit might be like in itself, or how its substance might be constituted. The conscious accidents of the soul, such as thinking and willing, would have been of little help to him here. Most certainly he who went to such great lengths to refute the conjecture that the mind always thinks, and who supposed that self-identity is determined by consciousness, would not have wanted to characterize the soul as thinking or willing or causing itself or some other thing to move, when its actions are unobserved by a conscious self. Locke cites the cohesion of parts as an essential feature of bodies that we cannot explain. Yet, this is surely imaginable; so also the internal constitution of bodies generally, imagined as parts vitally or materially connected. The trouble with all of this is that the internal constitution of souls is not only unperceivable, but also entirely unimaginable. Hence, Locke's case for a cognitive parity of body and spirit fails; and, if it makes any sense at all, is probably untrue.

His speculations about the mobility of spirit are curious in this respect, for the locomotion of spirits or souls seems to depend upon their being embodied, and suggests also an incapacity in finite spirits so long as they lack corporeality.

The argument that because the ideas of thinking and solidity are each clear, distinct, and independent from the other, we are justified in granting that they exist separately—'a thinking thing without Solidity, *i.e. immaterial* . . . as a solid thing without Thinking, *i.e. Matter*'—seems contrived. Locke rests it upon another curious parity: that it is 'no harder to conceive how Thinking should exist without Matter, than how Matter should think'. It is curious, because elsewhere he accepts that a faculty of thinking might be superadded to matter, confesses ignorance about 'wherein Thinking consists', and grants that for all we know, God may have endowed some material beings with 'some degrees of sense, perception, and thought', and further, that 'All the great Ends of Morality and Religion, are well enough secured, without philosophical proofs of the Soul's Immateriality'.<sup>95</sup>

Notwithstanding these difficulties, Locke's purpose is clear: to enlarge the realm of being to include finite spirits, which, because we know neither more nor less about them than we do about corporeal beings, evokes in us a quiet skepticism concerning our physical knowledge of things, thereby readying our minds to attend to their proper business in life for which piety will serve them better than virtuosity.

<sup>94</sup> See *Essay*, II.xiii.13, 23, 26 (304, 308, 310); also III.vi.9: 'What is that Texture of Parts, that real *Essence*, that makes Lead, and Antimony fusible; Wood, and Stone not? What makes Lead, and Iron malleable; Antimony, and Stones not? And yet how infinitely these come short, of the fine Contrivances, and unconceivable *real Essences* of Plants and Animals, every one knows.'

<sup>95</sup> *Essay*, IV.iii.6 (541–2); Locke's strategy in this section of the *Essay* is to dissuade against materialism by promoting agnosticism.

# 7

## The Philosophy of a Christian Virtuoso iii

### Ethics

He also that hath the *Idea* of an intelligent, but frail and weak Being, made by and depending on another, who is eternal, will as certainly know that Man is to honour, fear, and obey GOD, as that the Sun shines when he sees it.<sup>1</sup>

For Men being all the Workmanship of one Omnipotent, and infinitely wise Maker; All the Servants of one Sovereign Master, sent into the World by his order and about his business, they are his Property, whose Workmanship they are, made to last during his, not anothers Pleasure... Every one as he is *bound to preserve himself*, and not to quit his Station wilfully; so by the like reason when his own Preservation comes not into competition, ought he, as much as he can, *to preserve the rest of Mankind*...<sup>2</sup>

### Introduction

It is an enduring cause of perplexity among Locke scholars that he never produced a system of morals. It has been regarded as a personal failure. He expressed certainty that it could be done and believed that it should be done. Learned friends urged him to do it, for they were sure that he was the best qualified among them to do it.<sup>3</sup> He had motive, means, capability, and the respect requisite for the task. Indeed, it could be said that he was meant to do it. Why, then, didn't he? There is, I believe, a plausible answer to this question. But it is a complex one, although it can be summarized briefly. Theoretically, he was sure it could be done; but it was a difficult task, daunting to someone of his age and situation in life. On top of this he had come to doubt that, even if implemented, such knowledge would be of any practical value in the conduct of life. However, because the reasons for his doubt depend upon arguments made in his theological writings, I will postpone further discussion of this matter to the next chapter.<sup>4</sup>

<sup>1</sup> *Essay*, IV.xiii.3 (651).      <sup>2</sup> *Two Treatises*, II.6 (289).

<sup>3</sup> See the letters of William Molyneux to Locke, *Correspondence*, nos. 1530, 1579, 1661, 1685, 1838, 2038.

<sup>4</sup> Locke to William Molyneux, April 5, 1696, *Correspondence* no. 2059, provides the context of an answer that I will enlarge upon in the next chapter: 'But when I consider, that a book of Offices [the reference is to

Notwithstanding Locke's failure to produce a definitive moral system, he has, as Locke said of St. Paul in his letters, dropped here and there in the *Essay*, *Two Treatises*, and *Some Thoughts on Education* substantial remarks about moral principles and duties, which, when taken together and considered with a measure of patience and charity, can be brought together into a more or less coherent scheme. Caution is needed here. J. B. Schneewind is right that fitting all of these elements of moral philosophy, written on various occasions and for different purposes, into a theoretical whole and presenting it as Locke's moral theory would be unhistorical.<sup>5</sup> My purpose, however, is not to construct a Lockean theory, but to show that Locke was not lacking in moral ideas, which he had considered not disconnectedly and separately, but systematically as though they were meant to be arranged in an ordered scheme.

## Locke's Moral Rationalism

First, with respect to the epistemic grounds of morality, Locke maintained a consistent stance of empirical rationalism. Moral principles are complex ideas, which are constructions of simple ideas of sensation and reflection, and therefore our understanding of them depends upon experience. Even more, our capability to use them, the motives that impel us to obey them, and the circumstances to which they apply were discoverable by empirical enquiry. However, unlike ideas of substances, moral ideas, or norms of actions, which are the primary elements of a moral system, are constructions of experience and reason. Hence, they are positive constructions. Hence, moral ideas are their own archetypes, and the proper definition of any moral term signifies the real essence of the thing.<sup>6</sup> Therefore, the subject matter of morality is eminently accessible to all who share the same language and customs and, more generally, a common reason or good sense.

According to Locke's system of classification, moral ideas are mixed modes, or combinations of simple ideas of different sorts, which are crafted as prescriptions

Cicero's *De officio*, taken as a model], as you call it, ought not to be slightly done, especially by me, after what I have said of that science in my Essay . . . I am in doubt whether it would be prudent, in one of my age and health, not to mention other disabilities in me, to set about it. Did the world want a rule, I confess there could be no work so necessary, nor so commendable. But the Gospel contains so perfect a body of Ethicks, that reason may be excused from that enquiry, since she may find man's duty clearer and easier in revelation than in herself.

<sup>5</sup> J. B. Schneewind, *The Invention of Autonomy* (Cambridge: Cambridge University Press, 1998), 142. However, for similar reasons, it could be argued that it would be unhistorical to attempt to interpret the *Essay* as a whole work, for as Locke described its evolution, it originated by chance, written in discrete parcels 'after long intervals of neglect', and only at the last, when he had leisure to do it, brought into order (*Essay*, Epistle to the Reader, 7; see also epigraph to Ch. 4 in this volume). By the last clause, Locke must have intended to say that the order achieved was not something externally imposed, but that it evolved along with his intentions for the work, and was more or less made explicit in the final editing. I suspect that most long books written over time develop in the same way. The same may be said of Locke's moral philosophy.

<sup>6</sup> This the very idea of man as a moral agent, Locke's 'moral man'; see Antonia LoLordo, *Locke's Moral Man* (Oxford: Oxford University Press, 2012), 2, and *passim*.

of actions. And of such ideas, unlike those of bodies or spirits, we need go no further than their constituent parts to discover the things they prescribe or prohibit.<sup>7</sup> Moreover, we can acquire a maker's knowledge of them. Someone who is not the actual framer of a moral rule or value can learn them, much as, with a little patience, one can learn how a clock is made, and proceed to disassemble and reassemble it. One can also learn their purpose and use, or the reasons for keeping them, which, Locke supposed must accompany any moral rule.<sup>8</sup> All that is needed is an understanding of its purpose and the materials and mechanical rules required to produce it, and the design or grammar of its composition. Their utility and the technique of making them are within the comprehension of every rational being. So it is with moral prescriptions, whether presumed to be civil laws or divine prescriptions. If they can be understood, they can be put to immediate use. 'Do not murder' may be a civil law or a divine commandment; in either case, its meaning is clear, and its purpose may be explained by another: 'Do unto others as you would have others do unto you', a principle that Locke, like many others natural law theorists, including Thomas Hobbes, regarded as the mainstay of social morality and civil law. Experience and reason and social convenience are all that is needed to justify them as laws. Thus far, Locke is a moral positivist, which he attempts to transcend by superadding a theological argument, his 'workmanship' argument, given in the second epigraph to this chapter. We refrain from murdering another, because we would not be murdered, and because we do not have sovereign power over the lives of others any more than we have over ourselves. However, sovereign power belongs to God who made us, and whose will is our law.

Locke was quite aware that moral discourse can become confused, but the confusion arises not in the extreme subtlety of the ideas or how to apply them, but in the fact that different societies or groups differ about what sorts of actions are right or wrong, good or bad, and therefore speak different moral languages. These confusions can be dispelled, he supposed, philosophically, by specifying those rules to which every human person is by nature subject, or, failing that, theologically, by supernatural authority and divine commands, immediately revealed by God.

## Morality as a System of Laws

Locke supposed that morality consists of laws and sanctions, of which he observed there are three kinds: divine law, which he equated with the law of nature, civil law, and the law of opinion or reputation.<sup>9</sup> The terms that Locke chose to name them are meant to identify the authority and power to issue and enforce these laws. In the first instance, it is God, in the second the body politic or the state, and the third an élite, a class of society distinguished by their cultivation and moral nobility. Sanctions in the first two

<sup>7</sup> *Essay*, II.xxii.1, 2 (288–9); II.xxxi.3, 14 (376–7, 383–4).

<sup>8</sup> *Essay*, I.iii.4 (68).

<sup>9</sup> *Essay*, II.xxviii.7 (352).

consist of rewards and punishments, in the latter of honor and shame. Locke illustrates this well by the following remark.

That Men should keep their Compacts, is certainly a great and undeniable Rule in Morality: But yet, if a Christian, who has the view of Happiness and Misery in another Life, be asked why a Man must keep his Word, he will *give* this as a *Reason*: Because God, who has the Power of eternal Life and Death, requires it of us. But if an *Hobbist* be asked why; he will answer: Because the Publick requires it, and the *Leviathan* will punish you, if you do not. And if one of the old *Heathen* Philosophers had been asked, he would have answer'd: Because it was dishonest, below the Dignity of a Man, and opposite to Vertue, the highest Perfection of humane Nature, to do otherwise.<sup>10</sup>

Although Locke has a Christian speak on behalf of the divine law, he could just as well have personified a mere theist or a deist, someone who believed in a divine law and divine sanctions consisting of reward or punishment in an afterlife, for, as will be seen, he says as much elsewhere in his writings.<sup>11</sup> I take Locke's use of the epithet *Hobbist* to signify someone who recognizes the civil law as a secular law, a merely positive law, not necessarily grounded in a law of nature, and enforced by an absolute sovereign, whose sole just purpose is to maintain peace. The obligation to keep one's contract is founded on the original contract, which places sovereign power in *Leviathan*, the head of state in whose body the people are united. Although 'Hobbist' may be intentionally an odious label, Locke's representation of Hobbes's theory of the enforcement of law is accurate, although incomplete, perhaps deliberately.<sup>12</sup> He does not mention that the law to be enforced in a civil state was said by Hobbes to be the law of nature, which is also regarded as a divine law.

Locke's representation of the third sort of law is curiously hostile. Yet, what he says about it is insightful. He recognizes that this third sort of morality is not one of rules but of virtues, and that virtues, that is, dispositions of character acquired by practice, are means of perfecting human nature in its social aspect. In the first edition of the *Essay*, he describes this sort of morality as a philosophical law, which, he explains, he does 'not because Philosophers make it, but because they have most busied themselves

<sup>10</sup> *Essay*, II.iii.5.

<sup>11</sup> For example, Locke to James Tyrrell, August 4, 1690, *Correspondence*, no. 1309, which is Locke's commentary on *Essay*, II.xxvii.7.

<sup>12</sup> The meaning of 'Leviathan', philosophical and theological, is summed up by Hobbes in *Leviathan*, see Hobbes, *Leviathan*, the closing paragraph of Ch. 28: 'Hitherto I have set forth the nature of Man (whose Pride and other Passions have compelled him to submit himselfe to Government;) together with the great power of his Governour, whom I compared to *Leviathan*, taking that comparison out of the last two verses of the one and fortieth of *Job*; where God having set forth the great power of *Leviathan*, calleth him King of the Proud. *There is nothing*, saith he, *on earth, to be compared with him. He is made so as not to be afraid. Hee seeth every high thing below him; and is King of all the children of pride.* But because he is mortall, and subject to decay, as all other Earthly creature are; and because there is that in heaven, (though not on earth) that he should stand in fear of, and whose Lawes he ought to obey; I shall in the next following Chapters speak of his Diseases, and the causes of his Mortality; and of what Lawes of Nature he is bound to obey.' On Hobbes's choice of the title of his great work, and how he came by it, see Noel Malcolm, Introduction, *Leviathan*, 3 vols. (Oxford: Clarendon Press, 2012), i, 114–28.

to enquire after it, and talk about it.<sup>13</sup> Aristotle would agree, and it seems likely that it is Aristotle to whom Locke is referring. Locke's hostility to this moral point of view may stem from its secular elitism.

Thus, Locke distinguishes his own moral stance from that of Hobbes and Aristotle, who represent two types of morality that he finds wanting.<sup>14</sup> Unlike the divine law, they were without adequate foundation, products of custom, fashion, or reasons of state.

... The *Divine Law*, whereby I mean, that Law which God has set to the actions of Men, whether promulgated to them by the light of Nature, or the voice of Revelation. That God has given a Rule whereby Men should govern themselves, I think there is no body so brutish as to deny.<sup>15</sup> He has a Right to do it, we are his Creatures: He has Goodness and Wisdom to direct our Actions to that which is best: and he has Power to enforce it by Rewards and Punishments, of infinite weight and duration, in another Life: for no body can take us out of his hands. This is the only true touchstone of *moral Rectitude*; and by comparing them to this Law, it is, that Men judge of the most considerable *Moral Good* or *Evil* of their Actions; that is, whether as *Duties*, or *Sins*, they are like to procure them happiness, or misery, from the hands of the ALMIGHTY.<sup>16</sup>

Putting this in context, Locke's moral theory belongs to the modern tradition of natural law theory whose proponents counted Bacon as a chief founder, and which includes Hobbes as an odd man out.<sup>17</sup> This is according to the account of Jean Barbeyrac, who wrote a somewhat self-serving, but still informative history of it. Barbeyrac, who was connected to Locke, includes him as one of its major proponents.<sup>18</sup> He attributes the founding of modern natural law to Hugo Grotius (1583–1645), who was encouraged to do so by the learned Nicolas Peiresc (1580–1637); he notes that both were inspired by Francis Bacon's writings on the renewal of learning.

<sup>13</sup> *Essay*, II.xxvii.10 (158).

<sup>14</sup> There is an interesting connection between Hobbes and Aristotle. Aristotle's virtue ethics was not intended as a scheme of personal morality, but as a code of social behavior, and thus is part of political science. In *Nicomachean Ethics*, X.9, Aristotle, who did not believe in equality, worries that, because 'the many' 'do not by nature obey the sense of shame, but only fear', they must be governed by a 'law [that] has compulsive power', which nevertheless proceeds from 'practical wisdom and reason' (1078b34–1080a13).

<sup>15</sup> Locke uses the epithet 'brutish' or 'bestial' prejudicially to signify someone who does not make proper use of natural reason. This applies especially to atheists, for he supposed that the existence of God and the honor due to him are the fundamental principles of morality and of human sociability, and although not innate are eminently discoverable by reason. See *Essay*, I.iv.9 (89), IV.x.1 (619); see also *Toleration*, 134–5, *Two Treatises*, II.8.

<sup>16</sup> *Essay*, II.xviii.8 (352); it should be noted that the first sentence of this text equates the law of nature discoverable by reason with the divine law revealed to Moses and enjoined by Jesus the Messiah.

<sup>17</sup> See J. B. Schneewind, *The Invention of Autonomy*, 142–4, who emphasizes that it was Grotius and not Hooker whose theory of natural law Locke followed.

<sup>18</sup> Jean Barbeyrac, *A Historical and Critical Account of the Science of Morality*, section xxix, prefixed to Barbeyrac's translation (into French) of Samuel Pufendorf's *De jure naturae et gentium*, English edn., *The Law of Nature and Nations* (London, 1729); see also Pierre Gassendi, *The Mirror of True Nobility. Being the Life of Nicolaus Claudius Fabricius, Lord of Peiresk*, William Rand, transl. (London, 1657; Haverford, PA, 2003), Bk. IV, 1624, 159–60. For Barbeyrac's correspondence with Locke, see *Correspondence*, vii, nos. 3141, 3232; for additional context, see Richard Tuck, 'The "Modern" Theory of Natural Law', Anthony Pagden, ed., *The Languages of Political Theory in Early-Modern Europe* (Cambridge: Cambridge University Press, 1987), 99–120; also James Tully, *A Discourse on Property* (Cambridge: Cambridge University Press, 1980), 6–7 and passim.

Peter Miller has observed that Grotius's *Rights of War and Peace* 'emerged from a philologist's knowledge of ancient texts'.<sup>19</sup> His was an eclectic method but only in the sense that it purported to recognize among the ancients no single school or figure as normative, but rather surveyed them all in order to derive from them general principles of morality and justice.<sup>20</sup> In short, Grotius's method was inductive, drawing upon an extensive study of classical learning that would be analogous to a natural history of his subject. This is quite different from relying on an authoritative tradition. It had about it the air of virtuosity.

Grotius's brief methodological remarks in the opening chapter of *The Rights of War and Peace* confirm this. He distinguishes two methods of enquiry, one, which he terms *a priori*, the other *a posteriori*. The former involves reasoning abstractly from the nature of the thing, determining in this way what sorts of rules are suitable or unsuitable to the rational and sociable nature of mankind. The latter requires a history of laws regarded as natural or universal among civilized nations, an inductive natural history,<sup>21</sup> rather than a merely narrative one.<sup>22</sup>

Barbeyrac goes on to relate that not long after Grotius's death, Thomas Hobbes published his *De cive* and *Leviathan* in which he codified the doctrines of Epicurus, which make human self-interest and the desire for self-preservation the primary causes of civil society, and expediency is the sole motive and aim of law-making, and supposes that a well-founded government depends on the absolute right of its rulers to govern as they see fit. This, it need hardly be said, fairly represents the opinions of neither Hobbes nor Epicurus, but it gives expression to a prevailing concern or anxiety that beset those engaged in the modern study of law, not unlike the anxiety that beset natural philosophers. This concern and the cause of it find expression in the notorious remark by Grotius that rightly reasoning about moral, civil, and international law may proceed without any reference to God.

<sup>19</sup> Peter N. Miller, *Peiresc's Europe* (New Haven: Yale University Press, 2000), 89; Hugo Grotius, *The Rights of War and Peace... to which are added all the large notes of Mr. Barbeyrac*, Eng. transl. (London, 1738).

<sup>20</sup> Tuck, 'The "Modern" Theory of Natural Law', 100–4, also 107–9 on Barbeyrac.

<sup>21</sup> On the notion of an inductive natural history, see Bacon, *De augmentis*, Bk. viii, Ch. 3 (*SEH*, iv, 298).

<sup>22</sup> Grotius, *On the Rights of War and Peace*, I.i.xii, 1: 'That there is such a thing as Natural Law, is commonly proved both *a priori* and *a posteriori*; the former the more subtle, the latter, the more popular proof. It is proved *a priori* by shewing the agreement or disagreement of anything with the rational nature of man. It is proved *a posteriori* when by certain or very probable accounts we find anything accepted as Natural Law among all nations, or at least the more civilized. For a universal effect requires a universal cause: now such a universal belief can hardly have any cause except the common sense of mankind.' Eng. transl., William Whewell, *Grotius on the Rights of War and Peace* (Cambridge, 1853), 5; see also Whewell, *Grotius on the Rights of War and Peace*, Prologue, 40; see also the discussion of Grotius's method by Stephen Buckle, *Natural Law and the Theory of Property* (Oxford: Oxford University Press, 1991), 5–8; I am in general agreement with Buckle here, except I believe he could have made his case even stronger by observing that Grotius's *a priori* method is not strictly speaking rationalist. He did not suppose that the rational and sociable natures of mankind are either substantial forms or eternal ideas, implanted in the mind, but empirically observed natures, i.e., Baconian forms. The method he describes is one that Locke uses. By *a priori* and *a posteriori* Grotius here means deductive and inductive.



And what we have said [about the origin of *Jus* from human worldly circumstance] would still have great weight, even if we were to grant what we cannot grant without wickedness, that there is no God, or that he bestows no regard on human affairs [*etiamsi daremus, quod sine summo scelere dari nequit, non esse Deum*]. But inasmuch as we are assured of the contrary of this, partly by reason, partly by constant tradition, confirmed by many arguments and by miracles attested by all ages, it follows that God, as the author of our being, to whom we owe ourselves and all that we have, is to be obeyed by us without exception, especially since he has, in many ways, shewn himself both supremely good and supremely powerful: wherefore he is able to bestow upon those who obey him the highest rewards, even eternal ones, as being himself eternal; and he must be supposed to be willing as well as able to do this; and the more so, if he have promised such rewards in plain language; which we Christians believe, resting our belief on the indubitable faith of testimonies . . . And here we are brought to another origin of *Jus* besides that natural source; namely the free will of God, to which, as our reason irresistibly tells us, we are bound to submit ourselves.<sup>23</sup>

In his purportedly ‘wicked’ remark, Grotius’s intention is clear: he wants to affirm the sufficiency of the method of induction and historical consensus for the study of natural law, or the autonomy of the method he employs in his book; he wants a law that fits human societies within and among nations, a law of convenience fit for inclusion in a rational tradition. One is rightly reminded here of Bacon’s rule.

In fact, there are really two sorts or ideas of law joined together in the modern theory of natural law as exemplified by Grotius: one that is founded on human nature, expediency, and common sense, and the other, on the will of God; the former can be termed naturalist, the latter voluntarist, that is, proceeding from the will of God, which prescribes rules not arbitrarily on the grounds of his mere pleasure, but according to his announced purpose as creator and redeemer of the world, and consistent with his inherent goodness. It is the conflict between these two systems, and not between hedonism and rationalism, that may have troubled Locke.<sup>24</sup> Modern natural law, at least from Grotius through Locke, which is all that is of concern here, is distinguished from its Scholastic predecessor by its empirical naturalism, to which it has superadded theism. Laws are regarded as natural in the former instance, because they apply to common human conditions and needs. Their universality resides in this common purpose. They are positive insofar as they are established by convention; they are rational, insofar as they are expressions of common sense. The divine or voluntarist theory attributes the origin of laws of nature to God, who is the cause of existence of all things, and who, accordingly, has the right to impose laws on them, the power to enforce them, but who being wise and good, frames only laws that are universally beneficial. In this respect, all divine laws should be capable of validation by experience and reason. Notwithstanding this, they have authority only as expressions of the divine

<sup>23</sup> Grotius, *On the Rights of War and Peace*, Prologue, §§11, 12, xxvi. The reader should take note that Locke’s assertion of a divine law of nature, quoted on the previous page, echoes Grotius’s definition just quoted.

<sup>24</sup> On the conflict between hedonism and rationalism, see Aaron, *Locke*, 256–69.

will. Such positive laws may be regarded as both human, that is, merely civil, and divine. A central task of Locke's political and moral philosophy is to connect these two ideas of law and make them compatible.<sup>25</sup>

However, it is noteworthy that Epicurus also developed a system of the law of nature, and in this respect may be considered the father of modern moral and legal naturalism. Its principles derive from human nature and circumstance, in particular, human sociability and the desire of self-preservation common to sentient beings. Grotius's system and those of his successors, Locke included, are not by accident reminiscent of it, for they were familiar with it, and in spite of their fears could not avoid using it. There is a brief summary of it in Epicurus' *Sovran Maxims*, which I will further summarize.

Natural justice (τὸ τῆς φύσεως δίκαιον, or *jus naturae*) originates in a compact between individuals or groups as a 'pledge of mutual advantage that would restrain men from harming one another and save them from being harmed.' The obligation to live at peace and not to harm one another begins with this mutual agreement, which makes actions in conformity with it right or just. In a state of nature, there is neither right nor wrong, although there are violent and peaceable actions, and individual experience of pain and tranquil pleasure. Justice, then, is by convention. Yet it is correctly labeled 'natural' by its general utility, because it establishes the general conditions by which individuals live pleasantly together and enjoy a mutual intimacy. The rules of justice, or conditions of agreement specified in a compact, are not everywhere the same, but may differ according to regional or other circumstantial differences, and they may be repealed when it is agreed they are no longer needed. Epicurus does not explain how the rule of justice would be enforced except to remark that, in the case of secret violations, the wrongdoer would suffer from a troubled conscience and fear of discovery. It should be noted that Epicurus' theory of justice does double duty. It pertains to any society and its institutions, which include not only civil society, but, as best as it can be achieved, a universal society or family of creatures. It can be applied also to philosophical societies or churches.<sup>26</sup>

Finally, it is noteworthy that Epicurus espoused a doctrine of free agency in animals, which included a notion of original or spontaneous action. It is also noteworthy that Hobbes, notwithstanding his determinism, appropriated it as his doctrine of endeavor, the quantum of action.

