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Descartes, Spinoza, and Locke on Extended Thinking Beings

Don Garrett

Introduction

Can we know that nothing is in itself both thinking and spatially extended?[1] This was among the most central and divisive philosophical issues of the early modern period, one with obvious relevance not only to the theoretical understanding of mind and matter, but also to the practical prospects for immortality and, with it, divine sanctions for morality. While many important philosophers—including Nicolas Malebranche, Gottfried Wilhelm Leibniz, and Samuel Clarke—responded affirmatively, perhaps the most famous and influential defense of the affirmative answer was given by René Descartes. While many other important philosophers—including Thomas Hobbes, Henry More, and Anthony Collins—answered negatively, perhaps the two most infamous and influential defenses of the negative answer were given by the two great philosophers born in 1632, Benedict de Spinoza and John Locke.

Descartes' position is expressed clearly in his confident assertion in *Principles of Philosophy* I.53[2] (published in 1644) that thought and extension are "principal attributes" of substances and that every substance has only one principal attribute.[3] The assertion is undefended there, but behind it lie two arguments that he had already presented in the Sixth Meditation of *Meditations on First Philosophy* (1641)—one from separability and one from divisibility. Both Spinoza and Locke studied Descartes' *Meditations* and *Principles* with care; Spinoza even included a version of the argument from separability in his own 1663 axiomatization of Des-

[1] I employ the qualification "in itself" so as to leave aside the question of whether a compound thing can be both thinking and extended in virtue of having a thinking but unextended part and a distinct extended but unthinking part. Descartes, at least, clearly allows that a human being, as a "substantial union" of mind and body, is both thinking and extended in *this* sense. In what follows, I will leave this qualification tacit.

[2] See Descartes 1984-88 and 1964-76. All subsequent translations of Descartes' texts are taken from the former, which is the standard English edition.

[3] A complication arises from Descartes' doctrine that 'substance' is not applied univocally to God and to created things such as bodies and finite minds, and hence it is not entirely clear whether God has a principal attribute. I will ignore this complication, since Descartes is clear that God is not extended, and his reasons for thinking that God is not extended presumably parallel, at least in part, his reasons for thinking that finite minds are not extended.

cartes' *Principles of Philosophy*.[4] Hence, they must have judged that they could evade the force of these two arguments. Yet neither philosopher directly attempts to diagnose an error in either argument.

I have two primary aims in this paper. The first is to explain precisely *how* Spinoza and Locke, respectively, would have rejected each of Descartes' two famous arguments of the Sixth Meditation. Locke holds that, at least as far as we can tell, created extended thinking substances are entirely possible even if unlikely; but he also argues that no eternal thinking substance is or can be material. Spinoza, in contrast, holds that everything is both thinking and extended, but that no created thing can be a substance. It should not be surprising, then, that their ways of resisting Descartes' arguments differ considerably. Those differences, in turn, motivate my second aim in the paper: to compare and evaluate their strategies for resisting Descartes' arguments against extended thinking beings.

1 The Separability Argument

1.1 The Separability Argument in Descartes.

The first and more prominent of Descartes' two arguments about the relation between thought and extension in the Sixth Meditation may be called the "Separability Argument." As written, it is directed at the conclusion that there is a "real distinction" specifically between Descartes' own mind and his own body—that is (as he explains most fully in *Principles of Philosophy* I.60), that his mind and his body are two different substances. His presentation of the argument may be outlined as follows:

> (S1) Everything which I clearly and distinctly understand is capable of being created by God so as to correspond exactly with my understanding of it.
>
> (S2) [If I can] clearly and distinctly understand one thing apart from another … [then] they are capable of being separated, at least by God. [from (S1)]

[4] The argument occurs as the demonstration of Part 1, Proposition 8 (I p8d) in *Descartes' "Principles of Philosophy"* (*Renati des Cartes Principiorum Philosophiae*), which is included in Spinoza 1985. (All subsequent citations and translations of Spinoza's texts refer to this standard edition.) The presentation corresponds very closely to the specific version that Descartes presents in the axiomatized section that concludes his second set of replies in *Objections and Replies*, published with the *Meditations*.

(S3) The question of what kind of power is required to bring about … a separation does not affect the judgement that the two things [that can be separated] are distinct.

(S4) [If I can] clearly and distinctly understand one thing apart from another … [then] the two things are distinct. [from (S2)&(S3)]

(S5) [I see that] absolutely nothing else belongs to my [mind's] nature or essence except that I am [i.e., it is] a thinking thing.

(S6) I have a clear and distinct idea of myself [i.e., my mind], insofar as I am [i.e., it is] simply a thinking, non-extended thing. [from (S5)]

(S7) I have a distinct idea of body, insofar as this is simply an extended, non-thinking thing.

(S8) I am [i.e., my mind is] really distinct from my body, and can exist without it. [from (S4)&(S6)&(S7)]

Descartes refrains from giving this argument until the Sixth Meditation for three reasons: (i) only in the Third and Fifth Meditations does he argue that an omnipotent God exists, as required for (S1); (ii) only in the Fifth Meditation does he acquire a clear and distinct idea of body, as required for (S7); and (iii) only in the Fifth Meditation does he completely remove the skeptical doubt about whether clear and distinct ideas are true, a doubt that would otherwise call into question the entire argument. Although its stated conclusion and some of its premises are restricted to Descartes' own mind and body, the argument may be readily generalized to conclude that every mind is distinct from every body, simply by replacing his references to his own mind and body with references to all minds and bodies, respectively.[5] Given his view that everything that thinks is thereby a mind and everything that is extended is thereby a body, it follows from the generalized conclusion that there are no extended thinking beings.[6]

1.2 Spinoza and the Separability Argument.

Whereas Descartes concludes that every substance has only a single principal attribute—thought for minds, extension for bodies—Spinoza emphatically denies

[5] In saying this, I am assuming that Descartes holds that he can perceive clearly and distinctly the nature of minds generally as well as his own, or at least that he sees that any other mind would be in a position to give the same argument for itself. If he does not hold either of these things, then there is a serious question how he can claim to know that every substance has only one principal attribute that is either thought or extension. I will return to this question in the final section.

