Locke and the Notion of Power

Nicholas Jolley

Abstract: In recent work Walter Ott has argued that Locke is a major contributor to the debate over causality that is a striking feature of early modern philosophy. According to Ott, Locke contributes to this debate by resurrecting a concept of power; in his view Locke's strategy is to reduce powers to relations. Section 1 of this paper criticizes Ott's account by arguing that it needlessly introduces an incoherence into Locke's doctrine of secondary qualities: if powers are relations, then secondary qualities are ideal, a claim that Locke denies. Section 2 argues that it is an exaggeration to say that Locke resurrects a concept of power: Locke's project is not on a par with Leibniz's rehabilitation of the Scholastic doctrine of substantial forms. It is argued, however, that Locke does believe that under certain conditions an appeal to powers can be defended against the charges of circularity and vacuity that were brought against the Scholastics. Section 3 of the paper develops this thesis by offering an account of the conditions that must be satisfied, for Locke, if talk of powers is to be defensible: powers must not be reified and, at least in the case of bodies, they must be grounded in categorical properties. It is argued that the grounding principle is satisfied in the case of Locke's famous thinking-matter hypothesis. Section 4 addresses the issue of whether Locke extends this grounding principle to the case of mental powers. The paper concludes by arguing that if Locke does so, then he should adopt at least a weak form of materialism.

Keywords: Categorical properties, Dispositions, Powers, Relations, Secondary qualities, Substance

Locke is not generally regarded as a major player in the debate over causality that is such a striking feature of early modern philosophy. The chapter of the *Essay* entitled 'Of Cause and Effect, and other Relations' (II.xxvi) is brief and perfunctory; it has attracted less attention than almost any other chapter in the work. Locke's apparent failure to contribute to the debate over causality that raged on the Continent must not be set down to British insularity. As

ISSN 2724-4016 doi:10.4454/sl.2-314

almost everyone agrees, Locke was deeply engaged with the themes of Descartes's philosophy, and he could also be a careful student of his successors: his critique of Malebranche's doctrine of vision in God is a case in point. But for whatever reason Locke seems to stand aside from the debate over causality in general and occasionalism in particular[1]. Recently this picture of the development of early modern philosophy has been challenged. Walter Ott has argued that Locke does indeed have a key role to play in the story. Ott believes that we should focus not on what Locke says about cause and effect, but on what he says about power. In an age when the concept of power was widely discredited as a worthless relic of Scholasticism, Locke, following in the footsteps of his mentor Boyle, seeks to resurrect the concept by means of a reductive analysis that gives a prominent role to relations. According to Ott, Locke advances an ontology of relations and powers that offers an alternative to the occasionalists' model of causality[2]. Despite appearances, then, Locke is indeed a contributor to the debate over causality in the period.

There is no doubt that the concept of power is a topic of extensive and sustained discussion in the *Essay*, and it is a merit of Ott's work that it forces us to look again at what is really going on in such discussions. But there is room to doubt whether Locke is engaged in resurrecting a concept of power. Moreover, Ott's own account of Locke's strategy for effecting such a resurrection seems untenable, since it needlessly attributes an incoherence to Locke which he has not noticed. Nonetheless, if Locke is not best described as resurrecting a concept of power, we can at least agree that he believes that appealing to such a concept can be defended under certain conditions against the charges of vacuity and circularity that were brought against the Scholastics. In this essay I shall argue that Locke thinks that, at least in the case of bodies, such an appeal to powers is defensible provided they are grounded in the categorical properties of bodies, and I shall argue further that this condition is satisfied in the case of Locke's thinking-matter hypothesis. In the final section of the paper I shall explore the implications of Locke's acceptance of the grounding principle for the controversial issue of his

[1] As is now well known, Locke's successors among the so-called British empiricists responded in a highly creative fashion to Malebranche's occasionalism. Hume's account of causality is often seen as the culmination of Malebranche's philosophical insights. On this issue see C.J. McCracken, *Malebranche and British Philosophy*, Clarendon Press, Oxford 1983. Cf. N. Jolley, "Hume, Malebranche, and the Last Occult Quality", in Id., *Causality and Mind: Essays on Early Modern Philosophy*, Oxford University Press, Oxford 2013, pp. 254-67.

