



LOCKE STUDIES

Vol. 19

<https://doi.org/10.5206/lis.2019.6242> | ISSN: 2561-925X

Submitted: 2 JANUARY 2019

Revised: 5 JULY 2019

Published online: 14 AUGUST 2019

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Locke and Holenmerianism

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Abstract:

Locke's conception of God's manner of being present everywhere is unclear. He seemed to agree with the Cambridge Platonist Henry More that spirits were present in space not merely operationally—a position which More labelled “nullibism”—but substantially; however, it is not clear whether he endorsed More's view of God as an infinitely extended being, filling space with His amplitude of presence or rather the alternative, scholastic conception, which may be called “holenmerianism” (from More's “holenmerian”) and which affirmed that God was substantially present everywhere as a whole in the whole and a whole in each part. The paper attempts to explore this question in detail by focusing on an episode in Locke's later correspondence, which suggested that he was not committed to holenmerianism. The episode focused on the dispute which Locke had entered into with Johannes Hudde in 1697 on how to prove God's uniqueness; the “physical” proof he provided to settle the dispute did not rely on a holenmerian conception of God's presence in space. Locke's proof was based on a principle he had established in the *Essay*, which determined the impenetrability of spirits by other spirits; the paper shows that, although More did not accept this principle, he might have agreed with Locke's proof. Finally, the paper suggests that further evidence coming from the *Essay*, taking into account Locke's reading of Newton's *De gravitatione*, seems to indicate that he was not committed to holenmerianism.

Keywords: holenmerianism, John Locke, Henry More, spirits, God, nullibism, exclusion principle, penetrability, Isaac Newton, Johannes Hudde

Locke Studies is published by [The John Locke Society](#).

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1. Introduction

Holenmerian was a term coined by the Cambridge Platonist Henry More to indicate a person who adhered to the theory that spirits were substantially present in the extended world but in a manner very different to that of bodies. A body was present in a certain region of space with distinct parts outside parts; a spirit was “whole in the whole and whole in each part” (*totus in toto et totus in qualibet parte*).¹ The Scholastics used this formula to express this theory, which, as Robert Pasnau noted, was “the standard view regarding immaterial entities—God, angels and rational souls—from Plotinus, Augustine, and Anselm all the way through the scholastic era.”² Plotinus affirmed both that the divine substance was omnipresent and that created spirits were substantially present within their bodies, but he did not deem them to be spread out with parts outside parts because of the essential simplicity he attributed to spiritual substances; to preserve their incorporeality and indivisibility, he claimed that they were whole in the whole and whole in each part.³ Similarly, Augustine maintained that the whole of the human soul, being an indivisible substance, was present simultaneously in the place occupied by the whole of the body and in each of its individual parts, and that the whole of God’s simple substance was substantially present in each part of the created world. The divine substance transcended the mode of presence of material bodies and even of finite souls, being “not only wholly present to the whole universe,” but “equally so to each part of it.”⁴ The Scholastics firmly established this doctrine, basing it on a metaphysical extrapolation of the physical principle of “no action at a distance”: spirits were substantially present in the spatial world, otherwise they would not be able to exert their power over spatial things. They were not distinct from their own power; God was one with His omnipotence, as well as with His other attributes. Aquinas held this view; he affirmed that God was omnipresent because of His being everywhere by power, essence, and presence and that His presence was “whole in all things and in each one” because of His indivisibility.⁵ Francisco Suárez used another argument to support divine holenmerianism: in his view, God was whole in every part of creation because this kind of presence, being the most

¹ Henry More, *Enchiridion metaphysicum* (London, 1671), pt. 1, chap. 27, § 1, 351. “Holenmerianism” is from the Greek for “whole in parts.”

² Robert Pasnau, *Metaphysical Themes 1274–1671* (Oxford: Clarendon Press, 2011), 337; see also 338–49.

³ Plotinus, *Enneads*, trans. Arthur Hilary Armstrong (Cambridge, MA: Harvard University Press, 1984), IV 9.1, 4:429 and IV 2.1, 4:21; V 5.9, 5:183. Plotinus’s source was Plato’s theory of forms.

⁴ Augustine of Hippo to Dardanus, mid 417, in vol. 4 of *St. Augustine Letters 165–302*, The Fathers of the Church 30, trans Wilfrid Parson (Washington DC: The Catholic University of America Press, 1555), 234. Drawing upon Augustine, both John Damascene and Peter Lombard were influential in disseminating holenmerianism.

⁵ Thomas Aquinas, *Summa Theologica*, trans. The Fathers of the English Dominican Province. (New York: Benziger Bros), 1947–48. Ia, q. 8, a. 2; reply to obj. 3, <https://dhsprory.org/thomas/summa>. Immaterial spirits are in things that have parts, noted Aquinas; unlike bodies, which are in places by dimensional parts and are thus divisible, spirits are indivisible, being therefore whole in every part.

perfect one, necessarily pertained to the most perfect being.⁶

Holenmerianism had both detractors and followers in the early modern period. Pierre Gassendi espoused the doctrine in the case of God; Walter Charleton may have well embraced it too.⁷ By contrast, Thomas Hobbes rejected it because of his materialist conception of spirits. He ridiculed the scholastic terminology which distinguished the way bodies exist in a place (*circumscriptivè*) from the way spirits exist (*definitivè*)⁸ and claimed that it was absurd to imagine that the human soul existed as a whole in the body and in each of its parts. In Hobbes's view, everything which was a whole had parts;⁹ to have parts was to be actually divisible. This was irreconcilable with the fundamental premise of holenmerianism, the indivisibility of spirits.

More had initially adhered to holenmerianism, which went hand in hand with his being averse to "nullibism"—another term of his own devising, which signified the theory that spiritual substances are not present anywhere in the spatial world.¹⁰ However, he later rejected holenmerianism as "profound Non-sense"¹¹ and in the *Enchiridion metaphysicum* advanced several arguments against it.¹² More claimed that holenmerianism implied that an immaterial substance might have many different sizes at the same time, for it could exist in its entirety in some tiny spaces as well as in larger ones,

⁶ Francisco Suárez, *Metaphysicarum disputationum* (Mainz, 1600), XXX 7.44, 2:75. Suárez conceived of finite souls and angels as holenmeric; God had necessarily to be holenmeric, being more perfect than His creatures.

⁷ Pierre Gassendi, "The Reality of Infinite Void according to Aristotle," in *The Concepts of Space and Time: Their Structure and Their Development*, ed. Milič Čapek (Dordrecht: Springer, 1976), 94: "the divine substance is supremely indivisible and whole at any time at any place." Regarding Walter Charleton, after declaring that it is "generally allowed" that an angel's substance has "Diffusion in place," he added that it is "constituted *in puncto*, as is also generally conceived." *Physiologia Epicuro-Gassendo-Charletoniana* (London, 1654), 70.

⁸ Thomas Hobbes, *Leviathan: or the Matter, Forme and Power of a Commonwealth, Ecclesiasticall and Civill*, ed. Albert R. Waller (Cambridge: Cambridge University Press, 1904), 500. Regarding the scholastic use of the terms *circumscriptivè* and *definitivè*, see Pasnau, *Metaphysical Themes*, 337n19. God's ubiquity was not conceived of either circumscriptively (i.e., as commensurate with a place, with each part in a part) or definitively (i.e., as existing in a definite place as a whole in the whole and a whole in each part), but rather as a *presentia repletiva* filling every place without being contained in it.

⁹ Thomas Hobbes, "Elements of Philosophy. The First Section, concerning Body," *The English Works of Thomas Hobbes of Malmesbury*, ed. Sir William Molesworth (London, 1839), 1:97.

¹⁰ Cartesian "nullibism" was criticized by More in *Enchiridion metaphysicum*, pt. 1, chap. 27, §§ 1–10, 350–67. More's fullest early exploration of the distinction between nullibism and its contrary (i.e., merely operational *versus* substantial presence in space of God and spirits) is to be found in his letters to René Descartes (1648–49). David Leech has affirmed that More's opposition to nullibism was logically dependent on his rejection of holenmerianism; in Leech's view, More was not committed to holenmerianism when he corresponded with Descartes, or at least was "in the process of abandoning a holenmeric construal of God." *The Hammer of the Cartesians. Henry More's Philosophy of Spirit and the Origins of Modern Atheism* (Leuven, 2013), 130–31 and 155–59. I shall return to Leech's argument in note 49.

¹¹ Henry More, *The Immortality of the Soul* (London, 1659), 73.

¹² Henry More, *Enchiridion metaphysicum*, 369–71.

which was impossible. It also implied that the soul could exist “outside its whole self,” being as a whole in each part of the body; this was possible for universals, which were notions and not individual things. Finally, More criticized holenmerianism for being irreverent to the supreme deity, whose amplitude it made “not greater than that physical point in which it exists;” he endorsed the alternative view, which identified divine amplitude with space. More described both the deity and space as “*One, simple, immobile, eternal, complete, independent, existing for itself, subsisting by itself, incorruptible*”;¹³ he construed infinite space as an attribute of God. This had important implications for the manner of conceiving God’s omnipresence: if space were, as More described it, an incorporeal extension in which quantitative parts could be mentally distinguished though they were not separable from one another, then it followed that a divine attribute had distinguishable, quantitative parts. As a matter of fact, More defined both space and spiritual substances as penetrable and *indiscernible*, i.e., not actually divisible into parts; they were mentally divisible, in the sense that their parts might be considered separately by the intellect although they were not really separable from one another. Both space and spiritual substances were endowed with “notional” or intellectual parts;¹⁴ this however was hardly reconcilable with holenmerianism, which could not be predicated on spirits having quantitative parts.