[6] Descartes might well be willing to generalize the argument still further to include all possible minds and all possible bodies, so as to conclude that extended thinking beings are not even metaphysically possible.

that a substance must be limited to a single such attribute.[7] Thus he writes in *Ethics*:

> P10: Each attribute of a substance must be conceived through itself.
>
> Demonstration: For an attribute is what the intellect perceives concerning a substance, as constituting its essence (by D4); so (by D3) it must be conceived through itself, q.e.d.
>
> Scholium: From all these propositions it is evident that although two attributes may be conceived to be really distinct (i.e., one cannot be conceived without the aid of the other), we still cannot infer from that that they constitute two beings, or two different substances. For it is of the nature of a substance that each of its attributes is conceived through itself, since all the attributes have always been in it together, and one could not be produced by another, but each expresses the reality, or being of substance.[8]

Immediately thereafter, Spinoza argues that God, the substance of infinitely many attributes, necessarily exists[9] and is the only substance that exists.[10] He goes on to conclude that thought and extension are among God's attributes.[11] God, therefore, is both thinking and extended.

It is initially surprising that Spinoza grants, in the scholium, that a real distinction between attributes may be conceived, since in Descartes' use of the term a "real distinction" requires two substances and is not a distinction between attributes at all. However, Spinoza's use of the term is readily explicable in light of his parenthetical clarification. Whereas Descartes defines a real distinction as a distinction between two different substances and specifies independent conceivability as a test for a real distinction,[12] Spinoza takes the Cartesian test as constitutive of a real distinction; and since each attribute can (and must) be conceived independently (as *Ethics* I p10 requires), he concludes that there is a (conceived) real distinction between the attributes of a substance despite their being attributes of the same substance.

Where, on Spinoza's view, does Descartes' argument go wrong? Spinoza does not deny (S1) of the Separability Argument; indeed, he holds that whatever can be conceived clearly and distinctly—or, as he more usually prefers to say, conceived "adequately"—actually *has* been created (i.e., caused to be) by God as it is conceived to be, since "God is the efficient cause of everything that can fall under an infinite intellect."[13] Nor would he have any objection to (S3): things that can be separated are not identical, regardless of the power that is required to sepa-

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[7] Spinoza uses the simple term 'attribute' in place of Descartes' 'principal attribute.'

[8] *Ethics* I p10.

[9] *Ibid*. I p11.

[10] *Ibid*. I p14.

[11] *Ibid*. II p1-2.

[12] *Principles of Philosophy* I.60.

[13] *Ethics* I p16c1.

rate them. Moreover, he agrees with Descartes that we can conceive a thinking substance without employing any conception of extension, and an extended substance without employing any conception of thought; hence, he would not reject versions of (S5)-(S7) generalized to thinking and extended substances, respectively. Rather, the error, for Spinoza, will lie in the inferences that appeal to "clearly and distinctly understanding one thing apart from another." This term, he must say, is ambiguous, for it may refer either to the *separateness of the conceptions* of two things or to the conception of two things *as being separated*. That is, in saying that one can clearly and distinctly conceive of x apart from y, one may mean either:

(A) It can be that {I clearly and distinctly conceive x} without {I conceive y}.

or

(B) I can clearly and distinctly conceive {x without y}.

(S2) follows from (S1) only if its antecedent is (B):

(S2') If I can clearly and distinctly conceive {x without y}, then God can separate y from x.

(S4), therefore, follows from (S2) and (S3) only if its antecedent is also (B):

(S4') If I can clearly and distinctly conceive {x without y}, then x and y are distinct.

Yet (S6) and (S7) make claims not about conceived separation, but only about separate conception—namely, that a mind can be clearly and distinctly conceived without conceiving a body, and a body distinctly conceived without conceiving a mind. Hence, (S8) follows from (S4), (S6), and (S7) only if the antecedent of (S4) is instead understood as (A):

(S4") If it can be that {I clearly and distinctly conceive x} without {I conceive y}, then x and y are distinct.

Thus, the argument appears to equivocate on the term 'clearly and distinctly conceive one thing apart from another'. If (A) (i.e., separate conception) does not entail (B) (i.e., conceived separation), then there is no way to get from (S6) and (S7) to the desired conclusion.

Descartes' apparent implicit slide from (A) to (B) may nevertheless seem quite defensible; for if one can clearly and distinctly conceive x without conceiving y *at all*, what possible obstacle could there be to conceiving also that x exists in the *absence* of y? If the clear and distinct conceptions of x and y do not in any way depend on one another, how could x and y nevertheless be so related that even an omnipotent being could not separate them? Indeed, Descartes can be seen as offering just such a response in his *Replies* to the first set of *Objections*, in which Caterus in effect expresses concern about a slide from (A) to (B). By way of dealing with Caterus' example—God's justice and God's mercy, which Caterus

claims can be separately conceived without being able to exist apart—Descartes then goes on to explain that his argument requires that the two things in question be separately conceived clearly and distinctly as "complete" beings, rather than as "incomplete" ones, since two beings conceived as merely incomplete may yet prove to depend for their existence on inherence in a substance through which each must be conceived. Things conceived as substances, he notes—unlike God's justice and God's mercy—meet this conceptual "completeness" condition.[14]

However, this Cartesian defense of the slide from (A) to (B) ignores one crucial alternative: that neither x nor y depends on the other for its existence or conception, and yet that neither one could exist or be conceived to exist in the absence of the other because both are *independently necessary existents* whose nonexistence is inherently inconceivable. Since Descartes assumes that all extended substances and all non-divine thinking substances are contingent beings, he silently ignores this alternative. But that is precisely the alternative that Spinoza adopts: since God's thought does not depend on God's extension, nor does God's extension depend on God's thought, either can be readily conceived, for Spinoza, without conceiving the other. Moreover, each conception is "complete" in Descartes' sense, since attributes are conceived through themselves,[15] and not through something else. Yet since the thinking substance and the extended substance both necessarily exist, it is not possible that one should exist *without* the other. They are thus inseparable—and hence, they escape the Separability Argument for their nonidentity.

