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Locke on the Probability of the Mind's Immateriality

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Abstract:

For many years, there has been a vibrant debate about whether Locke is friendly or hostile to the proposition that the mind is a material thing. On the one hand, there are passages in which Locke tells us that it is probable that the mind is immaterial. On the other hand, there are passages in which Locke expressly allows for the possibility that matter, suitably arranged, could be given the power to think. It is no surprise, then, that some scholars assume that Locke is a dualist, while other scholars think that Locke is a materialist. Yet others think that Locke studiously tries to remain completely agnostic about the nature of mind. Taking the relevant primary sources and secondary literature into account, I argue that Locke takes it to be more probable than not that the mind is immaterial.

A correction for this article has been published as “*Corrigendum and Errata* to Samuel C. Rickless’s ‘Locke on the Probability of the Mind’s Immateriality,’ *Locke Studies* 20 (2020): 1–28, <https://doi.org/10.5206/ls.2020.10677>,” in *Locke Studies* 21 (2021): 1–2, <https://doi.org/10.5206/ls.2021.13725>. Rickless provides a *corrigendum* to his interpretation of Jolley’s position in *Locke’s Touchy Subjects*. Three editorial *errata* are also noted there and corrected in this version of the article.

Keywords: John Locke, mind, probability, material, immaterial, animals, knowledge, corrected publication

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1. Introduction

In recent years, there has been a vibrant debate about whether Locke is friendly or hostile to the proposition that the mind is a material thing.¹ It is clear that Locke disavows *knowledge* of whether the mind is material or immaterial (e.g., IV.iii.6, 542), but what prompts disagreement among commentators is whether Locke thinks that it is probable or improbable that the mind is immaterial.² Some scholars, notably Jolley³ and Jacovides,⁴ think that Locke leans toward immaterialism, rather than toward materialism, of mind. Others, notably Hamou,⁵ Downing,⁶ and Dempsey,⁷ argue that Locke leans in the opposite direction, toward materialism, rather than immaterialism.

My purpose is to defend and explain the claim that Locke leans in the direction of the mind's immateriality. Here I will take issue both with the scholars who find Locke's commitment to the probability of immaterialism mysterious (e.g., Jolley) and with those who think they have identified what, for Locke, renders immaterialism more probable than materialism (e.g., Jacovides). But I begin by criticizing the most intriguing and persuasive arguments for the claim that Locke is a closet materialist, developed by Hamou, Downing, and Dempsey. In order to persuade you that Locke assigns a higher probability to the mind's being immaterial than he does to the mind's being material, I first need to explain why I am not convinced by Hamou's, Downing's, and Dempsey's arguments to the contrary.

¹ Locke uses "mind" or "spirit" to refer to the entity, whatever its nature may be, that has the power to think: "We know certainly by Experience, that we sometimes think, and thence draw this infallible Consequence, That there is something in us, that has a Power to think" (II.i.10, 108–9); "When we speak of any sort of Substance, we say it is a *thing* having such or such Qualities, as . . . Spirit [is] a *thing* capable of thinking" (II.xxiii.3, 297). Sometimes, Locke includes the idea of a power to move bodies or stop their motion in his idea of mind or spirit (see, e.g., II.xxiii.15, 305; II.xxiii.18, 306; II.xxiii.22, 307–8; II.xxiii.30, 312–13).

² References to the *Essay* are to John Locke, *An Essay concerning Human Understanding*, ed. Peter H. Nidditch, (Oxford: Clarendon Press, 1975).

³ Nicholas Jolley, *Locke's Touchy Subjects: Materialism and Immortality* (Oxford: Oxford University Press, 2015).

⁴ Michael Jacovides, *Locke's Image of the World* (Oxford: Oxford University Press, 2017).

⁵ Philippe Hamou, "L'opinion de Locke sur la 'matière pensante'" in *John Locke*, vol. 3 *Metaphysics*, ed. Peter R. Anstey, Critical Assessments of Leading Philosophers, Series II (London: Routledge, 2007), 169–216. See also idem, "La conjecture de la matière pensante," chap. 10 in *Dans la chambre obscure de l'esprit: John Locke et l'invention du mind* (Paris: Ithaque, 2018).

⁶ Lisa Downing, "Locke's Choice between Materialism and Dualism" in *Locke and Leibniz on Substance*, eds. Paul Lodge and Tom Stoneham, (New York: Routledge, 2015), 128–45.

⁷ Liam P. Dempsey, "John Locke, 'Hobbit': Of Sleeping Souls and Thinking Matter," *Canadian Journal of Philosophy* 47, no. 4 (2017): 454–76, <https://doi.org/10.1080/00455091.2016.1250201>.

2. Preliminaries

In order to understand Locke's official position, as well as views according to which his official position does not reflect his actual philosophical commitments, we need to understand the distinction between knowledge and judgment, which is fundamental to Locke's epistemology. Locke defines knowledge as "the perception of the Agreement, or Disagreement of any two Ideas" (IV.ii.15, 538). Agreement is a relation between ideas that Locke does not define, though he tells us that there are four kinds of agreement: sameness, coexistence, some other relation, and real existence (IV.i.3, 525). Perception of such agreement is also something that Locke does not define. But he provides some elucidation of the concept by contrasting it with the concepts of judgment and assent. To understand the contrast, one needs to understand that Locke distinguishes between mental propositions and verbal propositions. A mental proposition is formed by joining ideas in an affirmation; a verbal proposition is formed by joining words that express those ideas in an affirmative sentence (IV.v.2, 574). To perceive a relation between two ideas is to see the truth of a mental proposition formed by affirmatively joining those ideas together (IV.v.6, 576). Perception, in this sense, is factive: if one perceives that two ideas agree, then those ideas really do agree. Judgment and assent, by contrast, consist in taking a proposition to be true without perceiving it to be true: the proposition that is taken to be true in the case of judgment is mental, whereas the proposition that is taken to be true in the case of assent is verbal (IV.xiv.3, 653).

Locke goes on to distinguish between three "degrees" of knowledge: intuitive, demonstrative, and sensitive. Intuitive knowledge is defined as immediate perception of ideational agreement, that is, perception of such agreement "without the intervention of any other [ideal]" (IV.ii.1, 530–31). Demonstrative knowledge, by contrast, is mediate perception of such agreement, that is, perception of agreement that is mediated by intervening ideas, which Locke calls "proofs" (IV.ii.3, 532). There is a great deal of controversy about whether Locke treats sensitive knowledge as a third kind of knowledge or as a kind of judgment, but it is a controversy that we can put to one side here.⁸

⁸ The secondary literature on Locke's conception of sensitive knowledge is vast. See, among others, David Owen, "Locke on Sensitive Knowledge," (unpublished manuscript, December 2008); Lex Newman, "Locke on Knowledge," in *The Cambridge Companion to Locke's 'Essay concerning Human Understanding'*, ed. Lex Newman, (Cambridge: Cambridge University Press, 2007), 313–51; Samuel C. Rickless, "Is Locke's Theory of Knowledge Inconsistent?" *Philosophy and Phenomenological Research* 77, no. 1 (July 2008): 83–104, <https://doi.org/10.1111/j.1933-1592.2008.00177.x>; Samuel C. Rickless, "Locke's 'Sensitive Knowledge': Knowledge or Assurance?" in *Oxford Studies in Early Modern Philosophy, Volume VII*, eds. Daniel Garber and Donald Rutherford (Oxford: Oxford University Press, 2016), 187–224; Scott Stapleford, "Locke on Sensitive Knowledge as Knowledge," *Theoria* 75, no. 3 (September 2009): 206–31, <https://doi.org/10.1111/j.1755-2567.2009.01040.x>; Keith Allen, "Locke and Sensitive Knowledge," *Journal of the History of Philosophy* 51, no. 2 (April 2013): 249–66, <https://doi.org/10.1353/hph.2013.0029>; Nathan Rockwood, "Is Sensitive Knowledge 'Knowledge'?" *Locke Studies* 13 (2013): 15–30; Aaron Bruce Wilson, "Locke's Externalism about 'Sensitive Knowledge'," *British Journal for the History of Philosophy* 22, no. 3 (May 2014): 425–45, <https://doi.org/10.1080/09608788.2014.918023>; Jennifer Nagel, "Sensitive Knowledge: Locke on Skepticism and Sensation" in *The Blackwell Companion to Locke*, ed. Matthew Stuart, (Oxford: Blackwell, 2015), 313–33; Jennifer Smalligan Marušić, "Locke's Simple Account