Some commentators believe that Newton subscribed to More’s rejection of holenmerianism,¹⁵ whereas others differ in opinion.¹⁶ Like More, Isaac Newton identified God’s amplitude of presence with space; unlike More, Newton did not articulate a specific doctrine of incorporeal extension with which to explain divine omnipresence and its relation to space. Therefore, it is hard to understand what Newton thought in this regard. In *De gravitatione*, Newton affirmed that space was not actually divisible although it could be intellectually divided into parts; More held the same view. However, unlike More, Newton did not conceive of space as a divine attribute but rather as a real entity

¹³ Ibid., pt. 1, chap. 8, § 8, 69. More enumerated more than twenty titles which, he wrote, “the metaphysicians attribute to God and which fit the immobile extended [entity] or internal place.”

¹⁴ More defined distance as a “notional” or intellectual property: in the *Antidote against Atheism*, he claimed that distance might be “no real or *Physical* property of a thing, but only *notional*” by being “nothing else but the privation of tactual union.” *An Antidote against Atheism*, 2nd ed. (London, 1655), 337. Regarding indiscernibility, see Jasper Reid, *The Metaphysics of Henry More* (Dordrecht: Springer 2012), 48, 117, 188–94.

¹⁵ See, for instance, Edward Grant, *Much Ado about Nothing: Theories of Space and Vacuum from the Middle Ages to the Scientific Revolution* (Cambridge: Cambridge University Press, 1981), 253–54 and Edward Slowik, *The Deep Metaphysics of Space: An Alternative History and Ontology beyond Substantivalism and Relationism* (Cham: Springer, 2016), 50–52.

¹⁶ See especially Pasnau, *Metaphysical Themes*, 338; Reid, *Metaphysics*, 227–29; Hylarie Kochiras, “Spiritual Presence and Dimensional Space beyond the Cosmos,” *Intellectual History Review* 22, no. 1 (2012): 41–68.

existing as a consequence of the existence of an omnipresent substance.¹⁷

John Locke's position on holenmerianism seems even more difficult to discern. Like More, he rejected nullibism and attributed a spatial location to spirits; his description of the parts of space in the *Essay* was in accordance with More's idea of intellectual, notional parts. However, as Jasper Reid has noted, Locke's view on God's manner of being present everywhere seems not to be sufficiently articulated to affirm that he rejected holenmerianism; officially, he never took a stand in this regard.

My purpose is to consider this question in detail, by focusing on an episode in Locke's later correspondence. The episode centres on the dispute that Locke had with Johannes Hudde in 1697 on how to prove God's uniqueness; the "physical" proof Locke provided to settle the dispute was based on divine omnipresence but did not depend on holenmerianism. Locke's proof relied on the analogy between spirits and bodies which he had drawn in the *Essay*, where he had defined their identities over time in the same way (i.e., in terms of the continuity of their spatio-temporal locations); holenmerianism was not invoked to support this proof. I shall argue that this, together with several similarities between Locke and More's positions on the nature of space and spiritual substances, suggests that Locke was not committed to holenmerianism.

In what follows, I shall first expose Locke's physical proof (section 2); then, I shall confront his and More's views on spiritual substances (section 3). Finally, I shall consider a passage in the *Essay* where Locke seemed to enter into dialogue with Newton on God's manner of being present in space; I shall argue that this passage seems to confirm that Locke was not a holenmerian (Conclusion).

2. Locke's Dispute with Hudde: The "Physical" Proof

In a letter of 8 October 1697, Philip van Limborch, a leading theologian at the Remonstrants' seminary in Amsterdam, reported to his close friend John Locke that he had discussed his treatise *The Reasonableness of Christianity* at length with some outstanding men in Amsterdam; the discussion had digressed to other subjects, in particular "to the arguments with which the unity of God is most solidly proved."¹⁸ Van Limborch also reported that one of the participants in the discussion had shown a particular interest in these arguments; in his subsequent letter to Locke (28 November 1697),¹⁹ Van Limborch revealed that man to be the "Magnifico" Johannes Hudde, a renowned mathematician and a disciple of the Cartesian Frans van Shooten.

As was reported by Van Limborch, Hudde "was seeking for some irrefragable arguments by which it might be proved that an eternal being, whether existing of itself or

¹⁷ See Isaac Newton's remarks in the preface to Des Maizeaux's 1720 edition of the Leibniz-Clarke correspondence in Alexandre Koyré and I. Bernard Cohen, "Newton and the Leibniz-Clarke Correspondence," *Archives internationales d'histoire des sciences* 15, no. 58 (1962): 63–126.

¹⁸ Philippus van Limborch to Locke, 28 September / 8 October 1697, in *The Correspondence of John Locke*, ed. Esmond S. de Beer (Oxford: Clarendon Press, 1981), no. 2318, 6:207. The correspondence between Van Limborch and Locke is in Latin; I quote from de Beer's translation.

¹⁹ Van Limborch to Locke, 18/28 November 1697, *Correspondence*, no. 2352, 6:257.

in every respect perfect, is only one”;²⁰ he hoped that Locke could provide him with these arguments, which he had not been able to find in *An Essay concerning Human Understanding*.²¹

Locke replied to Van Limborch (29 October 1697)²² saying that God’s uniqueness could be demonstrated “with as much evidence as his existence” in his view but declined Hudde’s invitation because he did not enjoy taking part in disputes. However, in a Latin postscript added to the letter, which had been written in French,²³ Locke manifested his interest in Hudde’s question. He wrote:

I confess that it seems to me, as I take this opportunity to think about it, that the mind must be raised to a somewhat higher level and separated from the ordinary manner of philosophizing if anyone wants to prove it [God’s uniqueness] philosophically or, if I may speak thus, physically; but let this to be to you alone.

Locke thought that Hudde’s question could be answered “physically.” In the *Essay* he had affirmed that *Physica* was concerned not only with matter and body but with “Spirits also, which have their proper Natures, Constitutions, and Operations”;²⁴ theology could be ably supported by physical investigation, in his opinion.²⁵ Hudde’s question represented an opportunity, in Locke’s view, to demonstrate this: God’s uniqueness could be proved by leaving aside the “ordinary manner of philosophizing” (traditional theological argumentation) and engaging the mind in natural philosophy. One of the arguments Locke devised to comply with Hudde’s request, the one he considered as the soundest, introduced the notion of pure space that had been treated in the *Essay*, i.e., the idea of extension or space as devoid of material bodies; the argument was based on divine

²⁰ Van Limborch to Locke, 28 September / 8 October 1697, *Correspondence*, no. 2318, 6:208.

²¹ Pierre Coste, who was translating the *Essay* into French, had shown Hudde the chapter where the existence of God was demonstrated. Coste had reported to Locke that Hudde had appreciated his arguments. Pierre Coste to Locke, 6/16 July 1697, *Correspondence*, no. 2285, 6:156. Hudde had questioned Spinoza on the same topic in 1666, but his arguments had left him dissatisfied: see Wim Klever, “Hudde’s Question on God’s Uniqueness. A Reconstruction on the Basis of Van Limborch’s Correspondence with Locke,” *Studia Spinozana* 5 (1989): 327–58. Only later would Locke be informed of the correspondence between Hudde and Spinoza by Van Limborch. Van Limborch to Locke, 2/12 September 1697, *Correspondence*, no. 2485, 6:464.

²² Locke to Van Limborch, 29 October 1697, *Correspondence*, no. 2340, 6:243–44.

²³ The letters which Locke sent to Van Limborch to be shown to Hudde were all written in French; they had been translated into French, for Hudde, by Pierre Coste. Locke might have written all these letters in English: the English draft of one was published in the second appendix to volume 6 of *Correspondence*.

²⁴ John Locke, *An Essay concerning Human Understanding*, ed. Peter H. Nidditch (Oxford: Oxford University Press, 1975), IV.xxi.2, 720.

²⁵ The profound link between theology and natural philosophy underpinning Locke’s work, inspired by Boyle’s natural theology, has been explored by Victor Nuovo in *John Locke: The Philosopher as Christian Virtuoso* (Oxford: Oxford University Press, 2017).

omnipresence.

We learn of this argument from a French draft of the letter which Locke sent to Van Limborch in October.²⁶ The draft contained a long passage omitted from the letter, wherein three arguments for God's uniqueness—respectively an argument based on God's omnipotence, a moral argument and the argument based on divine omnipresence—were laid out. The first acted as a premise to the third; the second was only a digression and would be set aside by Locke when he resolved to show his arguments to Hudde.

The first argument ran as follows:

Since we cannot help thinking that only an omnipotent Being is able to create a thinking Being (for at present I do not wish to speak either of the Creation of Matter, or of the order and beauty of this visible World), I have to conclude that the Being who made me, is almighty. But once I have come to discover the existence of an almighty Being, it is contrary to reason to suppose that there could be another omnipotent Being, since a single almighty Being can do as much as one hundred.²⁷

To prove God's omnipotence, Locke did not rely on the argument he had put forward in the *Essay*, based on the Aristotelian causal adequacy principle.²⁸ Rather, he referred to how intuitively certain a man is of his own existence as a thinking being; this was an argument which a Cartesian could accept, and Locke seemed to be convinced that Hudde was a Cartesian.²⁹ Then he introduced Ockham's razor to conclude that God must be unique.

The third argument embodied the "physical" proof. The argument ran as follows:

I think it will be agreed that God is present everywhere. If he were not present everywhere, he would not be able to know what is done in those parts of the universe different from those in which he is contained, and would not be able to remedy what may occur in conflict with his interests or that is prejudicial to that part which he has created and over which he rules, which would give the idea of a very imperfect Being. Therefore if God is infinitely omnipresent, I think it can be proved almost demonstratively that there cannot be but one God. Whatever God might be; whatever his nature is, or his Being or Substance, he is no doubt something real,

²⁶ Locke, appendix 2 to *Correspondence*, 6:783–87.