Although Spinoza recognizes only one substance, God, he allows many—indeed, infinitely many—thinking and extended "singular things" (*res singulares*) that are not substances but are instead "modes" of the one substance.[16] Singular things, defined at *Ethics* 2d7 as "things that are finite and have a determinate existence," include, but are not limited to, the human minds and bodies that Descartes intends to include within the scope of his Separability Argument. But although Spinoza grants that only God has a fully clear and distinct idea of any of these singular things as a whole, his explanation of how the Separability Argument goes wrong in application to them would parallel his explanation of how it goes wrong in application to the unique substance. As a thoroughgoing

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[14] Margaret Wilson (1978, pp.191-198) formulates the ambiguity between (A) and (B) and discusses the relevance of Descartes' reply to Caterus at some length. She proposes using the reply to revise the Separability Argument itself fairly substantially. Marleen Rozemond (1998, Chapter 1) proposes a very different reconstruction, incorporating the principle that a substance can have only one principal attribute—stated only in *Comments on a Certain Broadsheet* and *Principles of Philosophy*—into the Separability argument itself. Whether these are desirable interpretative reconstructions or not is a question beyond the scope of this paper. I am concerned primarily with the Separability Argument itself, as Spinoza and Locke found it in Meditation Six and as Descartes formalized it at the end of his *Replies* to the second set of *Objections*.

[15] *Ethics* I p10.

[16] They are finite modes that are to some extent "in themselves" and so approximate to being substances in a partial way—*quasi-substances*, as one might say. See Garrett 2002.

panpsychist, he maintains that things are "animate," though in different degrees.[17] Hence, just as God can be conceived as either a thinking substance or an extended substance, without either conception depending on the other, so too *every* singular thing can be conceived either as a mind or as a body without either conception depending on the other. Since, however, there is a necessary parallelism between extended singular things and the ideas—i.e., the minds—of those things,[18] *all* of which follow with equal and absolute necessity from the divine nature,[19] it is not possible for an extended singular thing to exist without the mind of that thing, nor the mind without the extended singular thing.[20] Such a separation is not even clearly and distinctly conceivable, for the only clearly and distinctly *conceivable* ways for thought and extension to be are the (parallel) ways they *actually are*. An extended singular thing and its thinking mind, while separately conceivable, cannot be clearly and distinctly conceived to be separated; hence, they may be—and in fact are[21]—identical.

1.3 Locke and the Separability Argument.

Whereas Descartes appeals to God's power to establish that an extended substance *cannot* think, Locke appeals to God's power to establish nearly the opposite: that, at least as far as we can tell, an extended substance *can* think:

> 6. We have the ideas of matter and thinking, but possibly shall never be able to know, whether any mere material being thinks, or no; it being impossible for us, by the contemplation of our own ideas, without revelation, to discover, whether omnipotency has not given to some systems of matter fitly disposed, a power to perceive and think, or else joined and fixed to matter so disposed a thinking immaterial substance: It being, in respect of our notions, not much more remote from our comprehension to conceive, that God can, if he pleases, superadd to matter a faculty of thinking, than that he should superadd to it another substance with a faculty of thinking; since we know not wherein thinking consists, nor to what sort of substances the Almighty has been pleased to give that power, which cannot be in any created being, but merely by the good pleasure and bounty of the Creator. For I see no contradiction in it, that the first eternal thinking Being or omnipotent Spirit should, if he pleased, give to certain systems of created senseless matter, put together as he thinks fit, some degrees of sense, perception, and thought.… What certainty of knowledge can any one have that some perceptions, such as, v.g.,

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[17] *Ethics* II p13s; see also II p7,s and III p1d.

[18] *Ibid*. II p7.

[19] *Ibid*. I p33.

[20] Since singular things come into existence and go out of existence, it is important to distinguish the question of whether their existence *at the particular times at which they exist* is necessary or contingent, from the question of whether there is any time such that it is possible for them *not to exist at that time*. Singular things lack necessary *eternal* existence, for Spinoza, but they do not lack a necessary *durational* existence derived from the necessity of their causes.

[21] *Ethics* II p7s.

> pleasure and pain, should not be in some bodies themselves, after a certain manner modified and moved, as well as that they should be in an immaterial substance, upon the motion of the parts of body? … I say not this, that I would any way lessen the belief of the soul's immateriality: I am not here speaking of probability, but knowledge; and I think not only, that it becomes the modesty of philosophy not to pronounce magisterially, where we want that evidence that can produce knowledge; but also, that it is of use to us to discern how far our knowledge does reach; for the state we are at present in, not being that of vision, we must, in many things, content ourselves with faith and probability; and in the present question, about the immateriality of the soul, if our faculties cannot arrive at demonstrative certainty, we need not think it strange.[22]

Locke, like Descartes and Spinoza, characterizes some ideas as "clear and distinct," but he understands the distinctness of ideas rather differently, primarily in terms of the fixedness of their relation to terms signifying them.[23] It is not clear that Locke would grant (S1) as Descartes formulates it, since conception might be clear and distinct in Locke's sense and yet sufficiently partial as to hide a contradiction or impossibility. More to our purpose, however, Locke also has a notion of "adequacy" for ideas, which he explains as the perfection of an idea's representation of its archetype.[24] Let us suppose, therefore, that he interprets "clear and distinct understanding" throughout the Separability Argument as "understanding using adequate ideas." Since he characterizes God as omnipotent (for example, at *Essay* IV.x.13), it seems likely that he would grant it to be in God's power to create whatever can be *adequately* conceived, at least; hence, he would not object to this version of (S1). In addition, he would presumably allow that whatever things can be separated by any power are distinct from one another, and so would not object to a parallel version of (S2). Perhaps he would object, as Spinoza must, to the apparent equivocation involved in the inferences from (S2) to (S4) to (S8). But as the cited passage indicates, Locke's central objection, unlike Spinoza's, would surely be to the introspective claims made in (S5)-(S7).