Judgment, unlike knowledge, is based on probability, which Locke defines as “the appearance of . . . Agreement, or Disagreement, by the intervention of Proofs, whose connexion is not constant and immutable, or at least is not perceived to be so, but is, or appears for the most part to be so” (IV.xv.1, 654). Locke tells us that there are two grounds of probability: “First, The conformity of any thing with our own Knowledge, Observation, and Experience. Secondly, The Testimony of others” with particular respect to the number, integrity, skill, and design of witnesses, together with “The Consistency of the Parts, and Circumstances of the Relation” (IV.xv.4, 656). The probable truth of an unknown or unknowable proposition rises in proportion to the degree to which existing knowledge, experience, and testimony support it. Thus, judgment and assent, for Locke, come in degrees. Assent that is based on the highest degree of probability, the kind of assent that “rises so near to Certainty” that it “govern[s] our Thoughts as absolutely, and influence[s] all our Actions as fully, as the most evident demonstration,” Locke defines as “assurance” (IV.xvi.6, 662). One grade below assurance we find “confidence” (IV.xvi.7–8, 662–63). In both of these cases, Locke says that we are put past doubt and that acceptance of the proposition’s truth is unavoidable (IV.xvi.6–9, 662–63). Below confidence, Locke says that it is “impossible to reduce to precise Rules, the various degrees wherein Men give their Assent” (IV.xvi.9, 663). But this much, he tells us, may be said: “As the Arguments and Proofs, pro and con, upon due Examination, nicely weighing every particular Circumstance, shall to any one appear, upon the whole matter, in a greater or less degree, to preponderate on either side, so they are fitted to produce in the Mind such different Entertainment, as we call Belief, Conjecture, Guess, Doubt, Wavering, Distrust, Disbelief, etc.” (IV.xvi.9, 663).

Thus, a cognizer’s epistemic aim, when knowledge cannot be attained, is “to proportion the Assent to the different Evidence and Probability of the thing” (IV.xvi.9, 663). So, when the evidence for a proposition is weak, such as when there is little in the way of observation or testimony to support it, or when observation and testimony point in different directions, one’s level of assent to the proposition should not be at the level of assurance, but rather at the level of conjecture or guess. And the reverse, of course, when the evidence for a proposition is strong.

The grounds of judgment or assent, then, are conformity with existing knowledge, observation, and testimony. Regarding the latter kind of evidence, particularly with respect to the strength of testimony as information is passed down from one person to another, Locke has very interesting things to say (IV.xvi.10–11, 663–64). But these remarks do not concern us here, because the question of the mind’s immateriality cannot be settled by testimony. There is also no direct observation of the mind’s materiality or immateriality. When both observation and testimony are unavailable, Locke claims that propositions “can appear more or less probable, only as they more or less agree to Truths that are established in our Minds, and as they hold proportion to other parts of our

Knowledge and Observation” (IV.xvi.12, 665). This is what Locke calls “Analogy,” which is “the only help we have” in such matters (IV.xvi.12, 665).

Locke provides us with three examples of reasoning by analogy. The first is that “observing that the bare rubbing of two Bodies violently one upon another, produces heat, and very often fire it self, we have reason to think, that what we call Heat and Fire, consists in a violent agitation of the imperceptible minute parts of the burning matter.” The second is that from the observation that the different angles of refraction of light through pellucid bodies and the different arrangement of the parts on the surface of opaque bodies produce ideas of different colors in our minds, we infer that color in bodies is “nothing but the different Arrangement and Refraction of their minute and insensible parts.” And the third is that observation of a gradual descent in perfections from human beings through the animal kingdom to “the lowest Species of living Things” strongly suggests that “there are several ranks of intelligent Beings, excelling us in several degrees of Perfection, ascending upwards towards the infinite Perfection of the Creator, by gentle steps and differences” (IV.xvi.12, 665–66).

3. Judgment, Not Knowledge

The first question, then, is whether, given this background, Locke thinks that we have knowledge or merely, at best, judgment or assent about the mind’s immateriality. To this question, the answer is plain: Locke does not think that we perceive, nor does he think it possible that we shall ever perceive, any agreement between the idea of a mind and the idea of its being material (or immaterial). We know, says Locke, that “we have in us something that thinks,” but “we must content our selves in the Ignorance of what kind of Being it is” (IV.iii.6, 543). For all we know, it is possible that the spirit or soul that supports our mental acts is material, and, for all we know, it is possible that that spirit or soul is immaterial. There is no certainty to be had with regard to this issue. As Locke makes clear: “it [is] impossible for us, by the contemplation of our own Ideas, without revelation, to discover, whether Omnipotency has not given to some Systems of Matter fitly disposed, a power to perceive and think, or else joined and fixed to Matter so disposed, a thinking immaterial Substance” (IV.iii.6, 540–41). And when Edward Stillingfleet, Bishop of Worcester, presses him on this issue, Locke doubles down: “And therefore, if your lordship means by a spiritual an immaterial substance, I grant I have not proved, nor upon my principles can it be proved, (your lordship meaning, as I think you do, demonstratively proved) that there is an immaterial substance in us that thinks.”⁹

This leaves two possibilities regarding the epistemic attitude that one should take to the mind’s immateriality: judgment, or suspension of judgment. Locke says a few things that might be read as suggesting that he views the situation as a matter of equipollence (*isostheneia*), as the ancient skeptics would have described it: “And he who will give himself leave to consider freely, and look into the dark and intricate part of each

⁹ John Locke, *A Letter to the Right Rev. Edward Lord Bishop of Worcester*, in *The Works of John Locke*, 10 vols. (London, 1823), 4:33.

Hypothesis, will scarce find his Reason able to determine him fixedly for, or against the Soul's Materiality" (IV.iii.6, 542). Equipollence occurs when the arguments on both sides of an issue are of equal weight or probative value, and suspension of judgment is both the natural and appropriate result in such a situation. But Locke's use of the word "fixedly" here indicates that this is not how he views things. His point, when the passage is read in context, is that neither the proposition that the soul is material nor the proposition that the soul is immaterial is self-evident, nor is it possible to attain demonstrative knowledge of the truth of either proposition. This leaves it open whether judgment, or suspension of judgment, is appropriate in the circumstances.

And here there is really little doubt about Locke's explicit views. In the *Essay*, after telling the reader that we cannot know whether we have in us an immaterial soul that thinks or whether God has superadded to matter in our bodies the power of thinking, he writes: "I say not this, that I would any way lessen the belief of the Soul's Immateriality: I am not here speaking of Probability, but Knowledge . . .; the state we are at present in, not being that of Vision, we must, in many Things, content our selves with Faith and Probability" (IV.iii.6, 541–42). The suggestion here that it is more probable than not that the soul is immaterial is supported by other passages. For example, in the chapter on personal identity (added to the second edition), Locke writes: "I agree the more probable Opinion is, that this consciousness is annexed to, and the Affection of one individual immaterial Substance" (II.xxvii.25, 345). And, a few sections on, we find him saying: "But taking, as we ordinarily now do, (in the dark concerning these Matters) the Soul of a Man, for an immaterial Substance, independent from Matter" (II.xxvii.27, 347). Moreover, when Stillingfleet pushes him on the issue, Locke does not hold back: "I presume, from what I have said about the supposition of a system of matter thinking (which there demonstrates that God is immaterial) will prove it in the highest degree probable, that the thinking substance in us is immaterial."¹⁰

Now there are some, such as Hamou, who think that these passages prove less than is commonly supposed. So, before moving on to the evidence that Locke may have taken to support belief in the soul's immateriality, let me address his arguments.

When Locke says that he does not mean to "lessen the belief of the Soul's Immateriality," Hamou claims that Locke "does not actually say that this common belief is also his own" and that "it could also be that Locke, although of dissenting opinion, is simply not willing to argue against a view that has recently received the seal of orthodoxy."¹¹ This strikes me as an overreading of the passage, given that just a few lines later Locke mentions that "we" (that is, "I myself and others") must content ourselves with probability. It is quite plain, in fact, that Locke means us to understand "the belief" here

¹⁰ Locke, *Letter to Stillingfleet*, 4:33. Matthew Stuart, *Locke's Metaphysics* (Oxford: Oxford University Press, 2013), 264, also points out, rightly in my view, that Locke's argument at IV.x.18 that God created matter *ex nihilo* relies on the assumption that human spirits (or minds) are immaterial. As far as I am aware, no commentator (not even Hamou) has argued that there might be reasons to discount this passage as evidence that Locke takes the immateriality of human minds for granted.

¹¹ Hamou, "L'opinion," 180.

as one that he himself holds (or ought to hold). This is in keeping with his statement in the personal identity chapter about how “we” ordinarily take the souls of human beings to be immaterial. Notice, too, that, given the context, Locke is almost certainly using the term “belief” to refer to a degree of assent based on a fairly high probability, one that he places just below “confidence” in the relevant epistemic hierarchy (see IV.xvi.9, 663).