Lucretius is our source of Epicurus' doctrine of free agency. He relates it to the doctrine of the swerve or spontaneous declination of atoms from their regular course. All atoms were supposed to move in one rectilinear direction. However, as Lucretius

<sup>25</sup> See Grotius, *Commentary on the Law Prize and Booty [De Jure Praedae]*, ed. Martine Julia van Ittersum (Indianapolis: Liberty Fund, 2006), 'What God has shown to be his will, that is law. This axiom points to the cause of law, and is rightly laid down as a primary principle', 19.

<sup>26</sup> The foregoing account follows Epicurus, *Sovran Maxims*, xxxi–xl, *DL*, x.150–4; see also Cyril Bailey, *Epicurus* (Oxford: Clarendon Press, 1926), 102–5; also A. A. Long and D. N. Sedley, *The Hellenistic Philosophers*, 2 vols. (Cambridge: Cambridge University Press, 1987), i, 125, 134.

tells it, if this were all they did, they would never collide and the process of the generation of worlds and their inhabitants would never occur. Since that is not what has happened, there must be some other primary movement among atoms. The first beginnings of things happen when atoms without cause decline from their moving path ever so slightly, in an infinitesimally small degree. Thus, natural indeterminism becomes productive in infinitely various ways. The same capability is the cause of free or spontaneous action by animals. Lucretius is not claiming that free action is reducible to the random movement of atoms, or that desire, willing, and spontaneity of action are merely instances of the swerve. Nevertheless, he does suggest that these are possible only because at the fundamental material level of being, where chance and necessity are at work, there is an indeterminateness which allows the evolution or emergence of actions that are not mechanically predetermined but are spontaneous and self-directed, even directed by rational judgment.

If all motion is always one long chain, and new motion arises out of the old in order invariable, and if the first-beginnings do not make by swerving a beginning of motion such as to break the decrees of fate, that cause may not follow from infinity, whence comes this free will in living creatures all over the earth, whence I say this will wrested from fate by which we proceed whither pleasure leads each, swerving also our motions not at fixed times and fixed places, but just where our mind has taken us? For without doubt there is a will in each that begins these motions, and from the will movements go rippling through the limbs.<sup>27</sup>

Lucretius illustrates in a memorable example of horses anticipating the start of a race.

Do you not see also, when the cells are thrown open at a given moment, that nevertheless the eager force of the horses [*equorum vim cupidam*] cannot burst forth so suddenly as the mind itself craves? For all the mass of matter must be stirred up together through the whole body, in order that thus stirred up together it may all with one combined effort follow the passions of the mind; thus you may see that the beginning of motion is made by the intelligence [*a corde creari*]<sup>28</sup> and the action moves on first from the will of the mind, then to be passed onwards through the whole body and limbs.<sup>29</sup>

As already noted, Hobbes appropriated this Epicurean idea of the spontaneous beginning of action in animals and refashioned it as his doctrine of endeavor.<sup>30</sup> On the other hand, he denied the physical reality of chance or fortune or any form of indeterminism in nature, arguing, as will be noted shortly, that causal necessity and free agency are compatible.<sup>31</sup>

It should be obvious to anyone who takes the trouble to consider it that the foregoing offers *in nuce* the essence of the modern natural law theory in its naturalist variety.

<sup>27</sup> Lucretius, *DRN*, 2.251–62.

<sup>28</sup> Epicurus believed that the heart is the organ of intelligence.

<sup>29</sup> Lucretius, *DRN*, 2.263–71.

<sup>30</sup> *Leviathan*, vi (23): ‘These small beginnings of Motion, within the body of Man, before they appear in walking, speaking, striking, and other visible actions, are commonly called ENDEAVOUR.’

<sup>31</sup> Hobbes, *Questions concerning Liberty, Necessity, and Chance*, *English Works*, v, 450.

## Locke on the Law of Nature

Locke's theory of the law of nature, so far as he develops it empirically, rationally, and naturalistically, is rooted in a basic account of human values and motivation. On this account, the ideas of good and evil originate in our feelings of pleasure and pain, or the increase or diminution of them, which are caused or incited by objects or circumstances either immediately or directly, or in association with expectations or prospects of what these things may bring in their train. In this respect, as will appear shortly, Locke follows in the course of the great hedonist moralists, in particular Epicurus.<sup>32</sup> It is a theory of value most akin to empiricism, although here also, as in Locke's physics, the sort of pleasure contemplated transcends mundane sensibility.

Things then are Good and Evil, only in reference to Pleasure or Pain. That we call *Good*, which is apt to cause or increase Pleasure, or Pain, or diminish any Pleasure in us; or else to procure us any Evil, or deprive us of any Good. By Pleasure and Pain, I must be understood to mean of Body or Mind, as they are commonly distinguished; though in truth, they be only different Constitutions of the Mind, sometimes occasioned by disorder in the Body, sometimes by Thoughts of the Mind.<sup>33</sup>

Pleasure and pain are immediate feelings that translate into simple ideas. The passions, or 'tempers of the mind', of which Locke provides a short catalog in *Essay*, II.xx, are modifications, or modes or variations of these two simple ideas. We delight in or love those things that are likely to give us pleasure, and hate those that do the contrary. We are sorrowful when some good is lost, hopeful when we expect it to return, despairing when some desired good seems unattainable. Happiness and misery are feelings of enduring pleasure or pain, which in the very idea of them have no limit, hence, states. Pleasure and pain are not confined only to the experience of things and circumstances, but of ourselves and other persons: we love or hate, experience delight or unease with regard to our own or others' being or happiness, or their enduring welfare.

Passion, or desire, is the mover of the will, the 'spur to action'.<sup>34</sup> The prime movers of such actions are the desire of happiness and the aversion from misery.

*Happiness* and *Misery* are the names of two extremes, the utmost bounds whereof we know not of; 'tis what *Eye hath not seen, nor Ear heard, nor hath it entred into the Heart of Man to conceive*.<sup>35</sup>

The desire for happiness and the aversion from misery become moral passions when they are directed by reason, which creates or discovers rules of behavior, which are the means and also the conditions of achieving its end. A system of morality must consist of rules and practice, which reason discovers and prescribes, but it also must include

<sup>32</sup> Epicurus, *Letter to Menoecus*, *Diogenes Laertius*, x; Lucretius, *DRN*, 2.1–61; against Epicurus, see Cicero, *De officiis*, iii.

<sup>33</sup> *Essay*, II.xx.2 (229); Locke's observation that feelings of pleasure or pain, whether they originate in the body or the mind, physical or psychological, are in fact only states of mind seems a vestige of Cartesianism; he would have been more consistent to say that pleasure and pain are states of the whole human being.

<sup>34</sup> *Essay*, II.xxi.40–1 (258).

<sup>35</sup> *Essay*, II.xxi.41 (258), and 1 Cor. 2:9.

incentives, punishment or reward, which involve pain or pleasure, and these operate through the passions. It is arguable that these are not moral passions, inasmuch as they do not involve what Kant has referred to a respect for the law, or the love of it, or of oneself as a moral agent. Here a theory of the virtues is requisite. And Locke has left us with one, albeit incomplete.

### *Virtues*

In *Some Thoughts concerning Education*, Locke presents an informal scheme of virtues as modes of rational self-control that are built upon a mastery over inclinations, and the ‘importunity of *present Pleasure or Pain*’.<sup>36</sup> This outline of virtue ethics, notwithstanding Christian and biblical interjections, is a scheme of pagan ethics, whose primary motives are social and worldly, esteem and shame, and do not involve a concern for reward and punishment in a life to come.<sup>37</sup> Chief among them is fortitude, ‘a noble, and manly steadiness’, ‘the quiet Possession of a Man’s self and an undisturb’d doing his Duty, whatever Evil besets, or Danger lies in his way’.<sup>38</sup> This is coupled with truthfulness, humanity, and an aversion from cruelty, and practical wisdom or good sense. In dealing with one’s fellows, Locke advises the cultivation of ‘*Deference, Complaisance, and Civility*’ in social dealings, and as an incentive, ‘respect, love, and esteem’ shown to those who practice them. A domineering and querulous personality, on the other hand, is not acceptable. Liberality is a key social virtue, not only because it is a safeguard against possessive individualism and acquisitiveness, but also because it is instrumental in the cultivation of justice and honesty.<sup>39</sup> In sum, virtue as just characterized is ‘the first and most necessary of those Endowments, that belong to a Man or a Gentleman; as absolutely requisite to make him valued and beloved by others, acceptable or tolerable to himself; and the necessary means to happiness, or successful worldly living.’<sup>40</sup>

Locke is quick to add that virtue is also the necessary means of happiness in the life to come, and in the succeeding section, he argues that morality ought to be founded upon ‘a true Notion of God’, and that this is best accomplished by morning and evening prayer and acts of devotion to God.<sup>41</sup> Piety too is a virtue. I do not mean to say that Locke is speaking insincerely here; yet, conceptually, it is an irrelevant addition to a scheme of moral education that was well worked out before the advent of Christianity, and, as Locke himself observed, can be acquired by reading Cicero.<sup>42</sup>

<sup>36</sup> *Education*, §44 (111).

<sup>37</sup> *Education*, §56 (116); on the idea of pagan virtue, see John Casey, *Pagan Virtue* (Oxford: Clarendon Press, 1990). Casey is correct to emphasize that before Christianity, the theory of virtue, especially as developed by Aristotle, conceived of moral virtues, as distinct from intellectual ones, as worldly and out of tune with most versions of Christianity.

<sup>38</sup> *Education*, §115 (175–6). <sup>39</sup> See James Tully, *A Discourse on Property*, 176.

<sup>40</sup> *Education*, §§109–10, 116, 117, 135 (169–70, 180, 193, 195). <sup>41</sup> *Education*, §136 (195).

<sup>42</sup> *Education*, 185 (239): ‘The Knowledge of *Virtue* . . . being taught him, more by Practice than Rules: and the love of Reputation instead of satisfying his Appetite, being made habitual in him, I know not whether he should read any other Discourses of Morality, but what he finds in the Bible; or have any System of *Ethics* put into his Hand, till he can read *Tully’s Offices*.’

*An abortive attempt at a system of ethics*

That Locke endeavored to combine some if not all of these elements into a theory of morals is evident from an unpublished manuscript 'Of Ethick in General'. He composed it c. 1686, intending it to be the final chapter to the *Essay*. The intended location is noteworthy. A general system of ethics does not belong to semiotics, but to practics. However, the great conclusion of the *Essay*, that the study and practice of morality are the proper business of mankind in this life, and that a science of morals was possible, whereas a science of physics was not, gave warrant to adding a short treatise on ethics, as though to prove his point and to get down to business. He had only made his way through the preliminaries when he put it aside.

Like all chapters in the *Essay*, 'Of Ethick in General' is divided into numbered sections.<sup>43</sup> The first three sections are introductory. Their purpose is to justify ethics as a theme of philosophical inquiry, to show empirically and circumstantially that there is such a thing as morality in general and a universal principle of it. §1 treats human agency and its motivation. Humankind, whatever its engagements or business, invariably aims to be happy and to avoid misery. These are 'the two great springs of humane actions'. Locke presents this as an empirically verifiable fact: we always find it so. §2 presents another universal anthropological fact, although one that, to be justified, would require an inductive natural history of human moral practices. He observes that human actions have been everywhere and always assigned values: right and wrong, good and bad, virtue and vice. He imagines that even the most undeveloped societies have 'rules & boundaries' whereby human actions are judged; hence there is a universal idea of morality, that is, of human actions judged according their conformity to rules.

Some kinde of morality is to be found every where received I will not say perfect & exact but yet enough to let us know that the notion of it is more or lesse everywhere & that even where politique societys & magistrates are silent men yet are under some laws to which they owe obedience.

Locke's intention in §3 is to establish the law of nature as the primary rule of morality. Here also, his method is historical. He observes what many should find a curious fact, that 'Morality hath been generally in the world treated as a science distinct from Theologie Religion & Law', that it has become the property of philosophers, 'a sort of men different both from Divines Priests & Lawyers', who also claim to be teachers of morality. Priests and lawyers did not recognize morality as a science, but as rules sanctioned by a particular pagan deity or by some city, which they served. Locke makes a historical argument here. Priests and lawyers were teachers of morality, but not to the world. They did not advance to the notion of morality as a science. This was the achievement of philosophers. He takes the evolution of philosophical ethics as proof of a law of nature.

<sup>43</sup> 'Of Ethick in General', MS Locke c. 28, fols. 146–52; I follow the text printed in *WR*, 9–14.

A plain argumt to me of an impression in the minds<sup>44</sup> some discovery still amongst men of the law of nature, & a secret apprehension of another rule of action which rational creatures had a concernment to conforme to besides what either the priest pretended was the immediate command of their god . . . or the Lawyer told them was the command of the government.

I take it that Locke was here referring to Greek philosophers, who also practiced natural philosophy, and who were the first to conceive of nature as an ordered system, which in turn opened their minds to the idea of a corresponding law of nature relating to human behavior.<sup>45</sup>

Sections 4, 5, and 6 comprise a critical exposition of philosophical ethics as it has been practiced in antiquity and the present. Locke complains that, although, in general, philosophers have correctly have come to identify the primary character of moral rules as laws of nature, they have, for the most part, failed to trace them to their true origin in the will of God. Hence, they are mere naturalists, who found morality on human nature, and conventionalists, who fashion moral rules and virtues according to human circumstance and needs, and because these vary they have failed to establish a universal morality. Besides, by failing to regard moral laws as divine commands, their rules lack the strong incentive of expectation of retribution after death. For the most part, they have regard only to this-worldly incentives: praise and blame, or civil punishment.

In the evolution of society, Locke imagines that the former preceded the latter. This earlier sort of morality consisted of ideas of good and bad 'species of actions' to which names were assigned, for example, justice or fortitude, and thereby it became known what sorts of behavior were 'thought laudable or disgracefull'. Moral knowledge and its incentives became embedded in a society's language, and one acquired it by attending to those more skilled in language. Or, one could acquire moral knowledge by observing the customs of a country. In any case, all who spoke the same language, as members of one society, professed the same values.

Were there noe humane law noe punishment noe obligation of civill or divine sanctions there would yet still be such species of actions in the world of Justice Temperence & Fortitude Drunkenesse & Theft which would also be thought some of them good some bad, there would be distinct notions of virtues & vices. For to each of these names there would belong complex ideas otherwise all these & the like words which expresse morall things in all languages would be empty insignificant sounds & all moral discourses would be perfect Jargon.

Basic moral education, then, was combined with the teaching of language, which served as means of inculcating values. But something more was needed, viz., a general

<sup>44</sup> There is little likelihood that Locke intended innate ideas, since by this time, he had completed a lengthy refutation of it.

<sup>45</sup> I am reminded of Leo Strauss's pronouncement, with which I entirely agree, that 'the idea of natural right must be unknown so long as the idea of nature is unknown', *Natural Right and History* (Chicago: University of Chicago Press, 1953), 81.

rule or reason that would also provide a firmer and more extensive incentive. And here Locke, in the role of an enquirer, an observer of customs, recognizes the law of nature.

... the general rule whereof & the most constant that I can finde is that those actions are esteemed virtuous which are thought absolutely necessary to the preservation of society & those that disturbe or dissolve the bonds of community are every esteemed ill and virtuous.

In §5, Locke explains why he finds this version of the law of nature inadequate. One cannot found a universal morality on it. It is adequate to identify only the most dangerous vices. For, while it is unthinkable that individuals who have contracted together to form a society would 'not discountenance & treat such actions as blameable i e count them vices which tend to the dissolution of that society in which they were united', it gives no guidance for all other sorts of behavior. And indeed, Locke, being 'conversant' in histories of societies, finds only evidence of moral relativism wherever there is 'noe obligation or Superior law' beyond civil law.

I finde not ... but that in some Countrys or Societys they are virtues in other vices & in others indifferent according as the authority of some offend wise men in some places or in inclination of fashion of the people in other places hath happened to establishe them virtues or vices...

He concludes this critique of philosophical ethics by observing that one finds no better in the 'common Ethicks of the Schools', which follow the lead of Aristotle. Instead of showing us what actions are good, what bad, and providing motivation to pursue one and shun the other, philosophers as teachers of ethics have 'become only language masters'. By 'language masters' Locke was undoubtedly referring to teachers of oratory, or sophists, and although he does not name him, he surely must have had Cicero in mind, with whose writing he was very well versed.<sup>46</sup> In *De oratore*, Cicero represents rhetoric as a civilizing art, closely connected with learning, and with philosophy, especially moral philosophy. In *De officiis*, a work that Locke commends as a primer of ethics, Cicero develops the relation of morals to public life, and hence their social efficacy.<sup>47</sup> No doubt, Locke was aware that contemporary language masters would themselves use such works. Still, in spite of his admiration of these works, Locke found them inadequate, because they didn't trace moral principles to what he took to be their true origin, which is God.

Moral philosophy, as it has evolved to the present, offers only two alternatives, epitomized in the philosophies of Aristotle and Hobbes. That Locke's account of both is neither fair nor accurate is of no moment. I have no doubt that he knew what he was doing, which was to show a philosophical need for his preferred system of morality. In defense of Locke, it might be said that philosophers customarily do this.

<sup>46</sup> For further details, see my 'Aspects of Stoicism in Locke's Philosophy', *Christianity, Antiquity, and Enlightenment* (Dordrecht: Springer, 2011), 183 and nn. 3, 8.

<sup>47</sup> *Education*, §186; also §188, where Locke recommends that a young boy preparing for public life become conversant with Tully, 'to give him the true *Idea of Eloquence*'. By this advice, Locke is following in the train of Renaissance humanism and its English proponents.



In §§7–8 Locke starts over. He observes that moral actions are those of ‘an understanding free agent’, but regards free agency as a natural process. An understanding free agent ‘naturally follows that which causes pleasure to it & flies that which causes pain’; pleasure and pain are the ingredients of happiness and misery, the former that we desire, and the latter, avoid. Moral choice operates according to the same principles of pleasure and pain. However, there is an important difference between natural good and evil and its moral counterparts.

... we call that natural good & evill which by the natural efficiency of this thing produces pleasure or peine in us & that is morally Good or Evill which by the appointment of an Intelligent Being that has power draws pleasure or peine after it not by any natural consequence by the intervention of that power.

And this explains why people pay their debts, even when they need the money for their own ‘conviencys or necessities’, or why a man will forbear his neighbor’s wife, even though, like King David, he might desire her. Moral rectitude thus involves forbearing things we may naturally desire, in expectation of a reward that is a greater pleasure, but not otherwise different in kind.

In §9, Locke offers further thoughts on the teachers of virtue, the so-called masters of language. Here his complaint is not that they tend toward moral relativism, by accepting custom and values embedded in language as they are, but that they are impotent to enforce what they teach and thereby lack authority to teach it.

In §§10–12 he offers the supreme remedy. It consists of a system of morality founded on two premises. First that there is a supreme lawgiver with the power, right, and will to reward and punish, namely, God, and that there is a law of nature, which God ‘has sufficiently promulgated & made known to all man kinde’.

There are further details that Locke mentions. The various provisions of the law of nature must terminate in a single principle of mutual reciprocity: ‘Thou shalt love thy neighbor as thyself’; the rules of morality must be clearly known and easily applied to our actions; they must be well defined by the collections of simple ideas that comprise their meaning; and they must refer to a higher law by which they are shown to be good or bad.

Here Locke breaks off. The draft chapter was set aside, for what reason we do not know. What we can be certain of is that he did not abandon his commitment to the moral theory sketched out in ‘Of Ethicks in General’. He continued to think about it, and addressed it in the *Essay*, especially in the chapters on power and personal identity, and again in *The Reasonableness of Christianity*. Moreover, he in fact completed some of the tasks mentioned in his draft chapter. He demonstrated the existence of God, and he found a way to establish the right of God to be supreme lawgiver and enforcer. The latter he accomplished almost a decade before he published the *Essay*. In the epigraph extracted from the *Second Treatise of Government*, he establishes the rule of God on the grounds that we are his workmanship, in short, that we are his property. Here he is alluding to a principle in whose discovery he took great pride, viz., that the products of

one's labor are one's own. That God created us from nothing makes his ownership of our being even more perfect, for we are mere products of divine labor unmixed with any preexisting material. Because we exist at his pleasure, which is to say, because God is our absolute sovereign and owner of our existence, our first duty is to preserve ourselves, which arises not from self-ownership, but more like a servant's obligations to preserve its master's property. And because God has created all others of our species, we have a similar obligation to preserve them also, so long as our own existence is not endangered in this endeavor.<sup>48</sup> From all of this, it is possible to derive the supreme law of nature, mentioned above, or its surrogate, the golden rule, to do unto others as we would have others do to us.

Thus, we can be sure that Locke maintained an interest in the law of nature and the theory of it, and that he was not only well prepared to develop one of his own, but had progressed far in doing it. To conclude the *Essay* on this theme would have given satisfaction to him and his friends. We do not know why he set it aside. Perhaps he lost confidence in the value of such an endeavor. A clue to this effect may lie in the fact that in the second edition of the *Essay* and thereafter, when introducing the varieties of moral law, he replaced the expression 'philosophical law' with the 'Law of *Opinion* or *Reputation*'.<sup>49</sup> One must not make too much of this, but it suggests that as Locke studied the philosophical tradition of ethics he became increasingly dissatisfied with it and saw the need to provide it with a more robust theological basis.

## Metaphysics of Morals

The remainder of this chapter will be devoted to two themes: Locke's ideas of moral agency and personal identity. I have given it the title 'Metaphysics of Morals' as a way of suggesting that, like Kant, Locke desired to explain how morality is possible and to establish the grounds upon which any practical science of morality must depend. Also like Kant, he held that the requisite conditions of it included free agency and the ability to follow a rule. Unlike Kant, Locke sought after grounds that were empirically discoverable.

### *Power and agency*

*Essay* II.xxi is the longest and surely the most difficult chapter in the book.<sup>50</sup> Both aspects of the chapter are due in part to Locke's attempt to achieve originality on a theme

<sup>48</sup> Elsewhere in *The Second Treatise*, Locke suggests a similar attitude to other animals, that we should not kill them unless there is a nobler use for them; II, §6: 'though Man in that State [of nature] have an uncontrollable Liberty, to dispose of his Person or Possessions, yet he has not Liberty to destroy himself, or so much as any Creature in his Possession, but where some nobler use, than its bare Preservation calls for it. What 'nobler use' beyond 'bare Preservation' of oneself Locke intended is unclear. The only uses that come to mind are food and raiment.

<sup>49</sup> *Essay*, II.xxviii.7 (352); see also textual note.

<sup>50</sup> See Angela Coventry, 'Locke, Hume, and the Idea of Causal Power', *Locke Studies* 3 (2003), 93–111: '[Locke's] treatment of power is one of the least satisfying discussions in the *Essay*, which is unfortunate

that had been well worked over by illustrious, but to his mind, notorious predecessors, whose opinions converged with his own, so that he became engaged in establishing differences, where largely there were none, which he then took for novelties. I do not mean to suggest that Locke's innovations are the products of mere vanity, although there is evidence of this in all his literary projects. But, in an attempt to separate his opinions from those of others, whose notions and their use of them were very much like his own, an endeavor that may have been driven more by anxiety than by calm philosophical deliberation, Locke made subtle distinctions that did more to confuse than to clarify. Responding to his friend William Molyneux, Locke is 'not surprised' that he should find 'my discourse about liberty' 'a little too fine spun'; and remarks that he found it so himself, and considered deleting it.<sup>51</sup> But the theme was too important to let go.

The theme of *Essay* II.xxi is the idea of power, active and passive, which, when regarded most generally, belongs as much to metaphysics as it does to ethics, or alternatively, belongs equally to the metaphysics of substances and to the metaphysics of morals. According to Locke's scheme of sciences, power is a fundamental concept of physics, explaining the operations of things, and of practics, because all human activity, so far as it is voluntary, depends upon the power of the will and the understanding. Another difficulty in the chapter is the conflict between the two sorts of moral theory already referred to, between naturalism and supernaturalism, which, as it works out in Locke's own thinking, is one between virtuosity and Christianity.

Locke counts power among simple ideas, which, like other simple ideas of sensation and reflection, inhere in substances. Unlike them, but like substance in its primary sense of an underlying something, that is, substance *je ne sais quoi*, which is arguably also a simple idea unlike complex ideas of substances, individual and sortal, we have no concrete idea of power, for power is not anything that we perceive, rather we suppose it as a way of explaining varieties of change that we experience as a matter of course, which we are acquainted with through the flow of ideas, just as we suppose substance to explain the coherence of certain collections ideas that seem regularly to go together, and therefore, insofar as we imagine it, our idea of it is complex, for example in bodies, the configuration of particles of various size, shape, and texture that move in ways to affect our senses as well as the material constitution of the senses, leaving as their product simple ideas, which the mind collects and attributes to a substance and its power.<sup>52</sup> As ideas, power and substance are fellow travelers; together they are requisite for an understanding of every action and event, of fire melting gold, or the sun blanching wax, and of persons endeavoring to follow a rule, five substances manifesting their respective active and passive powers. It is for this reason that, as Locke

considering its importance—he proclaims power to be a "principal ingredient in our complex *Ideas* of Substances" (II.xxi.3) and the "Source from whence all Actions proceeds" (II.xxii.11); 96.