²⁷ "Or si nous ne pouvons nous empêcher de penser qu'il n'y a qu'un Etre tout puissant qui puisse produire un Etre pensant, (car je ne veux pas parler presentement de la Création de la Matière, ni de l'ordre et de la beauté de ce Monde visible) je dois conclure que l'Etre qui m'a fait, est tout puissant. Que si je suis parvenue une fois à decouvrir l'existence d'un Etre tout puissant, il est contre la raison de supposer un autre Etre tout puissant, puis qu'un seul Etre tout puissant peut faire autant que cent." Locke, appendix 2 to *Correspondence*, 6:785.

²⁸ Locke, *Essay*, IV.x.4, 620. According to the principle, in order to be adequate a cause must contain all its effects virtually.

²⁹ This would be confirmed by Van Limborch in a subsequent letter, as we shall see. Hudde, however, was not a devout Cartesian: at a later stage in the dispute, Van Limborch informed Locke that Hudde thought that matter could be God's rival. Van Limborch to Locke, 6/16 May 1698, *Correspondence*, no. 2432, 6:388.

and more real than any other Being. Let us suppose therefore that this real Being exists in whatever physical point of Space one wants to suppose. I say that it follows on demonstratively from this, that another real Being of the same kind would not be able to be in the same single point in Space, for in that case there would only be one being in this point, because where there is no difference either regarding the kind or the place, there cannot be more than one being. And one cannot imagine that this reasoning can be good only for Bodies and parts of Matter, for one can, I think, apply it to what is called *pure space*, which is the thing most different to matter. For two physical points in space, cannot be reduced to one, no more than two physical atoms of Matter can be reduced to a single atom. The reason why this is impossible is founded on this, that if two points in space could be reduced to one, all of space could be reduced to a single physical point, which is as impossible as it is for all matter to be reduced to a single atom. I do not know what the Substance of matter is, and even less what the Substance of God is, But I do know nonetheless that this Substance is something, and that it must exclude all the other substances of the same kind (if such substances might exist) from where it is. Therefore, if God is immense and present everywhere, this for me is a demonstration that there is but one God and there can only be one. ³⁰

Locke's argument was complex. He began by arguing in favour of God's omnipresence, which he inferred from his perfection; this was not the way in which divine omnipresence had been proven in the *Essay*. There Locke had relied on an analogy with God's omnipresence in time: "GOD, every one easily allows, fills Eternity; and 'tis hard to find a Reason, why any one should doubt, that he likewise fills Immensity. His infinite Being is

³⁰ Je croy qu'on m'accordera que Dieu [est] present par tout. S'il n'est point present par tout il ne scauroit connoître ce qui se fait dans d'autres parties de cet Univers differentés de celles ou il est renfermé, et il ne peut point remedier à ce qui y peut arriver contre ses interest ou au prejudice de cette partie qu'il a faite et sur laquelle il préside, ce qui donneroit l'idée d'un Etre fort imparfait. Si donc Dieu a une toute-présence infinie, je croy qu'on peut prouver par là demonstrativement, ou peu s'en faut, qu'il ne peut y avoir qu'un Dieu. Quoy que soit Dieu; quelle que soit sa nature, son Etre, ou sa Substance, il est certain que c'est quelque chose de réel, et de plus reel que tous les autres Etres. Supposons donc que cet Etre reel existe dans quelque point physique de l'Espace qu'on voudra supposer, je dis qu'il s'ensuit demonstrativement de là, qu'un autre Etre reel de la meme espece ne scauroit être dans le même point individual de l'Espace, car en ce cas là il n'y a aucune difference ni à l'égard de l'espece, ni à l'égard du lieu, il ne peut y avoir qu'un seul etre. Et qu'on ne s'imagine pas que ce raisonnement ne peut Etre bon qu'à l'égard du Corps et des parties de la Matière, car on peut, je pense, l'appliquer à ce qu'on appelle *l'Espace pur*, qui est ce qu'il y a de plus éloigné de la matiere. Car deux points physiques d'espace, ne peuvent pas plutôt être reduits en un, que deux atoms physiques de Matière être reduits à un seul atome. La raison de cette impossibilité est fondée sur ce que si deux points d'espace pouvoient être reduits en un, tout l'espace pourroit être reduit en un seul point physique, ce qui est aussi impossible, qu'il est impossible que toute la matiere pût être reduite à un seul atome. Pour moy qui ne connois pas ce que c'est que la Substance de la matiere, Je connois encore moins ce que c'est que la Substance de Dieu, Mais je sçai pourtant que cette Substance est quelque chose, et qu'elle doit exclure d'où elle est toutes les autres substances de la même espece (s'il pouvoit y en avoir de telles). Si donc Dieu est immense et present par tout, c'est pour moy une demonstration qu'il n'y a qu'un Dieu et qu'il n'y en peut avoir qu'un seul. Locke, appendix 2 to *Correspondence*, 6:786.

certainly as boundless one way as another.”³¹

The eternity of God supported the idea of His omnipresence in space, with space intended as a real, infinite, and immaterial entity.³² The same argument reappeared in a subsequent passage in the *Essay*: infinite space was identified with God’s immensity—an idea which Locke had already contemplated in 1677, as will be argued later.³³

In the draft, Locke did not use this argument; he affirmed that God’s omnipresence was necessary for divine perfection, a kind of reasoning which no doubt he disliked but which could appeal to a Cartesian.³⁴ What really mattered to him was what could be deduced from divine omnipresence, God’s substantial presence in space. He first insisted that God was something real “whatever his nature is, or his Being or Substance”—an affirmation in line with the *Essay*, where the divine essence was said to be unknowable³⁵—then he affirmed that God might be supposed to exist in whatever physical point of space. In order to be a real being, God must be somewhere: Locke had affirmed this in a chapter of the *Essay* devoted to the ideas of identity and diversity. He had referred to God, spirits, and bodies and had stated that existence represented the *principium individuationis*, for it “determines a Being of any sort to a particular time and place”;³⁶ the identity of finite spirits depended on their having “each its determinate time and place of beginning to exist,” whereas the identity of God was granted by His being “without beginning, eternal, unalterable, and every where.”³⁷

To demonstrate God’s uniqueness, in the draft Locke introduced a principle which represented one of the three pillars sustaining the *principium individuationis*; the principle has been named as the exclusion principle,³⁸ for it established that two things

³¹ Locke, *Essay*, II.xv.3, 197.

³² Locke claimed that “it ascribes a little too much to Matter, to say, where there is no Body, there is nothing,” clearly referring to Descartes. In the following paragraph, he dwelled on the causes which led men to doubt the existence of space without matter: “Duration and Extension being used as names of affections belonging to other Beings, we easily conceive in GOD infinite Duration, and we cannot avoid doing so: but not attributing to him Extension, but only to Matter, which is finite, we are apter to doubt of the existence of Expansion without Matter; of which alone we commonly suppose it an Attribute. *Ibid.*, II.xv.4, 198. Regarding Locke’s anti-Cartesian view of space, see Edward Grant, *Much Ado about Nothing*, 239–40.

³³ Locke affirmed that those who “are of Opinion, That infinite Space is possessed by GOD’s infinite Omnipresence as well as infinite duration by his eternal existence, must be allowed to have as clear an idea of infinite space as that of infinite duration.” *Essay*, II.xvii.20, 222.

³⁴ In the *Essay*, Locke criticized any attempt to prove the existence of God based on the idea of the most perfect being. He affirmed that this argument was ineffectual, for men did not have such an idea in their minds. IV.x.7, 621–22.

³⁵ *Ibid.*, II.xxviii.35, 315.

³⁶ *Ibid.*, II.xxvii.3, 330.

³⁷ *Ibid.*, II.xxvii.2, 329.

³⁸ See for instance Christopher Hughes Conn, *Locke on Essence and Identity* (Dordrecht: Kluwer Academic Publishers, 2003), 63–64.

of the same kind could not exist in the same place at the same time.³⁹ In the *Essay*, the exclusion principle was applied to all kinds of substances, i.e., God, finite spirits, and bodies. Locke wrote, “though these three sorts of Substances, as we term them, do not exclude one another out of the same place; yet we cannot conceive but that they must necessarily each of them exclude any of the same kind out of the same place.”⁴⁰

The exclusion principle allowed Locke to affirm that two gods (i.e., two beings of the same kind) could not be in the same place (and time, obviously, for God’s time was eternity); he could therefore conclude that God must be one. This move however required a fundamental premise, which he clarified at the end of the proof: the exclusion principle (“this kind of reasoning”) could be applied not only to “bodies and parts of matter” but also to “pure space, which is the thing most different from matter.” God could be thought of as existing in any point of pure space; this space could be conceived of as something real. In the *Essay*, Locke had insisted on the possibility of having a clear and distinct idea of “Space, without anything in it, that resists, or is protruded by Body,”⁴¹ and on the undesirable consequences deriving from its negation—such as an impotent God, unable to move or annihilate a part of materiality.⁴² Pure space was the alternative to René Descartes’s idea of extension as a plenum. Descartes’s objection against void in his first letter to More⁴³ seemed to be what Locke intended to reject, for Descartes had affirmed that a strict void would collapse in upon itself eliminating its own boundaries. Locke remarked that pure space was something as real as bodily extension: it was as impossible to reduce different physical points of pure space to a single one just as it was to reduce different atoms of matter to one. This might be considered as another consequence of the exclusion principle: to reduce two atoms of matter to one would amount to locating them in the same place at the same time, which however was impossible for Locke.⁴⁴

The exclusion principle supported anti-nullibism: God, a real being, was to be thought

³⁹ Locke wrote in the *Essay*: “For we never finding, nor conceiving it possible, that two things of the same kind should exist in the same place at the same time, we rightly conclude, that, whatever exists any where at any time, excludes all of the same kind, and is there it self alone.” II.xxvii.1, 328.

⁴⁰ *Ibid.*, II.xxvii.2, 329.

⁴¹ *Ibid.*, II.iv.5, 126.