Locke does not, of course, deny that minds, his own included, are things that think. They are, as he sometimes puts it, "cogitative" beings. He does deny, against Descartes, that cogitative beings must *always* think; it is, he claims, no more necessary that a cogitative being always think than that an extended being always move. Hence, constant thinking, at least, cannot be essential to such a being. But even assuming that 'thinking thing' means merely "a thing that can think," Locke would still object to (S5)-(S7). In order to understand that objection, it is necessary to understand something of his conceptions of *substances* and *essences*.

According to Locke, we conceive of substances, of whatever kind, by combining the "obscure" and "relational" idea of "substance-in-general" with ideas of particular qualities. This idea of substance-in-general is the idea of a support of

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[22] Locke 1975 (*Essay* IV.iii.6). All subsequent citations of Locke's texts refer to the standard edition.

[23] *Essay* II.xxix, "Of Clear and Obscure, Distinct and Confused Ideas".

[24] *Essay* II.xxxi, "Of Adequate and Inadequate Ideas".

qualities, "some substratum wherein they do subsist, and from which they do result."[25] The idea of "body" or "material substance," for example, results from combining the idea of substance-in-general with the idea of extension and the idea of "solidity"[26]—solidity being the quality whereby bodies exclude other bodies from the places they occupy.[27] But there is nothing in any of these ideas that prevents their combination with an idea of thinking into a single idea of a substance or that renders those ideas (in Locke's phrase) "repugnant" to one another. So far, then, we can see no reason why the creation or generation of a thinking material substance should be outside the reach of God's omnipotence. While we cannot see specifically *how* thinking and extension could be combined in a substance, this is not surprising given the obscurity of our idea of substance-in-general and our ignorance of the way in which the qualities of minds and bodies, respectively, "result" from the substrata in which they "subsist." We are, as Locke remarks in the quoted passage, equally unable to see *how* motions of bodies could produce sensation in an *unextended* substance; yet that must happen somehow if our sensing minds are not extended. For all we know, then, our minds may be extended thinking substances.

Locke goes on to distinguish two kinds of essences, "nominal" and "real."[28] A *nominal* essence is that which makes a thing be classified as belonging to the sort or species that it does—thus, he asserts, a nominal essence is an abstract idea, often combining ideas of several qualities, and signified by a general term. A *real* essence, in contrast, is the real internal constitution of a thing from which its "properties" (i.e., "*propria*," a technical term designating constant qualities following unchangeably from an essence) "flow." Hence, thinking belongs to the nominal essence of "cogitative beings" considered as such (i.e., under that abstract idea); and, indeed, nothing else belongs to that particular nominal essence. In this sense, and thinking of one's mind simply as a "thinking" or "cogitative" being, (S5) is true: one may well see that nothing belongs to "the mind's" nominal essence other than thinking. But this is simply an arbitrary classificatory point; any particular cogitative being also falls under many *other* kinds, each with its own abstract idea serving as its nominal essence. From this nominal-essence version of (S5), an acceptable version of (S6) would not follow, for it does nothing to show that an *adequate* idea of any particular thinking substance (including one's own mind) would represent that substance as *unextended*—the idea of extension being fully compatible with the ideas of thinking and substance-in-general. If, on the other hand, we interpret (S5) as a claim about the real essence of particular thinking substances such as one's own mind, then (S5) will simply be false. For Locke claims that we cannot determine whether or not a particular finite thinking substance is a material substance to which God has "superadded" the power of think-

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[25] *Essay* II.xxiii.1.

[26] *Essay* II.xxiii.15, 27.

[27] *Essay* II.iv, "Of Solidity".

[28] *Essay* III.iii.15-17.

ing; and if it is such a material substance, it already has the nature or essence of a material, and hence extended, substance as well. (Indeed, it is not immediately clear whether thinking, or the power of thinking, would become even a part of its real essence, as opposed to being an accidental and transitory quality.)

Locke would also object to (S7) on similar grounds. For although one can, without contradiction, form an idea of a body—i.e., an extended, solid substance—without conjoining the idea of thinking to it, there is no guarantee that such an idea will be a distinct or adequate idea of any particular body. On the contrary, if God has superadded the ability to think to a body, then an adequate idea of that body, at least, will have to include an idea of that power.

2 The Divisibility Argument

2.1 The Divisibility Argument in Descartes.

The second of Descartes' two arguments concerning the relation between thought and extension in the Sixth Meditation may be called the "Divisibility Argument." It occurs in the course of his explanation of sensory error. His confidence in it, however, is indicated by his remark that "this one argument would be enough to show me that the mind is completely different from the body, even if I did not already know as much from other considerations." The argument, as he presents it, may be outlined as follows:

(D1) If a foot or arm or any other part of the body is cut off, nothing has thereby been taken away from the mind.
(D2) It is one and the same mind that wills, and understands, and has sensory perceptions.
(D3) The faculties of willing, of understanding, of sensory perception, and so on … cannot be termed "parts of the mind." [from (D2)]
(D4) When I consider the mind, or myself insofar as I am merely a thinking thing, I am unable to distinguish any parts within myself; I understand myself to be something quite simple and complete. [from (D1)&(D3)]
(D5) The mind is utterly indivisible. [from (D4)]
(D6) There is no corporeal or extended thing that I can think of which in my thought I cannot easily divide into parts.
(D7) The body is by its very nature always divisible. [from (D6)]

(D8) The mind is completely different from the body. [from (D5)&(D7)]

As with the Separability Argument, the conclusion may be generalized to all minds and bodies;[29] and given the Cartesian doctrine that everything that thinks is thereby a mind and everything that is extended is thereby a body, it follows that there are no extended thinking beings.