<sup>51</sup> Locke to William Molyneux, January 20, 1693, *Correspondence*, iv, 625.

<sup>52</sup> On the idea of substance as substrate, see above, p. 178.

observed, power may seem to be a complex idea of relation, for, like substance, it is related to all actions and events.<sup>53</sup> Indeed, they are inseparable, for a causal relation involves not just the temporary location of things, but potencies in the things themselves. Their indispensability to experience, and the fact that we do not perceive them but suppose them, gives them a categorial quality, anticipatory of Kant.<sup>54</sup>

The distinction between active and passive power raised another question for Locke, how these two sorts of power should be distributed among different kinds of substance. In the earliest version of his chapter on power, in Draft C, Locke imagined the distribution in terms of an almost perfect antithesis, that active power was inherent 'soely in God, not at all in creatures', whilst passive power was inherent 'soely in creatures, not at all in God'. 'For I thinke it is a cleare truth that God alone has power to change all other things but is not capeable of any change in himself And that all the creatures are capeable of change but have not in themselves an active power to produce it.' The apparent truth of this assertion must have become overshadowed for Locke, for these lines were marked for deletion, and in its place, he inserted a less sure substitute, '... whether matter be not wholly destitute of active power as its Author is wholly above all passive power & whether the intermediate state of created spirits be not that alone which is capable of both active & passive power may be worth consideration'. With slight variations this is what appears in the first and all subsequent editions of the *Essay*.<sup>55</sup>

However, Locke lets the question drop, for it is not the matter at hand, which is not 'to search into the original of Power', that is, an enquiry into the physics of power, 'but how we come by the *Idea* of it'. Nevertheless, the question is revealing. God and matter represent the two poles, the height and depth of the chain of being. And this introduces another way of looking at power, which is theological and not merely natural. Whereas in the case of the sun blanching wax, active and passive power are merely complements, here they are tokens of value that represent ontological extremes; active power is noble, its passive counterpart is base.

Locke's question whether matter is wholly destitute of active power is reminiscent of his comment about thinking matter.<sup>56</sup> It may seem, like the other, a nod in the direction of materialism, a concession to the natural philosophical project of enquiring into the causes of things. And this may have been Locke's intent at the outset, at least as far as §1. Yet as he proceeds, he seems to have acquired an additional purpose, which is more suitable to the domain of practics than to semiotics. He seems rather intent on crafting

<sup>53</sup> *Essay*, II.xxi.1, 3 (233–4).

<sup>54</sup> *Critique of Pure Reason*, B106; it is noteworthy that Kant regards substance and power as categories of relation, substance as that in which qualities or accidents are supposed to inhere, and power as including cause and effect.

<sup>55</sup> Draft C, Cap. 25, quoted from a transcript by John Milton, which he made available to the author; compare with *Essay*, II.xxi.2 (234).

<sup>56</sup> *Essay*, IV.iii.6 (540–1); the familial relation of this with Locke's thoughts about matter thinking should be noted.

concepts of human agency and its moral employment than explaining how we come by them. What might have caused this change?

To begin with, it was facilitated by the difference in value attributed to active and passive power. In this light, we may understand Locke's parenthetical remark that active power 'is the more proper significance of the word *Power*', which is to say, it has more truth, represents more reality, which is why we may suppose that it resides properly and perfectly in God, who accomplishes all things with magisterial spontaneity. The same motive led Locke to declare parity between our knowledge of body and of spirit. In the nature of things, we may expect the idea of active power to be more clearly manifest in finite spirits than in bodies, and since our minds are the only spirits we have any direct acquaintance with, we may perceive it only in ourselves. Bodies give us 'but a very obscure *Idea of Power*, which reaches not the Production of the Action, but the Continuation of the Passion'. On the other hand, it is supposed that mere bodies manifest none of the essential properties of active power, although they may provide us with imperfect intimations of them, as perhaps active, speaking human bodies, but other animal bodies also, for Locke supposed that they think, although he denied them higher rational capabilities of abstraction and speech. On the other hand, Locke seems to want to leave open the possibility that mere mortal bodies may after all have superadded to them the power to think and speak, and that mechanism may after all be reconciled and made consistent with morality.<sup>57</sup>

All this is intended to draw the reader's attention away from bodies, and toward the operations of mind. But once Locke has brought us to this destination, he narrows the focus even more. His attention and ours, if we follow him, turn away from active power in general, and focus upon moral agency, a theme, which for him at any rate, is the chief business of finite spirits like us who hope for a higher state of existence.

I have suggested above that in his chapter on power Locke was bedeviled by the conceptual and theoretical proximity between Hobbes and himself and was anxious to distance himself. It is not implausible that he was motivated in a similar way when preparing *Two Treatises*, although to propose this would require taking on a tradition of interpretation that is well established in several ways, not the least, by a body of outstanding scholarship.<sup>58</sup> In any case, this not my present concern, which is limited to a

<sup>57</sup> See *Essay* I.iii.14 (76–7); here Locke offers as one among many proofs against innate practical principles the fact that 'a great part of Men are so far from finding any such innate Moral Principles in themselves, that by denying freedom to Mankind; and thereby making Men no other than bare Machins, they take away not only innate, but all Moral Rules whatsoever, and leave not a possibility to believe any such, to those who cannot conceive, how any thing can be capable of a Law: And upon that ground, they must necessarily reject all Principles of Vertue, who cannot put *Morality and Mechanism together*; which are not very easy to be reconciled, or made consistent.' I agree with Antonia LoLordo that Locke leaves open his metaphysical options, yet unlike her perhaps, I see this as evidence not of a cool neutrality, but of a divided mind and profound uncertainty; see LoLordo, *Locke's Moral Man*, 25.

<sup>58</sup> See John Dunn, *The Political Thought of John Locke* (Cambridge: Cambridge University Press, 1969), 77–83; Dunn, while accepting the judgment of Peter Laslett, that Locke was not engaged with Hobbes when writing the *Two Treatises*, does find him so engaged in a long train of writings, much of it unpublished, to be found in the Lovelace collection. He finds a public locus of it also, 'not in the cramped little

single chapter in the *Essay*, which, however, I believe stands surrogate for the whole work, and much else that Locke wrote. Here there is textual evidence to justify if not entirely my claim, at least to make credible the wisdom of pursuing it. It is an interesting fact that the only work by Hobbes that Locke cites in his writings is *The Questions concerning Liberty, Necessity, and Chance*. Locke cites it three times in his interleaved English Bible. The citations were doubtless made on one occasion. The notes are brief, and they refer to the same place, a short section in Hobbes's book treating places in the Bible that support free agency. From the style of reference of the biblical text and works cited, it is likely that Locke entered these notes some time before 1675.<sup>59</sup> Hobbes published the *Questions* in 1656. This was the year that Locke graduated B.A. and proceeded to his M.A., whilst a student at Christ Church, Oxford.<sup>60</sup> There is no evidence that would allow fixing a time during the two decades, when Locke took these notes. It does show that Locke was acquainted with Hobbes's book and with the controversy in which he was engaged. The evidence that Locke read more widely in it, and that he took mental note of its concepts and arguments, comes from elsewhere, namely, from the *Essay*, specifically from the chapter on power. Indeed, reading Hobbes is a convenient way to bring clarity to the confusions of this chapter in Locke, for a comparison of the two works makes it appear as if Locke appropriated Hobbes's terms and definitions and, for the most part, his compatibilist point of view. In the light of this, the fine spinning would seem to be the consequence of Locke's effort to put distance between himself and Hobbes.<sup>61</sup> It seems almost as if Locke dismembered the mechanism of Hobbes's finely crafted theory of human agency, intending to create something better and truer, but when trying to put the pieces back together, botched the job and created a monster. At the very least, it is evident that Locke here and elsewhere addressed the same issues as Hobbes, employed the same terms and definitions, and in that respect traveled the same course, although less nimbly.<sup>62</sup> It is not surprising, although also ironic, that a

anonymous octavo of the *Two Treatises*, but in the fine broad folio columns, sent proudly into the world under his own name and bearing his rank, of the *Essay concerning Human Understanding*. But because there too he accepted the challenge with such gingerly misgivings and brought it . . . to such an inconsequential and broken-backed conclusion, and because the sketches of the projected ethic were so persistently abortive, the final riposte came by necessity elsewhere. In the pages of the *Reasonableness of Christianity . . .*' The above could be used as an epigraph for the next chapter. It states with enviable eloquence and insight one of the major themes of my book.

<sup>59</sup> *Biblia sacra anglice*. Bently, Bod. Locke 16.25, LL, item 309. Locke interleaved the octavo text of the Authorized Version of the Bible with folio sheets.

<sup>60</sup> Woolhouse, *Locke*, 20.

<sup>61</sup> Hobbes's *Questions* was intended as a refutation of Bramhall, and, as was the practice in polemical writing of the period, he quotes him at great length. Vere Chappell's *Hobbes and Bramhall on Liberty and Necessity* (Cambridge: Cambridge University Press, 1999) is convenient sourcebook on the controversy. It provides not only selections from the published texts, but a reconstruction of Bramhall's original discourse, which was never published.

<sup>62</sup> Some thoughts of the third Earl of Shaftesbury are pertinent. Writing to a friend, he expresses agreement that Locke does not compare well with Hobbes, 'whom I must confess a genius', in particular with respect to his treatment of the state of nature, and on liberty and necessity: 'You will be satisfied more in particular when you happen to read again what this latter gentlemen [Hobbes] has written on the subject of *liberty and necessity*, and have compared it with Mr. Locke, as well as Mr. Locke with himself, I mean the

safe way of finding one's way through Locke's difficult chapter on power is by reading Hobbes on the same theme, which seems to imply not only an affinity but a dependence of the former on the latter. In any case, my main concerns here are first, to provide an accurate account of Locke's theory of human agency, and to note those places where Locke appears to take issue with Hobbes.

As a prelude to what follows, there is a striking instance of the affinity between Hobbes and Locke that is worth keeping in mind. It involves not only shared definitions but also an empirical method of discovering them by the mind reflecting on its own operations. Toward the end of *Questions*, Hobbes lists a set of key terms whose definitions he has just given, among them, spontaneity, deliberation, will, free agency, and liberty. He then considers proof.

There can be no other proof offered but every man's own experience, by reflecting on himself, and remembering what he useth to have in his mind, that is, what he himself meaneth, when he saith, an action is spontaneous, a man deliberates, such is his will, that agent or that action is free. Now he that so reflecteth on himself, cannot but be satisfied, that *deliberation* is the considering of the good and evil sequels of the action to come [of a future action]; that by *spontaneity* is meant inconsiderate proceeding [acting without proximate prior deliberation]... that *will* is the last act of our deliberation; that a *free agent*, is he that can do if he will and forbear if he will; and that *liberty* is the absence of external impediments. But to those that out of custom speak not what they conceive, but what they hear, and are not able or will not take the pains to consider what they think, when they hear such words, no argument can be sufficient; because experience and matter of fact is not verified by other men's arguments, but by every man's own sense and memory.<sup>63</sup>

Before proceeding, it is important to be mindful of the distinction between Hobbes's notion of free agency and liberty. Free agency is just the power to act or forbear as one chooses. Liberty is the freedom from impediments. It is a necessary condition of free agency, for agents are not free, if they are unable to do as they will; in short, liberty presupposes the capacity to act voluntarily.

Locke begins his enquiry into active power with evidence that the power of free agency exists. He discovers in himself a godlike power to initiate actions 'barely by a thought or preference of the mind ordering, or as it were commanding'. In this bold beginning, Locke appears to be on the side of Bramhall, who argued against Hobbes that the will is not determined by prior causes, hence, not necessitated, that willing is a self-originating event.<sup>64</sup>

This at least I think evident, That we find in our selves a *Power* to begin or forbear, continue or end several actions of our minds, and motions of our Bodies, barely by a thought or preference

several editions one with another.' He nevertheless commends Locke for persisting in his pursuit of the truth of the matter, as a philosopher should. Shaftesbury to General Stanhope, November 7, 1709, *The Life, Unpublished Letters, and Philosophical Regimen of Anthony Earl of Shaftesbury*, Benjamin Rand, ed. (London, 1900; facsimile reprint, Bristol: Thoemmes Press, 1995), 414–15.

<sup>63</sup> *Questions*, 389–90.

<sup>64</sup> *Questions*, 39–40.

of the mind ordering, or as it were commanding the doing or not doing such or such a particular action. This *Power* which the mind has, thus to order the consideration of any *Idea*, or the forbearing to consider it; or to prefer the motion of any part of the body to its rest, and *vice versâ* in any particular instance is that which we call the *Will*.<sup>65</sup>

This is how Locke puts it in editions two through five of the *Essay*. Draft C and the first edition have a different account:

This at least I think evident, That we find in our selves a Power to begin or forbear, continue or end several, Thoughts of our Minds, or Motions of our Bodies, barely by the choice or preference of our Minds. This Power the mind has to prefer the Consideration of any *Idea*, to the not considering it; or to prefer the Motion of any part of the body, to its Rest, is that, I think, we call the *Will*...<sup>66</sup>

In both versions, notwithstanding their significant differences, Locke's use of the adverb 'barely' to describe the action of the mind preferring or ordering, whose sense can be interpreted as 'merely' or 'simply', or by itself, or more precisely and stronger, 'unconditionally'. In either case, he means an original action.<sup>67</sup>

With respect to the revisions, Perhaps Locke found his earlier description of this power too much like a power observable in animals, or too much like Hobbes's description of willing as the last desire in a chain of desires and aversions that constitute deliberation.<sup>68</sup> 'Ordering', 'commanding', and 'directing'<sup>69</sup> make a significant difference; they involve reason.<sup>70</sup> But they have another purpose as well. Since Locke adhered to a rule-governed theory of morality, it was incumbent upon him to find evidence that every human being, who, like other animals, is a creature of desire, is not only capable of lawlike behavior, but of initiating an action in accordance with a rule.<sup>71</sup> Thus, we may characterize Locke's account of human agency as forensic, corresponding to his notion of a person, and differing from what he regarded as a merely mechanical or organic one. In the same vein, a voluntary action is one that 'is consequent to such order or command of the mind'; and any action that occurs 'without such a thought of the mind'

<sup>65</sup> *Essay*, II.xxi.5 (236).

<sup>66</sup> *Essay*, II.xix.5; Draft C is the same, except that it opens more assertively: 'This I think is evident...'.  
<sup>67</sup> *OED*, 'barely', 3, 4.

<sup>68</sup> *Questions*, 95, 344–5; *Leviathan*, I.vi: 'In Deliberation, the last Appetite, or Aversion, immediately adhaering to the action, or to the omission thereof, is that we call the Will; the Act, (not the faculty,) of *Willing*. And Beasts that have *Deliberation*, must necessarily also have *Will*.' See also *Elements of Law*, II.xii.1.

<sup>69</sup> *Essay*, II.xxi.8, (237, line 27, and textual note); also II.xxi.15 (240, line 29–241, line 2); also noteworthy is the complete revision of §28 in the second edition. In the first edition, Locke defined volition as 'the preferring doing any thing to the not doing of it', and defined 'preferring' as 'being pleased with one, than the other'; this is replaced by the following: volition 'is an act of the Mind directing its thought to the production of any Action, and thereby exerting its power to produce it'.

<sup>70</sup> The notion of self-command derives from Stoicism, although it has roots in Aristotle. Locke may have learned it from Seneca, who supposed it to be an imperium of the soul, upon which the well-being not only of the individual but of civil society depended; see Christopher Star, *The Empire of the Self* (Baltimore: Johns Hopkins University Press, 2012), 23–61; it is an important ingredient in Locke's notion of the forensic self, for which see below.

<sup>71</sup> See Matthew Stuart, *Locke's Metaphysics* (Oxford: Clarendon Press, 2012), 394–9, and passim.



is involuntary, which implies either that all animal behavior is involuntary, which Locke did not believe, or that they don't deliberate and choose, which runs counter to his belief that humans are, among corporeal things, exceptional, in particular with respect to their powers of understanding and will, and in the possibility of transcending their natural state. For this use of terms like commanding, ordering, and so forth, is reminiscent of the divine fiat, whereby the Bible portrays God creating the world and delivering the law.<sup>72</sup> The moral individual is, in this respect a mortal god, or a little Messiah, for every human being is supposed to be like its first ancestors, 'sent into the World by his order and about his business', which is to establish the divine law, to which as reasonable beings they have special access.<sup>73</sup>

This idea of moral acts originating 'barely' by the will of a moral individual commanding itself to act or forbear seems to anticipate modern moral autonomy.<sup>74</sup> But while it may be true that Locke's ideas prepared the way for this moral idea, it would be wrong to suppose that he anticipated the idea of moral autonomy or was intentionally heading toward it. For, to his mind, giving orders to oneself is the same act as obeying a superior absolute being, a god, who promulgated the law and its sanctions—in this respect also, Hobbes and Locke appear to be much alike, but also significantly different to warrant regarding Hobbes as a forerunner of moral autonomy.<sup>75</sup> In the next chapter, we shall see that even Jesus Christ did not act autonomously, but was obedient to a superior will, which gained him a kingdom. Locke's forensic theory of morality promotes dutifulness not autonomy. More will follow on this by the by.

<sup>72</sup> Gen. 1; Deut. 5:7–21.

<sup>73</sup> Locke, *The Second Treatise of Government*, ch. 2, § 6, Laslett, 271; compare with Hobbes, *Leviathan*, Introduction, §1, who in this place claims the similitude of the divine fiat at creation with the creation of the civil state.

<sup>74</sup> See Michael Ayers, *Locke*, ii, 188–9.

<sup>75</sup> Here, I am merely drawing out the implications of a remark by John Dunn that the moral-philosophical task that Hobbes undertook was to explain how to construct 'a political society from a moral vacuum' (*The Political Thought of John Locke*, 79). Before starting out, it is necessary to define what moral autonomy is. It is the capacity of self-rule or self-government; it is an executive power that, barely by a thought or self-command, produces action. It is also a rational capacity to will and act as any other rational person would do in the same circumstances. Accordingly the rules by which an autonomous being acts qualify as universal laws of nature and therefore fit for social organization. They are practical rules fashioned by reflecting on the condition that individuals gathered in societies are in. It is just this sort of reasoning that one finds in Hobbes's major political works, which lead from a state of nature to founding of civil society. Finally, moral autonomy includes a capacity in a free agent, a person, to obligate itself to act according to the dictates of reason within oneself. The rational pathway that Hobbes lays out is paved with laws of nature that reason discovers and finds pertinent to the human condition, chief among them the necessity of an original covenant to relinquish one's right in a state of nature to all things, which is a moral vacuum, in return for others doing the same, and the obligation to keep one's covenants, which although self-imposed cannot be broken once made. It is true that Hobbes goes on to represent this law as a divine law, but having made the case for an original contract by relying on natural reason alone, its validity is independent of the being of God. In contrast to Hobbes, Locke sidestepped this philosophical task in the *Second Treatise* merely by stipulating that in a state of nature every man is a bearer of the law of nature, which, although equated with reason, is restricted by theological claims and conditions that transcend reason (§6). This, I believe, is the moral stance expressed or aimed at in all his writings. Finally, for Hobbes, God is the honorary author and enforcer of the law of nature; for Locke, God is the real legislator and enforcer of it.

Things go awry when Locke comes to consider his prize notion of liberty, or free agency. Unlike Hobbes, he makes no distinction between free agency, which, as has been noted, is the power to act or forbear according as one wills, and liberty, which is to act free of impediments. He begins well enough. There are two sorts of actions, thinking and moving; the one is mental, and the other corporeal: 'so far as a Man has a power to think, or not to think; to move, or not to move [i.e., to act or to forbear], according to the preference or direction of his own mind [i.e., whichever way he chooses], so far is a Man *Free*'. This is in perfect agreement with Hobbes's definition of free agency: 'That to be free is no more than to do if a man will, and if he will to forbear; and consequently that this freedom is the freedom of the man, and not of the will.'<sup>76</sup> Locke too insists that free agency or liberty is a power of the whole man, and that it is improper to speak of the will being free.<sup>77</sup> For both, I assume this emphasis on the whole man is to make clear that a human action is performed by an individual, whose power to act is a centered coordination of intentional, emotional, and physical capacities, and who acts freely by this means unless prevented by obstacles external to it.

Now, if one were to assume that Locke had read Hobbes's *Questions*, not to mention appropriate sections of *Leviathan*,<sup>78</sup> and recalled what he had read, when he was writing his chapter on power, his conflation of free agency and liberty and his ignoring of impediments to a willed action must seem puzzling. He certainly understood that external impediments can frustrate the will, for example, a prisoner in a cell is surrounded by walls that restrict his freedom of movement if he should will to move outside the walls.<sup>79</sup> Another striking instance of Locke's understanding of this point is his argument for religious toleration; because one's religion is grounded in belief, and because it is impossible to change one's belief merely by willing, it is irrational and hence wrong for a magistrate to require it.<sup>80</sup> Here also, the impediment is external. What prevents individuals from changing their belief at will is what they take to be the truth, which they regard as objective and real. In general, impediments to action are the sort of things that cannot be removed merely by willing them gone. To that extent, the whole man is not at liberty to do as he will, rather he is constrained by forces beyond his control, be it a compelling force, an insurmountable obstacle, a panic fear, an obsession, or just the way things are. However, liberty in the sense of

<sup>76</sup> *Questions*, 450.      <sup>77</sup> *Essay*, II.xxi.21 (244).

<sup>78</sup> *Leviathan*, I.vi. Among Hobbes's political works, Locke owned only *Leviathan* (LL 1465); it is unlikely that he read Hobbes's *Elements of Law*, which was not published as a single work until 1889 (see M. M. Goldsmith's introduction to *The Elements of Law*, Ferdinand Tönnies, ed., vi); I.xii provides the most convenient summary of Hobbes's thoughts on this theme, and so is worth consulting.

<sup>79</sup> *Essay*, II.xxi.10 (238).

<sup>80</sup> *Toleration*, 68. The argument is a narrow one, applying only to the use of coercion to achieve religious uniformity. It does not apply to cases where toleration is denied to others whose beliefs concerning religion cause them to become outlaws, which is what Locke supposed was the case with atheists, or involved allegiance to a foreign power; see Susan Mendus, 'Locke: Toleration, Morality, and Rationality', *John Locke: A Letter on Toleration*, John Horton and Susan Mendus, eds. (London: Routledge, 1991), 149, and *passim*.

being free of such impediments is not a power like the will or the understanding. Why does Locke want to make it such?<sup>81</sup>

Locke offers another definition to clarify his position, but only adds confusion. ‘Where-ever any performance or forbearance are not *equally* in a Man’s power; where-ever doing or not doing, will not equally follow upon the preference of his mind directing it, there he is not *Free*, though perhaps the Action may be voluntary.’<sup>82</sup> Locke’s intent is to differentiate actions that are merely voluntary from those that are free. He differs from Hobbes, who takes free agency and voluntary action to be coextensive, and he seems to agree with Bramhall. An action is merely voluntary when it is in accordance with one’s choice; an action is both voluntary and free, if and only if at the moment of choosing to act or forbear, there are no impediments to prevent whichever alternative one may choose. But the power either to act or to forbear in this instance is not anything like a faculty except in the sense of what a human being is able to do natively or with training, for example, by nature humans cannot fly, but with training they may dive gracefully into the sea; nor does the latter capacity seem to be of any moral worth except in special circumstances, for example, when exercised to rescue a drowning child who has fallen into a raging river.

Finally, in another attempt to clarify,

*Volition*, ’tis plain, is an Act of the Mind knowingly exerting that Dominion it takes it self to have over any part of the Man, by imploying it in, or withholding it from any particular Action. And what is the *Will*, but the Faculty to do this? . . . *Liberty*, on the other side, is the power a Man has to do or forbear doing any particular Action, according as its doing or forbearance has the actual preference in the Mind, which is the same thing as to say, according as he himself *wills* it.<sup>83</sup>

The distinction that Locke makes here is between the freedom of volition, to choose or not or to forbear an action, which resembles free will, and the freedom to accomplish what one wills, which is the freedom to complete a willed action. He seems to want to divide free agency into two parts, into willing and acting, which would be all right, if there were any point in it. Its effect is to disembodify the will and reduce it to a mere faculty, and not a power of the whole man, so that he can superadd another faculty to it.

The examples Locke provides show another purpose. In one of them we are to imagine a man fast asleep deposited in a locked room where, upon awakening, he discovers a friend he longs (i.e., has a preference) to converse with; another, a man

<sup>81</sup> See the comments of William King (1650–1729), Archbishop of Dublin, conveyed to Locke by Molyneux; King criticizes Locke for multiplying powers in the light of his own complaint about this practice by others; in response to Locke’s claim that liberty is a power of agency distinct from the will, he remarks, ‘no Sir will is a power and freedom the modus of it’, by which he means that in some instances willing is necessitated by prior causes, and in others, it is original and self-originating. King also maintained that the will is sometimes free, in just those instances where it is indifferent to pleasure and pain; Molyneux to Locke, October 15, 1692, *Correspondence*, iv, 540.