Regarding the statement in section 25 of the personal identity chapter that Locke agrees “the more probable Opinion is, that this consciousness is annexed to, and the Affection of one individual immaterial Substance,” Hamou writes that, up to this point in the chapter, “Locke has been considering the question of personal identity from the point of view of those who assign thinking to an immaterial substance and under the supposition that they are right to do so.” Hamou concludes: “Thus, paragraph 25 is not stating that immateriality of the soul is intrinsically probable, but only that, granting that the soul is immaterial, it is probable that the same individual immaterial substance is always annexed to the same individual consciousness and vice versa.”¹²

This is a clever suggestion, and I think Hamou’s reading can’t be completely ruled out. Still, we need to ask what would ground the probability that the same consciousness is always annexed to the same thinking substance, on the assumption that that substance is immaterial. Earlier in the chapter, Locke suggests that transfer of consciousness from one immaterial substance to another is something against which God, being good, would guard. For, in the case of transfer, it would happen on the day of judgment that one immaterial substance was punished or rewarded for something that was done or thought by another immaterial substance. Interestingly, however, Locke then adds: “How far this may be an Argument against those who would place Thinking in a System of fleeting animal Spirits, I leave to be considered” (II.xxvii.13, 338). Why would he say this? Animal spirits, according to the best theory of the time, were taken to be tiny corpuscles flowing through nerves that emanate from the brain and reach out to the various parts of our bodies.¹³ So, Locke clearly thinks that the same considerations that hold against the supposition that consciousness is transferred from one thinking substance to another may also hold against the supposition that thinking is placed in a system of material corpuscles. Thus, as he intimates, if these considerations establish that the supposition of

¹² Hamou, “L’opinion,” 184.

¹³ See, for example, Thomas Willis, *An Essay of the Pathology of the Brain and Nervous Stock*, (London, 1681). Willis was Locke’s teacher at Oxford and a noted anatomist and physician. For more on Willis’s views, see Kathryn Tabb, “‘Struck, As It Were, with Madness’: Phenomenology and Animal Spirits in the Neuropathology of Thomas Willis,” in *Brain, Mind and Consciousness in the History of Neuroscience*, eds. C. U. M. Smith and Harry Whitaker, History, Philosophy and Theory of the Life Sciences 6 (Dordrecht: Springer, 2014), 43–57. See also René Descartes, *The Passions of the Soul and Treatise on Man*, in vol 1 of *The Philosophical Writings of Descartes*, trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1985), esp. 1:100 and 331–32.

transfer is improbable, they also establish the improbability of the thinking matter hypothesis.¹⁴

Regarding Locke's first reply to Stillingfleet, Hamou recognizes that "Locke quite unambiguously affirms" that it is "highly probable that the soul is immaterial." Nevertheless, argues Hamou, this assertion "is not expressive of Locke's most sincere and deep beliefs." In other words, Hamou takes Locke to be engaging in "insincerity or dissimulation."¹⁵ The basis for this charge is that the *Essay* had come under fire by some who took it to be inconsistent with elements of Christian doctrine, such as the Trinity, the Resurrection, and the doctrine of the soul's immortality. Given Stillingfleet's self-conception as a defender of Christian orthodoxy, Hamou claims that "Stillingfleet is certainly the last person to whom Locke would confess heterodox opinions," such as the soul's materiality. But this is to suppose that Locke actually held heterodox opinions. And this is precisely what is at issue here. To suppose that Locke is insincere because he doesn't want to confess to Stillingfleet that he thinks it more probable than not that the soul is material is to beg the interpretive question.

Perhaps more importantly, Locke is not afraid of offering potentially heterodox opinions, as well as opinions that a very large number of Anglican divines would find dangerous. For example, Locke insists in *The Reasonableness of Christianity* that believing that Christ is the messiah is both necessary and sufficient to count as a Christian.¹⁶ Locke must have known that this would rub Anglican Church prelates the wrong way, given the importance they attached to the Nicene Creed and its principles, including the Incarnation, the Trinity, the Resurrection, and the Immortality of the Soul. Indeed, it was in part for this reason that the book was vigorously attacked by the anti-

¹⁴ An anonymous referee suggests that the word "place" in "place thinking in a System of fleeting animal Spirits" (II.xxvii.13, 338) is ambiguous: Locke, says the referee, could mean that thinking is superadded to the system (something Locke thinks is possible) or that the system produces thinking (something Locke does not think is possible). The referee then suggests that this ambiguity vitiates my conclusion that Locke thinks that thinking matter is improbable. However, the context of II.xxvii.13 speaks against the referee's claim of ambiguity. Locke's discussion is framed by a disjunction in II.xxvii.12–13, to the effect that either what is doing a person's thinking is a material substance or what is doing the person's thinking is an immaterial substance. In section 12 Locke begins with the question "whether if the same Substance, which thinks, be changed, it can be the same Person." (II.xxvii.12, 337) He then tells us that this question receives the same answer (or similar answers), whether one "place[s] Thought in a purely material . . . Constitution" or one "suppose[es] immaterial Substances only to think." (II.xxvii.12–13, 337) The contrast between placing thought in a material constitution and supposing that only immaterial substances think indicates that Locke is taking for granted that "placing" thought in a material constitution amounts to supposing that material substances think. In other words, when Locke says in section 13 that there might be an "Argument against those who would place Thinking in a System of fleeting animal Spirits," he should be read as saying that there might be an argument against those who suppose that thinking has been superadded to such a system, not that there might be an argument against those who suppose that such a system *produces* thinking.

¹⁵ Hamou, "L'opinion," 190.

¹⁶ John Locke, *The Reasonableness of Christianity, as Delivered in the Scriptures*, ed. John C. Higgins-Biddle. Oxford: Clarendon Press, 1999.

latitudinarian, John Edwards, and a public exchange of letters between Locke and Edwards ensued.¹⁷ So, it seems unreasonable to believe that Locke was too worried about controversy to publish material that he thought might seriously offend High Church Anglicans. Sometimes he published under his own name, sometimes he published anonymously, but after the *Essay* he continued to publish works that he knew would ruffle their feathers.¹⁸

Hamou says that Locke's framing of the issue suggests that he does not count himself among those who think it probable that the soul is immaterial. Here Hamou focuses on the following passage: "I presume, from what I have said about the supposition of a system of matter thinking (which there demonstrates that God is immaterial) will prove it in the highest degree probable, that the thinking substance in us is immaterial."¹⁹ For Hamou, this statement is "entirely concerned with the question of how to interpret what Locke has written in the *Essay*, rather than with the [thing itself] under discussion, or the opinions Locke actually entertains about [it]."²⁰ But this reading is belied by some of what

¹⁷ Edwards' first published criticisms of Locke's *Reasonableness* appeared as an afterthought in *Some Thoughts concerning the Several Causes and Occasions of Atheism* (London, 1695). Locke replied very quickly with *A Vindication of the Reasonableness of Christianity* (in *Vindications of the Reasonableness of Christianity*, ed. Victor Nuovo, The Clarendon Edition of the Works of John Locke [Oxford: Clarendon Press, 2012], 7–26). Edwards replied in *Socinianism Unmask'd* (London, 1696) and *The Socinian Creed* (London, 1697), prompting Locke to publish a further response, *A Second Vindication of the Reasonableness of Christianity*, twelve times the length of the first (in *Vindications*, 31–233). For a helpful account of the controversy, see Victor Nuovo, general introduction to *Vindications*, xix–lxxvii and Roger Woolhouse, *Locke: A Biography* (Cambridge: Cambridge University Press, 2007), 350–54 and 376–84.

¹⁸ Liam P. Dempsey notes that upon Locke's death there were forty-three Socinian books in his library. ("A Compound Wholly Mortal': Locke and Newton on the Metaphysics of (Personal) Immortality," *British Journal for the History of Philosophy* 19, no. 2 [March 2011]: 249, <https://doi.org/10.1080/09608788.2011.555161> citing Stephen D. Snobelen, "Isaac Newton, Socinianism and 'The One Supreme God'," in *Socinianism and Arminianism: Antitrinitarians, Calvinists and Cultural Exchange in Seventeenth-Century Europe*, eds. Martin Mulrow and Jan Rohls [Leiden: Brill, 2005], 247) It may be that Locke held heterodox opinions (regarding such matters as the Trinity and the Immortality of the Soul), but the mere existence of Socinian books in his library is not sufficient to establish that Locke was friendly to Socinianism. After all, Edwards accused Locke of being a Socinian, and it would have made sense for Locke to inform himself about the published views of Socinians before publishing responses to Edwards' charges.

