

John Locke, ‘Hobbist’: of sleeping souls and thinking matter

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ABSTRACT

In this paper, I consider Isaac Newton’s fevered accusation that John Locke is a ‘Hobbist.’ I suggest a number of ways in which Locke’s account of the mind–body relation could plausibly be construed as Hobbesian. Whereas Newton conceives of the human mind as an immaterial substance and venerates it as a finite image of the Divine Mind, I argue that Locke utterly deflates the religious, ethical, and metaphysical significance of an immaterial soul. Even stronger, I contend that there is good reason to suspect that Locke is a crypto-materialist, at least with respect to human beings, and in this respect, could reasonably be labeled a ‘Hobbist.’

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1. Introduction

In a 1693 letter to John Locke, Sir Isaac Newton apologizes for having taken Locke for ‘a Hobbist.’ In what follows, I argue that Newton’s worries concerning Locke’s apparent materialist sympathies – at least with respect to humans – are well-founded. To do this, I contrast Locke’s complex views concerning minds, persons, and thinking matter with Newton’s dualism, on the one hand, and Thomas Hobbes’s materialism, on the other. All three men agree that human beings are not naturally immortal; that is to say, but for a divine act of resurrection, there is no life after death. However, each adopts significantly different positions on the mind–body relation. Hobbes propounds an unremitting materialism according to which sensations, images, dreams, and so on are nothing more than certain motions in the body. In contrast, Newton advances an idiosyncratic brand of substance dualism which agrees in some – but not all – respects with the dualist views of Cambridge Platonist Henry More. From Newton’s perspective, I contend, Locke’s nuanced views concerning the mind–body relation put him

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uncomfortably close to Hobbesian materialism, a consequence that Newton would have found less than palatable.

I begin by considering the context of the accusation. At least two topics in Locke's *Essay* ([1700] 1979) have been proffered as the objects of Newton's ire. I briefly consider these possibilities, but ultimately conclude that Newton probably used 'Hobbist' as it was used at the time, as a general term of abuse meant to insinuate materialism and irreligion. Next, I consider the doctrine of Christian mortalism, a heresy to which all three men are committed. Christian mortalism comes in at least two forms: according to *soul-death*, one's material soul perishes with one's body, only to live again with the resurrection of one's body. According to *soul-sleep*, one's immaterial soul persists after bodily death but in a dreamless sleep, only to *awaken* again with the resurrection of one's body. In keeping with his materialism, Hobbes offers a thoroughly embodied account of mental phenomena according to which the 'vital motion' of the blood plays an indispensable role. Such an account, coupled with his theological positions, commits Hobbes to soul-death mortalism. Newton, by contrast, adopts a version of soul-sleep; on his view, 'created minds' persist after death but in a dreamless sleep to await the resurrection of their bodies. Here I consider two important points of agreement with, and one significant point of departure from, his Cambridge colleague More's substance dualism. In the final section, I address Locke's views concerning souls, persons, and thinking matter. With respect to mortalism, Locke does not fall neatly into either camp; in fact, given his commitments, the distinction between soul-sleep and soul-death effectively collapses. Unlike Hobbes, he *does* believe in the existence of immaterial phenomena – namely, God and angels – and in this respect, is a substance dualist. Moreover, his official position is that humans *probably* have immaterial souls. Nevertheless, I contend that Locke is much more skeptical about immaterial souls than his official position suggests. His deflation of the importance of an immaterial soul with respect to persons, personal immortality, and religion; his appreciation for the extent to which mental phenomena appear to depend on the 'fit' disposition of the brain and body; and finally, his speculations concerning the possibility that matter itself might think coupled with his belief that animals are just such an example of thinking matter, imply an outlook that's closer to Hobbes's materialism than Newton's dualism. With respect to humans and other animals, then, Newton has good reason to worry that his friend is a 'Hobbist.'

2. 'Struck at ye root of morality'

In the summer of 1693, Newton suffered a mental breakdown, resulting in, among other things, him sending some angry letters to Samuel Pepys, apparently having to do with Newton's attempts to secure a position in London.¹ In September of the same year, he sent a letter to Locke apologizing for accusing

him of having 'endeavoured to embroil me with woemen & by other means I was so much affected with it as that when one told me you were sickly and would not live I answered twere better you were dead.' And further, he begs Locke's pardon 'for representing that you struck at ye root of morality in a principle you laid down in your book of Ideas & designed to pursue in another book & that I took you for a Hobbist.'² Locke's reply is magnanimous, but he does ask Newton to 'point out to me the places that gave occasion for censure' so that he might 'avoid being mistaken by others.' In a subsequent letter, Newton replies that his illness was the result of insomnia and that when he had written to Locke, he had, 'for five days together not a wink.' And although he remembered having written Locke, 'what I said of your book I remember not' (Brewster [1855] 1965, 150–151).

Admittedly, Newton was not in his right mind when he leveled these insults against his friend, making the question of what precisely he had in mind difficult if not impossible to settle. Nevertheless, before laying out some of the ways a man like Newton could view Locke's positions as unduly materialist, I briefly consider two interpretations. Brewster ([1855] 1965, 148) suggests that the offending principle is Locke's rejection of innate ideas in Book I of his *Essay* ([1700] 1979). On the face of it, however, this is an odd reason to accuse Locke of being a 'Hobbist' since Hobbes was notorious, not for his rejection innate ideas, but for his materialism. G. A. J. Rogers argues that the offending principle lies elsewhere in the *Essay*. He concedes that for someone influenced by the Cambridge Platonists, Locke's wholesale rejection of innate ideas would likely be unpalatable (Rogers 1979, 199). But as Rogers emphasizes (*ibid.*, 197), Locke's entire *Essay* ([1700] 1979) is predicated on the rejection of innate knowledge and is hardly an aspect of the *Essay* ([1700] 1979) one could forget. Interestingly, however, Newton had a habit of dog-earing pages of interest in his books. One dog-eared page in his personal copy of the *Essay* ([1700] 1979) includes Locke's assertion that '*Moral good and evil ... are nothing but Pleasure and Pain*' (2.28.5; cf. 2.20.2). Such a view, Rogers contends, might be read by Newton as holding that 'all pleasure is good without qualification, a view which Newton's puritanism would certainly have found impossible to accept' (Rogers 1979, 200).

But again, it is not clear why this would provoke the 'Hobbist' epithet since Locke is not here advocating psychological *egoism* but, arguably, is gesturing toward an *ethical* theory based on psychological *hedonism*,³ a view that is not obviously Hobbesian. Ultimately, I favor what is perhaps a more straightforward reading according to which Newton is using 'Hobbist' simply in the sense of 'materialist'; that is, as a general term of opprobrium, one which was considered a serious insult at the time implying not only materialism but also some level of religious heterodoxy.⁴ Newton may simply have been brought to use the term of abuse as a result of his illness coupled with the failed attempts of his friends, including Locke, to secure him a plum position in London. Underneath all this, however, Newton may very well have suspected Locke of inclining too far toward materialism, with its irreligious consequences. Rogers demurs, concluding that, while the *Essay* does

provide *prima facie* grounds for thinking that Locke has materialist sympathies, 'they are ultimately ungrounded' (Rogers 1979, 199). Against Rogers, I argue that with respect to human beings and other animals, the suspicion of materialist sympathies is well-grounded, representing an account of the mind–body relation which, from Newton's perspective, would strike at 'ye root of morality.'

