

Locke and Descartes

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5.1 Introduction: Locke's Engagement with Descartes

Locke's opposition to Descartes runs deep in the *Essay*. An obvious way to try to sum it up might be this: **Our ideas must all come from the senses, and our senses "are scarce acute enough to look into the pure Essences of Things"** (2.13.24). Let's call this the pure empiricist reading of Locke's anti-Cartesianism. If we understand "senses" here as serving as shorthand for both inner and outer sense, reflection and sensation, then this seems accurate enough. Indeed, it nicely encompasses Locke's major points of disagreement with Descartes. Most obviously, there is Locke's attack on innate ideas and principles, where Descartes is clearly a prominent target. Less obviously, most of Locke's other points of explicit disagreement with Descartes flow from his view that Descartes has made unjustified claims to know essences – the essence of mind, the essence of body. As a result, he has made unjustified claims about the certainty of dualism. As we will see in what follows, Locke's anti-Cartesian stances on the difference between body and space, on whether the soul always thinks, on the possibility of thinking matter, all connect back to this basic opposition to Cartesian overreaching in regard to essences.

Further, this stark summary of Locke's anti-Cartesianism seems to fit with his own representation of his Cartesian *inheritance*, which, notoriously, is that it is minimal, consisting only in anti-scholasticism. That is, the only acknowledgment that Locke wishes to give Descartes is that reading his work helped him to shake off the influence of Aristotelianism:

But though I must always acknowledge to that justly admired Gentleman the great Obligation of my first Deliverance from the unintelligible way of talking of the Philosophy

in use in the Schools in his time, yet I am so far from entitling his Writings to any of the Errors or Imperfections which are to be found in my Essay, as deriving their *Original* from him, that I must own to your Lordship they were spun barely out of my own Thoughts, reflecting as well as I could on my own Mind, and the Ideas I had there; and were not, that I know, derived from any other *Original*. (Locke 1697a, 103)

Locke likes to dismiss Descartes as a system-builder, and to suggest, by implication, that the system has nothing to do with his own (Locke 1699, 348; *STCE*, 247).

The stark contrast suggested by our one-sentence summary, however, should perhaps give us pause. It fits entirely too neatly, we might worry, with the traditional classification of Descartes as rationalist and Locke as empiricist, when, as is well known, Locke's philosophy contains many elements that make him difficult to so classify, throwing doubt onto the traditional bifurcation (see, e.g. Loeb 1981, 32–59). Further, the pure empiricist reading suggests that Locke's way with Descartes should be exceedingly short, since it implies that Locke holds that Descartes goes wrong at the very beginning of his project, with the wrong epistemological and methodological starting points. Thus it seems that Locke should simply dismiss Descartes' views out of hand.

This last point, however, is belied by Locke's actual treatment of Descartes in the *Essay*. In fact, Locke engages with Descartes in a remarkably thoroughgoing fashion. He takes his ontological views seriously (though he find his arguments wanting at every turn) and reveals, in the way he critically responds to their details, that he sees Descartes and himself as pursuing, at least in part, a common project. Documenting this fact, through an examination of Locke's extended critique of Cartesian ontology, will point the way towards a fuller understanding of Locke's real relation to Descartes, as well as a better understanding of Locke's own attitude towards ontology.

5.2 Locke's Anti-innatism as Anti-Cartesianism: The Idea of Infinity

First, however, we must briefly consider the most obvious aspect of Locke's anti-Cartesianism, his polemic against innate notions, ideas and principles "stamped upon the Mind of Man, which the Soul receives in its very first Being; and brings into the World with it" (1.2.1). This will allow us to acknowledge the truth involved in the pure empiricist reading. It will also highlight a central and recurring element in Locke's anti-Cartesianism, his critique of Cartesian treatments of infinity.

Of course, Descartes was not the only target of Locke's anti-innatism (Rickless 2007), but he was surely a central one. The most direct evidence for this is found in the manuscript essays on the law of nature from the early 1660s, delivered by Locke as lectures at Oxford. Included therein is an extended argument that the law of nature (that is, moral law) is not inscribed in the minds of men. There Locke states that it is

unproven that the souls of men are anything more than empty tablets, though many have tried to prove it. The manuscript shows that Locke deleted a phrase identifying “acutissimus Car[t]jesius” as having tried to prove it (*PE*, 96; Locke 1954, 136).

Moreover, in the earliest extant draft of the *Essay*, Locke’s anti-innatism is focused in a way that clearly indicates a Cartesian target. In Draft A (from 1671), Locke attacks innatism at the very end, in considering objections to his doctrines:

The 2^d Objection is of those men who say they have a positive Idea of Infinite, which Idea cannot possibly be had from our senses & therefor that we have Ideas not at all derived from our senses. (*A*, 44)

In successive versions of the *Essay*, Locke continues to attack the doctrine of positive infinity (though he does so in the course of giving his own account of our idea of infinity, separately from his main attack on innate ideas). As Rogers (1996) has argued, Locke surely has in mind here Descartes’ famous third meditation argument, where Descartes argues that we have an idea of the infinite (or infinite being, *AT*, 7: 45–6) that can only be explained by God’s having bestowed it upon us. Against this, Locke repeatedly presses two points: first, the notion of the infinite applies properly or at least primarily to *quantity*, not to being, as Descartes would have it. Second, the idea of the infinite that we have is not the grand, positive one that Descartes attributes to us, and so it is perfectly amenable to an empiricist explanation.