<sup>82</sup> *Essay*, II.xxi.8 (237), italics mine.

<sup>83</sup> *Essay*, II.xxi.10 (238).

crossing a bridge that collapses under him, falls involuntarily, although he would prefer not to fall. In both instances there is volition, but no liberty.<sup>84</sup>

Locke's intentions may be clarified somewhat by considering possible sources of the distinction he was endeavoring to make. They may be discovered in the Calvinist tradition. The Westminster Confession of Faith, the definitive statement of English Presbyterianism, adopted by the Westminster Assembly in 1643 and first published in 1646, exemplifies the tradition in which Locke was nurtured and he was no doubt very familiar with it among other Calvinist works.<sup>85</sup> According to its teachings, God endowed Adam with free will, that is, with a 'natural liberty' to choose or forbear good or evil. Thus, Adam's Fall was a free act, inasmuch as he was bound by no necessity to obey or to disobey the divine commandment. In this respect, mere obligation does not count. As punishment for his disobedience, Adam and his progeny lost this freedom; more precisely, they lost the capacity to will anything good. They were left with a power to choose evil, to sin voluntarily, but not to forbear it.<sup>86</sup> Thus, in formulating this doctrine, Calvin and his theological heirs, drawing upon Augustine, taught that after the Fall, every man sins voluntarily and hence is culpable, but is not free not to sin or to forbear sinning.<sup>87</sup> The picture is not complete. Among Adam's progeny, there may be some who, like St. Paul, had become aware of this bondage of the will, who felt a longing to do good, but could not: 'For the good that I would, I do not, and the evil that I would not, that I do.'<sup>88</sup> Here is an instance of volition without liberty, which formally is the same as Locke's free falling man. It would seem, then, that although Locke, as we shall see, repudiated the Calvinist doctrine of the depravity of the will, there was available to him from the tradition, in which he had been brought up, a type of distinction, which he seems to have appropriated.

Thus far, up to this point, a missing ingredient in Locke's account of voluntary action and free agency is deliberation, which is the activity of weighing the consequences of acting or forbearing an action before willing it, although it has or should have been implied all along. A rational agent, when deliberating, considers things that it believes it is capable of doing, and weighs its options according to their good or ill consequences, or the pain or pleasure that choosing them might bring in its train; it considers potential impediments that might frustrate any choice of the will, or reasons why, even if one

<sup>84</sup> *Essay*, II.xxi.9, 10 (238).

<sup>85</sup> The copy in Locke's library (no. 140) is a 1688 edition, probably acquired by him after his return from exile, and so could not have been available to him when preparing the first version of this chapter. I am not suggesting that Locke consulted it when writing and revising *Essay* II.xxi, but that it and the Calvinist tradition generally, which it exemplified, were a source of ideas to him.

<sup>86</sup> *The Westminster Confession* (Glasgow: Free Presbyterian Publications, 1994), chs. 6, 9, especially ch. 9.4, 'From this original corruption, we are utterly indisposed, disabled, and made opposite to all good, and wholly inclined to all evil.'

<sup>87</sup> For an illuminating discussion of Calvin's notion of free will, see Paul Helm, *John Calvin's Ideas* (Oxford: Oxford University Press, 2004), 156–83.

<sup>88</sup> Romans 8:19: it should be noted that, according to the Calvinist tradition at least, such remorse as St. Paul expresses is to be found only in the regenerate, persons who by divine decree are objects of divine favor.

seems more satisfying than another, the other should be chosen. Where there are no impediments, volition is unconstrained or pure; where there are impediments or ill consequences, it is impure.

When there are impediments, willing is choosing the better or least bad option. Hobbes, following Aristotle, gives the example of a man being led to prison, who nevertheless 'goeth upright voluntary, for fear of being trailed along the ground,' for the prisoner would not have chosen to walk to prison except that he would be forcefully brought there. The impediment to forbearing is defeat and extreme physical discomfort. A second example, also borrowed from Aristotle, is that of a seaman's decision to throw his ship's cargo overboard to save himself. Imminent shipwreck and death are impediments to forbearing.<sup>89</sup>

It should have been evident to Locke even from some of his own examples that liberty is a matter of circumstance and not a distinct power. In §27 he imagines a man standing on a cliff who is at liberty to leap or not to leap among other options, for example, to stand and admire the view or to continue walking, or a prisoner standing at the north wall of his cell is free to walk or not to walk southward, as he might choose.<sup>90</sup> The circumstances provide the setting for deliberation and choice. These, along with the capacity to move one's body, are the essential aspects of agency and it is with them that the power lies. I have said enough about Locke's curious effort to prove that freedom is an active power distinct from willing and deliberating.

In the long second section of the chapter, beginning with §28 and proceeding to the end, Locke explores how the will is motivated to act and the role of deliberation in this process. In the course of this discussion he develops another notion of liberty. Philosophically, there is nothing original in this long rambling discussion. Through all of it, there seems to be an underlying purpose, to have this empirical or experimental enquiry into the motivation of the will do service to a remote supernatural hope, to magnify the desire for heaven by drawing it near, so that its real and compelling force might have its effect.

Locke begins this experimental enquiry by asking two questions. What determines the will? To which he answers, the mind, or, what he seems to think is same thing, 'the Agent it self Exercising the power it has,' which is vague and seems to mean the power to will or choose rather than the power to complete an action. Secondly he asks what determines the mind, or the agent exercising its will power? In the first edition, Locke's answer to this question is that it is happiness, or the highest good. Locke soon became dissatisfied with this answer; in the second and subsequent editions, his answer is 'some uneasiness,' which he equates with the desire to possess some absent good that may or may not be attainable. In general, desire is a mode of anxiety, for the good we

<sup>89</sup> *Elements of Law*, I.xii.3; Hobbes regarded the example of throwing over board cargo as an instance of a pure voluntary action, inasmuch, perhaps, because a ship's captain would have had the option to forbear it in the hope that he might still steer his ship safely through the storm; Aristotle, *Nicomachean Ethics*, III.1–3 (1109b30–1111b3).

<sup>90</sup> *Essay*, II.xxi.27 (247–8).

desire may, for all we know, be unattainable by us.<sup>91</sup> The situation that Locke is addressing is this: we humans are creatures of desire, and we tend to live our lives by choosing that object whose wanting makes us feel at the moment the greatest discontent, or perhaps, although Locke does not consider this, beginning from a general discontent, we reach for something that promises satisfaction. We may know that we have a higher destiny, whose grand features may be familiar to us, but unless the absence of this great good becomes a cause of intolerable unease, a grand and compelling desire, we are not likely to pursue it, preferring the settled or routine business of life over the pursuit of so grand a destiny. How then can this natural or habitual condition of mankind be corrected? Locke's answer is by prudent deliberation. And here we become aware of another variation of the idea of liberty, which is in fact a reversal of his earlier denial that the will is free. It is a power in the agent to suspend all of its present and pressing desires in favor of a 'remote good', a supreme happiness, which thought and imagination brings to the fore and carefully weighs its merits.

But yet there is a case wherein a Man is at liberty in respect of *willing*, and that is the chusing of a remote Good as an end to be pursued. Here a Man may suspend the act of his choice from being determined for or against the thing proposed, till he has examined, whether it be really of a nature in it self and consequences to make him happy, or no. For when he has at once chosen it, and thereby it has become a part of his Happiness, it raises desire, and that proportionably gives him *uneasiness*, which determines his *will*, and set him at work in pursuit of his choice on all occasions that offer.<sup>92</sup>

In this lies the liberty Man has; and from the not using of it right comes all that variety of mistakes, errors, and faults which we run into, in the conduct of our lives, and our endeavors after happiness; whilst we precipitate the determination of our wills, and engage too soon before due *Examination*.<sup>93</sup>

Here, Locke's point is that deliberation and choice not only proceed from desires but also produce them. However, the use he made of this discovery is not thoroughly Baconian, which would require a survey of the several situations in which humans live, especially social ones, and the different desires they produce, and from this natural history of desires and the varieties of good that bring them satisfaction he might have derived a system of laws of nature prescribing social duties and obligations. This virtuoso enquiry is short-circuited by a declaration that the promises of the Christian gospel are the greatest absent good. Bacon's rule has been thwarted.

Change but a Man's view of these things [i.e. earthly desires and enjoyments]; let him see, that Virtue and Religion are necessary to his Happiness; let him look into the future State of Bliss and Misery, and see there God the righteous Judge, ready to *render to every Man according to his Deeds; To them who by patient continuance in well-doing, seek for Glory, and Honour, and Immortality, Eternal Life; but unto every Soul that doth Evil, Indignation and Wrath, Tribulation and Anguish* [Rom. 2:6–9]. To him, I say who hath a prospect of the different State of perfect

<sup>91</sup> *Essay*, II.xxi.29, 30, 35 (249–50, 252–3).

<sup>92</sup> *Essay*, II.xxi.56 (270).

<sup>93</sup> *Essay*, II.xxi.47 (263–4).

Happiness or Misery, that attends all Men after this Life, depending on their Behaviour here, the measure of Good and Evil, that govern his choice, are mightily changed. For since nothing of Pleasure and Pain in this Life, can bear any proportion to endless Happiness, or exquisite Misery of an immortal Soul hereafter, actions in his Power will have their preference, not according to the transient Pleasure, or Pain that accompanies, or follows them here; but as they serve to secure that perfect durable Happiness hereafter.<sup>94</sup>

Thus, according to Locke, whoever will compare the irresistible pleasures of heaven and the terrible prospects of hell with the transient pleasures and pains of this life that he took to be mere distractions, will summon up a desire for the heavenly good and gladly submit to the rule of this passion. This may seem as a sort of enchantment. Locke, however, imagined it to be the consummation of reasonableness, the reasonableness of Christianity.<sup>95</sup>

The liberty to suspend passion, which Locke has relied upon in the revised sections of the chapter on power, is a central theme of *The Conduct of the Understanding*. In this work, which excels in virtuosity and impartiality, Locke regards the liberty of the mind as a power to 'dispose' of one's ideas, that is, to regulate, direct, or manage its thoughts, to think without distraction. For ideas, he observes, can become like sacred images or idols; they evoke disabling passions and enchant the mind. Here Locke's concern is with the general business of the mind, with active and responsible intelligence, which 'should always be free and ready to turn itself to the variety of objects that occur, and allow them as much consideration as shall for that time be thought fit'.<sup>96</sup>

*The forensic self*: Locke introduces this important moral concept toward the end of *Essay* II.xxvii, which was a new chapter added to the second edition, published in 1694.<sup>97</sup> My purpose here is not to offer an extended philosophical interpretation of Locke's ideas of personal identity and the forensic self, but merely to identify an underlying theological motive that connects these two ideas and explains their conjunction in Locke's thinking.

The title of the chapter is 'Of Identity and Diversity', and in keeping with the overall theme of Book II of the *Essay*, one might expect its first task would be to explain how the ideas of same and different originate in the mind. Locke does not do this. From the outset, it becomes clear that he is not concerned about the origin of these ideas, but about how we judge that a particular thing is the same as itself and not another. The meanings of 'same' and 'different' are presupposed, although the entire chapter is supposed to explain how we acquire these ideas empirically.

However, it may be said that Locke provides an account of their origin in a later part of the *Essay*. In *Essay* IV.i, he defines knowledge as the perception of the agreement or disagreement of our ideas, and, elaborating on this, declares that the perception, or

<sup>94</sup> *Essay*, II.xxi.60 (273–4).

<sup>95</sup> *Essay*, II.xxi.70 (281).

<sup>96</sup> *Conduct*, §§1, 43 (3, 130–1).

<sup>97</sup> Locke must have written it concurrently with revising and enlarging II.xxi; both were complete by midsummer 1693. In July, he sent Molyneux an outline of the latter, following a month later with a draft of the chapter on identity and diversity; Locke to William Molyneux, July 15, 1693 and August 23, 1693, *Correspondence*, iv, 700, 722.

perhaps judgment, of the identity or difference of any of its ideas is 'the first Act of the Mind' where by perceiving them it knows that each idea is what it is and not the other, is identical to or the same as itself.<sup>98</sup> Whether the mind discovers or invents the ideas of same and different in this original and oft-repeated act of the mind, Locke does not say, although to maintain an empirical stance he would have to choose the latter.

In this instance, although his concern is with the comparison of particular substances over time, and not with the immediate perception of simple or abstract ideas, the ideas of same and different would be the same, although the circumstances of applying them would be different and far from unproblematic.<sup>99</sup>

ANOTHER occasion, the mind often takes of comparing, is the very Being of things, when considering any thing as existing at any determin'd time and place, we compare it with it self existing at another time, and thereon form the *Ideas of Identity and Diversity*. When we see any thing to be in any place in any instant of time, we are sure, (be it what it will) that it is that very thing, and not another, which at that same time exists in another place, how like and undistinguishable soever it may be in all other respects: And in this consists *Identity*, when the *Ideas* it is attributed to vary not at all from what they were that moment, wherein we consider their former existence, and to which we compare the present.<sup>100</sup>

The assurance that a thing is the same as itself is sustained by a self-evident maxim: that no two things of the same kind can exist at the same time in the same place.<sup>101</sup> This is supposed to apply to all particular beings, God excepted.

What follows is a tour of Locke's universe, where he invites his readers to observe with him the sorts of things there are and the circumstances of their existence. They are asked to observe the sum of them in descending order, from God who is without temporal beginning or end and is everywhere, and hence, always the same, to minute particles of matter, each by itself one thing and not another and in that respect also always the same. Locke's purpose seems to be to entertain his readers in a natural philosophical survey of all the sorts of beings according to their physical qualities. Among all of the beings that he considers in his ontological catalog, the one that is most curious is the person, who is presumably an animal, of the human species, but whose identity over time is not determined by the same body, or the same life, or what Locke labels the same man, or by any physical substance whatever, whether it be a sort of thing or some underlying matter, all of which he regards as transferrable, but by consciousness of self, which is not a thing, but a state of awareness, whereby a person owns its past actions in

<sup>98</sup> *Essay*, IV.i.2, 4 (525–6).

<sup>99</sup> Locke's failure to explain the origin of key metaphysical ideas, such as unity, existence, same, and different, was the focus of John Norris's critique of the *Essay*. See Norris, *Cursory Reflections upon a Book call'd, An Essay Concerning Human Understanding* (London, 1692).

<sup>100</sup> *Essay*, II.xxvii.1 (328).

<sup>101</sup> As Leibniz observed, Locke does not consider that things of the same kind differ in other ways as well, and that no two things, even of the same kind, are alike. For Leibniz this was a self-evident truth, and the basis of his metaphysics; for atomists or corpuscularists it was something empirically observed; Leibniz, *New Essays*, 229–30; Lucretius, *DRN*, 2.342–80.



much the same way or, on further reflection, on the very same grounds and for the same reasons that it supposes itself to be the agent of what it is presently doing.<sup>102</sup>

Nevertheless, Locke's definition of person as 'a thinking intelligent Being, that has reason and reflection, and can consider it self as it self, the same thinking thing in different times and places' seems to define a substance, a being of some sort, that wanting any other plausible sort of thing, like animal, man, to identify with, might be an immaterial soul capable of transmigration.<sup>103</sup> But this would be to miss Locke's point, which is to separate the responsible self from all other sorts of beings as one who might warrant the reward of resurrection to eternal life. It is not only a moral idea, but also a Christian one, which bring us to the idea of a forensic self.

*Person*, as I take it, is the name for this *self*. Where-ever a Man finds, what he calls *himself*, there I think another may say is the same *Person*. It is a Forensic Term appropriating Actions and their Merit; and so belongs only to intelligent Agents capable of a Law, and Happiness and Misery. This personality extends it *self* beyond present Existence to what is past, only by consciousness, whereby it becomes concerned and accountable, owns and imputes to it *self* past Actions, just upon the same ground, and for the same reason, that it does the present. All which is founded in a concern for Happiness the unavoidable concomitant of consciousness, that which is conscious of Pleasure and Pain, desiring, that that *self*, that is conscious, should be happy.<sup>104</sup>

Consciousness, then, is a present state of awareness, an anxious state of mind, desirous of its own happiness; capable of uncovering its own past, which may add or detract from its anxiety; it is a private state in which events in one's own existence can be made to pass in review and their merits weighed. A person is a real being, and hence a substance, but what sort of substance it may be that currently upholds its personality—a continuous living body, or a soul, or something else not imagined—doesn't matter. Locke is looking ahead to the end of the world, to being resurrected and finding himself to be John Locke whatever be the nature of the body that frames his self.

Person, forensically regarded, is not only a self-discerning being, but a being destined for a final judgment, when God calls an end to the world and a Great Assize is convened, where the secrets of all hearts shall be revealed, and when all persons will be judged according to their deeds, at least those that it can remember or made to remember. In anticipating this event, it may put one at ease to know that any substance will do to underpin this consciousness, so long as it is incorruptible, a resurrection body, whose timeless duration and happy circumstances depend upon divine favor, perhaps by

<sup>102</sup> Here I follow J. L. Mackie, *Problems from Locke*, 183; Mackie provides a useful review of some critical responses to Locke's account of personal identity and after considering them attempts to work through to a more acceptable theory of personal identity, which involves correlation with the continuity of a living body. His reasons in certain respects echo the arguments of Stillingfleet in favor of the resurrection of the same body and he adds philosophical substance to the latter's complaint against Locke. Also useful is Ruth Boeker, 'The Moral Dimension in Locke's Account of Persons and Personal Identity', *History of Philosophy Quarterly* 31/3 (July 2014), 229–47.

<sup>103</sup> *Essay*, II.xxvii.9 (335).

<sup>104</sup> *Essay*, II.xxvii.26 (346).

superadding to or supernaturally clothing material bodies with a quality of incorruption and a pleasantness that never ceases.<sup>105</sup>

The rule by which one's actions will be judged is the divine law. How this will be applied to an individual self, and what sort of events will bring all this to fruition, is a matter of divine revelation, which is the subject of the next chapter, where much that Locke left unresolved will now be resolved.

<sup>105</sup> 1 Cor. 15:53; see also Locke, *Paraphrase and Notes*, i, 255.

# 8

## The Theology of a Christian Virtuoso

Heaven being our great business and interest, the knowledge which may direct us thither is certainly so, too; so that this is without peradventure the study which ought to take up the first and chiefest place in our thoughts.<sup>1</sup>

But when empiricism itself, as frequently happens, becomes dogmatic in its attitude towards ideas, and confidently denies whatever lies beyond the sphere of its intuitive [sensitive] knowledge, it betrays the same lack of modesty [as the Platonist]; and this is all the more reprehensible owing to the irreparable injury which is thereby caused to the practical interests of reason.<sup>2</sup>

*Reason* is natural *Revelation* whereby the eternal Father of Light, and Fountain of all Knowledge communicates to Mankind that portion of Truth, which he has laid within the reach of their natural Faculties: *Revelation* is natural *Reason* enlarged by a new set of Discoveries communicated by GOD immediately, which *Reason* vouches the Truth of by the Testimony and Proofs it gives, that they come from GOD. So that he that takes away *Reason*, to make way for *Revelation*, puts out the Light of both, and does much what the same, as if he would perswade a Man to put out his Eyes the better to receive the remote Light of an invisible Star by a Telescope.<sup>3</sup>

Jesus Christ bringing by revelation from heaven the true Religion to mankind reunited... Religion and Morality as the inseparable parts of the worship of god, which ought never to have been separated, wherein for the obtaining the favour & forgiveness of the deity the chief part of what man could do consisted in a holy life, & little or no thing at all was left to outward ceremony.<sup>4</sup>

### Introduction

The long last decade of Locke's life could be called his theological decade.<sup>5</sup> During it, he produced two major theological works, *The Reasonableness of Christianity* and *A Paraphrase and Notes on the Epistles of St Paul*. They are worthy of being called major

<sup>1</sup> Of Study, Journal entry, March 26, 1677 (MS Locke, f.2, fol. 99); transcribed by James Axtell, *Educational Writings of John Locke*, 411.

<sup>2</sup> Immanuel Kant, *Critique of Pure Reason*, A471/B499, transl., Norman Kemp Smith (London: Macmillan, 1929), 427.

<sup>3</sup> *Essay*, IV.xix.4 (698).

<sup>4</sup> 'Sacredos', Bod. MS Film 77 (Microfilm of Locke's 'Adversaria' 1661), p. 93; transcription in *WR*, 17.

<sup>5</sup> The long decade, as I represent it here, began in January 1691, when Locke finally took up permanent residency at Oates, and ended with his death on October 28, 1704; see Roger Woolhouse, *Locke, a Biography*

works in a several respects. With respect to Locke's philosophical program, they are major because they bring it to completion, as I shall attempt to show in this chapter. Moreover, in spite of Locke's age and infirmities, they are remarkable by their industry, freshness, and originality, and by a robust virtuosity displayed in them throughout. I use the term 'virtuosity' in two ways: generally, to signify the elegant manner of their conception and execution, and, more narrowly as it applies to the theme of this book, the historical critical method diligently employed. The method is not just analogous to natural history; it is an application of that very Baconian method to the literary record of an episode of human history, which Locke believed to be its vital center. I consider these works major also in one more respect, although I shall not attempt to prove it here. Historically, they should count as major works of biblical theology, and their almost universal neglect by biblical scholars and theologians is puzzling.

It is true that, during his last decade, Locke also engaged in other important writing projects. He published the second, third, and fourth editions of the *Essay* and made preparations for a fifth. Two new editions of *Two Treatises of Government* also appeared, and, dissatisfied with them, he made provision for a final definitive edition.<sup>6</sup> In 1692 he published *Some Considerations of the Consequences of the Lowering of Interest, and Raising the Value of Money* and followed it in 1695 with *Further Considerations of Raising the Value of Money*.<sup>7</sup> *Some Thoughts on Education* appeared in 1693, followed by enlarged editions in 1695 and 1699. Locke was also engaged in literary combat on several fronts: with Jonas Proast on toleration, Edward Stillingfleet on the *Essay*, and John Edwards on *The Reasonableness of Christianity*, all of whom were aggrieved by what they considered the theological inadequacies of Locke's works. Thus, a major part of his literary labor had a theological import. But even the secular works, on politics, education, and monetary theory, included grateful acknowledgments of divine providence and stern moral admonitions founded upon divine law. The theological motive was detectable everywhere, as it was during Locke's earlier decades. Now it became focused in two major works, one of which was surrogate for a philosophical system of morality.

It may be recalled that Locke concluded the *Essay* with the declaration that morality is the major business of mankind. He equated morality with the dictates of reason, and reason with natural revelation, through which God discloses his will for mankind, and gives it expression in the law of nature. This is the very theme that unifies all of Locke's major works. It was to explain how this law operates in individuals that Locke added a new chapter to the essay on identity and diversity and in it developed his forensic concept of the person. His revisions of the chapter on power were the product of an effort to explain how human understanding can guide the will past more urgent and immediate enticements toward the most durable goal of eternal bliss. The chapter on

(Cambridge: Cambridge University Press, 2007), 298–9, 459; see also Mark Goldie, *John Locke and the Mashams at Oates* (Cambridge: Churchill College, 2004), 25–6.

<sup>6</sup> See Delphine Soulard, 'The Christ's Copy of John Locke's *Two Treatises of Government*', *The Historical Journal* 58/1 (2015), 25–49.

<sup>7</sup> *Locke on Money*, 2 vols., Patrick Kelly, ed. (Oxford: Clarendon Press, 1991).

enthusiasm was an affirmation of reasonableness as a link between natural knowledge and revelation. There he clarified the relation between reason and revelation, affirming that whilst ‘Reason must be our last Judge and Guide in everything’, and has the prerogative to judge the authenticity of revelations and to interpret them, according to concepts of experience, it happens, by this very activity of authenticating and interpreting revelation, that the scope of reason is enlarged.<sup>8</sup> The progression of thought in Locke’s corpus is from empirical reason to an expectation of the renewal of the mind that will be brought to fruition in another life, and it was this expectation that caused Locke to want to explore the mind of St. Paul. As Robert Boyle argued in *The Christian Virtuoso*, the practice of enlarging reason is common to natural philosophy and theology.<sup>9</sup>

This chapter will be devoted to an exposition of *The Reasonableness of Christianity* and *A Paraphrase and Notes on the Epistles of St Paul*. I have remarked that these works complete Locke’s philosophical program. They do so in different ways. Locke concluded the *Essay* by declaring that in the light of the human situation in the world and the capacities and limitations of human knowledge, morality is the proper business of mankind and that to be efficacious it must be joined to religion. The *Reasonableness* was intended to accomplish this. This turning toward religion, however, does not require the abandonment of natural reason, rather its enlargement through revelation, not by endowing it with transcendent capacities, but by showing the reasonableness of extending belief to matters beyond the capacity of reason and experience to discover. This is similar to the project of natural philosophy, which led Locke to skepticism and the conviction that morality, and not natural science, is the proper goal of rational individuals in this world.