3. Hobbesian Soul-Death: 'all are of the dust, and all turn to dust again'⁵

In the most general terms, Christian mortalism is the heretical view that we die with our bodies only to live again when our bodies are resurrected at the Final Judgement.⁶ English leveller and General Baptist pamphleteer Richard Overton offers one of the most powerful seventeenth-century defences of mortalism in his [1643] 1968 tract *Mans Mortalitie*. He defends the doctrine known as 'thne-toppsychism,' adducing both philosophical and scriptural evidence for soul-death. Philosophically speaking, surviving the final dissolution of one's body is belied by the apparent dependence of one's mind on the health and proper functioning of one's body.⁷ In this respect, we are no different from other animals, a consequence which is also supported by scripture. Consider the motto of *Mans Mortalitie*, Ecclesiastes 3:19: 'For that which befalleth the sons of men befalleth beasts; even one thing befalleth them: as the one dieth, so dieth the other; yea, they have all one breath; so that a man hath no preeminence above a beast: for all is vanity.'⁸ When it comes to death, we differ from animals only in that we have been promised life *after* death through bodily resurrection.

Clearly, soul-death mortalism would be attractive to someone like Hobbes, for his unremitting materialism precludes even the possibility of an immaterial soul. '[S]ubstance and body,' he tells us, 'signify the same thing,' rendering '*incorporeal substance*' a contradiction in terms, 'as if a man should say an *incorporeal body*' (Hobbes 1994, XXXIV, 2, 262).⁹ Consequently, the substance of the soul must be corporeal or else 'nothing' at all, for 'to say that "an angel or spirit is ... an incorporeal substance" is to say in effect "there is no angel nor spirit at all"' (*Leviathan*, XXXIV, 24, 270). All veridical uses of 'spirit,' Hobbes insists, refer either to corporeal phenomena like wind or breath or are metaphors for 'inclinations of the mind,' where, for example, we might say of an argumentative person that he has '*a spirit of contradiction*' (ibid., XXXIV, 3, 262). To be clear, Hobbes finds 'in Scripture that there be angels and spirits ... but not that they are incorporeal (as are the apparitions men see in the dark, or in a dream, or vision)' (ibid., XLV, 8, 440–441).

Accordingly, Hobbes provides a thoroughly *embodied* account of sense, memory, and imagination. Utilizing Harvey's ([1628] 1889) discovery and explanation of the circulatory system, Hobbes explicates mental phenomena in terms of the 'vital motion' of the blood. 'The *subject* of sense,' he writes, 'is the *sentient* itself, namely, some living creature' (Hobbes [1839] 1962, 391) and the heart is

the active principle of the sentient; not only is it the 'original of life' (*Elements*, 406) but also the 'fountain of all sense' (*ibid.*, 392). We learn by experience how objects affect the vital motion of the blood, some generating pleasure, others, displeasure, and from these experiences we develop 'appetites' and 'aversions'.¹⁰ When we deliberate, 'the last act of it, if it be appetite, is called *will*; if aversion, *unwillingness*' (*ibid.*, 409). Appetites and aversions, Hobbes contends, are tightly connected with memories and mental imagery. '[T]he motions of the heart,' he writes, 'are appetites and aversion' which 'are generated by phantasms' (*ibid.*, 401). When we sleep, on the other hand, 'phantasms are generated by appetites and aversions' (*ibid.*). Hobbes gives some examples including love and beauty which 'stir up heat in certain organs.' But when we sleep, 'the heat in the same organs ... often causeth desire and the image of an unresisting beauty' (*ibid.*). The heart, then, causes us to dream, for when the motion from the heart reaches the brain the 'predominant motion in the brain makes the phantasm' (*ibid.*). Ultimately, it is our dreams that are the source of the confused and misguided notion of immaterial substances; cold generates fear and fear, Hobbes explains, causes men to 'dream of ghosts' (*ibid.*). To some, 'especially to guilty men, and in the night, and in hallowed places, fear alone ... hath raised in their minds terrible phantasms, which have been and are still deceitfully received for things really true, under the names of *ghosts* and *incorporeal substances*' (*ibid.*, 402; cf. *Leviathan*, XII, 7, 65). Hobbes, it would seem, is one of those few men who are not beguiled by their dreams.

Like Overton, Hobbes does not see any of this as a threat to religion. Hobbes interprets Adam and Eve's punishment for their original sin in strictly mortalist terms. 'Adam,' Hobbes tells us, 'was not created immortal by virtue of his nature, but by the adventitious grace of God, i.e. by virtue of the tree of life; while he had an abundance of its fruit to eat, he could not die' (*Leviathan* XXXVIII, 2, 301, n. 1). Once 'barred from approaching the tree of life ... they [Adam and Eve] and their posterity' became mortal (*ibid.*, Appendix III, 19, 544). 'Dying they remained dead, until ... the general resurrection of the dead' (*ibid.*). Furthermore, Hobbes emphasizes what he believes the ancient Hebrews actually meant by 'nephesh,' the word usually translated 'soul' in the English Bible. Rather than denoting an immaterial substance, it 'signifieth always either the life or the living creature ... the body alive' (*ibid.*, XLIV, 15, 419). By 'soul,' the ancient Hebrews did not mean a thing capable of 'an existence separated from the body,' for in that case 'it might as well be inferred of any other living creatures' (*ibid.*). Like Overton, Hobbes sees humans and animals as being in the same position with respect to death. When God created man, he did not create a body to which he then *superadded* an immaterial soul; rather he made man 'of the dust of the earth, and breathed in his face the breath of life,' that is, he made man 'a living creature' (*ibid.*).¹¹ Upon bodily death man therefore returns to the dust from which he was formed, a consequence only 'remitted by Christ's death,' and the promise that

the dead 'shall come to life again ... in the general resurrection of the dead' but not before 'the day of judgment' (ibid., Appendix III, 19, 544).

As mentioned, mortalism also comes in a dualistic form. According to 'psychopannychism,' souls *are* immaterial, and thus distinct from their bodies, but nevertheless *sleep* between bodily death and resurrection. A young Martin Luther was attracted to this latter, less radical, view, holding that the soul, being an immaterial substance, persists in an unconscious state when separated from the body (Burns, 28; Almond, 38–39). On my view, Newton adopts this version of mortalism as part of a broader commitment to a dualist anthropology.