That Descartes sees the doctrine of positive infinity as specifically Cartesian is made explicit in a notebook entry from 1678:

The Cartesians say that *conceptus infiniti est conceptus positivus quia finis est quid negativum ergo illius ablatio est positio rei positiva* [the concept of infinity is a positive concept because “end” is something negative, therefore to take away that is to posit a positive thing], To which I say that *Infinitem* is never the lesse negative for by it we take away and remove that negative End of which we have a cleare and destinct Idea, which is indeed the utmost point or surface of any body, and in the place of it by infinite put a confused Idea which is negative of that clear Idea which we have of end and negative also in respect of our understanding for when we speake of infinite we speake of something which at the same time we confesse we cannot comprehend and soe it seems to be *conceptus negativus*. (*AG*, 111–12)

Locke’s goal here is clear enough; it is his usual one of deflating the supposed positive concept of infinity. The “Cartesian” argument, however, might reasonably strike us as quite un-Cartesian, since one of Descartes’ central points in the third meditation is that our notion of the infinite must be *prior* to our notion of the finite: I must already have a concept of the infinite in order to recognize myself as finite/limited. Thus Descartes, it seems, *denies* that our notion of the infinite is reached by taking away end or limit. Now, Locke writes as though this argument were well known and

widespread, so it would hardly be surprising if he had derived it from some text that is not Descartes'. Nevertheless, he surely would not attribute the argument to the Cartesians, without qualification, if he thought that Descartes rejected it.

We can reach a more charitable view of Locke's attribution by noting two points. First, there is in fact textual evidence in favor of attributing to Descartes the view that we get a positive notion of infinity from negating the negative notion of limit. In the course of dismissing Gassendi's empiricist deflation of our notion of infinity, Descartes writes:

[A] Moreover, it is false that the infinite is understood through the negation of a boundary or limit; on the contrary, [B] all limitation implies a negation of the infinite. (CSM, 2: 252; AT, 7: 365)

[C]... it suffices for the possession of a true and complete idea of the infinite in its entirety if we understand that it is a thing which is bounded by no limits. (CSM, 2: 254; AT, 7: 368)

Very roughly, putting together B and C, it seems that we may understand infinity, the positive concept, by negating limit, the negative concept, contrary to A and in keeping with Locke's attribution. Hyperaspistes challenges Descartes on this in correspondence, accusing him of inconsistency (AT, 3 403). Descartes responds by trying to distance himself from C:

When I said that it is enough for us to understand a thing which is bounded by no limits in order to understand the infinite, I was following a very common usage ... usage demanded that I use the negation of a negation. [...] But by this I did not mean that the positive nature of the infinite was known through a negation, and so I did not contradict myself at all. (CSM, 3: 192; AT, 3: 427)

Second, even after giving a more careful and charitable reading to Descartes than Locke was interested in giving, scope for Locke's attribution remains. Though Descartes denies that the infinite is known through negation, he is arguing in A and B that infinity is the positive concept and limit the negative one. Seeing that limit is negative is supposed to reveal that it in fact involves negating the positive concept of infinity, which is included in it. If, then, the proper analysis of "finite" is "not (infinite)," then it is true that by taking away the "not," we get the positive concept of infinity, though this cannot, according to Descartes, be the source of our concept of infinity. Although Descartes clearly rejects a certain account of the origin of the idea of infinity, we need not read Locke as attributing that account to Descartes: what Locke objects to is Descartes' evidence for his analysis of the relation between the concepts.

Locke never directly replies to Descartes' central Platonist intuition that our concept of infinity must come first, perhaps because he finds it so implausible as to be beneath notice. He certainly implies its falsity clearly enough in 2.17.2:

As for the *Idea of Finite*, there is no great difficulty. The obvious portions of Extension, that affect our Senses, carry with them into the Mind the *Idea of Finite*: and the ordinary period of Succession, whereby we measure Time and Duration, as Hours, Days, and Years, are bounded Lengths.

We have not considered here Locke's central arguments against innatism in Book One of the *Essay*, which, it is standardly held, are largely ineffective against the sort of sophisticated dispositionalist innatism that Descartes seems to have had in mind:

I did, however, observe that there were certain thoughts within me which neither came to me from external objects nor were determined by my will, but which came solely from the power of thinking within me; so I applied the term "innate" to the ideas or notions which are the forms of these thoughts in order to distinguish them from others, which I called "adventitious" or "made up". This is the same sense as that in which we say that generosity is "innate" in certain families, or that certain diseases such as gout or stones are innate in others: it is not so much that the babies of such families suffer from these diseases in their mother's womb, but simply that they are born with a certain "faculty" or tendency to contract them. (CSM, 1: 303–4; AT, 8B: 358)

For a detailed treatment of Locke's arguments, see De Rosa, in this volume, and Rickless (2007). It is perhaps worth opining in this context that Descartes' views on the way in which ideas and truths are innate in the mind are far from clear, so Locke surely provides at least an explanatory challenge to Descartes himself.

5.3 Locke Contra Cartesian Ontology

Locke attacks the Cartesian doctrine of innate ideas because it poses a threat to his central empiricist commitments. Interestingly, he also sees the central tenets of Cartesian ontology as a threat: that minds are simply thinking things, that bodies are merely extended things, and that they are therefore distinct substances. Each of these theses comes up for extended critique in the *Essay*. Behind all three discussions, of course, is Locke's general refusal to suppose, with Descartes, that we can identify, via intellectual intuition, the essences or central attributes of substances. This core piece of Cartesian philosophy is presented in *Principles* 1: 53, 54:

A substance may indeed be known through any attribute at all; but each substance has one principal property which constitutes its nature and essence, and to which all its other properties are referred. Thus extension in length, breadth and depth constitutes the nature of corporeal substance; and thought constitutes the nature of thinking substance. Everything else which can be attributed to body presupposes extension, and is merely a mode of an extended thing; and similarly, whatever we find in the mind is simply one of the various modes of thinking. (CSM, 1: 210; AT, 8A: 25)

Thus we can easily have two clear and distinct notions or ideas, one of created thinking substance, and the other of corporeal substance, provided we are careful to distinguish all the attributes of thought from the attributes of extension. (CSM, 1: 211; AT, 8A: 25)

As with Descartes' Platonist tendencies, noted above, Locke finds Descartes' optimism about the knowability of attributes to be unworthy of direct address, though we will see that he indicates his disdain for it. What he does take very seriously, however, is the question of the tenability of the resulting metaphysical views. Further, we can gain insight into Locke's own views about the feasibility of metaphysics from his critique of Descartes.