[2] W. Ott, *Causation and Laws of Nature in Early Modern Philosophy*, Oxford University Press, Oxford 2009, p. 170.

stance towards this hypothesis. I shall argue that if Locke is prepared to extend the scope of the grounding principle to the case of mental powers, then he is under some philosophical pressure to adopt at least a weak form of materialism.

1. In *Causation and Laws of Nature in Early Modern Philosophy* Ott offers an account of the strategy for 'resurrecting' a notion of power which is common to Locke and his mentor Boyle; the strategy is designed to show how powers can be recast in terms acceptable to the mechanist ontology:

> I shall argue that by treating powers as relations, and then reducing relations to the bases on which they supervene, Boyle and Locke attempt to effect the 'sanitizing' of the notion of power. By doing so, they hope to defuse not only the ontological objection but the circularity objection as well, since an effective reduction of the notion of power turns into a promissory note for an explanation in terms of the primary qualities of matter[3].

I shall not take issue with the claim that, for Locke, relations are reducible to non-relational properties. Nor shall I challenge the thesis, which Ott is prepared to endorse, that relations for Locke are ideal entities or creatures of the mind[4]. Attributing such a thesis to Locke seems justified by his assertion that relation is 'not contained in the real existence of Things, but something extraneous, and superinduced'[5].

The major difficulty with Ott's account of Locke's strategy turns rather on the claim that, for Locke, powers are relations. As we shall see, and as we should expect from a careful scholar, the attribution of this position to Locke is not without some textual basis, but it raises serious problems for his account of secondary qualities when it is taken in conjunction with the further thesis that relations are ideal, or mental constructs. If secondary qualities are powers, and powers are relations, then Locke is committed to the following syllogism:

(1) Secondary qualities are relations.
(2) Relations are ideal.
(3) Therefore, secondary qualities are ideal.

3 Ibid., p. 12.

4 Ibid., p. 160. Ott's commitment to the thesis that for Locke relations are ideal is perhaps clearest in his article "Locke and the Real Problem of Causation", in *Locke Studies* 15 (2015), pp. 53-77.

5 J. Locke, *An Essay concerning Human Understanding*, ed. by P.H. Nidditch, Clarendon Press, Oxford 1975, II.xxv.8, p. 322.

But the conclusion of this argument flies in the face of Locke's repeated claim that secondary qualities are anchored firmly in bodies, not in minds; ideas of secondary qualities are in the mind but secondary qualities themselves are not ideas. Ott's interpretation in effect revives the mistake made by Berkeley, though it does so by a very different route. Berkeley arrived at his interpretation of Locke by taking unfair advantage of a few slips in which he appears to confuse secondary qualities and ideas of secondary qualities; in this way Berkeley was able to launch his own idealism. But though they have very different starting-points Ott and Berkeley are guilty of the same mistake of taking secondary qualities, for Locke, to be ideal.

In fairness to Ott it is natural to observe that his interpretation is not gratuitous: Locke does indeed say that powers are relations[6]; later he claims that the powers of gold are 'nothing but so many relations'[7]. The reply to this defence is that in such passages Locke is exaggerating or slightly misstating a position about the nature of powers that is stated more carefully early on in the chapter 'Of Power': 'I confess *Power includes in it some kind of relation*, (a relation to Action or Change,) as indeed which of our *Ideas*, of what kind soever, when attentively considered, does not?'[8] To say that powers include some kind of relation is obviously a weaker claim than the thesis that powers are relations. Analogously, one might say that the concept of father includes some kind of relation: to call John a father is indeed to ascribe a relational property to John, but it would be absurd to say that such a relational property, the property of being a father, is a relation on a par with paternity: it is paternity that is the relation and that is a creature or construct of the mind.