4. Newtonian dualism

I have argued elsewhere that, with respect to the mind–body relation, Newton defends a kind of substance monism, at least in one important sense of the word 'substance' (Dempsey 2006). I have also advanced the view that Newton's account of God's creation of bodies ('corpuscles') in his *De gravitatione* manuscript,¹² coupled with his sensorium account of perception alluded to in his *Opticks* and elsewhere, imply a sort of *idealism* (Dempsey 2014). Here I wish to emphasize the aspects of his view that are dualistic in nature, aspects that follow from his idiosyncratic idealism. According to Rogers (1979, 198), Newton follows More in both his theism and his dualism.¹³ This is only partially true; although their views on the nature of mind align in two important respects, there is at least one significant point of disagreement. First, they agree that minds are extended in space. More criticizes Descartes – 'the Prince of the Nullibists' – for, among other things,¹⁴ affirming 'that a Spirit is Nullibi, that is to say, no where.'¹⁵ In *De gravitatione*, Newton presents his account of minds and bodies in explicit opposition to Descartes's,¹⁶ utterly rejecting nullibism, insisting that '[n]o being ... can exist which is not related to space in some way' (2004a, 25). Descartes's nullibism, Newton worries, challenges the very reality of 'created minds,' for if the 'mind has no extension at all ... it exists nowhere, which seems the same as if we were to say that it does not exist' (ibid., 31). Even God is extended throughout objective space. In 1705, Newton's student, David Gregory, records that Newton was unsure whether to append the following query to his *Opticks*: 'what the space that is empty of body is filled with?' 'The plain truth,' Gregory writes, 'is that he believes God to be omnipresent in the literal sense' being both 'present in space where there is no body' and 'present in space where a body is also present' (cited in Hall and Hall 1995, 87). Likewise, in the General Scholium to his *Principia* (1999), Newton insists that God is 'present everywhere,' not just virtually omnipresent 'but also substantially.'¹⁷ In his *Opticks*, Newton likens objective space to God's 'boundless uniform sensorium' (Newton 2004b, 138).¹⁸ Importantly, in *De gravitatione*, Newton conceives of 'created minds' as finite images of the Divine Mind and he explicitly draws an 'analogy between the divine faculties and our own' (2004a, 30).¹⁹ Thus since 'God is everywhere,

created minds are somewhere' (ibid., 25), namely in 'that place to which the sensitive substance is present' (2004b, 130), the brain's sensorium.²⁰

Second, Newton agrees with More that, while minds are extended in space, they are nevertheless *immaterial*. As I see it, Newton believes that created minds are both metaphysically and morally superior to their biological bodies. The matter that composes the body exists because omnipresent God directly wills corporeal form to empty space.²¹ Corpuscles 'borrow existence from the will' of God, for 'they are beings of the divine reason' (2004a, 31). On this account, empty space replaces matter-substance. 'Extension,' Newton tells us, 'takes the place of the substantial subject,'²² while the properties of corpuscles are 'conserved by the divine will' (ibid., 29). Created minds, on the other hand, do *not* depend on continuous acts of Divine Volition but rather provide humans with finite volition, God having given us 'the power of creation in the same degree as his other attributes' (ibid., 30). In this respect, created minds are more *substantial* than bodies since the latter's movement and very existence depend on continuous acts of mind, whether Divine or created.

The analogy Newton draws between created minds and the Divine Mind also suggests mind's moral superiority over body. A created mind's causal interaction with images in its sensorium, Newton insists, is comparable to omnipresent God's immediate contact with bodies in His 'boundless' sensorium. In the *Opticks*, Newton tells us that omnipresent God is 'more able by his will to move ... bodies ... and thereby to form and reform the parts of the universe, than we are by our will to move the parts of our own bodies.' Bodies are 'his creatures, subordinate to his Will' which he perceives by their 'immediate Presence' (2004b, 138), just as created minds, to use David Gregory's characterization of Newton's view, 'are sensible of Objects when their images are brought home to the brain' (1995, 329; cf. *Principia*, 1999, 940). Of course, 'we only simulate the power of creation' for we cannot create bodies as God does 'but ... only move ... our own bodies, to which we are united ... by divine constitution' (2004a, 30). And while we have a very dim conception of how God wills corporeal form to empty space, Newton believes we would have a better understanding if only we understood human volition 'since the same question arises with regard to the way we move our own bodies' (ibid., 29). Morally speaking, then, 'since it is in the image of God' a created mind 'is of a *far more noble* nature than body' (ibid., 31; emphasis added). Being finite images of the Divine Mind, created minds are therefore more *God-like* than their bodies.

However, in an interesting twist that marks a significant disagreement with More, Newton does not believe in *disembodied* spirits, at least not ones that continue to think and feel. As Snobelen demonstrates, Newton rejects the existence of ghosts and demon possession at a time 'when leading members of the Royal Society,' including More, 'catalogued case histories of witches, demons and ghosts as evidence for the reality of spirits' (2004, 157).²³ To David Gregory Newton explains that 'the requirement of religion' is *not* 'a separate existence of

the soul, but a resurrection with a continuation of memory' (*The Correspondence of Isaac Newton*, 336, 339). In other words, piety and faith do not demand that created minds continue to think and feel apart from the bodies to which they are united by 'divine constitution,' but only that both are resurrected and that the memory of one's actions in this life be restored so that one can be judged accordingly. With the death and dissolution of our bodies, then, created minds enter a dreamless sleep to await the resurrection, a view which Newton believes is thoroughly supported by scripture. For example, Newton cites Daniel 12:2 which declares that 'many of them that sleep in the dust of the earth shall awake, some to everlasting life, and some to shame and everlasting contempt.'²⁴ Theologically speaking, the belief that one's mind continues to think and feel between bodily death and resurrection implies, on Newton's view, the absurdity of a 'double judgment.'²⁵ The dominant, and as it were, *catholic*, view of immortality trivializes the resurrection of the body and the significance of the Final Judgment by implying that men are 'rewarded according to [their] works *before* Christ comes to judge them (cited in Force 2004, 191; emphasis added). '[T]he dead,' Newton writes, 'are not sentenced to reward or punishment in heaven purgatory or Hell before they be judged nor judged before the day of judgment.'²⁶ The doctrine that souls continue to think and feel after bodily death is a corruption introduced into the early Christian church by 'the Egyptians, Platonists, & other heathens [who] placed the souls of the better sort of dead men about their sepuchers [sic] & statues & temples & in y^e air & in heaven & so filled all places wth ghosts or Daemons' (Force 2004, 191). From this corrupting influence comes the 'heathen doctrine of Daemons, together wth that Popish one of Purgatory' (*ibid.*).²⁷

5. Locke, crypto-materialist

To be sure, Locke does not adopt Hobbes's thoroughgoing materialism, for Locke never doubts the existence of immaterial, spiritual entities like angels and God.²⁸ Matthew Stuart (2013, 250–264) has recently advanced 'a case for dualism' on the basis of Locke's version of the cosmological argument for God's existence (IV.x.1–19). I agree with Stuart that, insofar as Locke accepts immaterial beings, Locke is a substance dualist. And it is also true, as Stuart emphasizes, that Locke denies the possibility that 'bare incogitative Matter should produce a thinking intelligent Being' (IV.x.10), a possibility Locke's protégé, Anthony Collins, would later defend.²⁹ Nevertheless, I believe that with respect to humans and other animals, Locke leans towards a substance monism and the substance in question is matter.³⁰