5.3.1 *Mind*

Locke's famous extended digression in 2.1 on the question of whether the soul always thinks is, of course, a consideration of Cartesian ontology of mind. Descartes holds that the mind simply *is* thought, as the body is simply extension:

Thought and extension can be regarded as constituting the natures of intelligent substance and corporeal substance; they must then be considered as nothing else but thinking substance itself and extended substance itself – that is, as mind and body. In this way we will have a very clear and distinct understanding of them. (CSM, 1: 215; AT, 8A: 30–1)

But then, of course, there is no mind without thought, and the mind always thinks.

Locke's discussion is prefigured and influenced by Gassendi, who challenged Descartes along these lines in his objections to the *Meditations*:

... I want to stop here and ask whether, in saying that thought cannot be separated from you, you mean that you continue to think indefinitely, so long as you exist. This would accord with the claims of those noted philosophers who, to prove that we are immortal, assume that we are in perpetual motion or, as I interpret it, that we are perpetually thinking. But it will hardly convince those who do not see how you are able to think during deep sleep or indeed in the womb. (CSM, 2: 184; AT, 7: 264)

In attacking Descartes' commitment to perpetual/essential thought, Locke follows a pattern that is echoed in his treatment of extension. He asks first: Is this ontological thesis self-evident, as it seems that Descartes must suppose it to be? And second: Is the thesis true? On the first point, Locke takes it to be obvious that it is not self-evident that the soul always thinks: "But whether this, *That the Soul always thinks*, be a self-evident Proposition, that every Body assents to at first hearing, I appeal to Mankind" (2.1.10). Or, to put it in terms of the epistemological concepts that Locke develops in Book Four (themselves highly reminiscent of Descartes' characterization of intuition

and deduction in his *Regulae* (CSM, 1: 14–15, 33; AT, 10: 368–70, 400–1)), what Locke is asserting is that we cannot know intuitively that the soul always thinks, nor has Descartes provided a chain of intuitions, or demonstration, for this proposition. Indeed, he represents Descartes' attempt to generate an intellectual intuition of the mind as simply thinking as mere stipulation, "'tis but defining the Soul to be a substance, that always thinks, and the business is done" (2.1.19). Locke further supports his claim that Descartes' essential/perpetual thought is not self-evident by presenting what he takes to be a more plausible and modest metaphysical model: thought, like motion, is an action or operation of the substance which can think (mind/soul), but there is no need for it to always be so acting. The nature or essence of this thing that can think thus remains undetermined (2.1.10).

Thus, Locke holds that Descartes has clearly overstepped in decreeing it *impossible* for the soul to sometimes not think (2.1.18). He argues, further, that it is much more *probable* that the soul sometimes lacks thought than that it always thinks. A first line of argument is that the Cartesian seems to be committing himself to the incoherent idea of unconscious thought (since we are, for example, not aware of our thoughts as infants or during dreamless sleep):

For 'tis altogether as intelligible to say, that a body is extended without parts, as that any thing *thinks without being conscious of it*, or perceiving, that it does so. They who talk thus, may with as much reason, if it be necessary to their Hypothesis, say, That a Man is always hungry, but that he does not always feel it: Whereas hunger consists in that very sensation, as thinking consists in being conscious that one thinks. (2.1.19)

Of course, Descartes in fact agrees with Locke in finding "unconscious thought" to be a contradiction in terms (CSM, 2 171). Thus, Locke's real issue with Descartes concerns the plausibility of the thesis that we always think but don't always remember our thoughts. Descartes had articulated and defended this "no memory" amendment to the "perpetual thought" thesis in replying to Gassendi:

You say you want to stop and ask whether I think the soul always thinks. But why should it not always think, since it is a thinking substance? It is no surprise that we do not remember the thoughts that the soul had when in the womb or in a deep sleep, since there are many other thoughts that we equally do not remember, although we know we had them when grown up, healthy and wide-awake. So long as the mind is joined to the body, then in order for it to remember thoughts which it had in the past, it is necessary for some traces of them to be imprinted on the brain; it is by turning to these, or applying itself to them, that the mind remembers. So is it really surprising if the brain of an infant, or a man in a deep sleep, is unsuited to receive these traces? (CSM, 2: 246–7; AT, 7: 356–7)

Locke hammers away relentlessly against this proposal. Most generally, and perhaps most compellingly, Locke finds the “perpetual thought” thesis with the “no memory” amendment to be ad hoc and implausible:

That the Soul in a sleeping Man should be this moment busy a thinking, and the next moment in a waking Man, not remember, nor be able to recollect one jot of all those Thoughts, is very hard to be conceived, and would need some better Proof than bare Assertion, to make it be believed. (2.1.14)

It is worth observing that Descartes and Locke view the structure of the justificatory task here differently. Descartes thinks that he has established that the mind is simply a thinking thing, so that all he needs to do is to reconcile this with the appearances. Locke, who counts for naught Descartes’ attempt to generate an intellectual intuition to support his principal attribute thesis, sees perpetual thought as an unlikely hypothesis being defended by tacking on another unlikely hypothesis.