2.2 Spinoza and the Divisibility Argument.

As we have seen, Spinoza's rebuttal of the Separability Argument takes a single general form whether its scope is taken to be substances or singular things: in each case, the extended thing and the corresponding thinking thing, while independently conceivable because involving different attributes, can neither exist apart nor be conceived to exist apart because each exists necessarily whenever the other does. In contrast, Spinoza's strategy for rebutting the Divisibility Argument will differ depending on whether it is taken as an argument concerning substances or singular things. This is because he regards substance as indivisible, but at least many singular things—namely, those he also characterizes as "individuals" (*individua*)[30]—as divisible.

Spinoza argues for the indivisibility of substance in *Ethics* I p12 and I p13. The first of these propositions denies that a substance can be divided into its attributes, while the second denies that a substance can be divided within any of its attributes:

P12: No attribute of a substance can be truly conceived from which it follows that the substance can be divided.

Demonstration: For the parts into which a substance so conceived would be divided either will retain the nature of the substance or will not. If the first [NS[31]: viz. they retain the nature of the substance], then (by P8) each part will have to be infinite, and (by P7) its own cause, and (by P5) each part will have to consist of a different attribute. And so many substances will be able to be formed from one, which is absurd (by P6). Furthermore, the parts (by P2) would have nothing in common with their whole, and the whole (by D4 and P10) could both be and be conceived without its parts, which is absurd, as no one will be able to doubt.

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[29] As with the Separability Argument, Descartes may also be willing to generalize the argument further, to all *possible* minds and all possible bodies.

[30] In *Ethics* II p13s, Spinoza mentions an "infinite individual" composed of all finite individuals. *This* individual would not be a "singular thing," since singular things are by definition finite.

[31] 'NS' indicates an interpolation from the *Nagelate Schriften*, the Dutch translation of Spinoza's *Opera Postuma* prepared by his friends from his Latin manuscripts.

But if the second is asserted, viz. that the parts will not retain the nature of substance, then since the whole substance would be divided into equal parts, it would lose the nature of substance, and would cease to be, which (by P7) is absurd.

P13: A substance which is absolutely infinite is indivisible.

Demonstration: For if it were divisible, the parts into which it would be divided will either retain the nature of an absolutely infinite substance or they will not. If the first, then there will be a number of substances of the same nature, which (by P5) is absurd. But if the second is asserted, then (as above [NS: P12]), an absolutely infinite substance will be able to cease to be, which (by P11) is also absurd.

Corollary: From these [propositions] it follows that no substance, and consequently no corporeal substance, insofar as it is a substance, is divisible.

Scholium: That substance is indivisible, is understood more simply merely from this, that the nature of substance cannot be conceived unless as infinite, and that by a part of substance nothing can be understood except a finite substance, which (by P8) implies a plain contradiction.

It is clear from these arguments how Spinoza would object to a version of the Divisibility Argument formulated as an argument specifically about substances. While granting (D5), that a thinking substance is utterly indivisible, he would deny (D6), and hence also (D7), by insisting that there *is* an extended substance—indeed, the *only* extended substance—that he cannot conceive to be divided. For although various operations might be properly conceived as dividing a singular thing into parts, no such operation would introduce any division into infinite extended substance itself. An extended substance, as extended, must have *regions*, of course (or, better, *be regionalized*), but these regions are not *parts*, in the sense of things prior to a whole out of which they are generated by composition (nor, indeed are they *things* at all by Spinoza's standards); and any alteration of the modes of the substance is merely a qualitative regional change, not a division into parts.

As noted, those singular things that are composed of parts are *individuals*, in Spinoza's terminology, and these include human beings.[32] To a version of the Divisibility Argument formulated in terms of individuals rather than substances, Spinoza would respond by granting (D6) and (D7) while denying (D5), the claim that minds are utterly indivisible. For the parallelism of thought and extension, according to which "the order and connection of ideas is the same as the order and connection of things"[33] entails that the human mind—which is the idea of the human body—is literally composed of ideas of the parts of the human body. This is clearly stated in *Ethics* II p15:

P15: The idea that constitutes the formal being [*esse*] of the human Mind is not simple, but composed of a great many ideas.

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[32] *Ethics* II p13s. For purposes of citation, I am treating the so-called "Physical Digression" that precedes *Ethics* II p14 as part of II p13s.

[33] *Ethics* II p7.

> Demonstration: The idea that constitutes the formal being of the human Mind is the idea of a body (by P13), which (by Post. 1) is composed of a great many highly composite Individuals. But of each Individual composing the body, there is necessarily (by P8C) an idea in God. Therefore (by P7), the idea of the human Body is composed of these many ideas of the parts composing the Body, q.e.d.

Rejecting (D5), of course, requires rejecting (D4) as well—and Spinoza emphatically does so. This does not mean that he denies (D2) or (D3): willing and understanding are not at all distinct parts of the mind for him, and while he writes as though intellect and imagination (which includes sensory perception) can be considered as "parts" of the mind, he does not suppose that one could have imagination without any intellect at all.[34] But all human thinking is awareness of one's own body, on Spinoza's view, and one's various ideas of how things are in the various parts of one's body do constitute parts of one's mind. Hence, he would deny (D1): the removal of a body part would necessarily be paralleled by the removal of the part of the mind that is the idea of that body; and an idea of that body part, although perhaps no longer part of a finite mind having as much consciousness as the human mind, would continue to exist as a singular thing and as a mode of thinking of the one substance.

Because all singular things have minds, for Spinoza, similar points apply to all non-human individuals as well. In addition to discussing the complex singular things that are individuals, however, he also writes in *Ethics* II p13s of the "simplest bodies" (*corpora simplicissima*) that are their ultimate constituents, distinguished from one another *only* by motion-and-rest. These simplest bodies presumably satisfy the definition of 'singular thing' at 2d7: they are finite, clearly have a spatially determinate existence, and are not said to be everlasting. Like other singular things that are modes of extension, then, they too must have corresponding ideas that are their minds. Simplest bodies, as modes of extension, are not unextended—indeed, they may well have various shapes and sizes—but they are spatially homogeneous distributions of different degrees of "motion-and-rest" (*motus & quietis*), the fundamental pervasive feature of infinite extended substance by which that substance is variegated.[35] Spinoza does not explicitly state whether he regards simplest bodies as divisible or not. If he does regard them as divisible (if, for example, they can be split into two smaller simplest bodies by collision), then his response to a version of the Divisibility Argument directed at them and their minds will parallel his response to the Divisibility Argument directed at individuals: both the simplest body and its mind will be equally divisible. If he does not regard them as divisible, then his response will parallel his response to a version of the Divisibility Argument directed at substances: neither the sim-

[34] *Ethics* II p46.