⁴² “Those who assert the impossibility of space existing without matter, must not only make body infinite, but must also deny a power in God to annihilate any part of matter. No one, I suppose, will deny that God can put an end to all motion that is in matter, and fix all the bodies of the universe in a perfect quiet and rest, and continue them so long as he pleases. Whoever then will allow that God can, during such a general rest, annihilate either this book or the body of him that reads it, must necessarily admit the possibility of a vacuum.” II.xiii.21, 176.

⁴³ Descartes to More, 5 February 1649, in *The Philosophical Writings of Descartes*, vol. 3 *The Correspondence*, trans. John Cottingham, Robert Stoothoff, Dugald Murdoch and Anthony Kenny (Cambridge: Cambridge University Press, 1991), 363.

⁴⁴ In the *Essay*, shortly after having exposed the exclusion principle, Locke stated, “by the same reason that two particles of Matter may be in one place, all Bodies may be in one place: Which, when it can be supposed, takes away the distinction of Identity and Diversity.” II.xxvii.2, 329. Regarding the interpretation of this passage see Conn, *Locke on Essence and Identity*, 65–71 and Matthew Stuart, *Locke’s Metaphysics* (Oxford: Oxford University Press, 2013), 318–21.

of as substantially present in space, not just operationally as Descartes had affirmed.⁴⁵ Van Limborch would realize, once he had the opportunity to examine Locke's arguments, that this was what Locke was claiming; Van Limborch would advise Locke to set the "physical" proof aside, because of Hudde's Cartesianism. He wrote,

The Burgomaster is exceedingly devoted to the Cartesian philosophy; we therefore question whether an argument drawn from the omnipresence of God will obtain his approval. We know that for the Cartesians spirit is thought; but thought has no relation to space, and accordingly the divine essence is not in space; but omnipresence is attributed to it relatively, with respect to its operations. ... You however assert that the divine essence itself is present everywhere; which we recognize with you; But we doubt whether a man devoted to Descartes' opinions will approve of it.⁴⁶

Locke's proof showed his rejection of nullibism, but not his commitment to holenmerianism. It did not contain any reference to the doctrine. A holenmerian would affirm that the whole of God's substance permeated both space in its entirety and each of its physical points; More had done this when writing to Descartes, though not in his first letter. In this, More had expressed himself in general terms: God, he had affirmed, "intimately occupies both the entire mundane machine and each individual particle thereof," for otherwise He would not be able to impress motion on matter.⁴⁷ In his second letter, however, More had been more precise: he had affirmed that "God, to the extent that the human mind grasps him, is whole everywhere, and his whole essence is present in all places or spaces, and in all points of space."⁴⁸ This was a clear declaration of holenmerianism.⁴⁹ Locke, however, did not say this. He did not affirm that God was to be

⁴⁵ I shall return to this point in the following paragraph, where it will be argued that the exclusion principle attributed solidity to finite spirits.

⁴⁶ Van Limborch to Locke, 22 March / 1 April 1698, *Correspondence*, no. 2410, 6:353. In a previous letter, Van Limborch had informed Locke that he would examine his arguments together with two or three of his friends, including Jean Le Clerc, with whom Locke was well acquainted. Van Limborch to Locke, 18/28 November 1697, *Correspondence*, no. 2352, 6:259.

⁴⁷ As translated in Reid, *Metaphysics*, 148. The original is in Latin. See Henry More, "Epistola prima ad R. Cartesium," 11 December 1648, in *A Collection of Several Philosophical Writings of Dr. Henry More* (London, 1662), 62. More used the "no action at a distance" argument to affirm that God had to be present where He acted. Locke would use the same argument in the *Essay* with reference to spirits.

⁴⁸ As translated in Reid, *Metaphysics*, 163. The original is from Henry More, "Epistola secunda ad R. Cartesium," 5 March 1649, *A Collection of Several Philosophical Writings*, 76–77.

⁴⁹ Both Reid and Pasnau agree on this. Reid, *Metaphysics*, 159–64 and Pasnau, *Metaphysical Themes*, 341. Leech, however, insists that we must set against this passage other passages in the correspondence between More and Descartes, which cast doubt on the former's adhesion to holenmerianism; in Leech's view, More's aversion to nullibism logically depended on his anti-holenmerianism. Leech argues that, for More, nullibism was conceptually connected with holenmerianism through the distinction between essential and contingent (or operational) extension; More rejected holenmerianism for the same reason he rejected nullibism, because he believed that essential extension was an existence condition and that holenmerians denied essential extension to spiritual entities when they affirmed that they were whole in each part. There could not exist a whole without parts. *The Hammer of the Cartesians*, 130–31 and 155–

conceived of as a whole in the whole and a whole in each physical point of space; he might therefore be referring to an infinite being whose extension filled space with his amplitude of presence.

The exclusion principle could be coherent both with holenmerianism and its alternative, which identified divine amplitude with space. It did not rule out the possibility of a thing occupying different places by having its parts in different places;⁵⁰ God might be conceived of in such a way, provided that His substance had parts. In the *Essay*, Locke had affirmed that God's essence was simple, although the idea of Him was complex: "For though in his own Essence, (which certainly we do not know, not knowing the real Essence of a Peble, or a Fly, or of our own selves,) God be simple and uncompounded; yet, I think, I may say we have no other *Idea* of him, but a complex one of Existence, Knowledge, Power, Happiness, *etc.* infinite and eternal."⁵¹

More as well had affirmed that God's essence was simple: Locke agreed with him. Did he conceive of divine substance as made of indiscernible, notional parts as More did? The "physical" proof did not clarify this. However, it plainly showed that Locke believed that God's omnipresence could be argued without recourse to holenmerianism.

The "physical" proof would remain unchanged in the letter Locke sent to Van Limborch on 21 February 1698 to set out his arguments,⁵² yet its premise (i.e., the arguments for divine omnipotence and omnipresence) would be modified. There is an English draft of this letter;⁵³ it contains all the arguments which were included in the French draft, with the exception of the moral argument which Locke had decided to leave out. The "physical" proof had remained unchanged.⁵⁴ As for the first argument, Locke

59. Leech mentions approvingly Igor Agostini's description of More's position in the correspondence as oscillating between Suarezian holenmerianism and spiritual extension; however, Agostini not only maintains that More endorsed holenmerianism when corresponding with Descartes, but Agostini also insists that More attributed a fundamental role to this doctrine in those years in order to argue the indivisibility of the divine essence. Agostini has clearly shown that More took this argument from Julius Caesar Scaliger; later, rejection of holenmerianism would represent a necessary step in affirming spiritual extension for More. "Henry More e le fonti della dottrina dell'estensione spirituale," in *Eredità cartesiana nella cultura britannica*, ed. Paola Dessì and Brunello Lotti (Firenze: Le Lettere, 2011), 49–69; "Henry More e l'holenmerismo," *Nouvelles de la République des lettres*, no. 2 (2006): 7–23; "More interprète de Descartes. L'omniprésence de Dieu," in *Des Cartes et des Lettres*, ed. Francesco Marrone (Firenze: Le Monnier, 2008), 196–212; "Sull'onnipresenza di Dio nel cartesianismo," in *Studi cartesiani: Atti del seminario "Primi lavori cartesiani, incontri e discussioni" Lecce, 27–28 settembre 1999*, ed. Fabio A. Sulpizio (Lecce, IT: Milella, 2000), 11–87.

⁵⁰ Regarding this point, see Matthew Stuart, *Locke's Metaphysics*, 299.

⁵¹ Locke, *Essay*, II.xxiii.35, 315.

⁵² Locke to Van Limborch, 21 February 1698, *Correspondence*, no. 2395, 6:321–26. The letter is in French.

⁵³ Locke, appendix 2 to *Correspondence*, 6:788–91.

⁵⁴ Now if god be infinitely omnipresent it seems to me to come near a demonstration that there can be but one. Wherever god is (let his nature or being or substance be what it will) there certainly is some real, nay the most real of all beings. Let us therefor suppose this reall being in any one physical point of space, I thinke it is demonstration that an other reall being of the same kinde cannot be in the same individual point of space, for then they would be but one. For where there is noe difference in kinde nor distance in place that can be but one being. Nor let this way of argueing be thought to

began with the notion of God as “an infinite eternal incorporeal being perfectly perfect,” and claimed that this being would have to be omnipotent and omniscient in order to possess all perfections. Then he affirmed that this being would have to be one if it were to be truly perfect. Clearly Locke was looking for an argument which could appeal to Hudde, whose concept of God was that of a being “perfect in any respect.” However, he also hinted at an alternative argument, which could work without assuming God’s perfection;⁵⁵ no doubt he was dissatisfied with such reasoning. He considered the “physical” proof as his best argument;⁵⁶ he was content to allow his adversary to choose whichever argument he liked in order to establish divine omnipresence, because what really mattered to him was the proof.

The English draft and the final letter which Locke sent to Van Limborch confirmed that holenmerianism was not an ingredient in this proof. One might suppose that Locke was secretly committed to the doctrine but preferred to dismiss it because he was dealing with a Cartesian, and Descartes’s idea of God did not fit in with holenmerianism;⁵⁷ however, his “physical” proof was plainly directed against Descartes. All matters considered, Locke’s argument suggested that he was not a holenmerian; his position in this regard might have been the same as More’s.

There is a problem with this conclusion. The physical proof relied heavily on the exclusion principle, which was exactly what differentiated Locke’s views on spirits from

reach body alone and the parts of matter: It will be found to hold in that which is the remotest from it, I mean pure space. For two physical points of space can no more be brought into one, than two physical atoms of matter can be brought into one. For if they could, then all space might be brought into one physical point, which is as impossible as that all matter should be brought into one atom. I who know not what the substance of matter is, do much less know what the substance of god is. But some thing I know it is, and must exclude where it is all other substances (could there be any such) of the same kind. if therefor god be immense and omnipresent it is to me evident beyond doubt that there is and can be but one god. Ibid., 790.