In my judgment, then, it is Locke's statement that power includes some kind of relation that represents his considered view and that should be taken as canonical. The claim that powers include some kind of relation has the advantage of yielding a defensible account of secondary qualities which harmonizes with Locke's insistence in II.viii that they are in bodies, not in minds. To say that secondary qualities are relational properties does not entail that they are ideal; it is consistent with holding that they are properties of objects in the external physical world. This account is further consistent with an analysis of secondary qualities in terms of counterfactual conditionals. According to this analysis, to say that the Pacific Ocean is blue is to say that if it were related to

6 Ibid., II.xxi.19, p. 243.
7 Ibid., II.xxiii.37, p. 317.
8 Ibid., cit., II.xxi.3, p. 234.

a normally-sighted observer in sunlit conditions, such a person would receive an idea or sensation of blue. Matthew Stuart has recently raised doubts about whether such a standard analysis in terms of counterfactual conditionals really captures Locke's view of secondary qualities: at times Locke says things that are inconsistent with such an analysis[9]. But though Stuart seeks to cast doubt on the standard interpretation, he does not dispute the claim that, for Locke, secondary qualities, by virtue of being powers, include some kind of relation[10].

It may be conceded that Locke's claim that powers include some kind of relation yields a defensible account of secondary qualities which harmonizes with his key claims about such qualities. Nonetheless, we are left with the problem of explaining why Locke should make the stronger claim that powers simply are relations. My answer to this objection takes the form of a slightly speculative diagnosis. Consider, first, the context in which Locke claims in II.xxi of the *Essay* that powers are relations. Locke at this point has made the transition from an analysis of the idea of power in general to a critique of the doctrine of free will. To this end he seeks to refute the doctrine that the will and understanding are capable of operating on one another. According to Locke, this doctrine makes the mistake of reifying the faculties of the mind by turning them into so many agents[11]. For the purpose of refuting this error Locke helps himself to the premise that powers are relations; they therefore cannot be agents. It is absurd to suppose that relations, such as paternity, which are ideal entities, are capable of operating on something else. By contrast, simply to reiterate the thesis that powers include some kind of relation would not have served Locke's polemical purpose here. As we have seen, we can say that the concept of father includes some kind of relation, but it is hardly absurd to say that fathers are incapable of operating on something else. I suggest, then, that Locke was led into making the stronger claim about powers by the need to offer a polemical argument against the reification of powers such as the will and understanding. But it is the earlier statement about powers in II.xxi.3 to the effect that they include some kind of relation that represents his official, more carefully considered view.

9 M. Stuart, *Locke's Metaphysics*, Clarendon Press, Oxford 2013, Ch. 3, esp. pp. 117-21. Stuart develops an account of Locke according to which secondary qualities are what he calls 'degenerate powers'. For a recent defence of the standard view that secondary qualities are dispositions to cause ideas in us, see N. Rockwood, "Secondary Qualities as Dispositions", in *Locke Studies* 16 (2016), pp. 1-16.

10 'To identify colours with powers in this sense [i.e. degenerate powers] is to identify them with relational but non-dispositional properties of objects' (Stuart, *Locke's Metaphysics*, cit., p. 119).

11 Locke, *Essay*, cit., II.xxi.20, p. 243.

It is open to Ott to reply by reminding us of the bottom line of his analysis: Locke seeks to 'sanitize' the notion of power by offering a reductive account which terminates in the primary qualities of bodies. Such an effective reduction of the notion of power turns it into a promissory note for an explanation in terms of the primary qualities of matter. But this reply is vulnerable to a formal objection. Reductive approaches to philosophical issues, unlike eliminativist ones, preserve the truth of the statements to be reduced. Thus a reductionist who identifies mental states with states of the brain concedes the truth of standard statements such as 'People have minds' and 'John is in pain'. Similarly, if Locke is engaged in the project of reducing the claim that the powers of bodies are relations to non-relational statements about the primary qualities of matter, then he must regard the statement that powers are relations as true. But in my judgment this is not his considered view; rather, powers in bodies include a relational component.

2. Ott's account of how Locke seeks to 'sanitize' the concept of power is thus untenable; it gratuitously saddles Locke with an incoherence in his thought about power. The failure of Ott's account leaves the way open to offering an alternative account of Locke's position: such an account would show that, for Locke, the concept of power can indeed find a respectable place in philosophical discussion; under certain conditions at least it is not vulnerable to the objections of detractors such as Malebranche. But before I offer such an account I wish to examine the whole spirit of Locke's treatment of power.