Certainly, the materialist implications of Locke's account of persons coupled with his speculations about thinking matter did not escape the notice of some critics, including Gottfried Leibniz.³¹ Locke, Leibniz writes, 'undermines the nature of the immaterial soul by digging rabbit holes. He inclined towards the Socinians ... whose philosophy of God and mind was always poor.'³² The

Socinians – Polish Protestants who followed the heretical teachings of Faustus Socinus (1539–1604) – maintained, among other things, that the soul is mortal. Snobelen notes that Locke’s library contained 43 Socinian books, confirming his interest in their heterodox views (Snobelen 2005, 247). According to Nicholas Jolley, Leibniz looks with suspicion on Locke’s appreciation of Socinian theology. Locke’s crypto-materialism, as Leibniz sees it, serves only to ‘abase us’ unlike the ‘generous philosophy of the Platonists.’³³ Even Locke’s many official avowals of the soul’s *probable* immateriality are seen as a threat to immortality. It is from this perspective, then, that Leibniz interprets Locke’s account of persons as an attempt to square personal immortality with his skepticism over the soul’s immateriality, indicating Locke’s (covert) sympathy for a materialist anthropology (Jolley 1984, 25).³⁴

I think Leibniz’s suspicions are on the mark for several reasons. We begin with Locke’s seminal contributions to our understanding of personhood and personal identity in Book II of the *Essay* ([1700] 1979).³⁵ An important implication of Locke’s account is that the existence of an immaterial soul is *irrelevant* with respect to personhood, personal identity over time, and even personal immortality. According to Udo Thiel, one reason that Locke’s consciousness-based account of personal identity was so influential in the eighteenth century was precisely because ‘it remains neutral with respect to the debate between materialist and immaterialist philosophers of mind’ effectively making one’s ‘view about the nature of the thinking substance ... irrelevant’ (Thiel 2011, 144). Despite the neutrality of his account, there is, I believe, good reason to think that Locke actually *doubts* the existence of immaterial souls, at least in the case of humans.

It will be useful to very briefly sketch Hobbes’s work on the nature of identity as well as his *legalistic* or *political* conception of personhood. In the chapter entitled ‘Of Identity and Difference,’ of his *Elements of Philosophy Concerning Body* Hobbes considers questions which are central to the issue of identity over time, including personal identity, like ‘whether a man grown old be the same man as he was whilst he was young, or another man’ (*Elements*, 135). In fact, Hobbes frames part of his discussion in terms of *reward* and *punishment*. Against the view that the sameness of a man is based in the sameness of the matter of which he is composed, Hobbes writes, ‘he that sins and he that is punished, should not be the same man, by reason of the perpetual flux and change of man’s body’ (ibid., 136). Hobbes goes on to distinguish sameness of body and sameness of ‘man’ – for Socrates’s body ‘when he has grown old, cannot be the same as it was when he was an infant ... yet, nevertheless, he may be the same man’ (ibid., 137). Ultimately, for Locke, Hobbes’s distinction is inadequate; not only should we distinguish a mass of atoms from an ‘organized body’ to which atoms are ‘vitaly united’ (II.xxvii.6), in the case of humans, we must distinguish the man from the *person*.³⁶

Thiel notes that in the seventeenth century, while commonly used to refer to an ‘individual human being,’ in at least some philosophical discussions ‘a person

is regarded as someone with rights and obligations, to whom we attribute actions and, whom we hold responsible for those actions' (Thiel 1998a, 868–869). Hobbes, for one, uses 'person' in this legalistic sense. George MacDonald Ross writes that 'when Hobbes talks of "person" in his discussion of the original contract in chapter XVII of his *Leviathan*, 'he means this in the sense of a *legal person*, that is, one 'legally entitled to own property, make contracts and so on' (MacDonald Ross 2009, 115). Both Thiel (1998a, 869, n. 4; 881–882) and Strawson (2011, 18)³⁷ concur. In *De Homine*, Hobbes characterizes persons as, among other things, those entities to which we attribute actions, writing that 'a person is he to whom the words and actions of men are attributed, either his own or another's: if his own, the person is natural; if another's, it is artificial' (Cited in Copp 1980, 591).³⁸ In his *Leviathan*, during his discussion of natural and artificial persons, Hobbes contends that young children and the insane are not the 'authors' of their actions, 'for children, fools, and madmen ... have no use of reason' and so, 'may be personated by guardians and curators, but can be no authors (during that time) of any action done by them' (*Leviathan*, XVI, 103). Given their lack of reason, they are not responsible for their actions, although such responsibility could fall to their guardians.

Luc Foisneau contends that Locke's account of 'person as a juridical term owes a lot to the definition that Hobbes gives of the natural person' (2008, 95). With Hobbes, Locke sees the question of personhood as crucially the question of moral and legal *responsibility*. Concerning the madman, Locke would come to make a similar point writing that he was '*not himself, or is beside himself* (II. xxvii. 20) and thus, not responsible for the actions committed during the episode of madness. Ultimately, Locke has an eye toward the resurrection, that 'great Day, wherein the Secrets of all Hearts shall be laid open ... [where] no one is made to answer for what he knows not of; but shall receive his Doom, his Conscience accusing or excusing him' (II.xxvii.22). According to Mackie, Locke's *forensic* account of persons 'might be best described as a theory of action appropriation' (1976, 183). Personhood Locke writes is a 'Forensic Term appropriating Actions and their Merit; so belongs only to intelligent Agents capable of a Law, and Happiness and Misery' (II.xxvii.26).

On Locke's view, a person's identity, and thus her responsibility, extends into the past *via* consciousness. Strawson makes a compelling case that by 'consciousness' Locke does not simply mean 'memory' (2011, (in particular) chapter 5).³⁹ Far from it. It is consciousness 'whereby [self] becomes concerned and accountable; owns and imputes to *itself* past Actions, just upon the *same ground* ... as it does the *present*' (II.xxvii.26, emphasis added). The 'ground' on which self becomes concerned for itself at 'present' is self-consciousness, the consciousness that attends every thought, which, as he says repeatedly is 'inseparable from thinking, and ... essential to it' for it is 'impossible for anyone to perceive, without perceiving that he does perceive' (II.xxvii.9). '[T]hinking,' Locke writes, 'consists in being conscious that one thinks' (II.i.19). As he reiterates in Book IV, '[i]

n every Act of Sensation, Reasoning or Thinking, we are conscious to ourselves of our own Being' (IV.ix.3). It is this *reflexive* awareness of our *selves* which accompanies thinking that is the basis of personhood.⁴⁰ Importantly, '[s]elf depends on consciousness, not on substance' (II.xxvii.17). 'Self is that conscious thinking thing, whatever substance made up of, (whether Spiritual or Material, Simple or Compounded, it matters not) which is sensible, or conscious of Pleasure and Pain, capable of Happiness or Misery, and so is concerned for *itself*, as far as that consciousness extends' (ibid.). Consciousness, as Strawson emphasizes, *does* require *some* substance (subject) or other, yet it need not be the same substance, either in principle (e.g. the prince and the cobbler thought experiment (II.xxvii.15)) or in practice (e.g. if we receive a new body on the Day of Judgment).