Dempsey also claims that Locke was inclined toward the doctrine of soul-sleep, or *psychopannychia*, a version of Christian mortalism according to which the soul continues to exist in a state of unconsciousness after the death of the body, until the Resurrection. (Dempsey, "Compound'," 256) He rightly points out that *psychopannychia* was repudiated in the Forty-Two Articles of 1553, which summarized Anglican orthodoxy, suggesting that Locke held unorthodox eschatological views. (Dempsey, "Compound'," 247) However, it should be noted that there was a great deal of vigorous intramural debate among Protestants in the sixteenth and seventeenth centuries about what happens between death and resurrection. Indeed, the repudiation of *psychopannychia* in the Forty-Two Articles was explicitly removed from the Thirty-Nine Articles of 1563, which became the standard doctrinal compendium for the Church of England after an Act of Parliament requiring Anglican clergymen to subscribe to it in 1571.

¹⁹ Locke, *Letter to Stillingfleet*, 4:33.

²⁰ Hamou, "L'opinion," 191.

Locke writes just a few pages later. For, as he tells us: “If by spiritual substance your lordship means an immaterial substance in us . . . , I grant . . . that it cannot, upon these principles, be demonstrated. But I must crave leave to say at the same time, that upon these principles it can be proved, to the highest degree of probability,” and again, God “has put into us a thinking substance, which, whether it be a material or immaterial substance, cannot be infallibly demonstrated from our ideas; though from them it may be proved, that it is to the highest degree probable that it is immaterial.”²¹ Thus, Locke is not merely venturing an interpretation of something written in the *Essay*; he is also revealing his own commitment to the probable truth of the soul’s immateriality.

4. The Case for the Soul’s Materiality

So far, then, we have passages that explicitly indicate Locke’s support for the idea that the human soul is probably immaterial, and we have been given little reason to discount them. But some scholars, notably Hamou, Downing, and Dempsey, think that there are strong reasons for thinking that Locke is committed to the proposition that it is more probable than not that the soul is material. I would like to consider these reasons, and then, in the next section, consider the reasons on the opposite side.

Both Hamou and Downing are struck by various statements Locke makes to the effect that there is a chain of being, “a kind of gradation in natural activities, which can all be placed on a hierarchical or continuous scale going from brute passive motion to rational thought.”²² The most important passage here is from Book IV of the *Essay*:

[We find] in all parts of the Creation, that fall under humane Observation, that there is a gradual connexion of one with another, without any great or discernable gaps between, in all that great variety of Things we see in the World ’Tis an hard Matter to say where Sensible and Rational begin, and where Insensible and Irrational end The difference is exceeding great between some Men, and some Animals: But if we will compare the Understanding and Abilities of some Men, and some Brutes, we shall find so little difference, that ’twill be hard to say, that that of the Man is either clearer or larger. (IV.xvi.12, 666)

The suggestion here is that there is little difference between the cognitive abilities of some human beings and some non-human animals (henceforth, I will refer to non-human animals as “animals”). If, then, there is reason to think that animals are wholly material beings, it would appear to follow, by analogical reasoning, that human beings too are probably wholly material beings. Hamou and Downing think that Locke provides such a reason, for, in his second reply to Stillingfleet, he says that God produced animals by superadding “life, sense, and spontaneous motion” and “a power of propagation” to “the

²¹ Locke, *Letter to Stillingfleet*, 4:36–37. See also *Mr. Locke’s Reply to the Bishop of Worcester’s Answer to his Second Letter*, in *Works*, 4:474 and 493.

²² Hamou, “L’opinion,” 195. See also Downing, “Locke’s Choice,” 136.

dull dead earth.”²³ In addition, Locke tells us that “other parts of [matter God] frames into plants, [which are] still but matter: to other parts he adds sense and spontaneous motion, and those other properties that are to be found in an elephant.” So, if plants and animals are material beings to which God has superadded certain powers (nutrition, propagation, sense, spontaneous motion), it stands to reason that human beings too are probably material beings to which God has superadded the additional powers of “thought, reason, and volition.”²⁴

I agree that the cognitive similarities that exist between some human beings and some animals provide some analogical reason for thinking that these two sorts of beings are similar. But I am not convinced that these reasons are particularly strong, at least in Locke’s eyes. Downing²⁵ recognizes that, for Locke, there is, at least in all probability, “a perfect distinction betwixt Man and Brutes,” consisting in the fact that the former possesses, while the latter lacks, “the power of Abstracting” (II.xi.10, 159). According to Locke, abstraction is a mental operation whereby the mind considers an idea “separate from all other Existences, and the circumstances of real Existence, as Time, Place, or any other concomitant Ideas,” focusing only on what various ideas have in common (as chalk and snow have whiteness in common) and leaving out what distinguishes them (II.xi.9, 159; III.iii.7–9, 411–12). This mental power, Locke says, is “not at all in [brutes]” (II.xi.10, 159). For Locke, this is a significant difference: “And therefore I think we may suppose, That ’tis in this, that the Species of Brutes are discriminated from Man; and ’tis that proper difference wherein they are wholly separated, and which at last widens to so vast a distance” (II.xi.11, 160).

It is also worth pointing out that abstraction is not the only mental power that Locke thinks animals probably lack. He tells us that he thinks that “Beasts compare not their Ideas, farther than some sensible Circumstances annexed to the Objects themselves,” and that the power to compare “general Ideas,” which is “useful only to abstract Reasonings,” is “something we may probably conjecture Beasts have not” (II.xi.5, 157–58). The evidence, then, suggests that animals have only a very limited ability to compare ideas, and what this means is that their minds are not likely to be stocked with ideas of relations (which is the kind of idea that the operation of comparing produces—II.xii.7, 166). And since “Powers are Relations,” (II.xxi.19, 243) it follows that animals likely have no ideas of powers, which means that they have few, if any, ideas of substances, and such substance-ideas as they have are meager, given that “Powers make a great part of our complex Ideas of Substances” (II.xxiii.8, 300).

Even more importantly, with respect to the power of compounding ideas, and thereby manufacturing complex ideas, Locke writes that “Brutes come far short of Men.” This is because, though they “take in, and retain together several Combinations of simple Ideas . . . , yet, I do not think they do themselves ever compound them, and make complex Ideas.”

²³ Locke, *Second Reply to Stillingfleet*, 4:462.

²⁴ Locke, *Second Reply to Stillingfleet*, 4:460.

²⁵ Downing, “Locke’s Choice,” 136.

Thus, instead of forming a complex idea of his master from the master's shape, smell, and voice, a dog, says Locke, will treat these features as "so many distinct Marks whereby he knows him." As further evidence suggesting that animals do not form complex ideas, Locke cites female dogs that are willing to nurse young foxes and that have no knowledge of the number of the puppies in their litter. From their willingness to nurse animals of a different species, Locke concludes that female dogs do not form the complex idea of a dog, as distinct from the complex idea of a fox. And from their inability to tell how many puppies there are in the litter, Locke concludes that dogs do not "enlarge" their simple idea of a unit by adding further units to form complex ideas of numbers (II.xi.6–7, 158).

So, despite the fact that some humans either do not have, or eventually lose, the ability to compare, combine, and abstract (whether they are, as Locke describes them, "Idiots" [II.xi.12, 160] or whether they are suffering from dementia [II.ix.14, 148]), Locke clearly thinks that there is a vast difference in cognitive ability between the vast majority of human beings and even the most sophisticated animals, such as dogs. What this suggests is that Locke actually sees less continuity between animals and humans than he sees within the class of animals itself. All animals, he tells us, have the power of "Perception . . . in some degree" (II.ix.12, 148), though some, such as oysters and cockles, do not have "so many, nor so quick Senses, as a Man, or several other Animals" (II.ix.13, 148). Similarly, "several other Animals," Locke says, have the power of "laying up, and retaining the Ideas, that are brought into" their minds, that is, they have the power of memory, though some have this power to a greater degree than others (II.x.10, 154). But when it comes to cognitive powers that go beyond sensation and memory, powers that involve the mental manipulation of ideas, Locke sees a significant gap between the world of animals and the world of human beings, a gap so "vast" (II.xi.11, 160) that, in the case of abstraction, it represents a "perfect distinction" (II.xi.10, 159).