## *The Reasonableness of Christianity*

### *The Origin of The Reasonableness of Christianity, and its principal themes*

In an open letter to Samuel Bold, printed in the preface to the *Second Vindication*, Locke provides a brief history of the origin of the *Reasonableness*. Bold (1652?–1737), a minister of the Church of England, had published a short defense of Locke’s book, which evoked a savage response from John Edwards.<sup>10</sup> Locke’s letter to Bold was a public expression of gratitude and respect, but he also took full polemical advantage of the situation. He portrayed his newfound defender as an antitype to John Edwards. Like himself, Bold is cast as a lover of truth rather than a promoter of his own opinions; nor is he a vain sectarian; his mind, like Locke’s, is ‘prepar’d for Truth, by its attentiveness not to the Traditions of Men, but to the Doctrine of the Gospel’, which Jesus and his Apostles preached to the world. Therefore, Bold is eminently disposed to understand

<sup>8</sup> *Essay*, IV.xix.14 (704); also IV.xviii.5 (691–2).

<sup>9</sup> See Chapter 2.

<sup>10</sup> *Vindications*, lii–liiii, 31, n. 1.

the meaning of Locke's book, whereas Edwards is not; he, rather, wanders in a labyrinth of theological systems and is moved only by a vain infatuation with his own opinions. In recognition of this, and out of respect for Bold's unsolicited defense, Locke offers to him, and to the world, a brief narrative of how the *Reasonableness* came to be, showing that it was not the product of mere fancy or pretense but of honest impartial enquiry.

Besides the rhetorical advantage he hoped to gain from it, Locke's purpose in offering this narrative is to situate the *Reasonableness* in its own context and thereby gain for it a fair and impartial reading. Appropriately, after his polemical beginning, his voice moderates as he enters upon his narrative. The warrior has removed his armor and, having entered the quiet of his study, he tells how it all began. It is a narrative of discovery and wonder. I believe that it is overall a true account. The intimacy and the detail suggest it. Noteworthy, in this respect, is his recognition of 'another Person,' a learned friend, with whom every day he shared some new discovery. Thus, it would appear that his narrative is not just a private recollection but also a shared reminiscence, for Locke composed it in her company. The person in question was Damaris Lady Masham, the mistress of the Oates, the country house that was Locke's primary residence from 1691 until his death.<sup>11</sup>

Locke tells us that he was prompted to undertake the work by a public dispute over the doctrine of justification 'that made so much noise and heat amongst some of the Dissenters' that he could not fail to notice it. He did not choose to enter the dispute, but sought to clarify his own opinions on the subject. The dissenters, whom he regarded with contempt, were extreme Calvinists, antinomians. They contended that the moral acts of individual persons in this life have no evidential value with respect to their election to salvation, and even less were they determinative of it, because justification was a free and unmerited act of divine grace, extended only to the elect, who were chosen without regard to foreknowledge of their moral deeds by a divine decree before the creation of the world.<sup>12</sup> Locke presents these radical dissenters and contemporary deists as opposite extremes to frame his own moderate doctrine, which he claimed was well founded in the Bible. Justification by faith, the imputation of righteousness to an individual by virtue of his faith, remained a central theme of his discourse, but it was reset in a significantly narrower and more precise context.

Locke began the enquiry that led to the *Reasonableness* with this question before him: 'What is [the content of] the faith that justifies?' To be justified is to be judged righteous by God after a life of moral endeavor, to be found worthy by one's deeds of receiving the promised reward of eternal bliss. To be justified by faith added an overriding condition. Even if one's deeds do not measure up to the strict standard of the divine law, sinners might be judged righteous if they had the proper faith. Locke turned to Scripture in search of clarification. He attended especially to the New Testament, in

<sup>11</sup> See Goldie, *John Locke and the Mashams at Oates*.

<sup>12</sup> See *Vindications*, 34, n. 1.

particular to the historical books, the four Gospels and the Acts of the Apostles, and he read them diligently until he discovered what he took to be the 'whole tenour' of their doctrine.<sup>13</sup> He focused upon the Gospels and Acts because they were historical works, containing narratives of the public preaching of the Gospel, that historical episode during which Christianity was founded. In these sermons Jesus and his disciples instructed their audiences in what they must believe in order to be saved. Locke surmised that these authentic accounts of the preaching of Jesus and his disciples must contain the most authoritative account of the faith that justifies. Nothing less than a comparative history of the gospel preaching was required, so that by comparing the manifold episodes of gospel preaching, one might discover whether there was a common doctrine, which, if there were, might be taken to be the gospel's own original orthodoxy. This was his method.

Locke recalled that from the beginning he was struck by the 'Reasonableness and Plainness' of the doctrine that Jesus and his disciples preached, which made or should have made its doctrine unmistakable to every reader, even the humblest. When he reached the end of his enquiries, he had advanced far beyond the mere doctrine of justification and the petty controversies surrounding it. He was confident that he had discovered 'Christianity' pure and simple: 'a plain, simple, reasonable thing', 'suited to all Conditions and Capacities', and its moral teaching, 'now with divine Authority established into a legible Law, so far surpassing all that Philosophy and humane Reason had attain'd to, or could possibly make effectual to all degrees of Mankind'.<sup>14</sup> He realized the satisfaction of a virtuoso who, through his historical researches, having laid bare his object of enquiry, was able to discern its essence. He imagined that he had discovered a moral truth suited for all sorts and conditions of men, surpassing in its cogency and efficacy all the discoveries of philosophy, but unlike it not prolix or abstruse, but plain and irresistibly persuasive.

Locke mentions two other discoveries in his narrative. First, as an elaboration of what was just noted, he discovered that the Messianic office includes that of a lawgiver, 'sent from God for the reforming of the Morality of the World'. The law that the Messiah is sent into the world to reveal is not meant only for Christians as a means to their salvation. It is a universal law, the law of nature, and the effect of its revelation and propagation is a general reform of morality, most especially by joining it to true religion. In the light of these discoveries, Locke's failure to produce a system of morality finds not only an explanation, but also a justification. It was not failure on his part that caused him to drop that project; rather it was the discovery of a divinely sanctioned and therefore far better way to accomplish this end.

<sup>13</sup> That he confined his study to the New Testament, except in a few instances, follows from his belief, shared by almost if not all Christian theologians of his day, that the teaching of the Hebrew Bible, the so-called Old Testament, merely foreshadows that of the New Testament and that the truth of the former receives clarification and confirmation only from the latter. Modern biblical scholarship has tended to erode this claim, although it has been perpetuated by the names Old and New Testament.

<sup>14</sup> *Vindications*, 36.

Finally, Locke discovered that the narrative of the revelation of the Christian gospel was self-authenticating; its truth was shown in the universal propagation of it, which he elsewhere described as a 'standing miracle', which demonstrates its 'over-ruling Power'.<sup>15</sup> This power was evident in 'the marvellous and divine Wisdom of our Saviour's Conduct, in all the Circumstances of his promulgating this Doctrine'. This sense of discovery and wonder is akin to the discovery by a natural philosopher of the wisdom of God in the creation of the world.

This sense of discovery and wonder is ever present in his account of what has become known as the Messianic secret, the Messiah's concealment of his true identity.<sup>16</sup> Locke's use of it, however, is peculiar to himself. Having read through all four Gospels, and compared them,<sup>17</sup> he was struck by how incomplete their respective narratives were. Events regarding the Messiah's actions mentioned by one Gospel writer go unmentioned by the others, or they are only partly told by the others, and never completely by any. Moreover, none of the Evangelists, in reporting these events of Jesus' ministry offer any interpretation of them; hence we may take their reporting as an honest reporting of real events, which now, with virtuoso care can be systematically reviewed and interpreted. The pay-off of all this is a discovery of the very intentions and motives of the Messiah, which prove his identity.

Since they [i.e., the Evangelists], every one of them, in some place or other, omit some Passages of our Saviour's Life, or Circumstances of his Actions; which show the Wisdom and Wariness of his Conduct; and which even those of the Evangelists, who have recorded, do barely and transiently mention, without laying any Stress on them, or making the least remark of what Consequence they are to give us <of> our Saviour's true Character and to prove the Truth of their History. These are Evidences of Truth and Sincerity, which result alone from the Nature of things, and cannot be produced by any Art of Contrivance.<sup>18</sup>

Locke's claim, that his account of Christianity was not to be found in current theological discourse, is obviously self-serving and overstated. Yet there is no doubt the *Reasonableness* is his own work, the product of original research, and that its results struck him as new and never before discovered, a common experience that scholars working alone or together in dedicated groups can attest to. Their wonder seeks expression in hyperbole. In any case, there is solid evidence that Locke did the research, and

<sup>15</sup> 'Discourse on Miracles', *WR*, 47–8.

<sup>16</sup> The classic work on this theme is Wilhelm Wrede, *Die Messiasgeheimnis in den Evangelien* (Göttingen, 1901), English transl. *The Messianic Secret* (Cambridge: James Clarke & Co., 1971); for Locke's discovery and use of it, see my 'Locke on St Paul, Messianic Secrecy, and the Consummation of Faith', *Christianity, Antiquity, and Enlightenment*, 103–26.

<sup>17</sup> *Christianity, Antiquity, and Enlightenment*, 115.

<sup>18</sup> *Vindications*, 35–6. Locke's argument for the historical authenticity of the central Gospel narrative can be generalized: if there have come down to us a set of more or less contemporary narratives of the career of a certain great personage, the fact that these several accounts do not exactly coincide, but report much the same events differently and unadorned, so that on the face of it they seem to be independent reports by eyewitnesses and thus uncontrived, then they may be taken as reliable historical records of their subject. I would think that historians, who still concern themselves with historical truth, would find this a useful practical rule.



that he was well prepared to do it.<sup>19</sup> But he had antecedents. In particular, many of his most distinctive pronouncements echo William Chillingworth (1602–44), with whose work, *The Religion of Protestants*, Locke was familiar and which he long admired.<sup>20</sup>

I agree with John Higgins-Biddle that although Locke had put aside all other books than the Bible when writing the *Reasonableness*, he ‘may not have avoided the deep influence of William Chillingworth.’<sup>21</sup> Chillingworth’s voice and stirring pronouncements were doubtless in Locke’s thoughts as he wrote and they may have affected his choice of words. In particular, Chillingworth’s assertion that ‘faith in Jesus Christ doth justify alone’; that his discovery of this truth occurred only after ‘a long and impartial search’ of ‘the true way of happiness’; that following Scripture alone, he was led to ‘embrace a religion of admirable simplicity.’<sup>22</sup> There are in addition, major themes in Chillingworth that reappear in Locke’s thinking. The latter’s idea of faith as assent to a proposition is one of them;<sup>23</sup> and most importantly, belief that the Bible, free of the trappings of tradition, is the only source of revealed truth and, and reason is its only reliable interpreter; and finally that the impartial interpreter of Scripture must read the Bible in its historical contexts, and most especially, when seeking the fundamentals of Christian faith, the Gospel history, for only this source provides a proper definition of Christianity. These are the building blocks of Locke’s theological scheme presented in the *Reasonableness*. However, in Chillingworth they are mere talking points. Locke has appropriated them, and applied them with ingenuity and virtuosity to develop a mature theology founded solely on Scripture carefully and impartially examined.<sup>24</sup>

These three themes: historical method, Jesus Christ as lawgiver, and restorer of universal morality, and the self-authentication of the Christian revelation, comprehend the whole content of *The Reasonableness of Christianity*, and by treating them in order, I shall try to clarify its meaning.

### *Christianity as history*

In the preface to the *Reasonableness*, Locke briefly outlines his method. Christian divinity aims at ‘the understanding of the Christian Religion’, which is achieved by ‘the sole Reading of Scripture’. By Christianity, Locke specifically means the Gospel or the

<sup>19</sup> Locke’s manuscript notes relating to the *Reasonableness* have been transcribed and printed by John Higgins-Biddle in the Clarendon edition, which he edited (181–219).

<sup>20</sup> *The Religion of Protestants a Safe Way to Salvation, Works*, 3 vols. (Oxford, 1838); citations of this work are by chapter and section followed by volume and page of this edition in parenthesis.

<sup>21</sup> For details, see Higgins-Biddle, lvii–lviii, and notes; see also *Second Vindication*, 110, where Locke likens his dispute with Edwards to the earlier one between Chillingworth and the Jesuit Edward Knott, also 54, n. 1, 131.

<sup>22</sup> *Religion of Protestants*, iv.5; vi.56, 68 (ii.5, 410, 415); but of course Hobbes said much the same thing.

<sup>23</sup> *Religion of Protestants*, vi.2 (ii.317).

<sup>24</sup> Chillingworth unfortunately died too soon. There is no doubt that he was an acute thinker. His reflections on the difference between knowledge and belief anticipate much of the modern discussion, for example his observation that ‘faith is not knowledge, no more than three is four, but eminently contained in it, so that he that knows, believes and something more’; *Religion of Protestants*, vi.1 (ii.317). Had he survived the civil wars and had leisure enough to spend on philosophical reflection he might have become a major figure in English thought rivaling Hobbes and Locke.

doctrine of salvation, a specification that he was led to make by biblical study, and the 'Sense and Tenour' of what he had read.

'Sense and Tenour', or 'tenour' by itself, are technical terms for Locke. They signify the meaning of the sorts of thing that exist for a purpose, things made; it is the core of makers' knowledge. Here, Locke applies it to the doctrine of Christianity generally; on the very next page, he uses it to signify the meaning of the New Testament, of the primary Scripture of Christianity. Locke gives an exposition of the concept of the tenor of a thing and the method of achieving it in his preface to *A Paraphrase and Notes*, which I will consider at length in the second part of this chapter. Here I offer a summary account. The meaning of a thing, of something that is not a product of chance but rather a thing made, is its author's intention. In the case of a literary work, we discover this by reading, assuming that a writer's purpose is to inform the mind of a reader. Locke supposed that since a meaning is a mental object, existing in the mind of the author while he writes, consisting of thoughts, which he endeavors to capture in writing,<sup>25</sup> then reading is a recovery of these same thoughts, by virtue of the words on the page, which have conventional meanings. Perfect authors, in this instance 'Apostles and Evangelists', who were inspired by the Holy Spirit, inscribed their meaning on a page, which then became a sacred text. But for a variety of reasons, which it would be too long to list, interpreting a text is not an easy task. Texts of great import, and in this respect Holy Scripture exceeds them all, must be read many times, as many times as it takes for a reader to attain an understanding of its meaning, which, as Locke represents it, comes as a sort of satisfaction, although Locke also supposed that, in the case of interpreting Scripture, readers could count on assistance from the Holy Spirit, working unseen and within the mind. Notwithstanding divine assistance, the task of reading a text requires historical and philological knowledge. A reader must know the language and the idiom of the text, its historical circumstances, and what occasioned it. The Holy Spirit operates only in, with, and under these rational methods and their vigorous employment.

The New Testament was composed to record for posterity the revelation of Jesus Christ, the historical founder of Christianity. Locke regarded it as

... a Collection of Writings designed by God for the Instruction of the illiterate bulk of Mankind in the way of Salvation; and therefore generally, and in necessary points to be understood in the plain direct meaning of the words and phrases, such as they may be supposed to have had in the mouths of the Speakers, who used them according to the Language of that Time and Country wherein they lived, without such learned, artificial, and forced senses of them, as are sought out, and put on them in most Systems of Divinity, according to the Notions, that each one has been bred up in.

The analogy of clearing away the rubbish can be applied here. Systems of divinity, purporting to serve as official interpretations of Scripture, are merely the opportunistic

<sup>25</sup> *Essay*, Epistle to the Reader (6–7).

weeds of an untended garden. They are historically and linguistically deficient and lack fidelity to Scripture. Locke's purpose was to recover the original meaning of Christianity through philology, by adhering to the language of the text itself in its historical context. Here he is following in the train of Bacon, Grotius, and Boyle. His own work equals theirs in caliber.

By the 'plain direct meaning' or the words and phrases of Evangelists and Apostles, Locke meant everyday speech, which is commonly used to narrate events in a sort of 'plain historical style.' The events that are narrated by the Evangelists are extraordinary ones, but the language used by them was the everyday speech of their time, which might be expected, for Locke regards them as not above the ordinary, if not slow-witted.<sup>26</sup> This historical plain style is well suited to convey the nature of the thing itself, as was the lack of sophistication of the narrators, to report what they had seen and heard. The thing itself is an accommodation; it involves mysteries that will not be explained, but plainly reported.

Anticipating the objection that he had reduced the faith that justifies to mere historical belief as opposed to a saving faith, Locke offers these two responses. He reminds his readers of the comprehensiveness of his method. He has shown 'through the whole History of the Evangelists and the *Acts*' that the 'sole Doctrine required to be believed in the whole tenour of our Saviour's and his Apostles Preaching' is that Jesus of Nazareth is the Messiah. Moreover, while it may be granted that devils believe, but are not saved by it, Locke responds that the gospel is 'an Act of Grace, shewn only to Mankind'; it 'was never offered to fallen Angels'; 'it availed not Devils'.

God dealt so favourably with the Posterity of *Adam*, that if they would believe *Jesus* to be the *Messiah*, the promised King and Saviour; And perform what other Conditions were required of them by the Covenant of Grace; God would Justifie them, because of this Belief. He would account this Faith to them for Righteousness, and look on it as making up the effects of their Obedience; Which being thus supplied by what was taken instead of it, they were looked on as Just or Righteous, and so inherited Eternal Life.

To make clear the meaning of this promise, Locke embarks on a narrative history of mankind from Adam's Fall to the advent of Christ. He considered this to be a history of real events, whose scope encompassed the fate of every member of the species, but of no others. The political and moral terms Locke employs, 'King and Saviour', 'Covenant', 'Obedience', are not metaphors, rather they signify the all-encompassing divine dominion, just as divine law is to be taken as something plainly and really meant, a strict rule, rigorously enforced. In this respect, Christianity is fitted with a political theology that fits a universal and everlasting domain.

To begin with, Adam and his progeny, which is all of mankind, were intended in his creation to be an immortal species.<sup>27</sup> Here Locke continues in the tradition of human

<sup>26</sup> *Reasonableness*, 156–7 (*WR*, 153).

<sup>27</sup> I follow, for the most part, Locke's summary narrative, *Reasonableness* 199–209 (*WR*, 169–73). There is no historical evidence to cause one to believe that Locke took this narrative to be a mythical tale, which

exceptionalism. Adam, unlike other living things, was an immediate Son of God, having no natural father—or mother for that matter.<sup>28</sup> He bore the image of his father, and, like him, he was an immortal.<sup>29</sup> He dwelt in a garden of delights that provided for all his needs such as they might have been, without requiring labor or care; it was a blissful state, a paradise.

All this changed on account of Adam's disobedience. His punishment was to be expelled from paradise, and to suffer the loss of eternal bliss. Although he still bore the image of God, it had become a mortal image of something immortal, and it was in this mortal image and likeness that all his progeny were produced.<sup>30</sup> And so it would have remained, had not God, 'out of his infinite Mercy', devised a way to restore mankind to immortality. He would send 'a Son again in the World', a second Adam, who would be the 'First-born of many Brethren.' To this end, Jesus of Nazareth 'was conceived in the Womb of a Virgin (that had not known Man) by the immediate Power of God'. He was, therefore, like Adam, properly a Son of God, but being not of Adam's progeny, or of his seed, he was born without corruption. Hence, he bore the complete image of God unsullied by sin.

This second Adam was an immortal, although only in this respect, that death had no lasting power over him, for in fact, he did suffer a painful death. The proof of his immortality and power over even death was in his resurrection. Moreover, he had gone to his death voluntarily and obediently, and for obedience and suffering he was 'rewarded with a Kingdom.'

Salvation involves entry into this kingdom, which is not temporal and worldly, but divine and everlasting. And one does so, in the ordinary way, by submitting to its

it obviously is. It was for him sacred history, but it was 'sacred' not because it represents a dimension of truth that can only be told in figures, but because our knowledge of it derives from revelation.

<sup>28</sup> *Reasonableness*, 200 (WR, 170); 'Son of God' is a title signifying not only the progenitor of the human species, but its archetype; because of Adam's fall into mortality, human immortality could be reestablished only through a Second Adam, or Son of God.

<sup>29</sup> The line of argument in the *Reasonableness* concerning Adam seems to contradict the one followed in *Two Treatises*. Or, at least, it would if Adam had not disobeyed God and lost immortality and bliss. If he had persevered in original righteousness, then there would have been no need of Christ, the second Adam, who became king by virtue of his obedience unto death, and, perhaps, there would have been no need of a king at all. The dominion of God would not have been disrupted, and all of Adam's progeny would have been obedient, following the dictates of reason and of God that they bore within themselves. In any case, Adam by his disobedience had forfeited his divine sonship and any rights he might have had along with it. Another difference between this account of Adam and the one given in the first *Treatise*, is that no mention is made of Eve. In his argument against Filmer, Locke had need of her. Filmer took the fifth commandment and other related places in Scripture as evidence of Adam's sovereignty; Locke rightly noted that it required a respect of parents equally, and in any case it pertained only to the temporary power that parents have over their children before they reach adulthood; see *Two Treatises*, I.61, II.170.

<sup>30</sup> Locke anticipated the objection that God might have acted unjustly by depriving Adam's progeny of immortality, thereby imposing on them a penalty for a sin in which they took no part. His response is that immortality is not a right, and therefore, to deprive anyone of it is no injustice; that even a mortal life is a gift that proves God's goodness, it is not 'a state of Misery worse than not being'. In any case, the only punishment that Adam's natural descendants will receive is what they deserve, at the last judgment; *Reasonableness*, 9–10 (WR, 93–4). The argument is strained, and the tone harsh, about which there will be more to say shortly.

sovereign, by accepting him as one's lord and king, and by obeying his law, expecting that retribution will follow to all who do not. To enter this kingdom is to be engrafted in the nature of its king, and to gain access to immortality through him, that aspect of the image of God that Adam forfeited for himself and us.

Thus God, we see, designed his Son *Christ Jesus* a Kingdom, an Everlasting Kingdom in Heaven. But *Though as in Adam all die, so in Christ all shall be made alive*; And all men shall return to Life again at the last day.<sup>31</sup>

However, on that day, everyone will be judged according to the divine law, which requires strict obedience, all of whose precepts are 'of Eternal Obligation', and because in fact, all of Adam's progeny have sinned—an inevitability that follows from human frailty—no one would be eligible to enter Christ's kingdom, unless a remedy were found. The remedy is faith, which counts as righteousness making up for moral failure, which inevitably follows in the train of human frailty and weakness; the requisite belief is stated in the proposition that Jesus is the Messiah 'who had been promised by God to the World'. His law, whose precepts are the same as the eternal divine law, is more graciously enforced. To enter his kingdom and to accept his rule involves also acceptance of his new 'Covenant of Grace', which requires repentance and a sincere endeavor to live a righteous and upright life in exchange for grace and forgiveness. Locke concludes that the conditions of the new covenant must seem reasonable to the serious moralist, sufficient to turn his will, if not necessary, since there is no other plausible way known to achieve these ends.

These two, Faith and Repentance; *i. e.* believing Jesus to be the *Messiah*, and a good Life; are the indispensable Conditions of the New Covenant to be performed by all those, who would obtain Eternal Life. The Reasonableness, or rather Necessity of which, that we may the better comprehend, we must a little look back to what was said in the beginning.<sup>32</sup>

Before moving on to the next topic, it is important to be clear that the proposition, 'Jesus is the Messiah', as Locke uses it, is the sole article of faith *requisite to justification*, and that Locke's purpose of introducing it here is to persuade his readers to become subjects of Christ's kingdom, and by accepting his rule to initiate the reform of their morality. *Its use is strictly moral*. It is not intended as a creed of a particular historical church, or a rule of orthodoxy, and although its acceptance is necessary to gain admission into a universal church, this is not a human institution, but is the very kingdom of the Messiah. Hence, the usual judgments or suspicions of scholars who write about Locke, that he is a creedal minimalist, or a lax Socinian, miss the point.<sup>33</sup> Moreover, the

<sup>31</sup> *Reasonableness*, 207 (WR, 173). Locke gives us no reason to suppose that he did not believe this to be a real kingdom, with real power exercising universal sway over all things, and, notwithstanding its otherworldliness, not a metaphorical one. In his politics, this everlasting supreme dominion is the basis of appeals to heaven; see *Two Treatises*, II.21 and *passim*.

<sup>32</sup> *Reasonableness*, 199 (WR, 169).

<sup>33</sup> Creedal minimalism is an ecclesiastical policy rather than a doctrinal stance; it has to do with what one must believe to qualify for acceptance into Christ's church. It is a policy preferred by those who favor

narrative in which Locke unfolds the necessity of belief in Christ is, at the very least, mythologically rich, and, myth being the material from which theological doctrines are made, it is potentially rich doctrinally also. What is more, judgments concerning the poverty or richness of Locke's Christian theology and how it stands up when compared with current orthodoxies should not be attempted until one has worked through both of his major theological works. The *Reasonableness* is more economical, because its concern is a narrow one: the reform of morality and how Christianity is supremely suited to accomplish this. *A Paraphrase and Notes* has no such limitations. Its concern is edification by discovering the mind of St. Paul so far as it has been conveyed to us in his writings. He had been divinely informed with the whole Christian revelation, and Locke supposed that one might draw nearer to the fullness of it by reading his letters. In Locke's introductions and paraphrases one will find abundant intimations of mystery and a richer theological discourse. I do not believe that anyone who has not read both of these works and reached a proper understanding of them can pretend to understand Locke's theology. Those who attempt it seem to fall prey to the suspicions of Locke's contemporary detractors, who would concur that he was a minimalist and a Socinian, neither of which is true.