Dualists will here insist that that the subject of consciousness must be an immaterial substance. In keeping with this commonly held view concerning the subject of consciousness, it would not be implausible to infer that while Locke thinks persons conceivably move from soul to soul and so on, they need *some* soul or other. And indeed, in his account of personal identity, Locke asserts that it is 'probable' that 'consciousness is annexed to ... one individual immaterial Substance' (II.xxvii.25). However, Locke's notorious speculations about thinking matter in Book IV⁴¹ challenge this commonly held intuition and cast doubt on the sincerity of his claim that the subject of consciousness is probably an immaterial substance. We 'possibly shall never be able to know,' Locke writes, 'whether any mere material Being thinks' (IV.iii.6). It is, Locke suggests, conceivable that 'Omnipotency' has 'given some *Systems of Matter fitly disposed*, a power to perceive or think' (ibid; emphasis added). 'What certainty of knowledge can any one have,' Locke asks, 'that some perceptions, such as, e.g. pleasure and pain, should not be in some bodies themselves, after a certain manner modified and moved' (ibid). After all, making matter think is surely within omnipotent God's power. Furthermore, animals perceive, remember, and experience pleasure and pain, points to which we return shortly. Hence, it is surely within God's omnipotence to superadd active powers, like 'sense and spontaneous motion,' to mere matter; as he puts it in his third letter to Edward Stillingfleet, it would be an undue limitation on God's omnipotence to deny that He could also go 'one step further' and 'give to matter thought, reason, and volition' (Locke 1823, vol. 4, 460). In his *Essay* ([1700] 1979), Locke is quick to qualify this claim, asserting that he is 'not here speaking of Probability' (IV.iii.6) but only possibility, namely, that it is within God's power to do so. Locke's official position, here as in Book II is that we probably have an immaterial soul.

However, Locke does, in effect, offer several reasons for thinking that God *actually* did superadd thought, reason, and volition directly to the living body. First, 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? Several reasons might be proffered in favor of the second option. On the one hand, it might be argued that it is not in fact more complex, that God does not need to superadd consciousness to an immaterial substance, Locke's above characterization notwithstanding, for such a substance thinks by its very nature. But against the Cartesians, Locke insists that souls, if we have them, can and do lose consciousness, indeed, every night: 'every drowsy Nod shakes their Doctrine, who teach that the Soul is always thinking' (II.i.13). To those who argue that the soul continues to think even in a dreamless sleep without our remembering it, Locke replies that a man in a sound sleep is not 'capable of Happiness or Misery,' at least, 'no more than the Bed ... he lies on' (II.i.11). Or as he puts it in a 1682 *Journal* entry, 'one may, with as much certainty and evidence, say that the bed-post thinks and perceives too all the while, but remembers it not' (1858, 128). And, in any case, if the soul were conscious every night in a sound sleep, the sleeping and waking man would make 'two Persons' (II.i.12; emphasis added). Further, as his account of personal identity makes clear, not only is it conceivable that a single consciousness can move from one body to another, there could possibly be more than one consciousness in a single human being (II.i.12; II.xvii.19), a possibility one would not expect if it were 'annexed' to an *individual* immaterial substance. In short, 'the perception of Ideas' is 'to the Soul what motion is to the Body; not its Essence, but one of its Operations' (II.i.10).

On the other hand, one might argue that God opts for the complexity of two superadditions because (1) thinking requires a simple – i.e. indivisible – subject or (2) immaterial souls are required for immortality. But Locke explicitly denies both of these requirements. First, if thinking matter is conceivable, then the subject of thinking need not be simple. That is, if a *system* of matter, say the brain, could *possibly* be the subject of thought and feeling – and Locke clearly believes that this is at least a possibility – and if we concede that the brain, rather than being simple, is exceedingly complex, then thought and feeling do not entail a simple subject. Second, personal immortality does not require an immaterial soul, as is apparent when Locke concludes that '[a]ll the great Ends of Morality and Religion, are well enough secured, without philosophical Proofs of the Soul's Immateriality; since it is evident, that he who made us ... sensible intelligent Beings ... can and will restore us to the like state of Sensibility in another World' such that we may 'receive the Retribution he has deigned to Men, according to their doings in this Life' (IV.iii.6). In other words, the promise of resurrection secures our hope of an afterlife irrespective of the soul's immateriality.

In his *Journal*, Locke is just as clear when he states that an immaterial soul is not *sufficient* for personal immortality either since it does not guarantee the preservation of consciousness. Those who think otherwise, 'perfectly mistake

immortality; whereby is not meant a state of bare substantial existence and duration, but a state of sensibility' (1858, 128). To demonstrate that persons persist after bodily death, one must demonstrate that 'sensibility' persists. But again we know from 'experience of what we find daily in sleep' that the soul, if we have one, can and does lose sensibility, for example, 'during two or three hours of sound sleep without dreaming' (ibid., 129). This daily deliquium is apparently the result of changes in the disposition of the brain and body, rather than changes in a simple soul substance. With Overton, the *physician* Locke is aware of the proportionality between changes in the brain and body and changes in one's mental life. Thus, whether or not we have an immaterial soul, Locke is cognizant that thought and feeling apparently *depend* on a properly functioning, living body. In fact, Locke notes other more radical changes in the body such as 'swooning and apoplexy, &c., [which] put it past doubt that the soul may subsist in a state of insensibility, without partaking in the least degree of happiness, misery, or any perception whatsoever' (ibid.). In the case of the body's complete 'dissolution,' (ibid., 130) then, we have every reason to expect that that all thought and sense will cease. Thus, Locke reasons, the soul – if we have one – is like an atom in that it may be indestructible. But this is irrelevant when it comes to personal immortality. For to prove 'eternal duration, which may be without any perception, is to prove no other immortality of the soul than what belongs to one of Epicurus's atoms, viz. that it perpetually exists, but has no sense either of happiness or misery' (ibid., 129). Hence, even granting 'that no power can destroy it but that Omnipotence that at first created it,' the soul may cease to think after the death of the body. In this case, soul and body 'may both lie *dead* and inactive, the [soul] *without thought*, the [body] *without motion*, a minute, and hour, or to eternity, which wholly depends upon the will ... of the first Author' (ibid., 129–130; emphasis added).