Leaving exceptions, such as cognitively disabled human beings, aside, the fact that there is a visible continuity of cognitive power within the class of animals, together with the fact that there is ultimately a perfect distinction between this class and the class of human beings, strongly suggests that, for Locke, there is actually little in the way of analogy between these classes. And this means that there is no particularly strong reason for thinking that what goes for the members of the one class also goes for the members of the other class.²⁶

²⁶ An anonymous referee asks why a capacity for abstraction should *require* an immaterial substance. After all, if God can superadd the capacity for pleasure and pain to animals, then God can surely superadd a capacity for abstraction to the human brain. (IV.iii.6, 540–41)

In reply, let me note first that I am not saying that the fact that human minds can form abstract ideas *proves*, or even *proves it probable*, that human minds are immaterial. What I am saying is that Locke thinks that the fact that humans can abstract whereas animals can't is a *big deal*: Locke says that this difference "puts a perfect distinction betwixt Man and Brutes" (II.xi.10, 159) and that "'tis that proper difference wherein they are wholly separated, and which at last widens to so vast a distance" (II.xi.11, 160). What this means is that we cannot infer from the fact that humans and animals share some mental capacities that if the latter have material minds then the former also have material minds: although there are points of analogy between human minds and animal minds (notably, sensation, memory, pleasure and pain, and

But doesn't Locke say, as Hamou and Downing rightly notice, that there is only a "gradual connexion" among creatures that are "so closely linked together"? The answer is yes, of course. But the question is whether such a connexion is incompatible with the claim that there are yet significant differences sufficient to classify creatures into different ranks. Close reading of the relevant passage here, at IV.xvi.12, suggests that there is no incompatibility. There, Locke claims that creatures ascend upwards in "degrees of perfection." The word "degree," as currently used, suggests continuity in a scalar property, and it was occasionally used in this way in the seventeenth century. But the word "degree" was far more often used to refer to discrete steps on a (literal or figurative) ladder. At the beginning of Act II of Shakespeare's *Julius Caesar*, Brutus says:

Lowliness is young ambition's ladder,
 Whereto the climber-upward turns his face;
 But when he once attains the upmost round,
 He then unto the ladder turns his back,
 Looks in the clouds, scorning the base degrees
 By which he did ascend.²⁷

From the fifteenth century to the nineteenth century, relations of consanguinity were described in terms of "degrees." The *Constitutions and Canons Ecclesiastical of the Church of England* of 1604 stipulated that "no Person shall Marry within the Degrees

spontaneous motion), there are also points of *disanalogy* the importance of which Locke goes out of his way to emphasize.

Second, Locke does not merely emphasize the fact that animals differ from humans in not being able to abstract: Locke conjectures that animals neither compare (II.xi.5, 157) nor compound (II.xi.7, 158) their ideas. Taken together, Locke's remarks about animals strongly suggest that he thinks it more probable than not that they do not engage in the mental manipulation of ideas (though there might be outliers, such as the "rational parrot" Locke describes at II.xxvii.8, 332–35). It is reasonable to suppose, then, that Locke views animal minds as largely passive, given that sensation, pleasure, pain, and memory are largely passive phenomena. If animals act, it is by instinct, not because they have reasoned their way to seeing this or that action as appropriate in the circumstances. At best, it is possible that custom and chance establish associations of ideas in the minds of animals, in the way that some ideas are associated in the minds of human beings. (II.xxxiii.5, 395) But this phenomenon, too, is passive. Animals, of course, can move their bodies, perhaps even by acts of volition. But it could be that Locke sees the voluntary mental manipulation of ideas in humans but not animals as the sort of phenomenon that God might want to mark with the metaphysical distinction between immateriality and materiality.

Finally, although it is clear that God has superadded various mental powers (such as sensation) to animal brains (or bodies), it is not clear that God can (or would) superadd the power to abstract to the *human brain*. Locke tells us that it is to "Systems of Matter fitly disposed" that God might have given the "power to perceive and think." (IV.iii.6, 540) But, for all we know, the human brain is not, in fact, *fitly disposed* to receive the powers of perception and thought.

²⁷ William Shakespeare, *Julius Caesar*, ed. G. Blakemore Evans, with the assistance of J. J. M Tobin, 2nd edition (Boston and New York: Houghton Mifflin, 1997), 2:1157.

prohibited by the Laws of God.”²⁸ Stages or positions in the scale of social or official rank were described as “degrees,” as in this *Oxford English Dictionary* entry from Camden’s *Sir Amadace* (1420): “Knight, squire, yeoman and knave, Each man in their degree.”²⁹ This explains why Locke describes creatures as ascending upwards by “gentle steps” towards “the infinite Perfection of the Creator,” and why he tells us that there are “several ranks of Beings.” And it explains why Locke classifies knowledge as coming in three “degrees,” intuitive, demonstrative, and sensitive (IV.ii, 530–38)³⁰ and why he classifies the various “degrees” of assent as moving downwards from the highest step (assurance) through various grades (confidence, belief, conjecture, guess, doubt, wavering, distrust, disbelief, and so on) (IV.xvi.6–9, 662–63).

Even the word “gradual” did not mean in the seventeenth century what it means now. Gradual differences were held to be differences in degree. Thus, the *Oxford English Dictionary* entry for “gradual (*adj.*)” provides examples such as that “all Musick . . . is formed of Seven Gradual Tones, or Degrees of Sound” and “an Assembly of Ladies placed in gradual Rows.” This reflects the etymology of the word, which comes from the Latin *gradus* meaning “step.” So, Locke pictures the great chain of being as a ladder, not as a rope. The steps of the ladder might be close together, so close, in fact, that it might be difficult to tell the difference between creatures on consecutive rungs, an epistemic point that Locke makes repeatedly in IV.xvi.12. But this epistemic point is compatible with an underlying metaphysics of discrete steps or ranks.

An anonymous referee suggests that Locke’s claim that “in all parts of the Creation, that fall under humane Observation, . . . there is a gradual connexion of one with another, without any great or discernable gaps between” (IV.xvi.12, 666) implies that the existence of a sharp break between the minds of humans and the minds of animals does not imply the metaphysical jump from thinking matter (animal minds) to immaterial souls. As the referee puts the point: to go from an entirely material soul that has most of our mental capacities to an entirely immaterial soul is more than a “gentle step and difference” (IV.xvi.12, 666).

Note first that I am not here claiming that the differences between animal minds and human minds *establish* that human minds are (probably) immaterial. I am claiming that the differences between animal minds and human minds are sufficiently great that we should not be convinced by the Downing-Hamou argument that the cognitive similarities between animal minds and human minds establish that the human mind is (probably) material. Dialectically, I am not saying that Q follows from P, but rather that Downing and Hamou have not established that the negation of Q follows from the negation of P.

²⁸ England, Canons Ecclesiastical 1603, Can. 99, <https://www.anglican.net/doctrines/1604-canon-law/>.

²⁹ *Oxford English Dictionary*, s.v. “degree (*n.*),” accessed January 10, 2021, spelling modernized, <https://www.oed.com/>.

³⁰ See also Samuel C. Rickless, “Degrees of Certainty and Sensitive Knowledge,” *Locke Studies* 15 (2015): 99–109.

More importantly, even if the cognitive differences between, say, dogs and humans are “gentle,” the point I am making is that those differences are not scalar, but discrete. If the differences were scalar, then marking them by a discrete metaphysical difference would be arbitrary: if there is a cognitive continuum between creatures, it would be arbitrary for God to place a dividing line on the continuum below which lie material minds and above which lie immaterial minds. If the chain of being is a ladder, then, even if the rungs are close together, there is nothing arbitrary about using a difference between rungs to mark a metaphysical difference.³¹

Hamou also appeals to considerations of spatiality and causality in arguing that Locke finds it more probable that the soul is material. According to Locke, a soul is, by definition, “a Substance that thinks, and has a power of exciting Motion in Body, by Will, or Thought” (II.xxiii.22, 308). So, souls have the ability of operating on bodies. And yet, as Locke also claims, “Spirits, as well as Bodies, cannot operate, but where they are” (II.xxiii.29, 306), from which it follows that souls or spirits are located in space. Indeed, we can conceive a spirit as “leaving” the body in death; but leaving requires motion away from the body, and motion requires translation from one spatial location to another (II.xxiii.20, 307). But then, as Hamou argues, “how can we plausibly account for the fact that [the soul] is somehow attached to the body in which it thinks, and transported by it, without giving it some solidity and extension?”³²

The answer to this question is that accounting for the spatial location of the soul is not difficult, even on the assumption that the soul is immaterial. Materiality, as Locke repeatedly emphasizes, requires solidity (II.iv.2, 123; II.xiii.11–12, 171–72; II.xxiii.15, 305; II.xxiii.32, 314; III.x.15, 498; IV.iii.6, 542). But spatiality, or having a location in space,

³¹ The same referee also suggests that, even if the differences between creatures are marked metaphysically as discrete rungs or steps, it makes more sense to suppose that the “radical” metaphysical difference between materiality and immateriality would occur between the natural world, which humans inhabit with the animals, and the supernatural world of angels and God, rather than between different creatures in the natural world. But I do not see why the referee’s suggestion makes more sense than its opposite. As Locke sees it, scriptural revelation tells us that after death human minds, but not animal minds, will, eventually, if they have acted appropriately in this life, be attached to perfect bodies and join the angels and God in heaven. But the world of God and angels is a world of immaterial beings: Locke argues for the immateriality of God at IV.x and supposes that angels “do sometimes assume Bodies.” (II.xxiii.13, 304) It seems to make more sense for God to attach immaterial souls to human bodies, from which those souls are detached at death, and then, with their mental powers and store of ideas, connected with perfect bodies in heaven, than it is for God to endow human brains with mental powers and ideas which, after death, would have to be reproduced or transferred, either in an immaterial substance created for the purpose and attached to a perfect body or in the perfect body itself. (This echoes Locke’s default way of imagining how personhood might be transferred from one human body to another: not by transferring consciousness directly from one brain to another brain, but by transferring *a soul that carries consciousness* from one body to another—see II.xxvii.15, 340). The point, here, is that although human beings are parts of the natural world *in this life*, many of them, unlike animals, will be parts of the supernatural world in the life *to come*. There is therefore at least some reason for God to mark this difference between humans and animals with the main metaphysical difference between God and Nature, namely the contrast between immateriality and materiality.