Further, Locke famously argues that this proposal has unattractive consequences for personal identity, for if the waking man has “no Knowledge of, or Concernment for” (2.1.11) the thought, happiness, misery of the sleeping soul, then that sleeping soul is in fact a distinct person from the waking man.

Lastly, Locke argues that Descartes’ hypothesis suggests that we should have ideas that we manifestly do not:

’Tis strange, if the Soul has *Ideas* of its own, that it derived not from *Sensation* or *Reflection*, (as it must have, if it thought before it received any impressions from the Body) that it should never, in its private thinking, (so private, that the Man himself perceives it not) retain any of them, the very moment it wakes out of them ...

’Tis strange, the Soul should never once in a Man’s whole life, recal over any of its pure, native Thoughts, and those *Ideas* it had before it borrowed any thing from the Body; never bring into the waking Man’s view, any other *Ideas*, but what have a tangle of the Cask, and manifestly derive their Original from that union. (2.1.17)

Locke’s point, clearly, is not that perpetual thought is *refuted* by our failure to recall these pure, untainted ideas, but rather that it appears as an ever more precarious hypothesis – we must either never retain any of these early ideas, or suppose that the soul comes into being with the first sensory communication from the body.

This last objection helps to bring into focus Locke’s motivations for entering into this question. Clearly, Locke sees perpetual thought to be connected to the doctrine of innate ideas, in the following fashion: if the perpetual thought thesis were true, it would be highly likely that there are innate ideas. Thus, his anti-innatism is well served by the denial of perpetual thought. One might also point, as a motivation, to the simple fact that Locke sees perpetual thought as an obviously false doctrine, supported only by the stipulations of a “sect” (2.1.19). A deeper motivation, however, is

suggested by Locke's memorable phrase, the 'tangle of the Cask.' What that passage reveals is Locke's deep disdain for at least one sort of dualism, a disdain that might make us wonder whether physical considerations of the mind are as far from Locke's designs as he suggests in his opening declaration:

I shall not at present meddle with the Physical Consideration of the Mind; or trouble my self to examine, wherein its Essence consists, or by what Motions of our Spirits, or Alternations of our Bodies, we come to have any Sensation by our Organs, or any *Ideas* in our Understandings; and whether those *Ideas* do in their Formation, any, or all of them, depend on Matter, or no. These are Speculations, which, however curious and entertaining, I shall decline, as lying out of my Way, in the Design I am now upon. (1.1.2)

But this is a question to which we shall return, in the section on dualism below, in considering Locke's direct attack on the certainty of dualism.

5.3.2 *Body and Space*

In keeping with what we've seen is Locke's general hostility to Cartesian attributes, he attacks at length Descartes' doctrine (CSM, 1: 210; AT, 8A: 25) that the principal attribute of body is extension. From that doctrine it notoriously follows that whatever is extended is body, so that the notion of empty space becomes a contradiction in terms. For any space must be extended and is therefore body – not empty but full. Thus Descartes' path to the plenum is startlingly short. Locke's attack on Descartes' equating of space with body dates back to the early drafts of the *Essay* from 1671, as well as journal entries from 1676. My focus will be on the published critique in the *Essay*, however, which is centered in 2.13 (simple modes of space), though foreshadowed in 2.4 (solidity) and continued in 2.15 (duration and expansion, considered together).

The context in 2.13 is Locke's account of our idea of space, which he treats as more or less equivalent to extension (2.13.3). He broaches the topic with a very thinly veiled reference to Descartes: 'there are some that would persuade us, that *Body and Extension are the same thing*' (2.13.11). Locke maintains that this is an absurd doctrine with absurd consequences. The doctrine itself is absurd because the words "body" and "extension" correspond to distinct ideas of body and extension, which Locke characterizes as follows:

by [the word] *Body* [is meant] something that is solid, and extended, whose parts are separable and movable different ways; and by *Extension*, only the Space that lies between the Extremities of those solid coherent Parts, and which is possessed by them ... (2.13.11)

As we will see, much of Locke's argument is aimed at supporting the seemingly modest anti-Cartesian claim that there are two ideas here, rather than one. Locke also

targets the consequence of Descartes' thesis, that a vacuum is impossible. This two-part attack to some extent parallels his critique of perpetual thought. One might see Locke as asking: Is it self-evident that body is mere extension? The only way for this identity claim to be self-evident, he thinks, is for there to be one idea there. If not, we can make the distinction, and it is possible to assert that body and space are different. Nevertheless, a Cartesian might hold that, despite the availability of two ideas, we ought to use only one; we should reform our use of "body" and define it as "extension." Against this, Locke urges the unacceptability of the consequences: Descartes must declare a vacuum impossible, but there are good reasons to think vacua possible and even actual. Thus, there are compelling reasons to deny that body is mere extension.

5.3.2.1 Does Body = Extension/Space? On the first, seemingly modest point, Locke takes it that the distinctness of our ideas of body and extension should be obvious 'to every Man's own Thoughts' (2.13.11). Nevertheless, perhaps surprisingly, he goes on to offer three numbered arguments in 2.13.11–14 in support of his obvious thesis. The first is that the idea of extension does not include the idea of solidity, but the idea of body does. To support that the idea of body *must* include solidity, Locke observes that "upon that depends its filling of Space, its Contact, Impulse, and Communication of Motion upon Impulse" (2.13.11).