The dependence of thought and sense on the proper functioning of the body is at least implicit in the *Essay*. Recall Locke's important qualification regarding the possibility of thinking matter: God would be superadding thought and sense, not to matter *per se*, but to 'Systems' of matter that are 'fitly disposed' and 'put together as he thinks fit' (IV.iii.6), that is, systems of matter properly organized and 'vitaly united' in one organism.⁴² That a system of matter can be more or less fitly disposed to be the subject of thought and sense, implies some level of dependence. In that case, we should expect that an entirely corrupted body would be an entirely *unfit subject*. The dependence of sensibility on the organization of our bodies is also implied by Locke's treatment of the possibility of an inverted spectrum. Logical positivists of the early twentieth century took the question of the possibility of an inverted spectrum as a paradigmatic example of a 'pseudo-problem.' In Sydney Shoemaker's words, it was 'a favorite target for applications of the verificationist theory of meaning' (1982, 357). Yet Locke is *not* speculating on the possibility of physiological identical humans having inverted spectra. Rather, he is suggesting that differences in

the structure of different people's eyes and brain could result in an inversion of their color ideas. It is possible, he writes, that by '*different Structure of our Organs ... the same Object should produce in several Men's Minds different ideas at the same time*,' for example, 'that if the Idea that a Violet produced in one Man's Mind by his Eyes were the same that a marygold produced in another man's' (II.xxxii.15; emphasis added; cf. II.xxxii.13). In other words, if two men's spectra were inverted, it would be due to physiological differences, again implying a dependence on the physiology of the brain and body.⁴³

That we lose sensibility upon bodily death is, on Locke's view, also evident from Scripture. In his *Reasonableness of Christianity*, Locke explicitly defines death in starkly mortalist terms. 'I must confess by *Death* here [in the New Testament] I can understand nothing but a ceasing to be, the losing of all actions of *Life and Sense*' ([1696] 1999, 8; emphasis added). With Hobbes, Locke interprets Adam's punishment for his disobedience in paradise as precisely the loss of immortality, that is, he was turned away from 'the Tree of Life' which 'shews that the state of Paradise was a state of Immortality ... which he lost that very day' (ibid., 6). Thus, with Adam's ejection from paradise, 'all men must die' (ibid., 11). Thanks to Adam's disobedience, we are all now mortal and subject to death. However, '[f]rom this estate of Death Jesus Christ restores all mankind to Life ... which they receive at the Resurrection' (ibid., 11–12). We are not, therefore, naturally immortal, even if we have indestructible souls. Rather, the promise of personal immortality depends solely on the resurrection. Even then we are subject to the possibility of a *second* death for our sins in this life. 'That Death (i.e. a *cessation of sense and perception*) shall at last ... be the punishment of the unrighteous is plain from Gal. VI. 8. where *corruption* is set in opposition to life everlasting' (ibid., 14; emphasis added).

A final line of argument for Locke's skepticism over immaterial souls concerns the nature of animal minds, a topic that was vigorously debated in the seventeenth and eighteenth century.⁴⁴ While animals may not have a capacity for abstract thought and language, they are, on Locke's view, capable of sense and perception, of happiness and misery, all capacities Locke mentions in his discussion of the possibility of thinking matter. Moreover, 'brutes have memory,' that is, 'several other Animals seem to have to a great degree, as well as Man' the capacity for 'laying up and retaining the *Ideas* that are brought into the *Mind*' (II.x.10; emphasis added). In his *Journal*, Locke considers those who worry that if we concede that animals have minds we must concede that they have immaterial souls as well. '[F]or, say they, beasts feel and think, and therefore their souls [must accordingly be] immaterial, and consequently, immortal' (1858, 128). This un-theistic position is, for many, implausible, so much so that 'some men ... have rather thought fit to conclude all beasts perfect machines, rather than allow their souls immortality' (ibid.). In other words, if we deny immaterial souls to animals and yet maintain that minds require immaterial souls, we must deny minds to animals. To defend such a position, one might appeal to those capacities

that appear to be uniquely human – e.g. rationality and language – identifying them as the definitive indicators of an immaterial soul. With respect to uniquely human mental faculties, Locke focuses on the capacity for *abstraction* which, he believes, ‘puts a perfect distinction betwixt Man and Brutes’ (II.xi.10). Yet he immediately goes on to insist that while ‘Brutes abstract not’ neither are they ‘bare machines.’ For it ‘seems as evident ... that they do some of them in certain instances *reason*, as that they have *sense*’ (II.xi.11; emphasis added). Jolley argues that from Locke’s perspective, the addition of an extra mental faculty is a rather weak difference on which to base ‘such a sharp ontological divide between human beings and animals’ (2015, 46).⁴⁵ For this very reason, Ann Thomson maintains, the question of animal souls was particularly vexing for those like Ralph Cudworth and Henry More who sought to defend the immateriality of the human soul. ‘An immaterial [animal] soul entailed the danger of making it immortal, while a material animal soul could be extended to the human soul as well’ (Thomson 2010, 11). As Cudworth puts the worry, a material animal soul ‘leaves us also in an absolute impossibility of proving the immortality of the rational soul’ (cited in Thomson 2010, 14).

Importantly, if animals lack an immaterial soul and yet are still capable of happiness and misery, of sense, memory, and simple reasoning, they represent an *actual* case of thinking matter. For Locke, Jolley writes, ‘it is a virtue of the thinking matter hypothesis that it can easily accommodate what he takes to be the facts about human and animal mentality’ (2015, 45). When God creates animals, he must superadd mental capacities directly to the animal’s brain and body. The only difference, then, between humans and animals, is that God superadds greater mental capacities to humans. In his exchange with Stillingfleet, Locke writes that ‘if Omnipotency can give thought to any solid substance, it is not hard to conceive that God may give that faculty in a higher or lower degree, as it pleases him, who knows what disposition of the subject is suited to such a way or degree of thinking’ (cited in Jolley 2015, 45).

6. Conclusion

So is Locke’s mortalism best described as soul-sleep – Newton’s position – or soul-death – Hobbes’s position? If God superadds ‘sensibility’ directly to our physical bodies, then Locke is committed to a version of soul-death which differs from Hobbes’s view only in that unlike Hobbes, Locke does not believe matter can itself generate thought and sense but requires divine superaddition. But if we have souls – Locke’s official position – then Locke’s mortalism is a version of soul-sleep. Yet for Locke, the soul-sleep/soul-death distinction is effectively irrelevant since either view implies the end of the person. But for the promise of resurrection, persons cease to exist with the death and dissolution of their bodies. What’s more, unlike Newton, Locke does not venerate the immaterial subject of thought as more noble than the body, nor as a finite image of the

Divine Mind, nor even as an entity required for perception and spontaneous motion. Rather, he trivializes its importance, first by treating its existence as morally and religiously irrelevant, second by raising doubts as to its very existence, third by noting the apparent dependence of thought and sense on the body, and fourth by pointing to animals as exemplars of thinking matter with the implication that we may be as well. In sum, Locke's apparent sympathies for a materialist anthropology would justify Newton's fevered accusation that his friend is a 'Hobbist'.⁴⁶