#### *Jesus as universal lawgiver and the law of nature*

In the *Reasonableness*, Locke observes that Scripture has attributed three offices to the Messiah, all of which are vouchsafed by anointing: prophet, priest, and king. He justifies his neglect of the first two by observing that Jesus never claimed to be a priest and rarely, on two occasions only, referred to himself as a prophet.<sup>34</sup> That Jesus took himself to be king and Messiah was, Locke found, abundantly evident from Jesus' teaching and self-presentation in the Gospels, and from the preaching of the Apostles. There is another role that Locke ascribes to Jesus Christ, namely that of lawgiver, like Solon, or Lycurgus, or Moses. They were rulers who stood above all who came before and after them, because they delivered the laws that founded their societies, and thereby brought them under the rule of an established or, in this instance, eternal law. In their respective roles, their authority was limited to a city or nation. Locke imagined that Jesus, who is also a ruler, accomplished the same sort of thing, but on a grand universal scale—the kingdom of God, which is a sort of ethical commonwealth that transcends national boundaries. In this role, they were neither philosophers, nor priests, but legislators.<sup>35</sup>

In 1698, Locke made an entry in one of his commonplace books, indexed under the keyword 'Sacerdos', that is, priest.<sup>36</sup> It is unsigned, and so one cannot be certain that

a broad and accommodating church, rather than one that is narrowly orthodox. However, those who favored it were suspect of not accepting the doctrines that they did not deem necessary to make one a Christian. Unfortunately, this suspicion seems to have afflicted the minds of otherwise impartial scholars; see John Marshall, *John Locke: Resistance, Religion, and Responsibility* (Cambridge: Cambridge University Press, 1994), 337, and passim.

<sup>34</sup> *Reasonableness*, 213–4 (WR, 175).

<sup>35</sup> *Reasonableness*, 238 (WR, 184).

<sup>36</sup> Bod. MS. Locke Film 77, *Adversaria* 1661, p. 93 (WR, 17–8, 258). Locke owned a copy of Bayle's *Pensées diverses*, LL. 237a.

Locke is its author, yet, as I will suggest below, it fits well as a retrospective summation of key themes in the *Reasonableness*, and therefore it is at least arguably Locke's, and I shall treat it as such. In any case, these thoughts were prompted whilst reading Bayle. In a footnote, Locke cites a place in Bayle's *Pensées diverses sur la comète*, where the latter has quoted lines from Cicero's *De natura deorum*.<sup>37</sup>

The speaker of these lines is Gaius Aurelius Cotta, a Roman politician and orator, and, like Cicero, an Academic Skeptic, whose role in Cicero's dialogue is to cast doubt on the philosophical beliefs of the Epicureans and the Stoics. Here he expresses his own opinion, a variety of fideism:

When Religion's the point I don't examine what *Zeno*, *Cleanthes*, or *Chrysippus* hold, but what the great Pontiffs say, *Coruncanus*, *Scipio*, and *Scaevola*: . . . I can hear a Philosopher explain the Reasons of Religion, but I believe our Forefathers without any Reason at all.<sup>38</sup>

These remarks provided Locke with his theme. The ancients had separated practical religion from natural and moral knowledge, revelation from reason, and along with this a division of labor developed between priests and philosophers, who were their 'two sorts of Teachers'. Jesus Christ, also an ancient, changed this. However, his successors, a new company of priests of the Christian religion, claimed the rights of priest and philosopher, and became corrupters of the true religion that he had established.

Jesus Christ by bringing revelation from heaven the true Religion to mankind reunited these two again Religion and Morality as the inseparable parts of the worship of god, which ought never to have been separated, wherein for the obtaining the favour & forgiveness of the deity the chief part of what man could doe consisted in a holy life, & little or noe thing at all was left to outward ceremonie. which was therefore almost wholly cashiered out of true religion: and only two very plain & very simple institutions introduced. all pompous rites being wholly abolisht, & no more outward performances commanded but just soe much as decency & order requird in actions of publique assemblys. This being the state of his true Religion coming immediatly from god him self, The Ministers of it who also call them selves priests have assumed to them selves the parts both of the heathen priests & philosophers: And claim a right not only to performe all the outward acts of the Christian religion in publique & to regulate the ceremonies to be used there: but also to teach men their dutys of Morality towards one another & towards them selves & to prescribe in them conduct of their lives.<sup>39</sup>

Christianity as Jesus presented it, and which, therefore, we have by immediate divine revelation, and which therefore we may regard as true on the highest authority, is basically a moral religion and barely or minimally a cultic one. The modern priesthood, or Christian clergy, have corrupted this true religion, not because they joined religion and morality,<sup>40</sup> for Jesus Christ had already done this, but because they made too much of those aspects of religion that he had 'almost wholly cashiered out' of it, and

<sup>37</sup> III.ii.5; Locke's reference to §127 of Bayle's work.

<sup>38</sup> WR, 258.

<sup>39</sup> WR, 17–18.

<sup>40</sup> Note that no mention is made here of natural philosophy, perhaps because Locke had already concluded that a science of nature was unattainable by mankind under the conditions of this life, and that his proper business was morality.

because they assigned themselves preeminent authority over them, and over morality also. The most effective way to remedy this would be to return to the archetype, which Locke has done in the *Reasonableness*.

It has been noted that Locke imagined Jesus to be the founder of a universal kingdom, and that denizens of his realm, if they sincerely endeavored to abide by his law, would receive the ultimate gift of eternal bliss. The law they must obey is the law of nature, which reason may discover, and which philosophers profess to teach, but which they have never adequately done, and, besides, they failed to join morality to religion; hence their moral teaching has neither ground nor consequence. In contrast, Locke imagines Jesus not only to have presented the law in its completeness, but also to have refashioned it as a law of perfection, requiring complete obedience. By claiming completeness, however, Locke did not mean that Jesus offered in his teaching a comprehensive code of law to which nothing can be added, but a complete system of principles.<sup>41</sup> In this respect, he also simplified it, 'giving its full and clear sense, free from the corrupt and loosning glosses of the Scribes and Pharisees'. What does this mean? By 'loosning glosses' he meant casuistic interpretations that unavoidably made the law less strict, and more lax. He is alluding in an uncomplimentary and prejudicial way to the law as presented in the Talmud. In contrast, Jesus is supposed to have perfected the law by increasing its rigor not only with respect to actions but the intentions of the moral agent.

He tells them, That not only Murder, but causeless Anger, and so much as words of Contempt, were forbidden. He Commands them to be reconciled and kind towards their Adversaries . . . He not only forbids actual Uncleaness, but all irregular desires, upon pain of Hell-fire; Causless Divorces; Swearing in Conversation as well as Forswearing in Judgment; Revenge; Retaliation, Ostentation of Charity, of Devotion, and of Fasting; Repetitions in Prayer; Covetousness; Worldly Care, Censoriousness: And on the other side, Commands Loving our enemies; Doing good to those that Hate us; Blessing those that Curse us; Praying for those that despihtfully use us; Patience, and Meekness under Injuries; Forgiveness; Liberality; Compassion: And closes all his particular injunctions, with this general Golden Rule, *Mat. Vii. 12. All things whatsoever ye would have that Men should do to you, do ye even so to them; For this is the Law and the Prophets.*<sup>42</sup>

<sup>41</sup> However, see *Reasonableness*, 232 (WR, 182): 'There is not, I think, any of the Duties of Morality, which [Jesus] has not some where or other, by himself and his Apostles, inculcated over and over again to his Followers in express terms', a claim that would be hard to prove from the Gospels and that might be explained by Locke's enthusiasm for his subject rather by his rational judgment, for this entire section of the *Reasonableness*, where Locke takes his readers through the teachings of Jesus, is written in the tone of an inspired adept, which, it may be said, is in harmony with the extravagance and hyperbole of Jesus' moral utterances. There is, however, evidence that Locke set about to justify this claim in an undated manuscript bearing the title 'A Harmony of Jesus Moral Teaching'. In the first part, Locke lists separately in each of the four Gospels the various virtues and duties Jesus is reported to have taught; the second part, of which there is only a bare outline, lists four principal heads of duties, to God, Christ, ourselves, and other men, see MS Locke c. 27, fols. 121–8.

<sup>42</sup> *Reasonableness*, 218–9 (WR, 177). Locke like Hobbes treats the golden rule as the axiom of the law of nature.



Locke concludes his summary of the moral teaching of Jesus and his Apostles with the remark that ‘Righteousness, or Obedience to the Law of God, was [the] great business’ of mankind, which is, as we have seen, the conclusion of the *Essay*.

If, then, Jesus Christ has united morality and religion, and given a perfect account of the moral duties, it would not be fitting for a philosopher, who was also a Christian, to construct a system of morality independent of religion. Rather, a Christian philosopher should found his system of morality upon revelation. Friends who urged him to create a moral philosophy would find it in *The Reasonableness of Christianity*, or better yet in the New Testament. Thus, virtuosity must subject itself to Christianity, natural reason to revelation.

Locke draws all of his forces together to advocate for this outcome in a long response to the question, ‘What need is there of a Messiah?’ The question is necessitated by his response to a prior question, which arises from recognition of the fact that there are many who have and will remain ignorant of Christianity. How will they be judged on judgment day? Locke’s answer to this question is remarkable by what it concedes. ‘God will require of every man, *According to what a man hath, and not according to what he hath not*’, that is, he will judge everyone each according to his own law. Those who have not received the Christian revelation and all that it promises have the light of reason, and so have access to the law of nature, which they cannot fail to discover if they employ their reason properly. The law of nature that Locke next describes is not a mere set of rules that must be strictly and without exception followed.

The Law is the eternal, immutable Standard of Right. And a part of that Law is, that a man should forgive, not only his Children, but his Enemies; upon their Repentance, asking Pardon, and Amendment. And therefore he could not doubt that the Author of this Law, and God of Patience and Consolation, who is rich in Mercy, would forgive his frail Off-Spring; if they acknowledged their Faults, disapproved the Iniquity of their Transgressions, beg’d his Pardon, and resolv’d in earnest for the future to conform their Actions to this Rule, which they owned to be Just and Right. This way of Reconciliation, this hope of Attonement, the Light of Nature revealed to them. And the Revelation of the Gospel having said nothing to the contrary, leaves them to stand and fall to their own Father and Master, whose Goodness and Mercy is over all his Works.<sup>43</sup>

It should be noted that Locke is endorsing natural religion of a sort promoted by Lord Herbert of Cherbury, with whose five principles of religion he was long familiar.<sup>44</sup> He goes on: since from the creation, mankind has not been without access to a moral law and a means of reconciliation with God, how do we explain the state of ruin that human history has become, that there was need of a Savior? And what advantage does Jesus Christ bring offer?

Locke’s answer takes note of five advantages that Jesus Christ provides, each in a brief essay that is part jeremiad concerning the failure of mankind to avail itself of the

<sup>43</sup> *Reasonableness*, 253–4 (WR, 190).

<sup>44</sup> Draft B (1771) (*Drafts*, 112); Essay, L.iii.15 (77).

proper uses of reason, and part triumphal declaration of the Messiah's coming and the benefits deriving from it. Preliminary to all this, he observes that the evidence of Christ's divine mission is so great that the revelation delivered by him to the world cannot but be received as unquestionable truth. He is referring to the miracles he performed 'before all sorts of People,' whose occurrence divine providence so arranged that even his enemies could not deny them. I shall return to this notion of self-authentication in the next section.

The first two advantages are of special concern. They concern the content of Jesus Christ's revelation. First, Jesus declared for monotheism, 'with such Evidence and Energy, that Polytheism and Idolatry hath no where been able to withstand it'. Ever since his appearance, paganism has declined, and monotheism has displaced it.

For even to the Light that the *Messiah* brought into the World with him, we must ascribe the owning, and Profession of *One God*, which the *Mohametan* Religion had derived and borrowed from it.

Paganism was the product of priestcraft. Philosophers, or at least some among them, knew better, but they lacked the courage to declare their belief in one God.

The second advantage pertains to morality. The revelation of Jesus Christ contains, as has already been noted, a complete morality that may be taken as truth itself. Its precepts seem to be endowed with a practical self-evidence. Locke does not say whether this purported self-evidence resides in the precepts themselves or in the divine authority of the preceptor.

All his Commands become Principles: There needs no other Proof for the truth of what he says, but that he said it. And then there needs no more but to read the inspired Books, to be instructed: All the Duties of Morality lye there clear, and plain, and easy to be understood. And here I appeal, whether this be not the surest, the safest, and most effectual way of teaching: Especially if we add this farther consideration; That as it suits the lowest Capacities of Reasonable Creatures, so it reaches and satisfies, Nay, enlightens the highest.<sup>45</sup>

Locke's lamentations concerning the state of moral knowledge before Christ follows the same path as before: priestcraft, by separating reason from religion, brought on superstition and in its train moral corruption. Philosophers and other 'wise Heathens' and lawgivers, did teach commendable moral precepts, but none presented a complete system of morality, and none had authority enough or efficient sanctions to enforce them. Along the way, Locke mentions the moral teaching of Epicurus, whom, he notes '*Seneca* quotes, with esteem and approbation'. Here Locke pauses to remark that neither his moral rules, nor those of other 'Sages of old' should be regarded as laws of nature. In the case of Epicurus, Locke warns, 'You must take all the rest of his Doctrine for such too', which is a remarkable admission, given Locke's natural philosophical preferences. This is not to deny that the ancients did not derive laws of nature from

<sup>45</sup> *Reasonableness*, 280–1 (WR, 201).

rational principles, as could be said even of Epicurus. But the rationality of such laws was evident only in their utility. They were evidently laws of convenience. But, Locke believed, this is insufficient to make a true moral system, for they were linked to a philosophy of nature that excluded God.

But such a Body of *Ethicks*, proved to be a Law of Nature, from principles of Reason, and reaching all the Duties of Life: I think no body will say the world had before our Saviour's time. 'Tis not enough, that there were up and down scattered sayings of wise Men, conformable to right Reason. The Law of Nature, was the Law of Convenience too: And 'tis no wonder, that those Men of Parts, and studious of Virtue; (Who had occasion to think on any particular part of it) should by meditation light on the right, even from the observable Convenience and beauty of it; without making its obligation from the true Principles of the Law of Nature, and the foundations of *Morality*.<sup>46</sup>

The next two advantages complete the moral character of Christianity as Locke imagined it. First, Jesus has put an end to priestcraft and put in its place a simple moral religion. The rites of religion enjoined by Jesus Christ are simple acts of public worship consistent with the moral duties that all persons owe to God and to each other. Next, Locke contrasts the end of the morality taught by Jesus and that of the philosophers. Philosophers 'seldom set their Rules on Men's Minds and Practices, by consideration of another Life,' rather 'The chief of their Arguments were from the excellency of Virtue: And the highest they generally went, was the exalting of humane Nature, Whose Perfection lay in virtue.'<sup>47</sup>

[Christianity as delivered by Jesus in the Scriptures] has another relish and efficacy, to persuade Men that if they live well here, they shall be happy hereafter. Open their Eyes upon the endless unspeakable joys of another Life; And their Hearts will find something solid and powerful to move them. The view of Heaven and Hell, will cast a slight upon the short pleasures and pains of this present state; and give attractions and encouragements to Virtue, which reason, and interest, and the Care of our selves, cannot but allow and prefer. Upon this foundation, and upon this only Morality stands firm, and may defy all competition. This makes it more than a name; A substantial Good, worth all our aims and endeavours; And thus the Gospel of Jesus Christ has delivered it to us.<sup>48</sup>

<sup>46</sup> *Reasonableness*, 270 (WR, 197). It is curious that Locke seems to allow for the possibility of the virtuous atheist, which he elsewhere denies, regarding the notion as an oxymoron; see *Toleration*, 134–5. Whether this was a mere lapse, or an opportunity to gain rhetorical advantage, or it was Locke's belated considered opinion, is unclear, although I suspect it was not the latter. The idea of a virtuous atheist was regarded with favor by Bayle, and this must have been known to Locke, who was familiar with Bayle's *Penseés diverses*. Locke's complaint about the ill-effects of priestcraft echo similar remarks made by Bayle, especially in his seventh or theological reason why comets should not be taken as divine signs (§§57–78 and passim). Bayle, like Locke, maintained that priestcraft generates superstition, and superstition moral corruption. Atheists, on the other hand, are immune to priestcraft, and for reasons purely natural may choose to live upright moral lives and be good citizens.

<sup>47</sup> *Reasonableness*, 286 (WR, 203); also 288–9 (WR, 203–4); 'The Philosophers indeed shewed the beauty of Virtue. They set her off so as drew Mens Eyes and approbation to her; But leaving her off so as drew Mens Eyes and approbation to her. But leaving her unendowed, very few were willing to espouse her.'

<sup>48</sup> *Reasonableness*, 288–9 (WR, 204).

This argument against the philosophers differs from its counterpart in the *Essay*. There Locke complained that philosophical virtue was motivated by reputation and elitism, which may or may not match the real quality of an individual's virtue; here he derides 'the beauty of virtue' and human perfection, because they are inadequate motives and because they do not fall within divine favor.<sup>49</sup>

Finally, the last of the advantages he mentions is about supernatural assistance. The Spirit and Wisdom of God, which Locke alternately represents as one person or two,<sup>50</sup> operates imperceptibly on the human spirit, with the gift of moral conviction and endurance.

To a Man under the difficulties of his Nature, beset with Temptations, and hedged in with prevailing Customs; 'tis no small encouragement to set himself seriously on the courses of Virtue, and practice of true Religion, That he is from a sure hand, and an almighty arm, promised assistance to support and carry him through.<sup>51</sup>

Locke's case for the reasonableness of Christianity depends upon his claim that it alone provides all of the advantages requisite to a moral life: a simple and self-evident law, an internal prompter of the will, and a generous accommodation to human frailty and fallibility. His claim is that until the coming of the Messiah, no other moral doctrine or institution has done this.

Therefore, it is reasonable to be a Christian, to accept Jesus Christ as one's king and lawgiver, and to accept no other guide in one's moral endeavor but the infallible divine spirit and the Scriptures that he inspired. Locke no doubt believed that the following confession of faith was eminently reasonable.

A Christian I am sure I am, because I believe *Jesus* to be the *Messiah*, the King and Saviour promised, and sent by God: and as a Subject of his Kingdom, I take the rule of my Faith, and Life, from his Will declar'd and left upon Record in the inspired Writings of the Apostles and Evangelists in the New Testament: Which I endeavour to the utmost of my power, as is my Duty, to understand in the true sense and meaning. To lead me into their true meaning, I know . . . no infallible Guide, but the same Holy Spirit, from whom these Writings first came.<sup>52</sup>

However, this confession as Locke meant it involves a radical separation of morality from any sort of naturalism and from natural philosophy. The kingdom of God and the rule of Christ are embedded in a sacred history of the world whose episodes we have already considered and need not repeat. Suffice it to say, Locke's Jesus is not a moral teacher whose purpose was to establish a kingdom of God on earth, a moral

<sup>49</sup> Locke represents two sorts of moral perfection here: virtue aims at perfecting the human character; Jesus enjoins perfect or complete obedience to the divine law; the one is philosophical, the other, biblical.

<sup>50</sup> Locke is alluding, probably unwittingly, to the wisdom tradition, where the divine spirit and wisdom correspond respectively to Yahweh and his feminine consort; see Margaret Barker, *The Great Angel* (London: SPCK, 1992), 48–68; one of the consequences of the thoroughness and care with which he read the Bible, and Rabbinic and Kabbalistic commentaries, is his anticipation of themes that biblical and theological scholarship have only recently brought to light.

<sup>51</sup> *Reasonableness*, 290 (WR, 204–5).

<sup>52</sup> *Vindications*, 178–9.

commonwealth of sweetness and light. Rather, Jesus is a figure of sublime mythic proportions, divinely sent to establish the rule of God, a dénouement sure to follow that would involve the destruction and remaking of the cosmos.<sup>53</sup> To accept all this requires an enlargement of reason. But Locke had already taken that step with his physics, enlarging the scope of the world to include God and angels, so that natural reason might surmise what revelation would make certain.

There is one more aspect of the role of Jesus as lawgiver and king that must be explained to complete this account. Although Jesus' role as lawgiver and ruler has antecedents in pagan antiquity, Moses was supposed to be his divinely appointed predecessor, and before Moses there was Abraham and before Abraham, Adam. Beginning with the latter, Locke imagined a series of historical moments of cosmic significance. The Fall of Adam, which necessitated a second Adam to redeem mankind, was followed by the divine call of Abraham, who received the promise that his descendents would become a great nation. Abraham believed this, and his faith or trust in the promise was accounted to him as righteousness. Thus, Abraham was the father of the faithful, the ancestor of all Christians. Moses was the founder of the Jewish nation, and a lawgiver. The law he received and delivered to the people Israel joined morality and religion. The moral part was identical to the law of nature; the religious part was a strict monotheism. However, in the stilted if not grotesque manner in which Locke represents it—although, to his credit, he was faithfully following St. Paul and his theological successors in tone and content—the Mosaic law was represented as a law of works requiring uncompromising rigor and strict obedience. Immortality was the reward to any who might keep all its precepts, death the punishment of the least of its offenders. Jesus, although he perfected the law and its rigor, nevertheless allowed faith to be surrogate for works, and so offered a more attainable and therefore reasonable road to righteousness. Moreover, these primary ancestors were not individuals acting on their own but founders or instruments of a divine foundation. They were progenitors of an exceptional species, mankind, founders of a people, in the case of Abraham, all the faithful, and of Moses, a special nation to whom the coming of the Messiah was promised, and Jesus the Messiah, whose rejection by the Jewish nation brought an end to their political existence and their religion, established in its place a universal kingdom, embracing all mankind.<sup>54</sup> Hence Jesus Christ is king, lawgiver, and second Adam or founder of humanity. Locke's Christian theology is a political theology that embraces the history of the world, from start to finish. These are all essentially Pauline themes, and I will revisit them in the next section of this chapter.

<sup>53</sup> See Locke, 'Chronologia Sacra', MS. Locke c. 27, fols. 258–63; this manuscript, inscribed during the 1690s, is a working document in which Locke considered various schemes of world history from Adam to the world's end, a period supposed to last 7,000 years.

<sup>54</sup> *Reasonableness*, 165–6 (156) (WR, 200); see also *A Paraphrase and Notes*, synopsis of the letter to the Ephesians, ii, 607.

### *The authenticity of the Christian revelation*

The argument of *The Reasonableness of Christianity*, that Christianity as delivered in the Scriptures is reasonable, is founded on a narrative of events presented and interpreted, chiefly by St. Paul, in the New Testament, which Locke accepted was true. He believed that these events were divinely ordained, that they represented the consummation of a history of divine revelation reaching back to the beginning of human history, foretelling and finally consummating a divine plan of salvation. Revelation in general was supposed to be received in two ways, directly by an individual through divine inspiration, or by the testimony of prophets who were directed by God to proclaim what they had received by divine inspiration,<sup>55</sup> or more generally and secondarily from ear- and eyewitnesses of revelatory events. The record of these events and this testimony was recorded by divinely appointed penmen, inspired by the Holy Spirit. Revelation, being the delivery of some truth by God, who neither deceives nor can be deceived, 'carries with it Assurance beyond Doubt, Evidence beyond Exception', which is to say, a certain faith.<sup>56</sup> However, before a revelation is received as such, it must be vouchsafed, and for this we must rely on human reason, upon which we depend not only to vouchsafe a purported revelation, but also to explain what it means, otherwise we risk 'the Extravagancy of Enthusiasm, and all the Error of wrong principles.' However, because our reasoning about such things can never rise to a perfect demonstration, 'our Assent can be rationally no higher than the Evidence of its being a Revelation, and that this is the meaning of the Expressions it is delivered in.'<sup>57</sup> How these two levels of assurance, deriving from infallible divine revelation and fallible reason, settle themselves is a question that Locke does not seem to have enquired about.

But how Locke imagined the role of reason as interpreter of revelation is well illustrated in his theological works. It involves the impartial use of philological and historical methods. Vouchsafing a revelation was a more difficult task. Locke attempted

<sup>55</sup> Locke took special interest in the varieties of direct or immediate revelation. Using the Bible as his source, he systematically recorded the various ways by which a revelation might be presented: by voice, apparition, in a dream or other sort of vision; delivered by prophets or angels or by an inspired gathering of the faithful who are variously induced to utter some divine truth they have received; see 'Revelation, its several ways under the Old Testament', MS. Locke c. 27. fols. 138–42. The manuscript is dated 1696; in another place among his manuscripts, Locke offers a more schematic account of modes of revelation, of which he represents four levels or degrees, beginning with a mere casting of stones (Urim and Thummim), dreams and vision (prophetic vision), by voice (which was customary in the Mosaic revelations), and last and most, the full indwelling of the Holy Spirit, exemplified in Christ, MS Locke f. 30, p. 42<sup>r</sup>; note on John 3:34; this manuscript is undated, but seems to presuppose the previous one.