⁵⁵ Ibid. The argument focused on the identity of all those beings of the same kind existing in the same place; therefore, it might be considered as the converse of the exclusion principle. Locke also used this strategy to sustain God’s omnipresence: he first affirmed that omnipresence had to be conferred on Him because of His other perfections, and because of its being a perfection itself, but then introduced another argument based on the absurdity of the opposite view: if God were not omnipresent, He would have to be conceived of as “shut up in some little corner of space we know not why, nor how nor by whom nor where.”

⁵⁶ We can infer this from what Locke replied to Van Limborch when he advised him to set aside the “physical” proof: “I have now omitted that argument from omnipresence which I believe is the only a priori argument by which the unity of the Godhead can be demonstrated. I do not wonder therefore that one so thoroughly imbued with those principles is seeking what he will always seek in vain, an argument that so ill-founded a philosophy never will or can provide.” Locke to Van Limborch, 2 and 4 April 1698, *Correspondence*, no. 2413, 6:365.

⁵⁷ It is more difficult to determine whether Descartes was a holenmerian in reference to the soul; both Rozemond and Pasnau affirm this. Marleen Rozemond, “Descartes, Mind-Body Union, and Holenmerism,” *Philosophical Topics* 31, nos. 1–2 (2003): 343–67 and Pasnau, *Metaphysical Themes*, 333–39. Reid has argued that, when Descartes in the *Sixth Replies* affirmed that he conceived of the mind as whole in the whole body and whole in any of its parts, he was ascribing an operational, not substantial presence to the mind. Reid, *Metaphysics*, 156. Pasnau, however, offers a plausible argument to support his opinion: Descartes needed holenmerianism to distinguish between the bare extension he attributed to spirits and the true extension he attributed to bodies.

More's. I shall dwell on this point in the following section.

3. Locke and More on God's Presence in Space

Jasper Reid has claimed that what prevents us from feeling confident about Locke's endorsement of holo-merianism is his silence on this topic, as well as some similarities between Locke's and More's views. Locke agreed with More that pure space was something real (or at least that there needed to be such a thing) and that it was penetrable and indivisible in contrast to bodies, which were solid and divisible. His opinion on the parts of space was identical to More's, although Locke did not use the term "indiscernible": in the *Essay*, he described these parts as epistemological artefacts which could not be separated from one another. He wrote:

'Tis true, a Man may consider so much of such a *Space*, as is answerable or commensurate to a Foot, without considering the rest; which is indeed a partial Consideration, but not so much as mental Separation, or Division; since a Man can no more mentally divide, without considering two Superficies, separate one from the other, than he can actually divide, without making two superficies disjoin'd one from the other: But a partial consideration is not separating. A Man may consider Light in the Sun, without its Heat; or Mobility in Body without its Extension, without thinking of their separation. One is only a partial Consideration, terminating in one alone; and the other is a Consideration of both, as existing separately.⁵⁸

Even regarding spiritual entities, Locke agreed with More on several points: his rejection of nullibism was plain when, in the *Essay*, he affirmed that spirits, like bodies, "cannot operate, but where they are."⁵⁹ The "no action at a distance" principle allowed Locke to attribute mobility to spirits: they must move from one place to another, because they operated in different places at different times. Not dissimilarly, More insisted that a spirit's operation in a certain place required it to be there—a philosophical argument to which he remained faithful throughout his life.

As for God's way of being present in space, the similarities between Locke and More's views are more uncertain. More conceived of God as infinitely extended in the three spatial dimensions; the *Essay* is of difficult interpretation in this regard. In the chapter devoted to duration and expansion, Locke affirmed that God is present everywhere and that we cannot even "imagine any Expansion where he is not."⁶⁰ "The boundless invariable Oceans of Duration and Expansion ... belong only to the Deity,"⁶¹ he declared. He also used the term expansion in reference to finite spirits and their manner of being

⁵⁸ Locke, *Essay*, II.xiii.13, 172–73.

⁵⁹ *Ibid.*, II.xxiii.19, 306.

⁶⁰ *Ibid.*, II.xv.2, 197.

⁶¹ *Ibid.*, II.xv.8, 200.

present in space.⁶² Expansion corresponded to “Space in general, with or without solid Matter possessing it.”⁶³ Locke differentiated between extension, which included the idea of body, and expansion, which did not.⁶⁴ More too had used this term: in the *Divine Dialogues*, he had affirmed that “that *inmost Extension* or *Amplitude* which will necessarily remain after we have imagined all Matter, or whatever else is removeable, removed or exterminated out of the World is to be look’d upon as the *permanent Expansion* or *Amplitude* of the *radical Essentiality* of God.”⁶⁵ Here expansion was synonymous with amplitude;⁶⁶ More used this latter term when he referred to God’s presence in space. In the *Divine Dialogues*, he also mentioned “the expansion of the universe,”⁶⁷ whereas in his *Conjectura Cabbalistica* he used the term in a more precise sense. Speaking of the book of Genesis, he affirmed that God, after having created the earth, “sets upon the higher parts of the fabric. He commands therefore that there should be a hollow *Expansion*, firm and transparent”; in a subsequent passage, More returned to this point and insisted that “Firmament” was not a suitable name for this part of creation, for the idea conveyed by the Scriptures and by the Hebrew was that of “*diduction, expansion, or spreading out.*”⁶⁸

This idea of “spreading out” corresponded to More’s notion of amplitude. In the *Enchiridion metaphysicum* he affirmed that extension, in its bare and simple sense, did not include either penetrability, divisibility, and juxtaposition of parts or their contraries, but only “solid amplitude,” i.e., the idea of being three-dimensionally spread out.⁶⁹

⁶² *Ibid.*, II.xv.11, 203.

⁶³ *Ibid.*, II.xiii.26, 180.

⁶⁴ *Ibid.*, II.xv.1, 196.

⁶⁵ More, *Divine Dialogues containing Disquisitions concerning the Attributes and Providence of God*, 4th ed. (Glasgow, 1743), dial. 3, § 40, 448.

⁶⁶ In the *Divine Dialogues*, More affirmed that “*Extension* or *Amplitude* is an intrinsecal or essential Property of *Ens quatenus Ens.*” *Ibid.*, dial. 1, § 25, 77.

⁶⁷ “*The Thread of time and the expansion of the universe, the same hand drew out the one and spread out the other.*” *Ibid.*, dial. 2, § 28, 339. The first edition of the *Dialogues* appeared in 1668; the book was not in Locke’s library, but we may suspect that he knew more works by More than those which were in his library (perhaps thanks to Boyle, who had a controversy with More in the seventies over the interpretation of his hydrostatical experiments but seemed to have a good opinion of him as a theologian). Locke’s friendship with Damaris Cudworth and especially with Franciscus Mercurius van Helmont, who was well acquainted with More, might have increased his interest in More’s works. See note 97.

⁶⁸ More, *A Collection of Several Philosophical Writings*, 7 and 60. Locke owned this book: see John Harrison and Peter Laslett, *The Library of John Locke*, 2nd ed. (Oxford: Clarendon Press, 1971), no. 2046. Subsequent citations abbreviated *LJL*.

⁶⁹ More, *Enchiridion metaphysicum*, 387–88. See also the appendix to *An Antidote against Atheism*, 2nd ed. (London, 1655): “If by *Extension* be meant a *Juxta-position of parts*, or placing of them one by another, as it is in *Matter*, I utterly deny that a *Spirit* is at all in this sense *extended*. But if you mean only a certain *Amplitude of presence*, that it can be at every part of so much *Matter* at once, I say it is *extended*; but that this kind of *Extension* does not imply any *divisibility* in the substance thus *extended*; for *Juxta-*

Locke's notion of extension included the idea of body, whereas his idea of expansion did not; he conceived of expansion as three-dimensional, for he affirmed that "the *Ideas* of Length, which we have of *Expansion*, are turned every way, and so make Figure, and Breadth, and Thickness."⁷⁰ If Locke's expansion corresponded to More's amplitude, then both More and Locke might have conceived of God as a being three-dimensionally extended in space. A passage in the *Essay*, in which Locke argued for the possibility of conceiving space without solidity, seems to confirm this; he wrote,

But whether anyone will take Space to be only a relation resulting from the Existence of other Beings at a distance; or whether they will think the Words of the most knowing King *Solomon*, *The Heaven, and the Heaven of Heavens*, cannot contain Thee; or those more emphatical ones of the inspired Philosopher St. *Paul*, *In Him we live, move, and have our Being*, are to be understood in a literal sence, I leave everyone to consider.⁷¹

If we are to believe Pierre Coste's testimony, Locke approved of this way of translating Saint Paul's sentence from the Greek because he was in favour of identifying God's omnipresence with space.⁷² This suggests that he endorsed More's position that regarded space as a divine attribute, or even the divine substance itself. In the appendix to the *Antidote*, More had offered this conjecture:

If after the removal of *corporeal Matter* out of the world, there will be still *Space* and *Distance* in which this very Matter, while it was there was also conceiv'd to lie, and this *distant Space* cannot but be something, and yet not corporeal, because neither impenetrable nor tangible; it must of necessity be a Substance Incorporeal necessarily and eternally existent of it self: which the clearer *Idea* of a *Being absolutely perfect* will more fully and punctually inform us to be the *Self-subsisting God*.⁷³

The same conjecture was to be found in a journal entry which Locke penned on 16 September 1677:

If it be impossible to suppose pure noe thing or to extend our thoughts where there

position of parts, *Impenetrability* and *Divisibility* go together, and therefore where the two former are wanting, *Extension* implies not the third."

⁷⁰ Locke, *Essay*, II.xv.11, 203.

⁷¹ *Ibid.*, II.xiii.26, 179; the quotation of St. Paul is from Acts, 17:28. See More, *Divine Dialogues*, dial. 1, § 17, 85: "In this [divine amplitude] are all things necessarily apprehended *to live and move and have their being*."