[35] For a fuller account, see Garrett 1994.

plest body nor its mind will be divisible.[36] In either case, the Divisibility Argument is blocked.

2.3 Locke and the Divisibility Argument.

Much as in the case of Spinoza, it will be useful to distinguish Locke's response to the Divisibility Argument as it applies to created things from his response to it as it applies to an eternal substance. Let us consider first the application to created things.

Locke must allow (D2) and (D3), for he emphasizes just as much as Descartes does that the various faculties of the mind are not distinct "agents" or "real beings"—they are mere powers or capacities of one thinking agent that has a variety of ideas and volitions.[37] Locke also appears not to dispute (D7), writing, for example, that "in any bulk of Matter, our Thoughts can never arrive at the utmost *Divisibility*, therefore there is an apparent Infinity to us also in that …."[38] Locke's objection to the Divisibility Argument in the case of created beings—like Spinoza's in the case of created finite individuals—must therefore be to (D5) and, with it, to (D4) and (D1). Unlike Spinoza, he does not claim to be able to *discern* parts in the created mind;[39] but he will not allow that it follows from this that what thinks in him is definitely *not* a divisible system of bodies. For he claims no introspective or other access to the nature of the substance that thinks in him, beyond knowing that it sustains and supports his thoughts and volitions. This substance may be a brain or a "System of fleeting animal spirits[;]"[40] and he even considers, in his discussion of personal identity, the possibility that a separated "little finger" might retain some consciousness.[41] Hence, we cannot know that all thinking beings are indivisible.

While Locke expresses openness to the possibility of created material thinking beings, however, he devotes considerable attention, at the conclusion of his demonstration of the existence of God in *Essay* IV.x ("Of the Existence of a GOD"), to arguing that there is no eternal material being—and especially not an eternal material *thinking* being.[42] Having demonstrated to his own satisfaction that

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[36] Presumably this would be Spinoza's response for the "infinite individual" (composed of all other individuals) mentioned in *Ethics* II p7, since he is unlikely to regard it as divisible, despite its composition of parts.

[37] *Essay* II.xxi.6.

[38] *Essay* II.xvii.12.

[39] It is worth noting, however, that he does regard all body parts as parts of himself as a *person*, even if they are not parts of his mind (*Essay* II.xxvii.17-21).

[40] *Essay* II.xxvii.17-21.

[41] *Essay* II.xxvii.13.

[42] For useful discussion of this argument, see Wilson 1979, Ayers 1981, and Wilson 1982.

there is an "eternal "most powerful and most knowing" being—namely, God—he reiterates that, just as "nothing" cannot give rise to "something" and what is "purely matter" cannot possibly give rise to motion, so "bare matter" cannot, even if it is in motion, of itself give rise to thought or any thinking thing. By 'purely matter,' he evidently means *having just the basic material qualities of extension and solidity, plus whatever these necessarily entail*; and by 'bare matter', he appears to mean *pure matter with or without motion added to it*. It is "impossible to conceive" that bare matter could ever "have originally in and from it self Sense, Perception, and Knowledge," he argues, for if it could do so then "Sense, Perception, and Knowledge must be a property [in the technical sense noted earlier] eternally inseparable from Matter and every Particle of it."[43] To see that these qualities are *not* distributed to every particle of matter, he claims, we need only note that, despite the common tendency to think of "matter" as a single thing, it is in fact an infinite number of material particles, so that to allow bare matter to be an eternal thinking thing would require an infinite collection of limited thinkers that would be "independent one of another, of limited force, and distinct thoughts" and hence could not be the source of the "order, harmony, and beauty" that we find in Nature.[44] After noting that "whatsoever is first of all Things, must necessarily contain in it, and actually have, at least, all the Perfections that can ever after exist"—including thought—he concludes that "the first eternal Being cannot be Matter."[45] By this he means, presumably, that it cannot be "pure" or "bare' matter.

Locke then considers two alternative hypotheses according to which something material would nevertheless be eternal. The second of these is not directly relevant to our main question; it is the hypothesis that matter, even if non-thinking, might still be eternal *in addition to* a separate eternal but immaterial thinking being.[46] The first hypothesis, however, is highly relevant: that an eternal thinking being—which Locke assumes would be God—might, even if not deriving its thought just from its purely material nature, nevertheless *have* a material as well as a cogitative nature.[47] Even if not pure matter, it would nonetheless be some kind of thinking matter.

In order to refute this hypothesis, Locke divides it into three alternatives: (i) that *all* matter is eternal and thinking; (ii) that *one single atom* of matter is eternal and thinking; and (iii) that some particular *system* of material particles is eternal

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[43] *Essay* IV.x.10.

[44] Spinoza would not insist on the "order, harmony, and beauty" of Nature, since he sees these characteristics merely as projections of human sensibility (as explained in the Appendix to Part 1 of the *Ethics*). He would also allow that thought is not the *consequence* of an extended nature. However, he would insist that every particle of matter is a mode that necessarily also thinks; and while these modes are indeed "limited," they are not "independent," since they are modes (not parts) of one infinite and eternal thing having the utmost perfection and reality.

[45] *Essay* IV.x.10.

[46] *Essay* IV.x.18-19.