We can introduce the issue by noting that Ott speaks of Locke as resurrecting the concept of power by 'sanitizing' it. In fact it is the 'sanitizing' element that Ott wishes to emphasize, not the element of 'resurrection'. And in this emphasis at least Ott seems correct. To say that a philosopher seeks to resurrect a concept suggests that he wishes to show that it has important philosophical work to do that has been overlooked by his contemporaries or recent predecessors. But if, as Ott holds, Locke's analysis of the concept of power is essentially a reductive one, then this can hardly be an accurate description of what he is doing. Analogously, at least on a standard interpretation, Hobbes seeks to show how mental states can be reduced to states of the brain, but it would be distinctly odd to say that he is engaged in the project of resurrecting the concept of the mental.

The oddity of saying that Locke resurrects the concept of power can be brought out in another way. In the seventeenth century the paradigm example of

such a project of resurrection is Leibniz's attempted rehabilitation of the concept of substantial forms[12]. Leibniz concedes of course that such forms have no role to play in explanations in physics; to this extent the criticism of the doctrine by his contemporaries is entirely justified. But Leibniz goes on to insist that substantial forms still have an important role to play, if not in physics, then in metaphysics; they are indispensable for giving an account of the unity of genuine corporeal substances. But it is surely not in this spirit that Locke writes about the concept of power in his most extended treatment of the topic (II.xxi). The theme of Locke's discussion is not that there is something valuable in the concept of power that his contemporaries have overlooked; it is rather that philosophy must simply tolerate talk of powers and faculties because it is so deeply embedded in everyday discourse. Consider, for instance, the following key passage:

> Nor do I deny, that those Words [faculties and powers], and the like, are to have their place in the common use of Languages, that have made them currant. It looks like too much affectation wholly to lay them by: and Philosophy it self, though it likes not a gaudy dress, yet when it appears in publick, must have so much Complacency, as to be clothed in the ordinary Fashion and Language of the Country, so far as it can consist with Truth and Perspicuity. But the fault has been, that Faculties have been spoken of, and represented, as so many distinct Agents[13].

It is of course important to note that in this passage Locke has a very specific criticism to make of traditional appeals to powers: Scholastic philosophers have made the mistake of reifying powers by turning them into so many discrete agents. Such a criticism leaves open the possibility that, for Locke, provided this mistake of reification is avoided, it may be perfectly legitimate to appeal to powers. In the same way, as we have seen, Leibniz concedes to his contemporaries that substantial forms are useless for doing physics. But whereas Leibniz follows up this concession by writing eloquently of the contribution that the doctrine of substantial forms can make to metaphysics, Locke shows no such enthusiasm for the philosophical virtues of the concept of power.

Locke's discussion of the idea of power in II.xxi does not suggest that he is engaged in a project of resurrecting the concept of power or of developing

[12] See, for example, *New System of Nature*, *Die Philosophischen Schriften von G.W. Leibniz*, ed. by C.I. Gerhardt, Weidmann, Berlin 1875-90, IV, pp. 478-79; *G.W. Leibniz: Philosophical Essays*, trans. by R. Ariew and D. Garber, Hackett, Indianapolis-Cambridge 1989, p. 139.

[13] Locke, *Essay*, cit., II.xxi.20, p. 243. A little lower down Locke observes that 'faculty, ability, and power, I think, are but different names of the same thing.'

an ontology of power. Rather, as his official project requires, he is conducting a genetic investigation of our idea of power, and describing and analyzing the idea that we actually have. According to Locke, the idea of power is indeed all-pervasive in our thought about the physical world; as Locke emphasizes, powers make a great part of our complex ideas of substances[14]. The claim that Locke is not seriously engaged in doing metaphysics in the general discussion of power in II.xxi is supported by what he says about active powers. Locke recognizes that active powers constitute a great part of our thought about bodies; for this reason he is prepared to analyze the role that they play in our thought about the world even though he admits that our thought in this area may be mistaken. Locke suggests that, strictly speaking, only God and spirits may be endowed with active powers, but he does not develop the point.