⁷² See Philippe Hamou, "Pierre Coste's Annotations to the French Translation of Locke's *Essay concerning Human Understanding*," in *The Internationalization of Intellectual Exchange in a Globalizing Europe, 1636–1780*, ed. Robert Mankin (Lewisburg, PA: Bucknell University Press, 2017), 87.

⁷³ More, appendix to *An Antidote against Atheism*, 338. Reid remarks that this was an isolated conjecture and that, later, More was willing to identify space with one of God's attributes. *Metaphysics*, 215.

is or we can suppose noe being this space void of body must be something belonging to the being of the deity, but be it one or tother the Idea we have of it we take from the extension of bodys which call under our senses and this Idea of extension being settled in our mindes we are able by repeating that in our thoughts without annexing body or impenetrability to it, to imagin spaces where there are noe bodys, which imaginary spaces if we suppose all other manner of being absent are purely noething but meerly a possibility that body might there exist, or if there be a necessity to suppose a being there it must be god whose being we thus make i.e. suppose extended but not impenetrable but be it one or other extension seemes to me mentally separable from body.⁷⁴

Reid has clearly shown that this entry was inspired by Locke's reading of the appendix to More's *Antidote*. More first mentioned a view of space intended as a capacity of matter, then subsequently a view which identified distance, and with it space itself, as a notional property, and finally the alternative view which equated space with divine extension; Locke mentioned all these views, and even did so in the same order.⁷⁵

However, Reid maintains that More's influence on Locke should not be overestimated. He agrees that Locke conceived of God as substantially present in space but remarks that there is "at best some vague, circumstantial evidence that he might have inclined to the Morean position." He maintains that, officially, Locke never clarified his thought regarding God's manner of being present in space: "where Locke stopped short was in spelling out the precise nature of the divine presence in detail. Even if nullibism was ruled out, was God supposed to be omnipresent in the holenmerian manner, or was he actually supposed to share the same kinds of indiscerpible parts outside parts that characterized space itself? Indeed, was this space supposed to be anything distinct from him at all?"⁷⁶

Reid notes a "detail" that differentiated More's views on spirits from Locke's; this detail is the exclusion principle, one of the fundamental ingredients of the "physical" proof. More believed that spirits could penetrate one another, Locke used the exclusion principle to deny this. More conceived of spirits as able to contract and dilate their substance, so as to occupy a greater or lesser spatial volume; they could contract if another spirit moved to occupy their place, without modifying the finite quantity of their substance.⁷⁷ This might suggest that two spirits could occupy the same portion of space; however, More had found a way of avoiding this so as to grant spirits' distinctness from one another. In his view, each spirit possessed a certain amount of "essential spissitude" or spiritual density, the analogue of the physical density proper to bodies.⁷⁸ The essential

⁷⁴ Locke, *An Early Draft of Locke's Essay Together with Excerpts from His Journals*, eds. Richard I. Aaron and Jocelyn Gibb (Oxford: Clarendon Press, 1936), 96.

⁷⁵ Reid, *Metaphysics*, 135–39. Two copies of More's *Antidote* were to be found in Locke's library: *LJL*, nos. 2046 and 2047a. In the journal entry, Locke did not take a stand in favour of any of these views.

⁷⁶ Reid, *Metaphysics*, 227.

⁷⁷ Regarding these properties of spirits see More, *An Antidote against Atheism*, 16–17 and Reid, *Metaphysics*, 200–1.

⁷⁸ Reid prefers to interpret essential spissitude as physical density or thickness rather than as a fourth dimension, although textual evidence supports this latter interpretation (especially in the *Enchiridion*

spissitude of a spirit increased when it contracted and decreased when it dilated. However, spirits could neither contract nor dilate infinitely, because of their being finite; their essential spissitude could neither be reduced to zero nor become infinite. The idea of there being a limit to the spirits' ability to contract or dilate was expressed in More's theory of *hylopathia*, a quality of spirits analogous to the corporeal quality of impenetrability. He defined *hylopathia* as:

*A power in a Spirit of offering so near to a corporeal emanation from the Center of life, that it will so perfectly fill the receptivity of Matter into which it has penetrated, that it is very difficult or impossible for any other Spirit to possess the same; and therefore of becoming hereby so firmly and closely united to a Body, as both to actuate, and to be acted upon, to affect, and be affected thereby.*⁷⁹

Thanks to *hylopathia*, a place could become saturated with spirits and therefore be unable to admit any further increase in essential spissitude; the strong union of a spirit with a body could be explained in this way for More. In his terms, the soul filled “the *Receptivity or Capacity of a Body or Matter*”⁸⁰ in such a way that the latter could not admit any further penetration by a spiritual substance; as a consequence, the union of the soul with the body was even stronger than the cohesion between the various parts of matter.

Locke had found another way of granting distinctness to spirits: the exclusion principle. Thanks to this principle, he could affirm that two substances of the same kind could not be thought of as occupying the same place at the same time, for otherwise “the Notions and Names of Identity and Diversity would be in vain, and there could be no such distinction of Substances, or any thing else from another.”⁸¹ Two spirits could not therefore occupy the same place at the same time, for Locke; immaterial spirits were to be considered as being as impenetrable as bodies, although only in reference to other spirits. They resisted penetration by co-location, a property which Locke attributed to those objects filling space i.e., solid objects. In the *Essay*, he claimed that “the *Idea* of which filling of space, is, That where we imagine any space taken up by a solid Substance, we conceive it so to possess it, that it excludes all other solid Substances;”⁸² he declared that the idea of solidity, and therefore that of impenetrability that he conceived of as a consequence of it, “consists in repletion, and so an utter Exclusion of other Bodies out of

metaphysicum). The first interpretation however is much more intuitive, is supported by Van Limborch's correspondence with More (for Van Limborch interpreted essential spissitude as density) and seems to solve some problems which afflict More's conception of spirits. It is difficult to understand how spirits could retain their distinctness from one another if essential spissitude is interpreted as a fourth dimension, for some spirits might share the same location in all the four dimensions. *Metaphysics*, 203–5.

⁷⁹ More, appendix to *An Antidote Against Atheism*, 312.

⁸⁰ *Ibid.*, 311.

⁸¹ Locke, *Essay*, II.xxvii.2, 329.

⁸² *Ibid.*, II.iv.2, 123.

the space it possesses.”⁸³ It was solidity that prevented two material objects from occupying the same region of space at the same time.⁸⁴ It would seem therefore that, when Locke wrote the chapter on identity and diversity,⁸⁵ he thought that solidity could be applied to material as well as spiritual substances,⁸⁶ although in a previous chapter he had claimed that solidity was “essential to Body” and was “no where else to be found or imagin’d, but only in matter.”⁸⁷

The solidity which Locke attributed to spirits in the chapter on identity and diversity recalled Aquinas’s teaching. Aquinas had affirmed that two angels could not occupy the same place:⁸⁸ he was committed to the exclusion principle in much the same form as Locke was, i.e., as a principle which could only be applied to entities of the same kind.

⁸³ Ibid., II.iv.4, 125. Locke affirmed that he preferred the term solidity to impenetrability because the first term conveyed the idea of something positive and because impenetrability was a consequence of solidity. He conceived of solidity as an intrinsic feature of bodies, not one that might be inferred from our experiences of impenetrability or hardness: we perceive them only by perceiving solidity, in Locke’s view. Regarding the difference between solidity and hardness, see *Essay*, II.iv.4, 125.

⁸⁴ Matthew Stuart has argued that Locke’s idea of solidity as imperviousness to penetration by co-location explains his commitment to a “chock-full” conception of material objects, which affirms that they do not contain the spaces that lie between their constituent atoms. *Locke’s Metaphysics*, 55–65. But what explains Locke’s idea of solidity? In the *Essay* he affirmed that, were someone to ask him what solidity was, he would “send him to his Senses to inform him.” II.iv.6, 126. Locke maintained that, although our senses perceive solidity only in masses of matters, “the Mind, having once got this *Idea* from such grosser sensible Bodies, traces it farther; and considers it, as well as Figure, in the minutest Particle of Matter, that can exist; and finds it inseparably inherent in Body, where-ever, or however modified.”

⁸⁵ The chapter was added to the second edition of the *Essay* at the urging of William Molyneux, one of Locke’s trusted interlocutors and correspondents.

⁸⁶ Gary Wedeking has insisted on this point in “Locke’s Metaphysics of Personal Identity,” *History of Philosophy Quarterly*, 4, no. 1 (1987): 20. Unlike Wedeking, Conn claims that Locke is not committed to the view that spirits fill space, for spirits might be located in space without having spatial extent. Conn claims that Locke thought of spirits as analogous to mathematical points, which have a spatial location without having a spatial extent. He refers to a passage in the *Essay*, where Locke affirmed: “if a Mathematician can consider a certain distance, or a change of that distance between two Points; one may certainly conceive a distance, and a change of distance between two Spirits; and so conceive their Motion, their approach, or removal, one from another.” Locke, *Essay*, II.xxiii.19, 307, as cited in Conn, *Locke on Essence and Identity*, 64. However, Wedeking’s interpretation seems to be much more plausible, for it agrees with Locke’s common-sensical way of looking at the matter. Unlike the Cartesians, who considered our tendency to think of ourselves as spatially located as a kind of illusion, Locke viewed the connection between the soul and the body as actually locating the former in the latter.

⁸⁷ Locke, *Essay*, II.iv.1, 123.

⁸⁸ There are not two angels in the same place. The reason of this is because it is impossible for two complete causes to be the causes immediately of one and the same thing. This is evident in every class of causes: for there is one proximate form of one thing, and there is one proximate mover, although there may be several remote movers. Nor can it be objected that several individuals may row a boat, since no one of them is a perfect mover, because no one man’s strength is sufficient for moving the boat; while all together are as one mover, in so far as their united strengths all combine in producing the one movement. Hence, since the angel is said to be in one place by the fact that his power touches the place immediately by way of a perfect container, as was said [Article 1], there can be but one angel in one place. Aquinas, *Summa Theologica*, Ia, q. 52, a. 3.