[47] *Essay* IV.13-17.

and thinking even though its individual elements do not think.[48] Against the first alternative, Locke claims that the result would be an "infinity of Gods," something which defenders of eternal thinking matter will "scarce say." Against the second alternative, which he declares to have "as many Absurdities as" the first, he offers a dilemma: either this single thinking atom is the only eternal thing or it is not. If it is the only eternal thing, then it must create all other matter—doing so, presumably, by its powerful thought, since this will be its only evident difference from other matter. Accordingly, the friends of eternal thinking matter will be under pressure to admit, against their inclination, that some matter has been created by thought, and they will in any case be forced to give up their "great Maxim" that *ex nihilo, nihil fit*. Yet to maintain that the single atom is not the only eternal thing would be to hypothesize "without any the least appearance of Reason" that this one atom vastly surpasses the other eternal things. Finally, against the third alternative, Locke has two objections. First, it makes wisdom dependent on the mere juxtaposition of parts, whereas in fact it is "absurd" that any mere position of parts of matter could ever produce thought and knowledge. Second, the parts of such a system must either be at rest or in motion; but if they are at rest, the system is a mere lump equivalent in power to a single atom, while even if they are in motion, wisdom still cannot arise from the "unregulated" and "unguided" motions of the individual parts.

Since these arguments appeal prominently to the thesis that all material things have material parts, it may appear that Locke is offering his own restricted analogue of the Divisibility Argument: a version intended to demonstrate that, while all matter is inherently divisible, this divisibility in an eternal being is incompatible with thinking, so that any eternal thinking being must be unextended. The appearance is heightened by his references to the "impossibility of conceiving" bare matter to have thought "from itself" and to the "absurdity" of the three alternative versions of the more general hypothesis that some eternal matter thinks.

This appearance is deceptive, however, for several reasons. First, Locke is best understood as arguing only that there *is* no eternal material cogitative being, not that such a being is literally *impossible*. For example, it is a key premise of the argument against thinking bare matter that an infinite number of finite Gods could not produce the order, harmony, and beauty that we actually see in nature, and this is presumably also the source of the "absurdity" of the first version of the more general hypothesis of eternal thinking matter. But in the absence of a further argument that such order, harmony, and beauty are themselves necessary and not merely contingent features of the universe, any argument relying essentially on this premise can at most show that an infinity of Gods is not actual. Since Locke

[48] Notably absent from this list is the alternative that more than one eternal atom of matter thinks while other atoms do not. Presumably, however, Locke would make basically the same objections to this alternative that he makes to the alternative that only one atom thinks: either the thinking atoms are the only eternal ones, in which case they create the others, or the thinking eternal atoms differ from the unthinking ones for no reason.

explicitly declines to endorse the ontological argument for God's existence,[49] such a further argument does not appear to be forthcoming. Furthermore, the fact that a single eternal thinking atom would require the friends of eternal thinking matter to "allow" the creation of matter by thought and give up "their favourite maxim" is purely *ad hominem*; and the apparent absence of a reason *why* only some eternal atom (or atoms) among others should think does not show the *impossibility* of such an atom (or atoms) on any stated Lockean principle.[50] If there is no internal contradiction in the supposition that a cogitative and a material nature are combined in a single substance, then it is hard to see how there could be a contradiction in the supposition that they have eternally been so combined. While Locke might well have *wanted* to be able to argue that eternal thinking matter is impossible, he simply lacks the resources to do so.

Indeed—and this is a separate point—it is not clear that Locke is really even claiming to have *knowledge*, in his strict sense of the term, as opposed to probable opinion,[51] that there is no eternal material thinking thing. For despite his frequent invocations of "absurdities" in his opponents' position, his response to the objection that from God's existence "it does not follow, but that thinking Being may also be material" begins, "Let it be so …."[52] Furthermore, he begins his three-part discussion of the general hypothesis of eternal thinking matter with the mild proposal: "But now let us see how they can satisfie themselves, or others, that this *eternal thinking Being is material*."[53]

More important, however, and perhaps more surprisingly, Locke does not deny that God, the eternal thinking being, is extended. As we have seen, materiality—i.e., being a body—requires both extension and solidity, according to Locke. He certainly denies that God has solidity; unlike Descartes, however, he allows that things can be extended without being bodies.[54] This is perhaps most evident in his treatment of space, which he allows to be extended without being a body. But it is equally true of his account of God's location, as he presents it in *Essay*

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[49] *Essay* IV.x.7.

[50] Locke's own causal maxim, that "a cause is required for every beginning of existence," could not establish such an impossibility, since we are concerned with an *eternal* cogitative atom.

[51] Knowledge is "the perception of the connexion and agreement, or disagreement and repugnancy, of any of our ideas" (*Essay* IV.i.1) and is limited to intuition, demonstration, and sensation. Probability is "the appearance of such an agreement or disagreement, by the intervention of proofs, whose connexion is not constant and immutable, or at least is not perceived to be so, but is, or appears for the most part to be so, and is enough to induce the mind to judge the proposition to be true or false, rather than the contrary." (*Essay* IV.xv.1) If Locke's arguments are meant to provide probability rather than knowledge, they must exemplify one or both of his two "grounds of probability": conformity to past experience and testimony.

[52] *Essay* IV.x.13.

[53] Italics in original.

[54] *Essay* II.xiii.16: "Who told them, that there was, or could be nothing, but solid Beings, which could not think; and thinking Beings that were not extended? Which is all they mean by the terms *Body* and *Spirit*."