³² Hamou, “L’opinion,” 199–200.

does not require solidity. As Locke argues, “Space and Solidity [are] as distinct Ideas, as Thinking and Extension, and as wholly separable in the Mind one from another” (II.xiii.11, 172). In other words, it is possible to conceive space devoid of body, and this means that it is possible to conceive of a position in space (i.e., a place) devoid of body. Solidity is something positive in bodies that is responsible for their impenetrability (II.iv.1, 123). Solidity entails extension, but extension does not entail solidity (II.xiii.11, 172). Thus, it is not difficult to understand how an immaterial soul might be located where the body is located: all that is required is to suppose that the soul is extended (or locally present, perhaps as an unextended point),³³ something that is perfectly compatible with its immateriality.

But, Hamou might say, there is the problem of accounting for the attachment of the soul to the body, and, moreover of its “act[ing] on and [being] acted on by extended solid substances, without renouncing any plausible account of causality” or embracing occasionalism.³⁴ How could an unsolid, even if extended, immaterial substance act on a solid substance? Locke tells us that “we cannot conceive how any thing but impulse of Body can move Body” (IV.x.19, 629) and that “receiving or communicating Motion by impulse, supposes Solidity” (IV.iii.14, 546). From this it definitely follows that we cannot conceive how an unsolid substance can receive motion from or communicate motion to a solid substance. But it doesn’t follow from this that it is impossible, or even improbable, for unsolid things to communicate motion to solid things. After all, God is immaterial, and yet he is responsible for the fact that there is motion in the world: matter of itself, at rest, cannot be responsible for motion (IV.x.10, 624). So, Locke takes himself to know that at least one unsolid substance can cause motion in solid substances. What this means is no more than exactly what Locke says, namely, that although it is possible (and, in at least one known case, actual) for an immaterial substance to act on material substances, our cognitive faculties are not sufficiently acute to enable us to understand how this kind of operation is performed. As far as I can tell, there is no argument here for the probability (or improbability) of the soul’s materiality. Were it otherwise, we would be entitled to infer from the mere fact that God causes motion in the world that he is probably material. But this is not Locke’s view. It’s not just that Locke thinks that he has a proof of God’s immateriality; it’s that he thinks that God’s ability to cause motion in solid substances does not render it more probable that God is a material substance.

Lastly, Hamou references scriptural considerations that Locke pens in a notebook written in 1694 or shortly thereafter. In “*Adversaria Theologica*,” Locke lists arguments for the mind’s materiality on one page and arguments for the mind’s immateriality on a separate page. As Hamou sees it, these entries betray the view that “the prophets and the Apostles had always referred to the soul in a language that rather betrays a belief in a

³³ I am grateful to an anonymous referee for raising the possibility of unextended local presence as a way of accounting for the spatial location of immaterial souls on Locke’s view. Note, though, that in “*Adversaria Theologica*” (more on which below), Locke suggests that unextended things are nowhere, indeed that such things do not exist.

³⁴ Hamou, “L’opinion,” 200.

material soul.”³⁵ But it seems to me that the evidence is fragmentary and, at best, equivocal. Locke sets arguments in opposition. On the materialist side is that “what is not extended is no where. i e is not.”³⁶ This might be taken as an argument for the soul’s materiality. But, if so, the argument is very weak. What the argument suggests is that everything that exists is extended, from which it follows that the soul is extended. But, as we have seen, extension is not sufficient for materiality, because materiality requires solidity in addition. On the immaterialist side, Locke excerpts statements by the Remonstrant theologian, Episcopius, as well as biblical passages, such as Eccl. 12:7: “Then shall the dust return to the earth as it was: and the spirit shall return unto God who gave it.” (See also Matt. 10:28: “And fear not them which kill the body, but are not able to kill the soul: but rather fear him which is able to destroy both soul and body in hell.”) So, what we have, then, is a weak argument on the side of materialism, and scriptural passages on the side of immaterialism. It is no surprise, then, that Locke appears to conclude from all of this that “there is something in the nature of Spirits or thinking beings which we cannot conceive.” As I read these passages, there is no hint of a suggestion that Locke leans on the one side or the other.

It is true, as Hamou emphasizes, that Locke also examines the use of terms such as *psukhe*, *soma psykhikon*, and *soma pneumatikon* in the New Testament, concluding that “the Apostle makes no distinction here of soule and 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 dying & the whole man as raised.”³⁷ But absence of evidence is not evidence of absence: the fact that the Apostle assumes that what is resurrected is the whole human being, as opposed to merely the human being’s immaterial soul, doesn’t even suggest that the Apostle assumes that there is no immaterial soul. Rather, it could well be that because it is the entire human being who is resurrected, there is no need to refer to any parts or aspects of the human being, such as her body or her soul. Similarly, if I ask you who scored the first goal of the 2015 Women’s World Cup, you will tell me that it was the Canadian, Christine Sinclair. If you have the relevant knowledge, you won’t tell me that it was Sinclair’s soul, nor will you tell me that it was her body, because neither answer would be truthful. The scorer of that goal was, and is, a human being, not a soul or a body. But when you tell me that Sinclair, the human being, scored the first goal of the World Cup, you are not committing to the materiality, nor are you committing to the immateriality, of Sinclair’s soul. At best, Locke thinks that the kind of language most often used to describe the Resurrection in the New Testament contrasts with the kind of language used at Eccl. 12:17. And this suggests that the scriptural arguments, at best, cancel each other out: in some places, the text suggests that what is resurrected is the spirit, rather than the body, but in other places, the text suggests that what is resurrected is the entire human being.

³⁵ Hamou, “L’opinion,” 205.

³⁶ Locke, “Adversaria Theologica,” in *Writings on Religion*, ed. Victor Nuovo (Oxford: Clarendon Press, 2002), 30.

³⁷ Locke, “Adversaria,” in *Writings*, 28–30.

From this, it would be reasonable to suppose that parts of scripture presuppose the existence of a distinction between soul and body, but nothing in the texts Locke quotes tells us anything, one way or the other, about the materiality or immateriality of the soul. “Adversaria Theologica,” therefore, leaves us exactly where we started, namely, in need of stronger considerations to decide for or against the soul’s materiality.

Before moving on to consider arguments for the probability of the soul’s immateriality, it is worth considering an intriguing argument from parsimony, made by Dempsey, for thinking that Locke sees it as more probable than not that the human mind is material. The argument, in a nutshell, is that it is simpler to suppose that, in creating human minds, God performs one act of superaddition rather than two, and that the simpler act involves superadding mental powers to human brains or bodies:

The thinking matter hypothesis is the simpler hypothesis, for on the immaterial soul view, God must perform *two* acts of superaddition. It is just as conceivable that God should “superadd to Matter a Faculty of Thinking, than that he should superadd to it another Substance, with a Faculty of Thinking” (IV.iii.6). Notice that the second option requires an extra step. God must first superadd a faculty of thinking to an immaterial substance which he then must superadd to the systems of matter that compose our bodies. Since both possibilities are conceivable, why shouldn’t God opt for the first option?³⁸

Intriguing as this argument is, I do not find it persuasive. The first thing to note is that Locke explicitly states, in at least one place, that he has no way of understanding *how* God makes or creates. In *An Examination of P. Malebranche’s Opinion of Seeing All Things in God*, Locke writes: “God is a simple being, omniscient, that knows all things possible; and omnipotent, that can do or make all things possible. But how he knows, or how he makes, I do not conceive: his ways of knowing as well as his ways of creating, are to me incomprehensible.³⁹ As Locke emphasizes, God is a simple being, and yet God does many things. How God accomplishes this is beyond our ken. We may reasonably suppose that God does everything as a result of a single act, rather than as a result of many distinct acts. But whether that single act involves one act of superaddition or two is something we cannot know.