<sup>56</sup> Locke did not favor the expression 'certainty of faith', preferring to apply the attribute of certainty only to the subjective state of knowledge, whereas faith could be qualified by various degrees of assurance, which may come near to certainty, but cannot achieve it; see *Essay*, IV.iv.18 (573), IV.xvi.6 (662). However, it applies here as an objective state of belief founded on evidence that a priori must be received as true, an acceptance which he equated with the Cartesian cogito: 'we may as well doubt of our own Being, as we can, whether any Revelation from GOD be true'; for contemporary criticism of Locke, see Edward Stillingfleet, *The Bishop of Worcester's Answer to Mr. Locke's Second Letter* (London: Henry Mortlock, 1698), 23 and passim.

<sup>57</sup> *Essay*, IV.xvi.14 (667).

no demonstration. He did adopt a strategy devised by the heresiarch Faustus Socinus, who argued that the excellence of Christianity, which is evident in its moral teaching, and its simplicity, is proof enough of its truth, for they stand alone without need of further authority.<sup>58</sup> This, as it were self-evident, proof stands surety to the testimony of Scripture, predisposing the mind to find it credible, so that it is only necessary to harmonize the various strands of narrative and clarify its meaning. This may explain Locke's effort to prove the excellence of Jesus' moral teaching.

However, Locke believed that there were in the narrative itself evidences of authenticity, so that Scripture itself might be regarded as self-authenticating. An instance of this is the case of miracles noted above. In general, Locke observes that the miracles Jesus did 'were so ordered by the Divine Providence and Wisdom, that they never were, nor could be denied by any of the Enemies or Opposers of Christianity.'<sup>59</sup> Locke is referring to the manner in which Jesus presented himself to his audiences, which included many who were hostile, even devils. He was counting on the historical reliability of the New Testament narratives.

Concerning the manner of Jesus' self-presentation, Locke was perhaps one of the earliest biblical interpreters to discover what has become known as the problem of messianic secrecy. Since it was Jesus' purpose to declare the imminence of the kingdom of God and his messianic role, why did he so often try to maintain secrecy concerning his identity?<sup>60</sup> Whereas, on the face of it, Jesus' reticence might seem inconsistent with his mission, Locke endeavors to show, by a detailed exposition of Jesus' actions during his ministry, that everything he did and said was 'according to Divine Wisdom, and suited to a fuller Manifestation and Evidence of his being the *Messiah*'.

Locke's exposition of Jesus' ministry culminating in his death and resurrection is represented as a divinely planned sequence of events, in which nothing happens by chance, yet in which various players—Jesus' clueless disciples, Jewish rulers, who were suspicious and hostile because they feared Jesus would upset their precarious arrangement with their Roman conquerors, and whose hearts were divinely hardened in their prejudices, arrogant Roman officials, fickle crowds, and here and there a devil, and finally Jesus himself in his greatest role. They all act freely and consistent with their

<sup>58</sup> For a more detailed account of what follows, see my 'Locke's Proof of the Divine Authority of Scripture', *Christianity, Antiquity, and Enlightenment*, 53–73.

<sup>59</sup> *Reasonableness*, 256 (WR, 191); see also Locke's posthumous *A Discourse of Miracles* (WR, 44–50). In this brief work, Locke defines a miracle as an extremely uncommon or extraordinary event that may be taken as a manifestation of supernatural power. He rejects the interpretation of a miracle as a violation of physical laws of nature, by observing one must know what these laws are in order to recognize that they are being violated. We lack such knowledge. He sets the context for interpreting miracles as a conflict between the kingdom of God and the kingdom of the devil. A true miracle is intended to prove that there is one God only, and cites the biblical record of contests between Moses and the Egyptian priests, and Elijah and the priests of Baal, and observes that wherever such contests occur, the advocate of the one true God manifests the greater power, the more extraordinary miracle.

<sup>60</sup> For what follows, see my 'Locke on St Paul, Messianic Secrecy, and the Consummation of Faith', 113–18.

natures, yet by divine providence they play their assigned parts, fully in character, ordained by divine wisdom, and thereby they accomplish the divine purpose of showing Jesus to be the Messiah.<sup>61</sup> The narrative as he tells it has a compelling persuasive force. Locke, the interpreter of Scripture, serves also as its verifier. This was his intention.

### *A Paraphrase and Notes to the Epistles of St Paul*

The main problem, which Locke addresses in *A Paraphrase and Notes*, was stated by him in the *Reasonableness*.

... the Epistles were written upon several occasions: And he that will read them as he ought, must observe what 'tis in them is principally aimed at; find what is the Argument in hand, and how managed; ... The observing of this will best help us to the true meaning and mind of the Writer: For that is the Truth which is to be received and believed; And not scattered Sentences in Scripture-Language, accommodated to our Notions and Prejudices.

Unlike the historical writings of the Bible, where the task is to harmonize the various narratives, the reader of the Epistles must respect their integrity. They are works of a single author. So it is 'the mind of the Writer', which I take to mean the author's intention, the thoughts that he meant to capture in words, that must be sought by the interpreter. Since the writer is supposed to be divinely inspired, his intentions are true, and Christians are obliged to believe them.

There is another part to the task of interpretation. The letters are part of Scripture, and therefore must be read in this context.

We must look into the drift of the Discourse [of each letter], observe the coherence and connexion of the Parts, and see how it is consistent with it self, *and other parts of Scripture*; if we will conceive it right.<sup>62</sup>

This briefly summarizes Locke's biblical theological hermeneutics. It has two parts. First, he presupposes the integrity of particular texts, which he treats in much the same way as literary critics their chosen texts. Next, one must fit the text into the totality of biblical revelation, of which it is supposed to be an integral part. In the case of St. Paul, this second task is facilitated by the fact that the Apostle regarded himself as a fitting interpreter of divine revelation and of its biblical record.

Although Locke's work is not unprecedented, few biblical theologians have articulated their task with such clarity and employed it with such consistency. In his interpretation of St. Paul, his mastery of this method is repeatedly exemplified, and shows originality and insight. Nevertheless, it must be said that, however impressive its learning, Locke's interpretation of Scripture counts as biblical theology and not impartial

<sup>61</sup> For Locke's account of the problem of messianic secrecy and its resolution, see *Reasonableness*, 61–189 (WR, 115–65).

<sup>62</sup> *Reasonableness*, 291–2 (WR, 205); italics mine.



historical-critical study of the Bible, which may have led him in another direction, such as one followed by Spinoza.

*A Paraphrase and Notes* was published posthumously.<sup>63</sup> It was unfinished; Locke's intention was to treat the entire Pauline corpus, including the letter to the Hebrews, which he believed St. Paul to have written. Only his accounts of St. Paul's letters to the Galatians, two letters to the Corinthians, Romans, and Ephesians were published. These were ready for publication at the time of his death.<sup>64</sup>

In what follows, the theme that I will explore is the interplay between virtuosity and Christianity in Locke's exposition of the writings of St. Paul. I will begin with the preface, to which Locke added the title 'An Essay for the Understanding or St Paul's Epistles by consulting St Paul himself', and follow with a summary account of the *Paraphrase and Notes* itself.

*Locke's Preface to St Paul*: Locke's preface to *A Paraphrase and Notes* is a most revealing source for understanding his late adopted vocation of biblical commentator. He was very much aware that he was entering a field crowded with eminent scholars, with whose works he was familiar, and many of which he owned and regularly consulted. As if to remind himself of this, he had recently acquired the new edition of *Critici sacri*,<sup>65</sup> an omnibus collection of biblical commentary by Louis Cappel, Isaac Casaubon, Joseph Scaliger, Henricus Stephanus, and many other notables, learned eminences of the Republic of Letters, who also graced a smaller but no less important *Respublica litterarum sacrarum*, a republic of sacred scripture.<sup>66</sup> Locke's preface to St. Paul is his modest claim to citizenship in this realm, although on a lower plane. In his opening remarks, he excuses himself by observing that he follows the lead of 'pious and learned Men' who have done the same, but that, because his original purpose was his own edification, no excuse is necessary. 'Though I have been conversant in these Epistles, as well as in other Parts of Sacred Scripture, yet I found that I understood them not; I mean the doctrinal and discursive parts of them.'<sup>67</sup>

The preface falls into three parts. In the first part, after a brief apology for publishing the work, Locke reviews the chief difficulties that an interpreter must address. He

<sup>63</sup> For details of its publication, see Arthur W. Wainwright, Introduction, *A Paraphrase and Notes*, i, 5–10, 74–8, and *passim*. This fine edition of the Clarendon Locke supersedes all previous editions. It has, however, one flaw. Its format follows the ninth and subsequent octavo editions of Locke's works rather than the previous large quarto editions, which print the text and paraphrase side by side in parallel columns for easy comparison, with the notes immediately beneath. Since Locke had seen the proof of Galatians before his death, he no doubt intended this format, which could only have been accommodated in a larger volume.

<sup>64</sup> In preparing this work, Locke used mainly a polyglot New Testament (Greek, Latin, and French), interleaved and bound in five volumes (LL 2864); in the various volumes are notes and, on inserted pages, summary outlines of the contents and the gist of other Epistles.

<sup>65</sup> *Critici sacri, sive annotata doctissimorum virorum in Vetus ac Novum Testamentum*, 9 vols., John Pearson et al., eds. (Amsterdam, 1698), LL 886; Pearson also published important work on biblical chronology, which Locke had in his library and employed, LL 2243.

<sup>66</sup> The expression is coined by Debora Kuller Shuger, *The Renaissance Bible* (Berkeley: University of California Press, 1998), 13.

<sup>67</sup> *A Paraphrase and Notes*, i, 103.

makes no claim to originality here. First, he observes that the works to be interpreted are actual letters, written to specific receivers, and addressing circumstances that, since they were well known to both writer and receiver, are mostly assumed and not 'laid open to a Stranger', which is our status, who read them now. Having been written so long ago, the several occasions of the letters and circumstances surrounding them must be inferred for the most part from the letters themselves. The language in which the letters are written poses additional difficulties. It is not only an ancient language, but an idiosyncratic one: Greek cast in a foreign idiom, Hebrew or Syriac, which sets the New Testament apart from all other ancient literature. The style and temper of St. Paul adds additional difficulties. He was warm-tempered and quick-witted. When writing, he was 'beset with a Crowd of Thoughts, all striving for utterance', so that the words following his thoughts crowded upon themselves. Moreover, he was given to frequent digressions. The task of the critical interpreter is to discover whether, in his exuberance and abundant expression, there resides a coherent and rational discourse. Another difficulty relating to the Apostle's style is his frequent change of person without warning: the 'I' or 'we' of the writer of his letters sometimes represents himself, at other times any Christian, a Jew, or any man. Finally, there are frequent internal dialogues throughout his discourse. These were familiar difficulties among scholarly readers of St. Paul. Locke's summary account of them constitutes his credentials.<sup>68</sup>

Locke turns next to two other causes of difficulty in the way of understanding St. Paul's letters.<sup>69</sup> These are external causes, having to do with how St. Paul's letters have been presented to readers. One of them is the physical presentation of the text in chapters and verse, which have been imposed on the text with no relation to the intended pauses and divisions within the text itself. The other is the 'long and constant use' of the Bible in English; Scripture had become naturalized into English. Their effect is to create a false sense of familiarity and easy self-deception. In presenting these difficulties, Locke adopts a different style and tone from his presentation of the internal difficulties of the letters themselves. There he was economical and precise. Here he is expansive and full of lamentation. He castigates unscrupulous sectarians, who seek to promote their own private orthodoxies by employing 'loose Sentences, and Scripture crumbled into Verses', sacred words without meaning, and bemoans the mischief to Christians, who taking the familiar naturalized English sense as the meaning of Scripture, rely on commentators only to confirm what they already believe, rather than to go to them to try their beliefs. He imagines that the situation has become desperate. Commentators to whom they might go—Locke mentions as examples, Theodore Beza and Henry Hammond, although 'Men of Parts and Learning'—say contrary things about the meaning of Scripture and so cannot be relied upon to lead anyone to truth.

This indeed seems to make the Case desperate: For if the Comments and Expositions of pious and learned Men cannot be depended on, whither shall we go for Help? To which I

<sup>68</sup> *A Paraphrase and Notes*, i, 104–5; see also Wainwright, Introduction, *A Paraphrase and Notes*, 20.

<sup>69</sup> *A Paraphrase and Notes*, i, 105–8.

answer . . . There is great Use and Benefit to be made of them, when we have once got a Rule to know which of their Expositions, in the great Variety there is of them, explains the Words and Phrases according to the Apostles's Meaning.<sup>70</sup>

This is very good hermeneutical advice, suitable for a virtuoso expositor. Commentaries are useful only after one has become thoroughly engaged with the text and reached a point where one has an understanding, albeit imperfect, of what it means. This understanding is one's rule. It is flexible and capable of revision through repeated use.

Whereas the second part of the preface leaves the reader in need of a rule, the third part explains how to get one.<sup>71</sup> Locke opens it by personating an appeal from his readers: 'how shall we come by this Rule you mention? Where is the Touchstone to be had, that will shew us whether the Meaning we our selves put, or take as put by others upon St Paul's Words in his Epistles, be truly his meaning or No?' Locke's reply is that he will give it, or at least show a way of finding it. Speaking for himself, he confesses that 'till I took this way' St. Paul's letters were dark and obscure to him, 'and I was at a great Uncertainty in which of the contrary Senses, that were found in his Commentators, he was to be taken.'<sup>72</sup> He refers to the testimony of others, who benefited from reading drafts of his work. They were 'Judicious Christians, no Strangers to the Sacred Scriptures, any learned Divines of the Church of *England*.'<sup>73</sup>

Locke proposes that one must proceed reading the text whole and repeatedly. It is a method well suited to works of modest length, like St. Paul's letters. And while reading one must be on the lookout for the main subject or theme, and if more than one, the order or disposition of them, and in this connection, the divisions or 'chief Branches' of it, and the arguments, if any, used to make his points. In short, one engages in an analysis and synthesis of the work, much as one would disassemble and assemble a watch, except here one is dealing with words and meanings and their disposition in a literary work. Locke's point in all of this is that it involves slow and careful work not unlike that of a technician.

Having revealed his practical rule, Locke returns to his subject, St. Paul. He returns to allegations that the disordered character of St. Paul's discourse may be evidence of a disordered mind. His response is that this cannot have been so, for God had chosen him to propagate the gospel to the Gentiles. Further evidence to the contrary are his miraculous call to the ministry of the gospel, and the fact that God himself, by immediate revelation, had given him a knowledge of 'the whole Doctrine of the Gospel'. 'God knows how to choose fit Instruments for the Business he employs him in.' He chose a man of parts, and one already deeply imbued with Jewish knowledge and of high intelligence.

The Light of the Gospel he had received from the Fountain and Father of Light himself, who, I concluded had not furnished him in this extraordinary manner, if all this plentiful Stock of

<sup>70</sup> *A Paraphrase and Notes*, i, 108–9.

<sup>71</sup> *A Paraphrase and Notes*, i, 109–16.

<sup>72</sup> Locke reports a similar enlightenment when reading the Gospels in preparation for *The Reasonableness of Christianity*; see *Vindications*, 35.

<sup>73</sup> For the identity of these persons, see, Wainwright, Introduction, *A Paraphrase and Notes*, i, 10–11.

Learning and Illumination had been in danger to have been lost, or proved useless, in a jumbled and confused Head; nor have laid up such a Store of admirable and useful knowledge in a Man, who for want of Method and Order, Clearness of Conception, or Pertinency in Discourse, could not draw it out into Use with the greatest Advantages of Force and Coherence.<sup>74</sup>

Locke's point is not that St. Paul's miraculous election and divine infusion of supernatural knowledge are proof that he was a rational person who had coherent thoughts, which he was able to present in a consistent and persuasive manner. Rather it is a reason, perhaps a compelling one, for reading him charitably. Where better to apply this friendly exegetical principle than Holy Scripture?

The conclusion that one may draw from this is that St. Paul's letters, when interpreted correctly, provide access to the totality of Christian truth. Not that any one letter contains the whole, but because the main themes in all the letters are matters of faith, by reading them in the light of each other one can discern the whole truth, which the Apostle applied to Christians of various sorts and conditions. Perhaps this explains why, near the end of his life, Locke took up this topic, the desire of someone approaching death to comprehend the supreme purpose of everything in the one place he believed it could be found. His immediate task was to show that St. Paul was coherent and reasonable in his expositions of the gospel, that Christianity was reasonable, which is to say, that experience and reason could be enlarged to receive supernatural revelation.

One final observation: commenting on the style of St. Paul's letters, Locke remarks that they do not employ any 'artificial Method'. 'He has no Ornaments borrow'd from Greek Eloquence; no Notions of their Philosophy mix'd with his Doctrine to set it off.' In this, Locke is mistaken, for it has been noted that St. Paul was not only familiar with popular pagan philosophy but appropriated from it notions and turns of phrase and modes of discourse, for example, the Cynic-Stoic diatribe.<sup>75</sup> Locke took no notice of this, and, in any case, argues that just as St. Paul made no use of philosophical concepts in his presentation of the gospel, so we should make no use of it in interpreting it. Thus, he excoriates some Cambridge Platonists, without naming them or their school, for introducing the doctrine of 'Ætherial Vehicles' to explain 2 Cor. 5, and concludes that teaching philosophy was not the design of divine revelation. Revelation, as conveyed by St. Paul, was delivered in plain, everyday speech. Thus, in interpreting his letters, we use philological means to recover the everyday sense of the words he used and represent what he said according to ordinary standards of rational consistency and coherence.<sup>76</sup>

<sup>74</sup> *A Paraphrase and Notes*, i, 110–11.

<sup>75</sup> For an account of St. Paul's popular philosophical content, see Moses Hadas, *Hellenistic Culture* (New York: Columbia University Press, 1959), 143–6; also, Troels Engberg-Pederson, *Paul and the Stoics* (Edinburgh: T. & T. Clarke, 2000); see also the next footnote.

<sup>76</sup> It is noteworthy that in this characterization of St. Paul's style, Locke fails to take into account the Apostle's speech before the Areopagus in Athens (Acts 17:22–31; see also Acts 14:8–18). Locke supposed that all the speeches attributed to St. Paul in Acts were authentic accounts, and in his preface mentions them as proof of his rationality. The Areopagus speech was addressed to a pagan audience and therefore relies not on biblical prophecy as proof of the Christian revelation, as St. Paul did when he made the case for Christianity in Jewish synagogues, but on precepts of natural theology, in particular on the Epicurean principle

He that would understand St *Paul* right, must understand his Terms in the Sense he uses them, and not as they are appropriated by each Man's particular Philosophy, to Conceptions that never enter'd the Mind of the Apostle.<sup>77</sup>

In sum, the truth of the whole Christian revelation resided in the mind of St. Paul, to which we have access through his letters, which must be interpreted in the sense in which they were written, in the ordinary language of the day, presupposing nothing above everyday experience, what eyes see, ears hear, and finds expression in the common language of the place. Nevertheless, Locke hoped that by following this method and by ignoring all principles and axioms of philosophy he might approach the highest level of enlightenment possible in this life. The method he followed was exactly the one that Boyle prescribed: whether nature or things above nature be one's object, one should maintain a consistent empirical stance.

A philosopher of the opposite opinion was the Cartesian Lodowijk Meyer, whose *Philosophia s. Scripturae interpres* was known to Locke; it is not only plausible, but also likely, that Locke launched this late attack on the role of philosophy in biblical interpretation with this work in mind.<sup>78</sup> In his book, Meyer described a Cartesian hermeneutic of Scripture. The biblical interpreter can rely on clear and distinct principles that he discovers to be a native endowment of reason, which is to say, innate principles, and which become the first principles of any subject of enquiry. Because we have this endowment from God, then to rely on it is not the same as depending on human philosophy, but rather upon God.

Meyer regarded Reformed (Calvinist) theologians as his chief and most formidable foes in the quarrel over the proper way to interpret Holy Scripture. It is especially noteworthy that his description of Reformed hermeneutics perfectly matches Locke's.<sup>79</sup>

that God or the gods have no needs and derive no benefit from human worship, and the Stoic principle that we humans are offspring of God. (Here I follow the interpretation of James Barr, *Biblical Faith and Natural Theology* [Oxford: Clarendon Press, 1993], 28 and passim.) If confronted with this oversight, Locke could have responded that natural theology is not philosophy, it is rather a knowledge of God that all mankind has by nature the capability to discover. It is natural revelation and therefore taken up into the Christian revelation, which greatly enlarges it.

<sup>77</sup> *A Paraphrase and Notes*, i, 115.

<sup>78</sup> Meyer's book was first published in 1666. Locke possessed a copy of the third edition, which was published in 1674 as an appendix to a new edition of Spinoza's *Tractatus*; see Meyer, *Philosophy as the Interpreter of Scripture*, Samuel Shirley, trans. (Milwaukee: Marquette University Press, 2005), i, 271; Locke owned a copy of this edition of Spinoza's work; see *LL* 2743, 2744.

<sup>79</sup> A short rule of Reformed hermeneutics is given by Calvin, *Institutes*, IV.viii.8: 'Let this then be a sure axiom—that there is no word of God to which place should be given in the church save that which is contained, first, in the Law and the Prophets; and second in the writings of the apostles, and that the only due method of teaching in the church is according to the prescription and rule of this word. Hence else we infer that nothing else was permitted to the apostles than was formerly permitted to the prophets—namely, to expound the ancient Scriptures, and show that the things there delivered are fulfilled in Christ: this, however, they could not do unless from the Lord; that is, unless the Spirit of Christ went before, and in a manner dictated words to them... And because from ignorance they were unable to comprehend the things which they had heard and learned from the lips of their Master, the Spirit of truth is promised to guide them into all truth... The office which he assigns to the Holy Spirit is to bring to remembrance what his own lips had previously taught.'

It involves three principles. First, the supreme authority for interpreting the Bible resides not in any church, but in the Bible itself. Second, that the interpreter of Scripture, particularly as he addresses whatever must be believed to be saved, is 'lucid and clear' and plain, that is, whatever the simple and uneducated can understand. In reading Scripture, the standard of clarity they seek is 'the sort of perspicuity whereby the meaning of a sentence is understood by anyone who had knowledge and experience of the language in which it is expressed', which is to say, the plain historical sense. Finally, because Holy Scripture is inspired by God, God or the Holy Spirit may be regarded as the author of it. And, because there is no other source of divine truth that rivals it, Holy Scripture must be the only proper means interpreting itself. To this is added 'the testimony of the Holy Spirit which, like an internal cause imperceptible to the senses, seals within their [pious interpreters'] hearts the truth of interpretation.'<sup>80</sup>

### *Glimpses of the Gospel in A Paraphrase and Notes*

Locke's hermeneutical method required that he maintain fidelity to the writings of St. Paul by their individual integrity, while keeping in mind that they were the works of a single author with a divine mission. They were occasional works, and therefore, notwithstanding that the purpose in writing them was to give instruction in Christian faith, they were not primarily systematic discourses. Thus, although the mind of St. Paul was supposed to have been infused with the whole truth of Christian revelation, he provided only parts or brief summaries of it in the writings he left behind. The letter to the Romans is an exception. On Locke's account, it was addressed to the Christians in Rome, a Gentile church, but one founded by others, and not by St. Paul, who nevertheless regarded himself as the Apostle to the Gentiles, and so endowed with a particular authority with respect to the Gentile church. Because he was solicitous of their faith, he offered them an account of the chief doctrines of Christianity. Locke summarized them in his synopsis of St. Paul's letter. It comes as no surprise that it is a perfect fit with the doctrine of *The Reasonableness*. I will not repeat it here.<sup>81</sup> What this shows is that Locke was already conversant with St. Paul's letters, especially the letter to the Romans, by the time he took up commentary. His 1694 notebook, 'Adversaria Theologica', which is antecedent to his preparatory work on *The Reasonableness*, offers further evidence of this. There he recorded notes, largely based on his reading of St. Paul, on faith requisite for salvation, on whether the will is free after Adam's Fall, the law of works, the law of faith, and the redemptive work of Christ. Also included is a long note on the question whether the human soul is material or immaterial, where, reflecting on 1 Cor. 15, Locke concludes that it is both and neither.<sup>82</sup> It is curious that Locke did not copy these notes on St. Paul into *A Paraphrase and Notes*.

A recurring theme in *A Paraphrase and Notes*, and arguably its central theme, is St. Paul himself. Locke depicts him as the founder of normative Christianity, divinely

<sup>80</sup> Meyer, *Philosophy as the Interpreter of Scripture*, 153, 155, 161, 163.

<sup>81</sup> See *A Paraphrase and Notes*, ii, 485. <sup>82</sup> Bod. MS c. 43, 'Adversaria Theologica', WR, 28–33.

appointed, and in his synopses and summaries he goes into considerable detail describing the conflicts in which the Apostle became embroiled defending his authority and his version of the meaning of the Christian revelation, his 'gospel', in which, Locke believed, he was invariably shown to be on the right side. The New Testament itself is evidence that he prevailed, although it signifies no more than that the Apostle succeeded in silencing his adversaries. However, this outcome fits nicely with the special endowment that Locke supposed St. Paul possessed and the authority that flowed from it.