Notes

1. See Iliffe (2007, 109–11). Iliffe notes that a number of explanations for Newton's illness have been offered, including mercury poisoning 'but no single explanation seems to be convincing' (110). See also Iliffe (Forthcoming, chapter 12, section 2) where he casts doubt on mercury poisoning being the entire explanation. Newton himself insists that the cause of his ailments is insomnia. Iliffe (in correspondence) suggests that the insomnia might have been the result of his struggles to secure a plum job in London.
2. Newton to Locke, 16 September 1693 (Newton 1959–77, vol. III, 280).
3. See II.xx.20. As usual, Locke has also an eye to explicating Divine Judgement: morally good actions are ones that conform to the will of the 'Law-maker' and are rewarded with pleasure and the absence of suffering (II.xxviii.5).
4. Iliffe (2007, 109) also reads 'Hobbist' as 'materialist,' although he takes Newton's dog-earing of the pages in question to be significant evidence in favor of Roger's interpretation.
5. Ecclesiastes 3:20 (King James Version)
6. Christian mortalism was condemned by many authorities, including Heinrich Bullinger's 1561 *Second Helvetic Confession* (Almond 1994, 40), England's 1553 Forty-two Articles, and Scotland's 1650 *Scottish Confession* (Burns 1972, 112–116). In 1644, mortalism was condemned by the House of Commons (Harding 1895, 285–287) in response to Overton's ([1643] 1968) tract defending the heresy. Calvin criticizes the heresy in his *Psychopannychia* ([1542] 1851, 3). I consider various forms of mortalism in more detail in Dempsey (2011). My views on the mortalist inclinations of Newton and Locke have evolved somewhat, largely due to coming to a better understanding of their respective positions on the mind–body relation, i.e. Newton's substance dualism on the one hand and Locke's apparent attraction to materialism on the other.
7. Mental '[f]aculties increase with their subjects, and if increase, they must decrease' (1968, 26). Overton's argument from proportionality anticipates an argument David Hume offers against immortality in his 'Of the Immortality of the Soul (1980).'
8. King James Version. We return to the question of animal minds in the final section.
9. Arguably, Hobbes is anticipating Gilbert Ryle's critique of Cartesian dualism as resulting from a confusion of logical categories. With Ryle, Hobbes sees immaterialism as leading to many 'absurdities;' for example, 'they are obliged to assign them some place. But because they hold them incorporeal, without all dimension of quantity ... they are driven to uphold ... that they are not, indeed, anywhere' (*Leviathan*, XLVI, 19, 460–461). It is worth noting that Étienne Balibar's research into Locke's conception of consciousness, which he contends

revolutionized our understanding of subjectivity, suggests that Ryle should have targeted Locke rather than Descartes. See Balibar ([1998] 2013). Balibar here cites Francis Jacques's preface to the 1978 French translation of Ryle's book (*La notion d'esprit* 1949 (Paris: Payot, 1978), VI).

10. Woolhouse briefly considers Hobbes's account of appetites and aversions in his 1988, 41–42.
11. Consider again Ecclesiastes 3:19 where it is said that humans and animals are of 'one breath.'
12. Newton (2004a, 12–39). See also Janiak's (2008). It is unclear when this manuscript was composed but Janiak puts it before 1685 while Iliffe (1995, 451) suggests that it was material originally intended for Newton's *Principia* (1999).
13. On More's influence on the young Newton, see also McGuire and Martin Tamny's discussion in Newton's student notebooks, *Certain Philosophical Questions* (1983, 216–240).
14. While originally supportive of Descartes's dualism, More came to see Descartes's doctrines as a threat to religion. See, e.g. Cottingham (1986, 104); Power (1970, 289); and Gabbey (1982, 171–250).
15. More (1969, 183–184). Since for Descartes the substance that thinks is a distinct substance from extended substance – and hence has a distinct essence – the former, as he puts it in his *The Passions of the Soul*, 'has no relation to extension, or to the dimensions or other properties of the matter of which the body is composed' (Descartes 1985, *Philosophical Writings*, vol. 1, 339).
16. See also Tamny (1979); Gorham (2011); Dempsey (2014). Gorham interprets Newton's views as being guided by a Cartesian conception of causation. Bennett and Remnant (1978) suggest that Newton's account of God's creation of bodies is likely incoherent. Locke apparently alludes to Newton's account of God's creation of bodies at IV.x.18 of the second edition of his *Essay* (on this point see, e.g. Woolhouse 1982, 85).
17. Newton *Principia* (1999, 941). Janiak maintains that Newton's discomfort with action at a distance motivated his belief in God's substantial omnipresence (2008, 173–174). Hall and Hall suggest that God's omnipresence allowed Newton to abandon the aether hypothesis, providing 'an antithetic to his aetherism' (1995, 79). For a different – Spinozistic – interpretation, see Schliesser (2011).
18. As Janiak notes, Newton qualifies this elsewhere with 'as it were' (2004b, 130); however, this qualification did not appear in all copies of the *Opticks* (2004b, 138, note 4).
19. In his *High Priest of Nature*, Iliffe writes: 'Like the imagination and the will, the understanding had been forged in the image of God, and one had a duty to use it to see how much of the divine had been adumbrated in mere mortals' (chapter 12, section 3).
20. Newton believes our sensorium or common sense is located in the fourth ventricle of the brain (*Certain Philosophical Questions*, 383). On Newton's sensorium account of perception, see Tamny (1979).
21. Gorham agrees that the existence of corpuscles is grounded in 'God's continuous volition' (2011, 22), as does Tamny, who further argues that their *movement* also requires continuous acts of volition (1979, 56). Newton's God is a God of action, to be worshiped not simply for his divine attributes but for his 'dominion' over the world, for the 'Pantokrator' 'rules all things' (*Principia*, 1999 940). In support of this 'voluntarist' conception of God see, e.g. Force (1990). Again, for an alternative interpretation, see Schliesser (2011).