The second argument is that the parts of space cannot be separated from each other, neither really nor mentally:

For I demand of any one, to remove any part of it from another, with which it is continued, even so much as in Thought. (2.13.13)

The implied contrast, of course, is that the parts of *body* are both actually and mentally separable. Labeled as the third argument or piece of evidence is that the "parts of pure *Space*, are immoveable, which follows from their inseparability" (2.13.13). Now, it isn't in fact entirely clear that Locke's third consideration (immoveability) is really a distinct consideration from the second (inseparability), since inseparability is characterized in terms of our inability, mentally or actually, to remove one part of extension from another. Thus, immoveability might seem to follow from inseparability only because it was presupposed. Nevertheless, the central claim of inseparability is clear enough.

It may seem that in these sections, Locke is merely, and uninterestingly, belaboring something that Descartes would deny, namely, that we have distinct ideas of body and of extension. In fact, however, these passages go straight to the heart of their disagreement and engage effectively and deeply with Descartes.

Locke asserts that our idea of extension includes no idea of solidity in it, but our idea of body does include solidity. To see how he is directly contradicting Descartes here, we should first make some distinctions. Locke equates "solidity" with the more

Cartesian term “impenetrability,” noting only that he prefers the more positive term (2.4.1). *Hardness*, on the other hand, is a different quality, and not a primary one; it consists “in a firm Cohesion of the parts of Matter, making up masses of a sensible bulk, so that the whole does not easily change its Figure. And indeed, Hard and Soft are Names that we give to things, only in relation to the Constitutions of our own Bodies; that being generally call’d hard by us, which will put us to Pain, sooner than change Figure by the pressure of any part of our Bodies....” (2.4.4) On hardness, he thus agrees with Descartes, who asserts that “our sensation tells us no more than that the parts of a hard body resist the motion of our hands when they come into contact with them” (*Pr*, 2.4) and that hardness is something that a fluid or pulverized body lacks (*Pr*, 2.11). So both Descartes and Locke exclude hardness from the nature of body. Locke includes solidity. Although this is nowhere explicit in the *Principles*, when pushed by Henry More in correspondence, Descartes reveals that he agrees with Locke about body, but disagrees with him about space. More precisely, Descartes holds that impenetrability is a *property* of body, in the technical sense of a quality had by all bodies because it is entailed by the essence or principal attribute of body, extension (*CSM*, 3: 361; *AT*, 5: 269). So all body as such is impenetrable, because all extension is impenetrable, and thus, contra Locke, impenetrability should be included in our idea of extension or space.

Descartes asserts, then, that impenetrability *follows* from extension, so that, in Locke’s terminology, space and solidity are *not* “wholly separable in the Mind one from another” (2.13.11). Obviously, Locke disagrees. How does Descartes undertake to establish this contentious point? Here is his argumentation from the correspondence with More:

For in a space – even an imaginary and empty space – everyone readily imagines various parts of determinate size and shape; and some of the parts can be transferred in imagination to the place of others, but no two of them can in any way be conceived as compenetrating each other at the same time in one and the same place, since it is contradictory for this to happen without some part of space being removed. (*CSM*, 3: 362; *AT*, 5: 271)

... it is impossible to conceive of one part of an extended thing penetrating another equal part without thereby understanding that half the total extension is taken away or annihilated; but what is annihilated does not penetrate anything else; and so, in my opinion, it is established that impenetrability belongs to the essence of extension and not to that of anything else. (*CSM*, 3: 372, *AT*, 5: 342)

I think we should see Locke in these central sections of 2.13 as specifically countering Descartes’ position in the correspondence with More. This would not be surprising, since the correspondence was well known and moreover is found in Locke’s own library (in More’s *Collection of several philosophical writings* (1662); see Harrison and Laslett 1971, 192). Recall that Locke does not simply accuse Descartes of conflating

body with space, but specifically rejects Descartes' claim that extension brings with it impenetrability or solidity by contending that the idea of space "includes not the *Idea* of Solidity in it" (2.13.11).

Even more tellingly, his next move is to cut Descartes' argument off at its start; there is no separability in extension, so no transferability even "in imagination." This move might seem to be directed against the sufficiency of Cartesian physics (that is, you can't get a world of moving bodies by carving up geometrical extension), and it is that, but we should also see it as cutting off Descartes' argument that extension entails impenetrability. So understood, Locke is arguing thus: it may be that we cannot imagine parts of space penetrating each other, but that's because we cannot conceive of parts of space as moveable at all.

It may seem, then, that we have traced this dispute back to an unsatisfyingly unseizable disagreement about what is and is not conceivable. Interestingly, however, there is evidence that Descartes should have had some sympathy with Locke's intuition here. In explaining to More why body cannot be *defined* by impenetrability, Descartes writes:

... tangibility and impenetrability involve a reference to parts and presuppose the concept of division or limitation; whereas we can conceive a continuous body of indeterminate size, or an indefinite body in which there is nothing to consider except extension. (CSM, 3: 361; AT, 5: 269)

Thus Descartes seems to admit that prior to division, impenetrability doesn't apply to extension (Des Chene 1996, 380; Garber 1992, 148). Locke's claim, then, is that to consider extension prior to division *is* to consider space. The idea we thus form is distinct from an idea of solid extension or body. Thus, Locke drives home his central point that we have distinct ideas of space (mere extension) and body. He claims further that having isolated the idea of extension, we should see that genuine divisibility in fact has no purchase here.