The claim that Locke's concern is to describe and analyze our thought about powers in II.xxi suggests an intriguing possibility: his discussion of the idea of power may strictly parallel his discussion of the idea of substance/substratum in II.xxiii. This possibility has been explored by Michael Ayers who, in a well-known article, argues that the concepts or ideas of power and substance/substratum are alike what he calls 'dummy concepts': that is, they are concepts 'by means of which we refer to what is unobserved and unknown – or known only through its effects and relatively to the level of observation'[15]. Ayers develops this parallel for his own distinctive exegetical purposes: he seeks to oppose the view that Locke is committed to the existence of substrata underlying all the properties whatever of a substance. Rather, according to Ayers, the terms 'substance' (or 'substratum') and 'real essence' are extensionally equivalent: they pick out the internal constitutions of substances under different descriptions.

Ayers's interpretation is famously controversial, and we need not endorse his claims in their entirety to agree that there are indeed suggestive parallels to be drawn that have the potential to illuminate Locke's treatment of power. For one thing, in each case Locke is officially committed to giving an account of the origin of an idea: he seeks to explain how we acquire the ideas of power and substance/substratum. We may feel that in each case Locke's explanation is in danger of being circular: he explains how we acquire the ideas in question on the assumption that we already have them. But however justified

[14] Ibid., II.xxiii.10, p. 301.

[15] M. Ayers, "The Ideas of Power and Substance in Locke's Philosophy", in *Philosophical Quarterly* 25 (1975), 1, p. 17.

such a criticism may be, it does not alter the fact that Locke is clearly intent on offering a genetic account, as his announced project requires. Secondly, in both cases Locke seeks to describe a pattern of thinking about the world: just as we naturally think of corporeal substances as having powers, even active ones, so too we accustom ourselves to suppose some substratum wherein qualities inhere[16]. Indeed, for Locke it seems to be psychologically impossible for us to think of qualities as existing on their own without a substratum to support them. Finally, and surprisingly perhaps, our way of thinking has its roots in, or is at least endorsed by, the Aristotelian-Scholastic tradition. The idea of power is an essential part of this inheritance; so too is the idea of a substratum of properties.

The existence of such uncontroversial parallels suggests that the two discussions may be on a par in a further, more controversial respect: Locke seeks not merely to describe a pattern of thinking but also to criticize it. As we have seen, Locke observes that it is natural for us to think of bodies as having active powers, while suggesting that our thought in this area may be mistaken. So too Locke writes as if it is natural, perhaps even psychologically necessary, for us to think in terms of substrata supporting qualities, while deploring the lack of clearness in the whole doctrine of substance and accidents[17]. Whether Locke really seeks to reject the doctrine of substance and accidents is a controversial matter among scholars, but one thing is surely clear: no one would wish to say that Locke is engaged in 'resurrecting' the concept of substance/substratum[18]. And if the two discussions of power and substance do indeed run parallel, then it would be equally misguided to speak of Locke as 'resurrecting' the concept of power.

The parallel between the two discussions is intriguing and illuminating, but it must be admitted that it breaks down at one point. In the case of the concept of power Locke's thinking does not merely combine description and criticism: it also includes a positive, revisionist element which is, as it were, favourable to the concept of power: Locke seeks to apply this concept to an area where his readers may not think that it belongs – namely, sensible qualities: he seeks to revise their thinking about such qualities by making them come to see that they are really nothing but powers in bodies to produce ideas or sensations in us. Just how Locke argues in this area has been the topic of much debate, but

16 Locke, *Essay*, cit., II.xxiii.1, p. 295.

17 Ibid., II.xiii.19-20, p. 175.

18 Presumably not even Ayers would wish to say this, though he might be prepared to concede that Locke 'sanitizes' the concept.

it is plausible to suppose that he invokes the concept of power here to justify a criticism of a certain way of thinking about sensible qualities. According to Locke, we are apt to think that our ideas of sensible qualities are 'exactly the Images and *Resemblances* of something inherent in the subject'[19]. We shall see that such a way of thinking is mistaken once we realize that the sensible qualities (the so-called secondary qualities) are really powers in bodies to produce ideas in us; for sensory ideas cannot resemble powers. In any case, whatever Locke's strategy of argument, it is clear that he is recommending a doctrine of sensible qualities as powers, and thus employing the concept of power for a positive revisionist purpose. There is nothing comparable to this in Locke's discussion of the idea of substance/substratum[20].