Beyond this, it is not even clear that the thinking matter hypothesis is simpler. As Locke conceives it, even if God superadds thought to matter, he first “fitly disposes” systems of matter to receive the power of thinking (IV.iii.6, 540). This is to do one thing, and then another. So, at least on one way of looking at what God would be doing on Dempsey’s “simpler hypothesis,” God would be doing two things in that case too. If the number of things that God does in order to accomplish a certain result determines what

³⁸ Dempsey, “John Locke, ‘Hobbist’,” 464–65.

³⁹ John Locke, *An Examination of P. Malebranche’s Opinion of Seeing All Things In God*, in *Works*, 9:255.

is simpler, then the immaterial soul hypothesis is just as simple as the thinking matter hypothesis.

Even more problematic for Dempsey's argument from parsimony is the fact that Locke sees reason to believe that God often does *more* things, rather than fewer. In *A Discourse of Miracles*, Locke writes that, when God acts supernaturally, he often performs more than one action: "Two supernatural operations [show] more power than one, and three more than two. God allowed that it was natural, that the marks of greater power should have a greater impression on the minds and belief of the spectators."⁴⁰ There is therefore some reason to believe that God would be interested in amazing human beings with displays of his power and knowledge by creating more, rather than fewer, metaphysical feats, with one feat being the superaddition of thought to matter and another feat being the superaddition of thought to immaterial substance coupled with the superaddition of that substance to unthinking matter.

While emphasizing God's omnipotence and omniscience, Locke makes a similar point early in Book II of the *Essay*, where he writes that it would be presumptuous to deny that there are other creatures in the universe with more senses than the five senses that we humans possess:

He that will not set himself proudly at the top of all things; but will consider the Immensity of this Fabrick, and the great variety, that is to be found in this little and inconsiderable part of it, which he has to do with, may be apt to think, that in other Mansions of it, there may be other, and different intelligent Beings, of whose Faculties, he has as little Knowledge or Apprehension, as a Worm shut up in one drawer of a Cabinet, hath of the Senses or Understanding of a Man; Such Variety and Excellency, being suitable to the Wisdom and Power of the Maker. (II.ii.3, 120)

So, Locke thinks that it is more suitable to God's nature for him to create more, rather than fewer, types of creature. It would stand to reason, then, that in the cognitive department it is more suitable to God's nature for him to create more than just unthinking matter (such as stones and plants), thinking matter (such as animals) and immaterial spirits that can, if they choose, "assume" bodies (such as angels). Since it is more in keeping with his nature to create variety, we would expect him to create, in addition to these three kinds of things, immaterial minds that are inextricably attached to material bodies.

Putting these various pieces of textual evidence together, it becomes difficult to accept Dempsey's argument from parsimony. First, Locke emphasizes that God's ways of creating are, to us, incomprehensible. Second, it is not clear that Dempsey's "thinking matter hypothesis" is really more parsimonious. And finally, even if it is the simpler hypothesis, in the few places where Locke makes (probable) conjectures about God's ways of acting (based on God's nature), his remarks suggest that he takes it to be more likely than not that, when faced with the option of doing less or doing more, or creating less

⁴⁰ John Locke, *A Discourse on Miracles*, in *Works*, 9:263–64.

variety or more variety, God does the latter rather than the former. If anything, this speaks against, rather than for, the hypothesis of (human) thinking matter.

5. The Case for the Soul's Immateriality

We have now looked at the strongest arguments of which I am aware for thinking that Locke finds it more probable than not that the soul is material. Let us now look at what has been said on the other side. Jolley claims, unsurprisingly given the explicit textual evidence, particularly in the replies to Stillingfleet, that Locke leans towards the mind's immateriality.⁴¹ But, for Jolley, the strongest case Locke could make for this would be via an appeal to the doctrine of *imago Dei*, the view that humans are made in the image of God. And yet, says Jolley, Locke does not appeal to this doctrine in any of his published (or unpublished) works. For Jolley, it therefore remains a mystery why Locke finds more reason to believe that the soul is immaterial than he finds reason to believe the opposite.

It should be noted, however, that Locke *does* appeal to *imago Dei* in *The Reasonableness of Christianity* and in a related manuscript.⁴² I imagine that Jolley is thinking that if God is, as Locke holds, an immaterial substance, then *imago Dei* would provide reason to believe that the human soul is an immaterial substance. But *imago Dei*, on Locke's view, is not the view that human *souls* are similar to God in being *immaterial*; it's the view that human *beings* are similar to God in being *immortal*. As Locke puts it in the relevant manuscript commentary on Gen. 5:1: "In the likenesse of god made he him. i e Immortal."⁴³ So, *imago Dei* shouldn't be interpreted on Locke's behalf as the view that features such as immateriality are passed down to the things that God makes in his image. The doctrine, as Locke conceives it, provides no evidence, one way or the other, regarding the question whether the soul is immaterial.

Jacovides argues that, for Locke, God would be needed to add "freedom, power, choice, rationality, or wisdom" to matter, for matter is incapable of producing these effects on its own. He then argues that Locke doesn't think that there is any "simple mapping principle that takes us from mechanical motion to motion regulated by rationality." Instead, claims Jacovides, thinking matter requires that "God set up a system that regulates unthinking material particles," and such a system "involves many more variables and complications" than a simple mapping principle. As Jacovides sees it, Locke does not treat the complexity problem as "an insuperable objection to the hypothesis that what thinks in us is material." But "the complexity of the problem is serious enough . . .

⁴¹ Jolley, *Touchy Subjects*, 96–98.

⁴² Locke, *Reasonableness*, 112–16 and MS Locke c.27, ff. 116–17, reprinted in *Reasonableness*, 209–16. I am grateful to Benjamin Hill for drawing my attention to these passages and their significance in this context.

⁴³ MS Locke c.27, 117r, reprinted in *Reasonableness*, 211.

that Locke sets the balance of probabilities in favor of thinking that human beings have immaterial souls.”⁴⁴

My reaction to this is that the complexity of the task that would be required to make matter think is no reason at all to suppose that souls are immaterial. It is, after all, a complex task to set up laws that regulate matter in a way that preserves life. Even if Locke wouldn't put it in these terms, he surely recognizes that life depends on the preservation of complex ecosystems. Humans live by eating animals, fruits, and vegetables; some of those animals require other animals for their subsistence; others require particular plants for their subsistence. Plants require sunlight and water and other nutrients. And on and on. The machinery that supports even simple, mechanical vegetable life is highly complex, as Locke was well aware. So, the available empirical evidence suggests that God has already engaged (or continues to engage) in a complex task by setting up the material world and its laws in the way that he did. This gives us no reason to suppose that God would not be interested in, or up to, doing something similar in endowing matter with mental powers. He is, after all, omnipotent and omniscient. For an omnipotent and omniscient being, it is child's play to solve the complex problem of giving systems of matter, suitably disposed, the power to think, choose, and reason.

Why, then, does Locke think it more probable than not that the mind is immaterial? When Stillingfleet prods him about this, Locke refers us to IV.x.16, suggesting that it is this passage that “will prove it in the highest degree probable, that the thinking substance in us is immaterial.”⁴⁵ Here is what Locke says: “For to suppose the eternal thinking Being, to be nothing else but a composition of Particles of Matter, each whereof is incogitative, is to ascribe all the Wisdom and Knowledge of that eternal Being, only to the juxta-position of parts; than which, nothing can be more absurd. For unthinking Particles of Matter, however put together, can have nothing thereby added to them, but a new relation of Position, which 'tis impossible should give thought and knowledge to them” (IV.x.16, 627). But I agree with Michael Ayers, Downing, Hamou, and Jolley that this passage doesn't prove what Locke wants it to establish.⁴⁶ Locke here argues that unthinking material particles, however arranged, cannot by themselves, whether individually or as a group, acquire the ability to think. Supposing that this is true, it simply does not follow that God (in all probability) has not given to systems of matter, fitly disposed, the power to think. As Locke claims, simply rearranging incogitative particles by changing their relative positions is insufficient to make them produce cogitation. But if God were to give material particles the power to think, he would not do so merely by rearranging them, any more than he would give material substances the power to attract other material substances by changing their relative positions. What IV.x.16 establishes, at best, is that, in order to make matter think, God would need to do something with it or

⁴⁴ Jacovides, *Locke's Image*, 133.

⁴⁵ Locke, *Letter to Stillingfleet*, 4:33.

⁴⁶ Michael Ayers, *Locke: Epistemology and Ontology* (London: Routledge, 1991), 2:46; Downing, “Locke's Choice,” 137–39; Hamou, “L'opinion,” 193–94; Jolley, *Touchy Subjects*, 94–98.

to it that goes beyond what human beings would be capable of doing with it or to it. But, for all we know or have reason to believe, this is exactly what God has actually done with or to the matter in our brains.