5.3.2.2 Problems with the Plenum. The second main component of Locke's critique of Descartes on body focuses on the *consequence* of Descartes' equating of body with extension: that there is, *and can be*, no vacuum. Locke seeks, by convincing us that this consequence is unacceptable, to show that we have good reason to reject Descartes' account of body. Here too we will find that Locke's attack is, perhaps surprisingly, finely tuned to the details of Descartes' position.

The first such argument (an ancient one, as many have noted, e.g. Lennon 1993, 278; Grant 1981, 106–7) pictures a man at the "extremity of corporeal Beings" and asks whether "he could not stretch his Hand beyond his Body?" The intended answer, of course, is that he surely could, and that there must thus be empty space beyond that limit. It is a bit puzzling to a contemporary interpreter of Descartes, perhaps, why Locke would think this a relevant argument against plenism, since Cartesian

extension, and so Cartesian body, is unlimited; thus, there is no end to corporeal being, no place for the thought experiment to be carried out. But Locke is well aware of the logic of the argument: “The truth is, these Men must either own, that they think Body infinite, though they are loth to speak it out, or else affirm that *Space* is not *Body*” (2.13.21).

So the remaining question is: why does he think Descartes is “loth” to admit that body is infinite (Woolhouse 1983, 166)? One can only suppose that he is attending to Descartes’ careful use of the word “indefinite” in this context, as brought out again in the correspondence with More:

In my view it is not a matter of affected modesty, but of necessary caution, to say that some things are indefinite rather than infinite. God is the only thing I positively understand to be infinite. As to other things like the extension of the world and the number of parts into which matter is divisible, I confess I do not know whether they are absolutely infinite; I merely know that I know no end to them, and so, looking at them from my own point of view, I call them indefinite. (CSM, 3: 364; AT, 5: 274)

To say that we see no end to corporeal extension suggests that we don’t know whether it is finite or infinite. But this is not Descartes’ true view; in fact, he agrees with Locke, as becomes clear under continued pressure from More:

It conflicts with my conception, or, what is the same, I think it involves a contradiction, that the world should be finite or bounded; because I cannot but conceive a space beyond whatever bounds you assign to the universe; and on my view such a space is a genuine body. I do not care if others call this space imaginary and thus regard the world as finite; for I know what are the preconceived opinions that gave rise to this error. (CSM, 3: 374–5; AT, 5: 345)

Thus Descartes thinks it is as certain that the corporeal world is unbounded as it is that 2 plus 2 equals 4; he reserves the word “infinite” for God because he thinks that only here is a positive conception of infinite applicable. Descartes has considerable trouble characterizing this positive conception, however; his official characterization of the distinction between infinite and indefinite in the *Principles* will not do:

... in the case of God alone, not only do we fail to recognize any limits in any respect, but our understanding positively tells us that there are none. ... in the case of other things, our understanding does not in the same way positively tell us that they lack limits in some respect; we merely acknowledge in a negative way that any limits which they may have cannot be discovered by us. (CSM, 1: 202; AT, 8A: 15)

This is the same epistemic angle that Descartes tries on More, but it is undermined by his admission that it involves a contradiction that the world should be finite or bounded – surely that *is* for our understandings to positively tell us that extension has

no limits. Locke, of course, as we saw in the discussion above, holds that we simply don't have the positive conception that Descartes is trying to articulate.

In section 21, Locke continues his effort to reduce Cartesian plenism to absurdity with an argument from annihilation:

Farther, 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 as 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*. For it is evident, that the Space, that was filled by the parts of the annihilated Body, will still remain, and be a Space without Body. For the circumambient Bodies being in perfect rest, are a Wall of Adamant, and in that state make it a perfect impossibility for any other Body to get into that Space. And indeed the necessary motion of one Particle of Matter, into the place from whence another Particle of Matter is removed, is but a consequence from the supposition of Plenitude; which will therefore need some better proof, than a supposed matter of fact, which Experiment can never make out; our own clear and distinct *Ideas* plainly satisfying us, that there is no necessary connexion between *Space* and *Solidity*, since we can conceive the one without the other. (2.13.21)

Locke does his best here to turn Descartes' doctrines against him. Of course, we have already seen how Descartes would try to resist Locke's claim about our "clear and distinct *Ideas*." More noteworthy, though, is the way in which Locke fine-tunes the traditional argument from annihilation for the possibility of a vacuum for its application to Descartes. Locke's reference to the "Wall of Adamant" created by mutual rest is in fact a sarcastic allusion to Descartes' doctrine that the hardness of a body results from the mutual rest of its parts (CSM, 1: 245; AT, 8A: 71); thus, where there is perfect rest there would, it seems, be perfect hardness. Locke himself, by contrast, holds that the cohesion of the parts of the body that results in macroscopic hardness is something that we cannot explain and are unlikely to be able to explain. He thinks that Descartes' account is so inconsiderable as not to be worth arguing against, and instead devotes his attention (in 2.23.23–7) to debunking explanations via pressure.

We might be puzzled as to why Locke brings in Descartes' doctrine of circular motion here, since it seems that what Descartes should say to the annihilation argument is simply what he does say in the *Principles*, namely, that if God were to take away every body inside a vessel, the walls must come together (CSM, 1: 230–1; AT, 8A: 50). This is simply a consistent application of Descartes' view; Descartes must bite the bullet and agree that God can't simply annihilate or, in his preferred pious formulation, that it is inconsistent with our conceptions that God should perform the annihilation described by Locke.