Like Locke, Aquinas located finite spirits according to their power of acting in space; unlike Locke, Aquinas provided an argument for the exclusion principle. He claimed that two spirits could not occupy the same place because they would each be complete causes of the same activity. Locke did not say this. He seemed to be convinced that, since spirits were to be conceived of as substantially present in space, they must exclude other spirits from their spatio-temporal location in the same way bodies did. Arguably, he had come to think that finite spirits were literally located in bodies and changed their places with them.⁸⁹ His argument for locating finite spirits was that the place of a spirit's power to effect changes in the world varied with the place of the body to which it belonged. Clearly, this argument could be applied only to those spirits which were connected with bodies; how could disembodied spirits be located, in Locke's view?

I suspect that Locke's answer would be that spirits could never be truly disembodied. He might have been influenced by More in this regard. More did not believe that a soul could exist without actually animating a body; even angelic souls were united to bodies, in his view, although these were subtler than human bodies. For More, it was not only essential to a spirit that it could act upon a body, but that it should actually do so. Having defined the essence of the soul in terms of its power to act upon a body, he thought that such an operation was constantly actual. A soul could not exist without actually animating a body, for this would amount to failing to do that thing which defined it as a spirit.⁹⁰ As a consequence, souls could never become completely disembodied. The human soul could survive to the body to which it happened to be united, being really distinct from it, but it would continue to manifest "a very strong propension, natural complacency or *essential aptitude* always to join with some Body or other."⁹¹

If we assume that Locke agreed with More that spirits could never become completely disembodied, some of the problems raised by the exclusion principle when applied to spiritual substances might be solved:⁹² Locke believed that spirits could be located in time and space because they had always to be joined with a body in order to act. Their impenetrability derived from this. It is not clear what he thought of spirits after death.

⁸⁹ This seems to be confirmed by a passage in the *Essay*, where Locke wrote:

No Body can imagine, that his Soul can think, or move a Body at *Oxford*, whilst he is at *London*; and cannot but know, that being united to his Body, it constantly changes place all the whole Journey, between *Oxford* and *London*, as the Coach, or Horse does, that carries him; and, I think, may be said to be truly all that while in motion; Or if that will not be allowed to afford us a clear *Idea* enough of its motion, its being separated from the Body in death, I think will: For to consider it as going out of the Body, or leaving it, and yet to have no *Idea* of its motion, seems to me impossible. If it be said by any one, that it cannot change place, because it hath none, for Spirits are not *in Loco* but *Ubi*; I suppose that way of talking, will not now be of much weight to many, in an Age, that is not much disposed to admire, or suffer themselves to be deceived, by such unintelligible ways of speaking. Locke, *Essay*, II.xxiii.20–21, 307.

⁹⁰ In *The Immortality of the Soul*, bk. 1, chap. 7, § 1, 42, More affirmed that "what is simply active of it self, can no more cease to be active than to Be."

⁹¹ More, *An Explanation of the Grand Mystery of Godliness* (London, 1660), bk. 6, chap. 5, § 2, 226. Locke owned this book: *LJL*, no. 2044.

⁹² Regarding these problems see Wedeking, "Locke's Metaphysics of Personal Identity," 20–21.

Perhaps he believed that they continued to have a sort of link with the body in which they had resided and could therefore be spatio-temporally located thanks to it. But we may also suppose that he agreed with More regarding spirits' "strong propension to join with some body": the "extravagant conjecture" he offered in the *Essay* seemed to attribute the power of self-contraction and self-dilation to spirits. Locke affirmed that these might "assume to themselves Bodies of different Bulk, Figure, and Conformation of Parts" and be able "to frame and shape to themselves organs of sensation or perception, as to suit them to their present design and the circumstances of the object they would consider."⁹³ He did not dwell on this conjecture, which in his terms concerned things that "our Philosophy cannot account for."⁹⁴ Nonetheless it seemed to be clear that he did not conceive of it as extravagant.

Leaving this conjecture aside, both Locke and More were no doubt concerned with the same problem: how to allow spirits to retain their distinctness from one another.⁹⁵ Locke viewed spatio-temporal location as being able to provide a principle of individuation that could distinguish one spirit from another; More had found his way of reaching the same conclusion.

More might have accepted Locke's "physical" proof. In his view, God could neither contract nor dilate because of His perfection: His contracting would imply a lessening of His infinite presence in space, which would be a sign of His imperfection.⁹⁶ God could be penetrated by finite spirits as well as bodies; He could not be penetrated by an identical substance.

All things considered, the many similarities between More and Locke's positions regarding the nature of space and spiritual substances suggest that the latter was not committed to holenmerianism, as seems to be confirmed by the "physical" proof.⁹⁷ Reid

⁹³ Locke, *Essay*, II.xxiii.13, 303–4. James Gibson read this passage in this way. *Locke's Theory of Knowledge and Its Historical Relations* (Cambridge: Cambridge University Press 1917), 254.

⁹⁴ Locke, *Essay*, II.xxiii.13, 303–4.

⁹⁵ More believed in demonic possessions, which in his view amounted to the penetration of a human soul by a more wicked and powerful spirit; such an eventuality appeared however to be extremely remote, because of *hylopathia*. Locke's exclusion principle ruled out this possibility. Regarding Locke's view of evil spirits, see John W. Yolton, *The Two Intellectual Worlds of John Locke: Man, Person, and Spirits in the Essay* (Ithaca, NY: Cornell University Press, 2004), 108–12.

⁹⁶ More, *The Immortality of the Soul*, bk. 1, chap. 7, § 2, 43–44; Reid, *Metaphysics*, 209.

⁹⁷ The many divergences between More and Locke should not be overestimated. More believed in the existence of innate ideas; Locke was averse to this hypothesis. No doubt Locke sided with Boyle, not with More, in the controversy which led the former to write his *Hydrostatical Discourse Occasion'd by Some Objections of Dr. More* in 1672. Boyle criticized More's notion of a Spirit of Nature and objected to his physics; Locke's mechanism, deeply influenced by Boyle, was hardly compatible with More's theories. However, Locke's acquaintance with Newton might have contributed to reconciling him with some of More's views: there is a general consensus that More influenced Newton's manner of conceiving space both directly and indirectly, as Leech notes. *The Hammer of the Cartesians*, 179–185. See also Andrew Janiak, *Newton as Philosopher* (Cambridge: Cambridge University Press, 2008), 142n20, 143–50, 164nn1–2; etc. The Kabbalist, theologian, and chemist Franciscus Mercurius Van Helmont, who was well acquainted with More, might have played an important role as well in reconciling Locke with More's views. Locke met Van Helmont in the Netherlands in 1686; later, Van Helmont visited him in England. The latter was a close collaborator of the Hebraist and Biblical scholar Christian Knorr von Rosenroth in his project to collect a number of texts, commentaries, and critical essays on the Kabbalah; he was able to involve More (probably thanks to their common friend Anne Conway) in this project. The two volumes of Knorr von Rosenroth's *Kabbala denudata* were published respectively in 1677 and 1684. More's contribution to the first volume

might be unwilling to accept this conclusion because he wholeheartedly endorses an holenmerian interpretation of Newton, whose ontology of space he believes influenced Locke considerably.⁹⁸ The first argument Reid introduces to sustain this interpretation is particularly important for the topic of this paper, as I shall argue in the conclusion.

4. Conclusion

To prove Newton's adhesion to holenmerianism, Reid refers to a passage in *De gravitatione* where Newton explained how God could be everywhere without being a body:

Moreover, lest anyone should for this reason imagine God to be like a body, extended and made of divisible parts, it should be known that spaces themselves are not actually divisible, and furthermore, that any being has a manner proper to itself of being present in spaces. For thus the relation of duration to space is very different from that of body to space. For we do not ascribe different durations to the different parts of space, but say they all endure simultaneously. The moment of duration is the same at Rome and at London, on the earth and on the stars, and throughout the heavens. And just as we conceive any moment of duration to be diffused through all space, according to its kind, without any conception of its parts, so it is no more contradictory that the mind can also in its own way be diffused throughout space without any conception of parts.⁹⁹

Pasnau considers this passage as convincing proof of Newton's adhesion to holenmerianism: in his view, Newton intended to affirm that the whole of God's simple substance could be simultaneously present in every place in the same manner as a moment of time was present everywhere, i.e., without having divisible parts.¹⁰⁰ Reid is more cautious: he refers to another passage in the 1713 General Scholium, where Newton

was substantial. Locke's interest in this work is attested by his correspondence and manuscript notes; some of these notes concerned the Kabbalistic doctrines of the preexistence and transmigration of souls. More held both views. Locke affirmed his adhesion to mortalism in *The Reasonableness of Christianity*; nonetheless, his interest in the Kabbalistic doctrines was apparent. His account of personal identity in *Essay*, II.xxvii.6–29, 311–48 was not inconsistent with the theory of the revolution of souls; it first appeared in the second edition of 1694. As Victor Nuovo has shown, the reference in section 14 to “a Christian Platonist” might be either to Joseph Glanvill or to More. *Christianity, Antiquity and Enlightenment: Interpretations of Locke* (Dordrecht: Springer, 2011), 127–62.