Normative Christianity is 'Gentile Christianity'. I use the term guardedly, for Christianity of whatever variety is historically an offspring of Jewish parents. Moreover, Judaism during the period when Christianity took form was a phenomenon of manifold appearances or sects, as indeed was Christianity from its earliest appearance. The letters of St. Paul focus upon two of them, which, as they attest, in which the adversaries were engaged in something akin to mortal combat. On the one side was St. Paul, the proponent of Gentile Christianity, whose advocacy is represented in these letters as a 'sweet smelling sacrifice to god' to those that are saved, and as having the odor of death to those who stood against it; arrayed on the other side are the so-called Judaizers, advocates of the Mosaic law in all its parts, who could also boast popular preachers of their party, rivals of St. Paul.<sup>83</sup> These are represented in the Pauline letters as 'seducers' into what is false, and 'perverters' of the true gospel, whom St. Paul uncharitably wishes out loud might be 'cut off' from divine favor: they are maligned as 'Hucksters of the word of god preaching it for gain', or false Apostles and liars.<sup>84</sup> The issue between them was whether Gentile converts to Christianity were obliged to observe the Jewish ceremonial law, whether male converts had to undergo circumcision, and men and women were obliged to observe the various duties it prescribed. St. Paul went one step further, arguing that not only Gentile converts, but also Jewish Christians, were free of all such obligation; this is the so-called Christian liberty.

Consistent with his method and principles, Locke takes the various instances of St. Paul's self-presentation as true characterizations. This can be briefly represented with a few examples. First, Locke's paraphrase of the preamble to the Galatians:

Paul (an Apostle not of men to serve their ends or carry on their designs, nor receiving his call or commission by the intervention of any man, to whom he might be thought to owe any respect or deference on that account; but immediately from Jesus Christ and from god the father who raised him up from the dead) ...<sup>85</sup>

Or his paraphrase of 1 Cor. 4:9–16, in which the Apostle excels in demagoguery and engages in exhibitionism with masterful irony, which Locke has captured perfectly in words:

<sup>83</sup> Comment on 1 Cor. 1:10–16, *A Paraphrase and Notes*, i, 166–7.

<sup>84</sup> Comment on Gal. 5:12, *A Paraphrase and Notes*, i, 151; also 2 Cor. 2:17, i, 273; 2 Cor. 10:6, i, 297; these expressions by Locke in describing so called Judaizers, while not anti-Semitic, are surely anti-Judaic.

<sup>85</sup> *A Paraphrase and Notes*, i, 121.

For I being made an Apostle last of all, it seems to me as if I were brought last upon the state to be in my sufferings and death a spectacle to the world and to angels and to men. I am a fool for Christs sake, but you manage your Christian concernes with wisdom. I am weak and in a suffering condition. You are strong and flourishing; you are honourable but I am despised, even to this present hour I both hunger and thirst and want clothes and am buffeted wandering without house or home and maintain my self with the labour of my hands: Being reviled I bless: Being persecuted I suffer patiently: being defamed I intreat: I am made as the filth of the world and the ofscouring of all things unto this day. I wrote not these things to shame you: But as a father to warn ye my children that ye be not the devoted zealous partisans and followers of such whose carriage is not like this; under whom, however you may flatter your selves, in truth you doe not reigne: but on the contrary are domineerd over and fleeced by them. I warn you I say as a father, It was I that begot you in Christ. i e I converted you to Christianity; Wherefore I beseech you be followers of me.<sup>86</sup>

In this paraphrase, Locke does not merely represent St. Paul's boasting, he exaggerates it. In the Authorized Version of vs. 9 (and in the Greek text), which appears in a parallel column beside the paraphrase, St. Paul speaks collectively about Apostles in general: 'For I think that God hath set forth *us* apostles last . . .', and in vs. 10, '*We* are fools for Christ's sake . . .', and so forth. Locke deliberately altered the text, changing first-person plural into first-person singular. Most likely, he did not do this without method. It should be recalled that in his preface, Locke noted St. Paul's practice of 'changing the Personage he speak in', and in his use of the first-person plural, he sometimes means himself alone.<sup>87</sup> He supposed this to be one of those instances.

One last example: Locke's paraphrase of Ephesians 3:1–7:

I *Paul* am a Prisoner, upon account of the Gospel of Jesus Christ, for the Sake and Service of you Gentiles: Which you cannot doubt of, since ye have heard of the Dispensation of the Grace of God, which was given to me in reference to you Gentiles: How that by especial Revelation he made known unto me in particular the Mystery (as I hinted to you above, *viz.* ch. 1.9).<sup>88</sup> By the bare reading whereof ye may be assured of my Knowledge in this formerly conceal'd and unknown part of the Gospel of Christ: Which in former Ages was not made known to the Sons of Men, as it is now revealed to his holy Apostles and Prophets by the Spirit, *viz.* That the Gentiles should be Fellow-Heirs, be united into one Body, and partake of his Promise in Christ, jointly with the Jews, in the time of the Gospel; Of which Doctrine I in particular was made the Minister according to the free and gracious Gift of God, given unto me by the effectual working of his Power, in his so wonderful converting of the Gentiles by my Preaching . . .<sup>89</sup>

The other great theme has to do with St. Paul's conception of Christianity, which is forecast in his self-promotional discourses, but which leads back, through the law of

<sup>86</sup> *A Paraphrase and Notes*, i, 185–6.

<sup>87</sup> *A Paraphrase and Notes*, i, 104.

<sup>88</sup> The allusion is obscure, as Locke observes. In a footnote, he remarks that there is nothing clearer, once the author's intent is taken into account. The particular mystery at issue concerns God's secret plan, now revealed, to make Gentiles and Jews co-heirs of the promises of Christ, and to this end to abrogate the Mosaic ceremonial law for all—Christians, Jews, and Greeks—in short, to make Gentile Christianity the norm of the Christian religion, which was, Locke believed, the Apostles' great achievement, which was divinely ordained.

<sup>89</sup> *A Paraphrase and Notes*, ii, 639–40.



Christ and Law of Moses, which it supersedes, to the law of nature, which Christ, as supreme lawgiver, has given to the world, but in a more perfect way. I conclude this chapter with this theme.

As an interpreter of the New Testament, and especially of St. Paul's letters, Locke was acutely aware that the history of early Christianity is a narrative of internal conflict. Indeed, he made it a central theme of both his theological works. In *The Reasonableness*, it was a conflict between Jesus and the Jewish religious establishment in Jerusalem. In *A Paraphrase and Notes*, it was one between St. Paul and the leaders of the Jewish Christian community. Not surprisingly, Locke sided with Jesus Christ and St. Paul. He was certain that Jesus, and his most favored interpreter, St. Paul, were the initiators of a new world order, of the passing of a former dispensation of divine grace, and the institution of another; of a new mode of divine rule of the universe that was already underway, and would soon be manifest at the end of the age, which, Locke supposed, was coming soon. Locke found this most explicitly stated in the letter to the Ephesians.<sup>90</sup>

In his synopsis of Ephesians,<sup>91</sup> Locke ingloriously explains how the conflict between Jesus and the Jewish leaders was decided by divine power, by the destruction of the temple in Jerusalem, which was supposedly an act of divine retribution against the latter and their nation for failing to acknowledge the Messiah. This concluded the old covenant and the rules on which it was maintained, in particular, the Jewish ceremonial laws 'were speedily taken away'; they were no longer 'Observances necessary to the People of God, and of perpetual Obligation.' But as the record in the New Testament shows, the leaders of the Jewish Christian community failed to get the message, and that failure, Locke concludes, could not have been by chance. St. James, the leader of the Jewish Christian community in Jerusalem, and an opponent of St. Paul, is quoted as saying 'many thousands that believe [Jesus is the Messiah] were all zealous of the Law', by which he meant the whole of the Law of Moses, and most especially, the ceremonial requirements. It must be then that he had not received 'the whole Knowledge of the Gospel', as had St. Paul. Locke stops short of a final judgment. 'Whether this be not so, I leave it to be considered.' But he goes on to say that there can be no doubt that the revelation received by St. Paul is of normative Christianity.

This at least is certain, that St *Paul* alone, more than all the rest of the Apostles, was taken notice of to have preached that the coming of Christ put an end to the Law, and that in the Kingdom of God erected under the Messiah, the Observation of the Law was neither required, nor availed ought, Faith in Christ was the only Condition of Admittance both for Jew and Gentile, all who believed being now equally the People of God, whether circumcised or uncircumcised.<sup>92</sup>

St. Paul's purpose in writing to the Ephesians and Colossians was to remind those Gentile communities of this 'more noble and glorious view of the Gospel', of his gospel.<sup>93</sup>

<sup>90</sup> Locke's manuscript comments on Colossians, Philippians, 1 and 2 Thessalonians, 1 and 2 Timothy, Titus, and Hebrews follow suit; see, ad loc., Bod. Locke 9.103–7 (LL 2864).

<sup>91</sup> Ephesians synopsis, *A Paraphrase and Notes*, ii, 607–10.

<sup>92</sup> *A Paraphrase and Notes*, ii, 608.

<sup>93</sup> See Locke's note on Romans 16:25, *A Paraphrase and Notes*, ii, 603, where he explains St. Paul's use of the expression 'my gospel': 'St Paul cannot be supposed to have used such an expression as this unless he

In a long footnote to Ephesians 1:10, Locke elaborates the gospel of St. Paul. In it Christ is a far more exalted and sublime figure than the one represented in the Gospels and in the *Reasonableness*. Before the world was, he was a supreme ruler of a vast spiritual realm, 'Head over all'. Then followed a revolt led by 'a principal angel' and his hosts of followers, who 'erected to themselves a Kingdom of their own,' 'the Kingdom of Darkness'. Subsequently, they 'had all the Heathen World Vassals and Subjects of that their Kingdom' with one exception. "'Tis true God gather'd to himself a People, and set up a Kingdom here on Earth, which he maintain'd in the little Nation of the Jews,' but this was only a temporary measure, until the 'Fullness of Time,' when Christ came into the world to recover his kingdom and destroy the kingdom of darkness, and by his death and resurrection be reinstated to his 'Supremacy and Headship,' 'all things in heaven and earth bowing the Knee at his Name.'<sup>94</sup> To which Locke could have added, what he surely meant, that to confess Jesus as the Messiah can be no less than this.

Further on in his interpretation of Ephesians, Locke considers how Christ accomplished the winning back of his kingdom. He purchased it with his blood. Thus, Locke seems to have come to regard the death of Christ not as a sacrifice to satisfy God's honor or justice, but a price paid for a kingdom.

When he reclaimed his kingdom, he united 'Jews and Gentiles, into one new Society or Body of God's People, in a new Constitution under himself... he destroy'd that Enmity or Incompatibility that was between them, by nailing to his Cross the Law of ordinances that kept them at a distance.'<sup>95</sup>

Having presented with great sympathy and, I think, accuracy, the gospel of St. Paul, Locke goes a step further. In an interpretative note, he makes clear that what remained of the divine law, when the Mosaic law was abrogated was 'the Law of Nature, or, as it is commonly called, the Moral Law, that unmoveable Rule of Right which is of perpetual Obligation.'

This Jesus Christ is so far from abrogating, that he has promulgated it a new under the Gospel, fuller and clearer than it was in the Mosaical Constitution, or any where else; and by adding to its Precepts the Sanction of his own Divine Authority, has made the Knowledge of that Law more easy and certain than it was before; so that the Subjects of his Kingdom whereof this is now the Law, can be at no doubt or less about their Duty, if they will but read and consider the Rules of Morality, which our Saviour and his Apostles have deliver'd in very plain words in the holy Scriptures of the New Testament.<sup>96</sup>

Locke could not have made it clearer: if morality is the chief business of mankind, then the best way of pursuing it is to become a Christian, a denizen of Christ's kingdom, for in the teaching of Jesus and his Apostles, one will find in very plain words an easy and

knew that what he preachd had some thing in it that distinguished it from what was preachd by others, which was plainly the mystery as he every where calls it of gods purpose of takeing in the Gentiles to be his people under the Messiah and that without subjecting them to circumcision and the law of Moses.'

<sup>94</sup> Note on Eph. 1:10, *A Paraphrase and Notes*, ii, 616–17; see also note on Eph. 2:15, ii, 633–4.

<sup>95</sup> Paraphrase of Eph. 2:15–16, *A Paraphrase and Notes*, ii, 634–5.

<sup>96</sup> Note on Eph. 2:15, *A Paraphrase and Notes*, ii, 635.

certain account of everyman's moral duty, which surpasses beyond measure any humanly made system of morality. Explaining St. Paul was the great work in which he was engaged at the end of his life. It was the completion of his life's work.

Still, one is left with this question, if Christ is the great restorer of morality, should not everyone be required to enter his kingdom and be subject to his rule? Locke's theology is a political theology at least in this respect, that the sovereign legislator of the moral law is God, or his viceregent Christ. One cannot properly obey this moral law, the law of nature, without acknowledging the true lawgiver, and acknowledging also that we are his workmanship and therefore belong to him and not to ourselves. Why did Locke not propose a Christian commonwealth as a proper way to do the business of morality? The answer to this must be found partly in the Christian view of history to which Locke subscribed, and partly in the second *Treatise*. With respect to the former, according to the Scriptures, it was not God's intention to establish his kingdom or the kingdom of Christ—they are the same thing—until the history of redemption had run its course, until the resurrection and the last judgment. In the meantime, whether in a state of nature or in a civil state, the law of nature is the only proper rule to govern human behavior and civil institutions to safeguard human life and property. In the former state: all men are 'Servants of one Sovereign Master, sent into the World by his order and about his business [as was Christ]':

And that all Men be restrained from invading others Rights, and from doing hurt to one another . . . the *Execution* of the Law of Nature is . . . put into every Man's hands, whereby every one has a right to punish the transgressors of that Law to such a Degree, as may hinder its Violation.<sup>97</sup>

In civil society, the law of nature remains sovereign, and to that extent God remains sovereign as legislator.

The Obligations of the Law of Nature cease not in Society . . . The *Rules* that [civil legislators] make for other Mens Actions, must, as well as their own and other Mens Actions, be conformable to the Law of Nature, *i.e.* to the Will of god, of which that is a Declaration . . .<sup>98</sup>

Although Locke wrote these words many years before he began his theological works, he evidently stood by them. Had he changed his mind, he would not have labored to ensure that they would become part of his philosophical legacy. Thus, Locke's political theology, which rested all sovereignty in God, through the law of nature, was made to hold sway over personal morality and the laws of civil society. Locke's moral theory was complete in these political-theological works.

<sup>97</sup> *Two Treatises*, II.6, 7.

<sup>98</sup> *Two Treatises*, II.135.

# Conclusion

The purpose of the foregoing chapters has been to describe the thought of John Locke as the intellectual work of a Christian virtuoso, of an experimental natural philosopher and proponent of the new philosophy, who was also a practicing Christian, a sincere believer, who was confident that the two vocations were not only compatible, but mutually sustaining, and who believed that they could be united in a single philosophical program to produce a system of philosophy, a Christian philosophy. I believe that I have done this.

The advantage of this approach is that it facilitates the integration of the two major parts of Locke's thought. As I have remarked in Chapter 8, during the last decade of his life, which was his most productive period, Locke was engaged concurrently in major philosophical and theological projects: revising and expanding *An Essay concerning Human Understanding* and producing two very substantial theological works. Regarding him as a Christian virtuoso makes it possible to view these projects not merely as complementary but as integral, which is, I believe, what Locke intended. If this is correct, then I have achieved a historically accurate account of Locke's thought. This has been my purpose.

In Chapters 1 and 2, I gave evidence that the ideas of Christian virtuoso and Christian virtuosity were well formed by Locke's immediate predecessors Francis Bacon and Robert Boyle, who by all accounts must be counted among the major founders and achievers of the scientific revolution. It was through them that this vocation became normative for members of the Royal Society of London of which Boyle was a founding member, and whose icon and honorary patron was Francis Bacon. Boyle was Locke's mentor, Bacon, his inspiration.

Chapter 3 shows that virtuosity and Christianity were not easily joined together, for virtuosity tended toward naturalism and atheism, whereas Christianity explicitly and emphatically promoted supernaturalism. Bacon's rule, not to mix natural philosophy with theology, which granted virtual autonomy to each part, only served to heighten the tension between them. It was a difficult marriage, and, in retrospect, divorce was inevitable.

In Chapter 4, I endeavored to show that from the very beginning of Locke's major philosophical project, the two motives of his vocation were operative. The impasse he and his friends encountered in their discussion of the relation between morality and revelation led Locke to realize that the only sure way to overcome it was by determining

the scope and limits of human understanding. In a manner fitting a virtuoso, Locke began work on a logic of enquiry, which he wrote down for his friends to consider. Moving beyond these first hasty thoughts, Locke concluded, as he was writing Draft A, or more precisely, as he was composing an addendum to §27 of the same, circa July 10, 1671, that the system of logical empiricism, sketched out in the Urtext, although not adequate to achieve a science of nature, was suited well enough to demonstrate the existence of God, to discover the moral law, and to open the mind to revelation and to divine assistance, which he believed would be amply supplied. This conclusion would determine the course of the development of the *Essay* in its subsequent drafts and editions.

In Chapters 5 through 7 I presented Locke's philosophical system. My principal source has been *An Essay concerning Human Understanding*. Notwithstanding that Locke continued to regard the *Essay* as a logic of enquiry, whose primary purpose is to define the scope and limits of knowledge and belief, the copious additions and revisions made to it over the years left it replete with all the parts of a standard philosophical system: logic, physics, and ethics. This should come as no surprise in a work that was intended to explain the origin and meaning of the ideas that are the matter of all knowledge.

Locke's philosophical system was a Christian philosophy, the work of a Christian virtuoso, with all its richness and discordances. It was also a system rooted in the nature of things, as is evident from the fact that he employed a method of logical empiricism, reduced metaphysics to physics, accepted atomism as its best hypothesis, equated moral rules with a law of nature, and became assured that mankind was able to obey it, because he is a creature endowed with the capacity to follow rules and driven by a desire for pleasure and an aversion to pain.

Yet Locke's philosophical system is pervaded by negative moments of skepticism and moral pessimism. His version of logical empiricism led him to the conclusion that a science of nature is unattainable, that natural reason may be enlarged only so far as to recognize that there is a hidden essence in everything, without being given the means to discover just what it is or how it works. Moreover, relying on mere natural reason, Locke's moral philosophy did not reach beyond conventionalism and legal positivism, which would have been good enough for framing useful laws that are beneficial to society, but not for seeking heaven. However, Locke's moral pessimism led him to doubt that reason without revelation could in the last analysis serve as an effective means to moral realization. He sought relief in the notion of the enlargement of reason, which allowed him to graft into his philosophical system the sacred historical perspective of Christianity. Jesus Christ offered a clear and authoritative system of moral rules and strong inducements consisting of promises and threats of eternal reward and punishment, and he promised spiritual assistance to anyone who believed in him and sincerely endeavored to obey him. Through these enlargements of reason by revelation Locke was able to transform what must have seemed to him a rather dreary secular system of philosophy into a Christian

philosophy that pointed beyond itself to a grand narrative of sacred history that culminates in the world to come.

This is a notable achievement. And while there may be doubt as to its enduring value, there should be little doubt that it played a preparatory role in the progress of modernity. Locke must now be counted among the creators of early modern systems of philosophy. Like Hobbes, his system is consistently empirical, yet he lacked the daring of Hobbes that led him to embrace materialism. Nor, like Cartesians and Christian Platonists, is he a dualist. In the end, Locke appears to have become a reluctant monist, and, for want of a better theory, a skeptical atomist, and a not so robust but rather sterile yet pious naturalist. Notwithstanding its traditional elements, Locke's system is entirely his own.

If this portrayal of Locke's thought be true, then it is far more complex and problematic than has been commonly supposed. His thought must have been deeply conflicted, and the compatibilities he sought to achieve between reason and revelation, nature and supernature, were fragile and not enduring. All of this belies portraying Locke as a founder of modern liberalism and of modern secular thought. It also belies thinking that there was a smooth path to modernity, and one cannot but wonder whether it doesn't make the very idea of modernity seem illusory.

From a historical philosophical perspective, Bacon, Hobbes, Boyle, and Newton are the real founders of British empiricism, and they remained robust natural philosophers, notwithstanding their piety, whereas the customary trinity of Locke, Berkeley, and Hume, inspired by Locke's skepticism, leads into a metaphysical dead end, a cul-de-sac, in which natural philosophy loses vitality and withers; it is one in which much current Anglophone philosophy still remains.

From this perspective, the great founding moment in early modern philosophy was not Descartes's cogito, but Bacon's rediscovery of Presocratic philosophy, most especially of Democritus' atomism, in which, Bacon believed, ancient Greek philosophy had reached its highest moment; he adopted it as the core or the preferred hypothesis of the new natural philosophy, of the new naturalism on which he supposed the forthcoming revival of learning could be well founded. The founders of British empiricism named above, with the qualified exception of Hobbes, all endeavored, like Locke, to combine a newly discovered material world with vast spiritual domains, with angels, and God above all, and to graft upon this newly fashioned naturalism a moral religion that directed them to another world. I hope that I have made it apparent that their endeavor to achieve this involved them in a great intellectual struggle to overcome formidable intellectual obstacles; that they succeeded in fashioning systems that accommodated such diverse sorts of things is testimony to their ingenuity. That they accomplished this without compromising natural philosophy is testimony to their enduring reputation.

One of Locke's achievements that often goes unnoticed is in theology, and in this respect his virtuosity was well used. He was one of the founders of modern biblical theology, which, although decidedly Protestant in its inception—I am reminded of

Chillingworth's dictum: 'The Bible, I say, the Bible, is the religion of Protestants'—has become a standard way of doing theology among Christians who desire to reconcile historical critical learning with faith. His theological works are mature expressions of this endeavor. It is in this context, by the way, that we must reconsider the much-overworked theme of Locke's heterodoxy. For a biblical theologian, the starting point of the Christian theology does not lie in one or another formula in the orthodox creeds, but in the supposed originating events of Christianity, which in turn are set in a narrative of sacred history, looking toward the fulfillment of the divine purpose in the establishment of the kingdom of God. This mythic-historical aspect of Jesus the Messiah, and not the metaphysical constitution of God, one or three, is the focus of the biblical theologian's attention. The Christian gospel is supposed to provide the key to the meaning of history. Locke saw this clearly. When viewed from this perspective, Locke's theological system, such as it was, is as rich and as satisfying, perhaps more so, than its scholastic predecessors. One more instance of Locke's achievement is *A Paraphrase and Notes*, whose preface offers the most incisive and penetrating account of the mind of St. Paul ever written by a modern scholar; it is replete with hermeneutical insights founded on empirical philological evidence.

For Locke, biblical theology had another role to play. It provided a way to avoid ethical naturalism. It is not the case that Locke reduced Christianity to morality in order to prove its reasonableness; rather, he used Christianity to elevate morality to a status above nature. He achieved this without compromising his method, which remains the same, whether he is thinking philosophically or theologically. This methodological consistency is also a notable achievement.

Whether Locke's achievements are of lasting philosophical value brings us back to where we started. A Christian philosopher in search of promising options, should, I think, answer affirmatively. To be sure, questions about what is living and dead in systems like Locke's seem unresolvable. Natural philosophy and biblical scholarship have progressed since Locke's time, yet when necessary changes are made to bring things up to date, and when all is said and done, I am confident that an inquisitive Christian philosopher will find Locke's system congenial, accommodating, and useful in promoting intellectual piety. What is more, a Christian philosopher will find that Bacon, Boyle, and Locke, following them, offer assistance in reuniting physics and philosophy and making them more intimate, which should be a desideratum for any philosopher religious or otherwise. It is my hope that in this interpretation of Locke's philosophy, I have provided Christian philosophers with something useful in their endeavors and perhaps even provided them with more reasons to believe.

For others like me, who are not persuaded by the gospel, and who prefer the wisdom of Lucretius over that of the Bible and its interpreters, the lasting value of Locke's system is mostly historical and hermeneutical. It is a significant moment in the past, no more, even though the *Essay* remains a convenient place to start when thinking about contemporary philosophical issues concerning perception, consciousness, natural kinds, personal identity, and suchlike.

I regret that this account of Locke's Christian philosophy is not complete, inasmuch as it lacks an extended discussion of his political writings. Given the nature of this study, its inclusion may seem warranted. The *Letter on Toleration*, because it limits the extent of civil toleration so as to exclude atheists whilst it tolerates all varieties of theistic religion, puts it in the category of political theology. It is in perfect keeping with Locke's theology of history, according to which the kingdom of Christ, although manifest in this world in several ways, is not of this world. The doctrine of the *Two Treatises* is also, in its core, theological. This is evident in the central role that the law of nature, a divine law, plays in Locke's politics, in the right of people living under tyranny to appeal to heaven, which is an appeal to an active providential God to intervene in the course of events, and most especially in its representation of rational human beings as bearers of the law of nature, sent into the world to do God's business, which makes them all tokens of Christ. My excuse for this omission is that to embark on a discourse concerning Locke's political theology would have been distracting from my main theme, it would have increased the size of an already overly long book, and delayed its completion. Moreover, it is a subject large enough for another project that must await its time.





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