What provokes Locke to bring in Descartes' doctrine of circular motion is surely the correspondence with More, where, in responding to the annihilation argument, Descartes adds:

This is altogether in accord with my other opinions. For I say elsewhere that all motion is in a manner circular; from which it follows that it cannot be distinctly understood that God should remove some body from a container unless we understand at the same time that another body, or the sides of the container, should move into its place by a circular motion. (CSM, 3: 363; AT, 5: 272–3)

If Descartes is merely asserting his own consistency, then there is nothing to criticize here. But surely what bothers Locke is that it seems that Descartes must intend some further point. Locke sees Descartes as making a further assertion here, one that begs the question at issue: whether or not a vacuum is conceivable. The real problem, though, is that Descartes has changed the subject. It seems that in order to soften the conclusion “God can’t annihilate,” Descartes is offering up something God can do, namely, move bodies around in a circular pattern. But that is hardly relevant.

Locke next turns from metaphysical considerations of God’s power to physical ones:

But not to go so far as beyond the utmost bounds of Body in the Universe, nor appeal to God’s Omnipotency to find a *Vacuum*, the *motion* of Bodies, that are in our view and neighborhood, seem to me plainly to evince it. For I desire any one so to divide a solid Body, of any dimension he pleases, as to make it possible for the solid Parts to move up and down freely every way within the bounds of that Superficies, if there be not left in it a void space, as big as the least part into which he has divided the said solid Body. (2.13.22)

The Cartesian reply here must surely be that there is no such free motion; what there is is motion under plenist constraints – circular motion. And we can gather from 21 and 22 what Locke thinks of this reply – experience doesn’t support it.

In 23, Locke brings us back again to the question of the ideas of space and body, repeating his favorite argument that genuine enquiry and dispute about the existence of a vacuum are ruled out by Descartes’ view. Of course, this is simply true; Locke’s further point surely is that Descartes must declare huge swaths of reputable natural philosophy to be grounded on a basic confusion.

Considering these *reductios* as a group, it must be acknowledged that they are unlikely to move Descartes, since the conclusions Locke rejects as absurd (matter is infinite, God cannot annihilate a body, bodies cannot move freely, debate about the vacuum is nonsensical) are more or less embraced by Descartes. The “more or less” is significant, of course – as we have seen, Descartes does show some discomfort with some of these conclusions, such that he attaches qualifications to them, with which

Locke can legitimately take issue. Still, Descartes can consistently embrace the purported reductio.

Even so, we can see Locke as accomplishing something important with the reductions. In 2.13.11–14, Locke is arguing, in effect, that there is room for a distinction in nominal essence between space and body: we can form two different ideas; our idea of space doesn't inevitably collapse into our idea of body, as Descartes would have it. To this, Descartes could reply, in Lockean terms, "so what if two ideas are available? Why not make solid extension the nominal essence of both body and space?" One Lockean complaint about this is that it is not in accord with our ordinary assigning of words to ideas, but as long as we are clear about this, there is no principled objection to it. But then we can see 2.13.21–3 as exhibiting the unattractive consequences of this stipulation.

5.3.2.3 Locke's Tentative Ontology of Space. We have assessed the core of Locke's critique of Descartes, but where does this leave Locke's own position? Locke has argued that the content of our ideas is such that we should hold that a vacuum is possible, and, further, when it comes to the actual world, that it is far more difficult to maintain that a plenum exists than a vacuum. But what of the ontology of space?

Here Locke aims to remain above the question, suggesting two possible ontologies:

But whether any one 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 every one to consider; only our *Idea of Space* is, I think, such as I have mentioned, and distinct from that of *Body*. (2.13.26)

The relationism Locke alludes to here seems to have been his preferred view at an earlier stage (Lennon 1993, 276; AG, 105). By the time of the published *Essay*, however, Locke's intuitions are more firmly realist. Despite the official agnosticism of 2.13.26, the proliferation of biblical quotations does suggest a preference for the second view. This preference becomes explicit in 2.15.

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 certainly as boundless one way as another; and methinks it ascribes a little too much to Matter, to say, where there is no Body, there is nothing. (2.15.3)

In delineating and comparing our ideas of time and space, Locke suggests that an account of both space and time as divine is too attractive to resist. In divinizing

space, Locke sides with More and Newton, and again contradicts Descartes, who had objected to this view, against More:

... the alleged extension of God cannot be the subject of the true properties which we perceive very distinctly in all space. For God is not imaginable or distinguishable into parts that are measurable and have shape. (CSM, 3: 362–3; AT, 5: 272)

A study of this correspondence, however, would provide Locke with little reason to resist what he regards as an appealing view. For under the pressure of More's repeated probing on the topic of God's relation to space, Descartes squirms, beginning by asserting that there is in God only an extension of power, not of substance (CSM, 3: 372; AT, 5: 342), but ending by conceding that God's *essence* must be present everywhere, that is, in every part of space, though somehow not in the manner of an extended being (CSM, 3: 381; AT, 5: 403).

5.3.3 Dualism

Descartes, of course, is also in the background of Locke's notorious (to his contemporaries) position on the possibility of thinking matter. Here, too, we can distinguish two questions raised by Locke: Is dualism provable? Is dualism likely? Locke's answer to the first question is a clear negative, but his answer to the second is considerably more difficult to pin down, as we will see.

Locke never engages directly with Descartes' famous sixth meditation proof of dualism, but his disregard of it fits with what we have already identified as his general scorn for Cartesian attempts to identify essences via intellectual intuition. Locke maintains, by contrast, that our concepts leave us in a quandary:

For since we must allow he [our Maker] has annexed Effects to Motion, which we can no way conceive Motion able to produce, what reason have we to conclude, that he could not order them as well to be produced in a Subject we cannot conceive capable of them, as well as in a Subject we cannot conceive the motion of Matter can any way operate upon? (4.3.6)

That is, although materialism is inconceivable, because we cannot conceive of how matter might be made to think, dualism is equally problematic, because we cannot conceive of how matter might be made to affect an immaterial substance. Locke thus raises against Descartes the problem of interaction (though his stress here is opposite to Elizabeth's, who famously questioned how an immaterial mind could move a body).