22. Relatedly, in his *Opticks*, Newton treats matter as exceedingly porous. '[B]odies' he tells us, 'are much more rare and porous than is commonly believed' (cited in Thackray [1968] 1995, 91). Thackray contends that this view greatly influenced eighteenth-century Newtonians, writing 'the Newtonian vision of the universe' is of 'an almost matterless entity, sustained by God's will, regulated by his direct intervention, and operating through immaterial forces' (*ibid.*, 92).
23. In 1694, Newton was reported to have ridiculed a group of Cambridge scholars who were inspecting a house at Cambridge that was reputed to be haunted (Snobelen 2004, 165).
24. See, also e.g. Job 14:12: 'so man lieth down, and riseth not: till the heavens be no more, they shall not awake, nor be raised out of their sleep' and Ecclesiastes 9:10 'there is no work, nor device, nor knowledge, nor wisdom, in the grave' (King James Version). On Newton's mortalism see, e.g. Force (1994, 1999).
25. Cited in Force (1994, 190). Force is here using Newton's manuscript 'Paradoxical Questions concerning y^e morals & actions of Athanasius & his followers,' found at the Clark Library.
26. Yahuda MS 6 found at <http://www.newtonproject.sussex.ac.uk/view/texts/normalized/THEM00049>
27. There are several complications with the soul-sleep interpretation which go beyond the scope of this discussion but one worth mentioning is the question of *where* sleeping souls go when the body returns to the dust. Daniel 12:2 suggests that they persist in the grave, but this proves problematic in many cases.
28. Yolton considers Locke's beliefs concerning spiritual phenomena in his 2004.
29. See Dempsey (2009). On the intimacy that developed between Locke and Collins, see, e.g. Woolhouse (2007), 436ff.
30. In Dempsey (2010), I consider an argument for substance dualism which could plausibly be called 'Lockean' but maintain that it is an argument to which Locke never appeals.
31. For others, see, e.g. Edwards and his 1696 *Socinianism Unmask'd*. On the charge that Locke was a crypto-Socinian, see, e.g. Marshall (2000, 111–182). See also Snobelen's (2001, 88–125) review of J. C. Higgins-Biddle's 1999 edition of Locke's *Reasonableness of Christianity*. For Locke's defense against the charge of heterodoxy, see Victor Nuovo's Editor's Introduction to *John Locke: Vindications of the Reasonableness of Christianity* (2012). Thanks to Richard T. W. Arthur for pointing this out.
32. Gottfried Leibniz (1875–90) to F. W. Bierling, 19 November 1709, *Die Philosophische von G. W. Leibniz*, VII: 488–9. http://fr.wikisource.org/wiki/Livre:Leibniz_-_Die_philosophischen_Schriften_hg._Gerhardt_Band_7.djvu. Thanks to Richard T. W. Arthur for translating this passage.
33. Gottfried Leibniz to I. Jaquelot, 28 April 1703, *Die Philosophische*, VII: 474; cited in Jolley 1984, 16. Luc Foisneau contends that 'we might say that the Leibnizian critique of Locke is, when all is said and done – and more fundamentally – a critique of Hobbes' (2008, 99).
34. Thomson (2008) provides a more general account of the complex relations between beliefs about atheism, materialism, and the nature of the soul in the late seventeenth and early eighteenth centuries, including the theological and metaphysical motivations for mortalism as well as political reactions to it. An important implication of her research is that, as the heresy of mortalism makes clear, atheism need not follow from materialism, and indeed, a great deal of effort is expended during this period trying to reconcile religion and materialism.

35. Locke's account of identity, including personal identity, was added to the second edition (1694), after a suggestion proffered by the Locke's friend, the Irish natural philosopher, William Molyneux; see Woolhouse (1988, 97). Woolhouse notes that it was through Molyneux that the Provost of Trinity College, Dublin, entered Locke's *Essay* ([1700] 1979) into the curriculum in the 1690s, there to await George Berkeley who entered Trinity as a student in 1700 (*ibid.*, 106). It is also worth noting that some of Locke's early discussions in the *Essay* ([1700] 1979) anticipate his account of personal identity, in particular, his discussions of Pythagorean metempsychosis in Book I (iii. 4–5) and his discussion of Socrates awake and Socrates asleep in the first chapter of Book II (i. 11–13).
36. Concerning the account presented in *Elements*, Foisneau writes, 'Hobbes does not establish in this text – any more than he does in any other – a direct link between the problem posed by his definition of the natural person and his theory of the principle of individuation. So it is to Locke, in his chapter entitled *Of Identity and Diversity*, that the credit should go for presenting the modern problem of personal identity through his audacious conjunction of the theory of the person and the theory of identity' (2008, 93).
37. According to both Thiel and Strawson, Hobbes and his (Cartesian dualist) critic Samuel von Pufendorf employ the old legalistic usage of 'persona' according to which a person is a human being who owns his actions and is thus responsible for them (Thiel 1998a, 882), that is, is a 'bearer of rights and duties' (*ibid.*, 869).
38. David Copp (1980) provides an analysis of the collective actions of natural persons in the form of an artificial person, say, a body of elected representatives.
39. A full explication of what Locke means by 'consciousness' and 'concernment' goes beyond the scope of our present discussion and, while I am sympathetic with Strawson's account, it cannot be fully adjudicated here. Strawson asserts that he is largely in agreement with Thiel's account of Locke on personal identity, writing that 'almost all elements of a correct view of his theory' (2011, 3) are to be found in Thiel's (1998a). It is worth noting that Strawson's account is influenced by (*moralist*) Edmund Law's 1769 *Defence of Mr Locke's Opinion Concerning Personal Identity*, a transcription of which Strawson appends to his book. Thiel (2011) provides a critical survey of self-consciousness and personal identity in early modern thought in his *The Early Modern Subject*. See also the next note. For Locke's influence on eighteenth-century materialist accounts of personal identity, see Thiel (1998b).
40. Martin and Barresi agree, emphasizing that 'central to Locke's account of self is the idea that consciousness is reflexive and ... it is what unifies a person not only *over* but also *at* a time' (2003, 37). Similarly, Foisneau characterizes Locke's notion of 'consciousness' as 'knowledge of oneself' (2008, 93–94). Foisneau notes that Pierre Coste's decision to translate 'consciousness' as '*con-science*' in the French translation of the *Essay* was based on his desire to clarify the sense of 'consciousness' Locke had in mind (*ibid.*). Foisneau is here utilizing the research of, among others, Balibar ([1998] 2013).
41. Again, see the works of Strawson, Jolley, Thomson, and Thiel on this score. See also, Yolton (1983).
42. Cf. II.xvii.7 where Locke speaks of a 'fitly organized body'.
43. To be sure, an inversion of color ideas caused by differences in physiology may be consistent with some versions of substance dualism. In a 1682 letter to William Briggs, Newton gives an account of double vision in just those terms. Double vision can be caused by, for example, pressing one's thumb against an eyeball. According to Newton, this causes the 'motional pictures' which are 'transmitted'

along the optic nerves into the sensorium to become 'distorted' such that their 'situation and distance then from one another the soul judges she sees two things so situate and distant' (Newton 1850, 269). Likewise, Descartes could perhaps explain double vision or an inverted spectrum in terms of how differences in physiology influence the brain's interaction with the penial gland, and thereby, influence the penial gland's interaction with the thinking substance. But in both cases, the soul is an indispensable part of the story. Indeed, for Descartes at least (Newton's view is less clear) consciousness does not depend on the body even if changes in the body can cause changes in one's consciousness. Locke, on the other hand, appeals only to the *'different structure of our organs'* and does seem inclined, as noted above, to view consciousness as dependent on the life and proper functioning of the body. What's more, it seems likely that Locke would accept that the color ideas that animals have could be inverted in a similar fashion – without, of course, any dependence on a soul substance. So while Locke's account of the possibility of an inverted spectrum might be consistent with substance dualism, his treatment of it is, to my mind, decidedly materialistic and reflects his recognition of the dependence of mental phenomena on the 'fit' disposition of the material body.

44. See, e.g. Thomson (2010).
45. Jolley is here considering Locke's exchange with Stillingfleet. See also Wright (1991) who, as Thomson notes, agrees that for Locke the difference between animal and human souls 'is one of degree not kind' (2010, 21).
46. I would like to thank Tom Vinci and the scholars who attended the 2015 Atlantic Canada Seminar in Early Modern Philosophy (especially Joshua Wood). I would also like to thank Richard T. W. Arthur for his helpful comments and generous encouragement. Finally, I would like to thank the reviewers at this journal for their very useful critical feedback.

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