At this point, it might be tempting to throw up one's hands and retreat to suspension of judgment on the basis of equipollence: it appears that, as far as Locke is concerned, there is no more reason to think that the soul is immaterial than there is to think that the soul is material. But I think there is one remaining consideration, raised by Locke himself, though not in the context of any discussion of the thinking matter hypothesis, that speaks strongly, though not decisively, in favor of the hypothesis that our souls are immaterial. This concerns the speed of mental operations, as compared to the speed of bodily actions.

In his discussion of the Molyneux man, Locke claims that "the Ideas we receive by sensation, are often in grown People alter'd by the Judgment." Thus, something that is perceived by sight as "a flat Circle variously shadow'd" is seen as "a convex Figure, and an uniform Colour." Locke emphasizes that this alteration happens "without our taking notice of it" (II.ix.8, 145) and then claims that the reason we are unaware of the transformation when it happens is that it "is performed so constantly, and so quick, . . . as a Man who reads or hears with attention and understanding, takes little notice of the Characters, or Sounds, but of the Ideas, that are excited in him by them" (II.ix.9, 146–47). Thus, Locke thinks that our perception of material objects as three-dimensional is the product of mental operations that are performed so quickly and habitually that they are "scarce taken notice of" when they occur (II.ix.9, 146).

It is at this point that Locke adds some crucial remarks about the relative speed of some mental operations, as compared to bodily actions or motions:

Nor need we wonder, that this is done with so little notice, if we consider, how very quick the actions of the Mind are performed: For as it self is thought to take up no space, to have no extension; so its actions seem to require no time, but many of them seem to be crowd'd into an Instant. I speak this in comparison to the Actions of the Body. Any one may easily observe this in his own Thoughts, who will take the pains to reflect on them. How, as it were in an instant, do our Minds, with one glance, see all the parts of a demonstration, which may very well be called a long one, if we consider the time it will require to put it into words, and step by step shew it another? (II.ix.10, 147)

Locke claims that numerous actions of the mind, such as seeing all the parts of a demonstration, are performed instantaneously (or, at least, quasi-instantaneously). By contrast, he tells us, actions of the body are slower: these are processes (such as reaching for a glass of water, or typing a letter on a keyboard) that unfold over a noticeable span of time, even if a relatively short span in some cases. And I would expect that this is something that, at least according to Locke, generalizes: most cases of body-body causation take time, whereas a good number of mental operations (particularly those involving the mental manipulation of ideas, in the form of abstraction, comparison, combination, and separation) take hardly any time (or no time) at all. And there's the rub: if the mind were material, then we would expect mental operations about ideas to take

more time than, as it turns out, they actually take. Mental acts would unfold over time, in such a way that we would be able to distinguish between the beginning of each mental process and the end of that process. The reason is that materiality requires solidity, solidity requires impenetrability, and impenetrability entails resistance to motion. By contrast, there is nothing to impede the activity of an immaterial substance, because it is unsolid, and hence penetrable. Thus, the lightning speed of mental processes, as compared to bodily processes, speaks strongly in favor of the immateriality of mental substance. Of course, the speed of mental activity does not conclusively establish that the soul is immaterial. Newton's experiments with light indicated both that it is material and that its particles move with inconceivable rapidity. Some corporeal motions, then, are quasi-instantaneous. Still, the balance of probabilities lies on the side of the mind's immateriality.

Recall also that the reigning materialist theory purporting to explain perception and bodily action rested on the assumption that the nerves connecting the brain to the many parts of the body contain a fluid composed of tiny particles called "animal spirits." Even if these particles are light and rarified, it will take time for them to move along the nerves and within the brain. So, the best materialist theory of Locke's day predicted that all mental activity is relatively slow, whereas introspection suggested that at least some mental activity is extremely rapid. The most reasonable conclusion to draw from this evidence was that the mind is probably immaterial.⁴⁷

Considerations relating to the speed of some mental processes should be joined to considerations relating to the division between animals and human beings. As I have argued, Locke's remarks about the gradual descent in perfection from humans to animals to plants and beyond are best understood as the claim that nature is a hierarchy of distinct degrees (in the sense of steps, grades, or ranks), some of which are very close to, and nearly impossible for the human mind to distinguish from, each other. Far from suggesting that human minds are similar to material animal minds, evidence about the abstracting, comparing, and compounding of ideas suggests that animals are deficient

⁴⁷ An anonymous referee objects that, even if Locke thinks that the soul is material, he does not mean by this that the soul is the brain or that mental processes are reducible to material (e.g., neural) processes: even if the brain is slower than thinking, the consciousness superadded to it need not be. In other words, the referee suggests, Locke might well be a property dualist without being a substance dualist regarding human beings. (Locke is, of course, a substance dualist in the broader sense, because he thinks that God is an immaterial substance.) And property dualism is compatible with the brain being the subject of (quasi-)instantaneous mental activity.

All this is true, but Locke's remarks on thinking matter strongly suggest that he simply takes for granted that the superaddition of thinking to the brain requires that the brain be "fitly disposed" for the purpose (IV.iii.6, 540): what Locke finds conceivable is for God to give "sense, perception, and thought" to "Systems of created senseless matter, *put together as he thinks fit*." (IV.iii.6, 541; italics added) What this means is that Locke assumes that the superaddition of thought to matter likely requires some sort of correlation between mental activity and brain activity, in just the way that the production of ideas in minds via custom is described as correlated with "Trains of Motion in the Animal Spirits." (II.xxxiii.6, 396) And if mental activity and brain activity are correlated in this way, then it stands to reason that the speed of the former would also be correlated with the speed of the latter.

relative to human beings in these respects. So, there are at least two sets of features that point in the direction of the mind's immateriality.

Interestingly, there are reasons for thinking that Locke takes these two sets of considerations to be related. For the passage about the relative speed of mental processing introduces a section of Locke's chapter on perception headed "*Perception puts the difference between Animals and inferior Beings*" (II.x.11–14, 147–49). Rather than arguing that animals and plants exist on some sort of continuum, Locke argues that, although some plants interact with their environment in a way that bears some resemblance to the effects of sensation in animals, yet, he says, "I suppose, it is all bare Mechanism; and no otherwise produced, than the turning of a wild Oat-beard, by the insinuation of the Particles of Moisture; or the short'ning of a Rope, by the affusion of Water. All which is done without any Sensation in the Subject, or the having or receiving any Ideas" (II.x.11, 147–48). This, I think, is difficult to square with the view that Locke presupposes continuity in the great chain of being. The vegetable kingdom operates mechanistically, the animal kingdom operates largely on the basis of powers of sensation and memory given by God to dead earth, while the human kingdom operates on the basis of additional mental powers that are totally absent from the vegetable kingdom, and either absent from, or operative in a very limited way in, the animal kingdom.⁴⁸

6. Conclusion

In the end, then, on the basis of argument by analogy (and, more importantly, disanalogy), the balance of reasons that Locke canvases favors the judgment that the mind is immaterial. Although Locke himself points us to reasons that are not probative, the available textual evidence suggests that, had he put everything together, he would have taken the balance of reasons to weigh on the side of immateriality. Locke was not, I think, an incipient materialist, or even a materialist *malgré lui*. His comments about thinking

⁴⁸ An anonymous referee objects that the minds of animals are seemingly as quick as human minds and gives as an example a dog's recognition of its human companion. But it should be plain that for recognition, vision or smell or hearing (or some other sense) is required, and the processing of sensory information, for human beings as well as for animals, takes a little time, falling far short of instantaneity. First, sensory information must be captured by sensory organs; next, that information must be passed along to the brain; and finally, at least in the case of recognition, the brain must process the information and then correlate it with ideas stored in memory. For obvious evolutionary reasons, this does not take much time, but the phenomenon is not instantaneous. By contrast, the mental phenomena Locke describes really do take (virtually) no time at all: e.g., mentally transforming a visual image of a flat circle variously colored into an image of a convex figure of a uniform color (II.ix.8, 145) and seeing all the parts of a long demonstration "as it were in an instant" (II.ix.10, 147). These are *purely mental* activities, not involving sensation, which is a process in the body that takes time.

Interestingly, in one of the texts in which Locke discusses the minds of angels (or, anyway, of spirits "who see and know the Nature and inward Constitution of things"), what he emphasizes is just how quickly they perceive the agreement between ideas: their "larger Comprehension," he says, "enables them at one Glance to see the Connexion and Agreement of very many *Ideas*." (IV.iii.6, 543) Again, what seems characteristic of immaterial minds, such as the minds of angels, is the lightning speed of their purely mental activities.

matter do not hide a commitment to the materiality of mind but are designed to establish exactly what he says they prove: that we cannot know with certainty that God has not given to matter, fitly disposed, the power to think. Although Locke took these comments to be an obvious corollary of God's omnipotence, they were more than enough to cause consternation within the Anglican Church and beyond. Locke did not shy away from controversy and defended some radical views in his day, but in the matter of mind, he was no revolutionary.⁴⁹

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