⁹⁸ Reid, *Metaphysics*, 136. There is a wide consensus on this, today, although Graham Rogers insists that “Locke never accepted Newton's absolutist position on space” because he remained faithful to the relationist view. “Locke's *Essay* and Newton's *Principia*,” *Journal of the History of Ideas* 39, no. 2 (1978): 217–32. A similar view may be found in Richard I. Aaron, *John Locke* (Oxford: Oxford University Press, 1971), 156–57. A different position, more sympathetic to Locke's endorsement of Newton's absolutist position on space, is to be found in Gibson, *Locke's Theory of Knowledge*, 250–54; Michael Ayers, *Locke: Epistemology & Ontology* (London: Routledge, 1991), 1:234–36; Geoffrey Gorham and Edward Slowik, “Locke and Newton on Space and Time and Their Sensible Measures,” in *Newton and Empiricism*, eds. Zvi Biener and Eric Schliesser (Oxford: Oxford University Press, 2014), 119–37.

⁹⁹ Isaac Newton, *De gravitatione*, in *Newton: Philosophical Writings*, ed. Andrew Janiak (Cambridge: Cambridge University Press, 2004), 25–26 as quoted in Reid, *Metaphysics*, 228.

¹⁰⁰ Pasnau, *Metaphysical Themes*, 338.

offered the same analogy with a moment of time,¹⁰¹ but insists that “neither of these passages ... goes quite as far as expressing a firm commitment” to holenmerianism.¹⁰² Only when Newton expanded this section of the General Scholium for the 1726 edition, would his endorsement of holenmerianism become clearly apparent to Reid.¹⁰³

Edward Slowik has a different opinion in this regard. He insists that numerous passages in the *De gravitatione* and in some later works by Newton support a close analogy between the extension of material beings and God’s extension, which suggests that Newton sided with More’s rejection of holenmerianism.¹⁰⁴ Slowik reads the passage from *De gravitatione* quoted above as convincing proof of this: like More, Newton would maintain that space was not actually divisible and that God—conceived as a mind-like spiritual being—was the same part-less being throughout all space.

Several arguments support Slowik’s opinion.¹⁰⁵ First of all, it is not clear whether Newton viewed both space and God as incorporeal, and whether he followed More in identifying the incorporeal extension of God with that of space. In the passage from *De gravitatione* quoted above, he seemed to draw an analogy between the indivisibility of space and the indivisibility of God, which might suggest that, like More, Newton viewed space as indiscernible; however, neither in *De gravitatione* nor in an important manuscript of the early 1690s, entitled *Time and Place*, did Newton maintain that space was incorporeal in nature, i.e., that the indivisibility of spatial extension matched the indivisibility of divine unity just because they both shared the same type of incorporeal extension. To make these claims, Newton would have had to argue not only that space was an incorporeal attribute of divine being, but that the divine being itself was incorporeally extended. He would also have needed to establish that the incorporeal extension of space was identical to God’s extension. He did neither of these things. Besides, his conception of body in the *De gravitatione* did not support holenmerianism. Newton explained corporeal existence in terms of bodily properties that God posited and moved through space by the exercise of his will, without the need for a concept of

¹⁰¹ Newton affirmed that God “endures always and is present everywhere. ... Since each and every particle of space is *always*, and each and every indivisible moment of duration is *everywhere*, certainly the maker and lord of all things will not be *never* or *nowhere*.” *The Principia: Mathematical Principles of Natural Philosophy*, trans. I. Bernard Cohen and Anne Whitman (Berkeley and Los Angeles: University of California Press, 1999), 941 as quoted in Reid, *Metaphysics*, 228. Here Newton also argued that God “is omnipresent not *virtually* only, but also *substantially*.”

¹⁰² Reid, *Metaphysics*, 228.

¹⁰³ “Every sentient soul, at different times and in different organs of senses and motions, is the same indivisible person. There are parts that are successive in duration and coexistent in space, but neither of these exist in the person of man or in his thinking principle, and much less in the thinking substance of God. Every man, insofar as he is a thing that has senses, is one and the same man throughout his lifetime in each and every organ of his senses. God is one and the same God always and everywhere.” *Ibid.*, as quoted in Reid, *Metaphysics*, 229.

¹⁰⁴ Slowik, *The Deep Metaphysics of Space*, 51.

¹⁰⁵ In what follows, I sum up the arguments which may be found in James E. McGuire and Edward Slowik, “Newton’s Ontology of Omnipresence and Infinite Space,” *Oxford Studies in Early Modern Philosophy* 6, 279–308 (Oxford: Oxford University Press, 2013).

corporeal substance that served to underlie these properties. Since extension, whose existence was secured by God's existence, was the subject of bodily accidents, it followed that God's extension must fit the corporeal and incorporeal categories; the distinction between incorporeal and corporeal as regards spatial extension seemed therefore to vanish, and in fact Newton did not use this dichotomy in his writings. Holo-merianism, however, depends on a difference between the way God is extended and the way space and material bodies are extended; since Newton believed that there was only one form of extension that applied to both the corporeal and incorporeal, it seems more natural to think that he refuted the approach to God's extension favoured by holo-merianism.

Geoffrey Gorham and Slowik have highlighted some similarities between *De gravitatione* and the *Essay*, which suggest that Newton might have shown his book to Locke. One of these similarities concerns the passage in *De gravitatione* to which both Reid and Pasnau refer: Gorham and Slowik claim that Locke might refer to Newton's analogy with time when he spoke of the way spirits were present in space.¹⁰⁶ Locke wrote,

For this present moment is common to all things, that are now in being, and equally comprehends that part of their Existence, as much as if they were all but one single Being; and we may truly say, they all exist in the same moment of Time. Whether Angels and Spirits have any Analogy to this, in respect of Expansion, is beyond my Comprehension: and, perhaps, for us, who have Understandings and Comprehensions, suited to our Preservation, and the ends of our own Being, but not to the reality and extent of all other Beings, 'tis near as hard to conceive any Existence, or to have an *Idea* of any real Being, with a perfect Negation of all manner of Expansion; as it is, to have the *Idea* of any real Existence, with a perfect Negation of all manner of Duration: And therefore what Spirits have to do with Space, or how they communicate in it, we know not. All that we know is, that Bodies do each singly possess its proper Portion of it, according to the extent of its solid Parts; and thereby exclude all other Bodies from having any share in that particular portion of Space, whilst it remains there.¹⁰⁷

Let us suppose that Reid and Pasnau are right, and that Newton was manifesting his commitment to holo-merianism in *De gravitatione*; Locke remained agnostic. He regarded the question of how spirits were present in space as exceeding his comprehension: what spirits have to do with space is not something that we can know, he assessed. He introduced another analogy: it would be as hard to conceive of a being existing "with a perfect Negation of all manner of Expansion," as it would to conceive of something existing "with a perfect Negation of all manner of Duration." Newton had spoken of the possibility of conceiving the mind as located in space without having parts; Locke answered that it was impossible to conceive of something existing nowhere. This was a timid profession of anti-nullibism: the substantial presence of spirits in space was therefore the topic of discussion. "All that we know," Locke continued, "is, that Bodies do each singly possess its proper Portion of it [space], according to the extent of its solid Parts." Since holo-merianism affirmed the opposite regarding spiritual substances, i.e.,

¹⁰⁶ Gorham and Slowik, "Locke and Newton on Space and Time and Their Sensible Measures," 126.

¹⁰⁷ Locke, *Essay*, II.xv.11, 204.

that they would be whole in the whole and whole in each part, we may conclude that if Locke was thinking of it, then he was manifesting his agnosticism. However, it seems highly improbable that he was referring to holenmerianism: the real problem seemed to be the penetrability of spirits. Locke might be thinking of Newton's definition of bodies in *De gravitatione* as mutually impenetrable: Newton had affirmed that "a body fills place, that is, it so completely fills it that it wholly excludes other things of the same kind or other bodies, as if it were an impenetrable being."¹⁰⁸ Then he had added: "Place could be said, however, to be a part of space into which a thing enters completely; but as only bodies are here considered and not penetrable things, I have preferred to define [place] as the part of space that a thing fills." These "penetrable things" were spirits, which were to be thought of as occupying a place as well. On the following pages, Newton claimed that "No being exists or can exist which is not related to space in some way. God is everywhere, created minds are somewhere, and body is in the space that it occupies; and whatever is neither everywhere nor anywhere does not exist."¹⁰⁹ Then he introduced the analogy between God's presence in space and that of a moment of duration. Locke's issue was whether this analogy might be applied to spirits: he remarked that whereas one moment of time was common to all existing things, it was beyond his comprehension whether angels and spirits had "any Analogy to this, in respect to Expansion." Could different spirits occupy the same place at the same time? They could if they were penetrable. This however amounted to not being distinguished one from another in Locke's view. He introduced the exclusion principle but only in reference to material objects: this confirms that his topic was the penetrability of spirits. He affirmed that the issue was beyond his comprehension and gave a timid assent to anti-nullibism; however, when the argument came up again in the *Essay*, he would boldly affirm that spirits "operate only where they are" and that they exclude each other from the place they occupy at a given moment in time.

Locke's comments on Newton's analogy suggest that Slowik was right: the latter was not thinking of holenmerianism in *De gravitatione*. Locke agreed with the content of the analogy¹¹⁰ but highlighted the problem it raised when applied to spirits. Their penetrability was the topic of discussion, not holenmerianism.

To conclude, I think that the "physical" proof represents a convincing argument for affirming that Locke was not committed to holenmerianism; his disagreement with More regarding the penetrability of spirits was not such as to invalidate this argument. Locke's reading of *De gravitatione* seems to confirm that he, and perhaps also Newton, were not holenmerians.

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¹⁰⁸ Newton, *De gravitatione*, 13. Newton also discussed the principle of individuation: the parts of duration and space, he affirmed, have no other principle of individuation than their mutual order and position, which cannot therefore be altered. *Ibid.*, 25.

¹⁰⁹ *Ibid.*

¹¹⁰ This may also be inferred from what Locke wrote in the subsequent paragraph of the *Essay*: "Expansion and Duration do mutually imbrace, and comprehend each other; every part of Space, being in every part of Duration; and every part of Duration, in every part of Expansion." II.xv.12, 204.

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