II.xxvii, "Of Identity and Diversity." For all identity requires, on his account, "Existence it self, which determines a Being of any sort to a particular time *and place* incommunicable to two Beings of the same kind."[55] Whereas immaterial finite spirits are located without being extended,[56] God is "without beginning, eternal, unalterable, and *every where*."[57] Locke's attribution to God of literal omnipresence—and not merely a figurative omnipresence through the effects of divine power—is confirmed by his pointed recommendation in *Essay* II.xiii.26 that we consider very seriously whether the words of "the inspired philosopher St. Paul" that it is "in God" that "we live, move, and have our being" should not be understood literally. God is thus co-located with bodies and also with immaterial finite spirits; but as the passages already cited from *Essay* II.xxvii.1-3 indicate, Locke has no objection to co-location of substances, as long as the substances are not "of the same kind." Locke does propose at one point that we may, if we wish, limit the term 'extension' to bodies, adopting the term 'expansion' for other spatial things; but he admits that, whichever term we use, we are signifying the same idea.[58]

Thus, while Locke denies that there are in fact any eternal material thinking beings, he can and should resist a version of the Divisibility Argument restricted to eternal things. First, it is not clear that he would claim to know even analogues of (D4) and (D5) that were restricted to eternal thinking things. Second, he would reject (D6)'s casual identification of extension with corporeality (i.e., materiality), and he could easily maintain, against (D6), that God is, in light of His omnipresence, both extended and indivisible. Most importantly, however, he would also resist the inference from an analogue of (D8), asserting that no eternal thinking substance is a body, to the conclusion that there cannot be an eternal extended thinking being; for he rejects the principle that every extended being is a body.

3 Evaluation and Conclusion

Many philosophers have found Descartes' doctrine that there are no extended thinking things deeply attractive. Others, including most contemporary philosophers, have found it to be objectionably anti-naturalistic. We may distinguish two broad strategies for denying that it can be established. The first strategy involves defending, primarily, an account of our cognitive faculties from which it follows that the doctrine cannot be known to be true. The second strategy involves defending, primarily, a broader positive metaphysics according to which the doctrine is definitely false.

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[55] *Essay* II.xxvii.3, emphasis added.

[56] *Essay* IV.iii.6.

[57] *Essay* II.xxvii.2; emphasis added.

[58] *Essay* II.xiii.27.

Locke's approach to the issue is a prime example of the first strategy. His accounts of our limited conceptions of substance and essence leave us without the resources to establish the truth of Descartes' key premises about thinking and material substances in both the Separability Argument and the Divisibility Argument. The central advantage of Locke's approach is that it puts the burden of proof on Descartes to explain how we can have the kind of knowledge required to support his conclusions.

At the same time, however, Locke's position is also subject to serious limitations. He grants that the kinds of powers bestowed by a material nature seem to us naturally inadequate for thought. Moreover, he seems to concede—especially in his objection that eternal thinking pure matter would require an infinity of "independent" thinkers of "distinct" thoughts—that we cannot comprehend how something divisible could be a unified subject or bearer of thoughts.[59] For while he proposes that God might be able to bestow the power of thought on a system of material bodies, he does not explain how God would bring it about that thought was a quality or modification of that *entire system* of bodies and no other. At least as we conceive things, for Locke, it is not sufficient simply for God to create thought; God must provide for some substratum in which that thought subsists. We can readily understand predications of qualities to complex material things—say, a shape or motion to a tree—in virtue of the qualities of the whole resulting simply from the combined qualities of the individual parts, parts themselves considered as substrata. But since Locke rejects panpsychism, it seems that he cannot avail himself of this strategy in the case of complex thinking things. The only alternative seems then that God (or perhaps just an eternal arrangement of things) must have specially constituted a particular system of bodies as a basic substratum *in its own right*, giving it the kind of unity that is evidently required for a mind. The deficiency of our idea of substance-in-general, however, prevents us from seeing how, or even whether, this can be so. Locke's ultimate reply to objections to the effect that it is difficult to see how the materialist scenarios he considers could be realized is simply that it is also difficult to see *how* the *alternatives* to those scenarios could be realized either.

Spinoza's approach, in contrast, is an example of the second strategy. Whereas Locke's overall position is subject to criticisms derived from the modesty of his epistemic resources, Spinoza's is subject to criticisms derived from the strength of his metaphysical claims. He rejects the Separability Argument by holding that there is necessarily a substance with multiple separately conceivable attributes, including thought and extension. To Descartes' predictable objection that it is impossible for one thing to have two different "natures,"[60] he will reply

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[59] For a compelling contemporary presentation of a related problem about how thoughts could belong to a concatenation of physical particles, see Unger 2006, Ch.7. He calls this problem the "Experiential Problem of the Many."

[60] Descartes makes this claim in *Comments on a Certain Broadsheet*. See Rozemond 1998, Ch.1, for discussion.

that the perfection of the necessarily existing divine substance, as established by the ontological argument and the principle of sufficient reason, actually requires that one substance have all *possible principal* attributes, necessarily mirroring one another. Since Spinoza agrees with Descartes that thought and extension *are* principal attributes, this means that the one substance and each of the singular things that are its finite modes must exist in multiple fundamentally different yet complementary dimensions of being—including as thinking and as extended. This is nothing less than panpsychism, a strong and counterintuitive claim indeed.

Spinoza's response to the Divisibility Argument equally implies panpsychism, for it depends on his doctrine that every individual thing with extended parts has a "mind" whose thinking parts are the minds of those parts. His response also implies that the very same idea can exist in multiple minds at the same time, and that individual human minds are fragmentary aspects (though not parts) of a single infinite thinking substance. These, too, are strong and counterintuitive claims.

The attraction of Spinoza's approach, however, is that it at least offers, as Locke's does not, to explain *how* it can be that one thing can, in itself, be both thinking and extended. In the three-hundred-and-fifty years since Descartes wrote, many attempts to resist his denial of extended cogitative beings have taken a broadly Lockean approach, attempting to show that extended thinkers, while metaphysically puzzling, cannot be shown to be ruled out, so that empirical findings can convince us that they may or must somehow be actual. Thus, Jerry Fodor has written:

> Nobody has the slightest idea how anything material could be conscious. Nobody even knows what it would be like to have the slightest idea about how anything material could be conscious. So much for the philosophy of consciousness.[61]

If that is indeed so, then perhaps it is time to revisit what a bolder Spinozistic approach has to offer.[62]

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[61] *Times Literary Supplement*, July 3, 1992.

[62] I have benefited greatly from the helpful comments of Marleen Rozemond, Olli Koistinen, Andrew Pessin, Charles Jarrett, Talia Bettcher, Amy Schmitter, and Jon Miller.