The result, it would seem, is agnosticism: we cannot determine whether dualism or materialism is the correct ontology of mind. Thinking matter is an hypothesis that neither Descartes nor anyone else is in a position to legitimately rule out.

We should clarify, however, what these two hypotheses, dualism and materialism, amount to for Locke. Locke straightforwardly rejects one important feature of Cartesian dualism, namely, that spirits are not spatial in the way that bodies are. Indeed, Locke specifically argues that because spirits have spatial location, motion is properly attributed to them, as to material things (and motion is not attributed to God only because he is infinite, 2.23.21):

There is no reason why it should be thought strange, that I make *Mobility belong to Spirit*: For having no other *Idea* of Motion, but change of distance, with other Beings, that are considered as at rest; and finding that Spirits, as well as Bodies, cannot operate, but where they are; and that Spirits do operate at several times in several places; I cannot but attribute change of place to all finite Spirits ... (2.23.19)

For Locke, then, a spirit is a substance that thinks and wills, and an immaterial spirit is an unsolid substance that thinks and wills. Since he holds that spirits are spatial, one obstacle to supposing them material (solid) rather than immaterial (unsolid) is removed.

For matter to think, then, is just for one thing to satisfy the nominal essences of both body and mind, that is, for one thing to manifest both solidity and thought (Locke 1697a, 66; see also *Corr.*, 3498). Although we can't conceive of a real essence that entails both properties, this is not a good basis from which to assert that no such essence is possible. (Locke does seem to suggest, in the course of attempting to prove God's immateriality in 4.10.13–17, that something whose real essence is exhausted by extension plus solidity is proveably non-thinking. But the interpretation of these passages is controversial; see Downing 2007 for one take.)

Locke's official verdict on this hypothesis of thinking matter is clear: we cannot rule it out; that is, we cannot know whether what thinks within us is solid or no; neither dualism nor materialism about finite thinkers is provable by us. But does Locke have a view about whether dualism or materialism (about ourselves) is more likely? This turns out to be a difficult and controversial question.

On the one hand, the answer might seem obvious, since Locke does state once in the *Essay* (without giving a reason) that dualism is more probable (2.27.25), and pressure from Stillingfleet pushes him to reiterate this somewhat more emphatically (Locke 1697a, 67, 75; Locke 1699, 418, 430). There are, however, good reasons to wonder whether this is a complete and accurate report of Locke's own epistemic inclinations on this issue (Downing 2015, Hamou 2006, Jolley 2010). To find support for the probability of materialism, we should consider another aspect of Locke's anti-Cartesianism, namely, his disgust for Descartes' notorious view that animals are insensate machines (CSM, 2: 287–8; AT, 7: 426):¹

... they must needs have a penetrating sight, who can certainly see, that I think, when I cannot perceive it my self, and when I declare, that I do not; and yet can see, that Dogs

or Elephants do not think, when they give all the demonstration of it imaginable, except only telling us, that they do so. (2.1.19)

Locke holds that animals obviously think – they have sensation and even some reason (2.11.11). But then, are they not thinking matter made manifest – not just possible, but actual?

A thorough attempt to sort this out would take us too far into the topics of other essays (thinking matter and the correspondence with Stillingfleet). But here is a tendentious summary, drawn mostly from that correspondence: Locke holds that it is absurd to attribute *immortal* souls to animals, but he needn't rule out a dualist account of their mentality. It is clear, however, that he is strongly inclined to suppose that animals, albeit thinking, are material (Locke 1699, 399–400). Unless, then, the power to abstract (the mental ability that Locke believes “puts a perfect distinction” between us and brutes, 2.11.10) especially demands an immaterial soul for its explanation, we might be tempted to conclude (as Voltaire did) that Locke in fact thought dualism the less plausible supposition. Of course, this does nothing to destabilize his official minimal conclusion that neither materialism nor dualism about us can be proved or disproved.

5.4 Lockean Ontology and Method in a Cartesian Context

That we have clear and distinct knowledge of the attributes of substances is something that Locke rejects out of hand. That we live in a world of substances with real constitutions from which their observable qualities flow is something he firmly maintains (*pace* Stillingfleet). Locke has this much ontology, and he shares this much ontology with Descartes (though he doesn't view it, plausibly enough, as specifically Cartesian). Descartes' problem, as Locke sees it, is that he defends a much more specific ontology on inadequate grounds (including the false doctrine of innate ideas).

But if we don't do ontology by intellectual intuition, as Descartes would have it, how do we do it? By reflecting on what we have received from sense perception. This reflection can reach high levels of abstraction. Locke tells us how such reflection leads us to the idea of substance at Locke 1697a, 39–40, how it leads us to conceive of the primary/secondary quality distinction at 2.8.9. Where these reflections consist in intuitions or deductive chains of intuitions, they are certain; where they are not, they are defeasible and, in particular, refutable by sense experience. Locke holds that the true source of Descartes' metaphysical views can be nothing but this sort of reflection on sense experience, but that his reflections are suboptimally conducted and are trumped by sense experience, or by less theoretically biased reflections on that experience. To see this, however, requires the sort of detailed consideration that Locke in fact gives to Descartes on mind, matter, and their relation.

Acknowledgments

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Note

1. See CSM II 287–8. Descartes declares that the brutes have no thought at all, though he attributes to them life and “organic sensation,” which does not involve consciousness. For Locke see also 2.1.12.

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