There is an irony in Locke's discussion of sensible qualities which perhaps has not been sufficiently noticed. Locke is engaged in criticizing a view of the nature of sensible qualities which is endorsed not only by common sense but also by the Scholastics: on this view colour, for instance, is a straightforward categorical quality of bodies just as it appears to be. But Locke criticizes this commonsensical and Scholastic account by means of weapons borrowed from the Scholastics themselves: he resorts to the concept of power which, as we have seen, was regarded by his contemporaries as a paradigmatically Scholastic concept. In this instance, at least, Locke is turning the weapons of his opponents against them.

3. It may be an exaggeration to say that Locke resurrects the notion of power, but as his treatment of secondary qualities shows, he clearly thinks that it is legitimate to invoke the concept under certain conditions. And he surely agrees with his contemporaries that any explanatory appeal to powers must be able to answer the charge of vacuity and circularity. Ott's mistake, then, is not in supposing that, for Locke, appeals to the concept of power can be defensible, but rather in his particular account of Locke's strategy of defence; it is misguided to claim that Locke seeks to 'sanitize' the concept of power by treating powers as relations that can be reduced to the non-relational properties of the relata. In this section I outline an alternative account of the conditions which must be satisfied, for Locke, if talk of powers is to be defensible.

[19] Ibid., II.viii.7, p. 134.

[20] I ignore complications presented by Locke's claim that even primary qualities are powers.

The most obvious condition that must be satisfied is one that emerges in his chapter 'Of Power' and that we have already discussed: talk of powers, if it is to be both intelligible and defensible, must avoid the mistake of reification. It is this theme on which Locke insists in his critique of traditional doctrines of free will: the Scholastics have made this mistake by turning the understanding and the will into agents that can operate on each other. Of course, turning powers into agents is only one form that the mistake of reification can take: not all reified entities are agents. But while he is presumably opposed to all forms of reification, Locke focuses his attention on this version of the mistake because it has been so salient in discussions of free will. As we have seen, Locke's own argument to show that powers cannot be agents seems flawed, since it turns on a premise concerning the concept of power that is stronger than the one to which he is committed by his earlier, more official statements. But the validity of this criticism does not affect the point that for Locke all defensible, intelligible talk of powers must avoid the mistake of reification.

Locke's 'no reification' condition is explicitly spelled out in his general discussion of power in II.xxi. The other main condition is not explicit, but is arguably more important since it disposes, or helps to dispose, of two objections cited by Ott: powers have an awkward ontological status and are explanatorily circular[21]. The condition may be stated as the principle that powers must be grounded in the categorical properties of substances. Whether Locke is committed to this principle in the case of non-physical powers is a highly controversial issue to which I shall return in the final section. But at least his commitment to the grounding principle in the case of physical powers is strongly suggested by his discussion of secondary qualities: secondary qualities are 'Powers to produce various Sensations in us by their *primary Qualities*, *i.e.* by the Bulk, Figure, Texture, and Motion of their insensible parts'[22]. The grounding condition disposes of the 'ontological awkwardness' objection since powers do not in Ott's words 'swing free of the categorical properties that have them'[23], but are firmly anchored in the primary qualities at the microlevel that constitute the internal constitution. And explanations in terms of powers are not vacuously circular in such cases, since they are in effect promissory notes for explanations in terms of the internal constitutions of bodies.

21 Ott, *Causation and Laws of Nature*, cit., p. 11.
22 Locke, *Essay*, cit., II.viii.10, p. 135.
23 Ott, *Causation and Laws of Nature*, cit., p. 11.

The most obvious difficulty for the claim that Locke is committed to the principle that the powers of bodies must be grounded in categorical properties is posed by his famous, or notorious, thinking-matter hypothesis[24]. Locke proposes that it is possible, for all we know, that God has given to some systems of matter a power of thinking. Such a claim has been taken by some of his readers, including Leibniz, to imply that God could arbitrarily annex the power of thinking to matter without any regard to its structure: God could as easily annex the power of thinking to a turnip as to a brain. And when read in this way Locke's thinking-matter hypothesis leads Leibniz to protest that he is reintroducing the occult powers and qualities of the Scholastics that he so despises[25]. According to Leibniz, we can know *a priori* that God will not act in such an arbitrary and unintelligible way; for one thing, such action would violate the Principle of Sufficient Reason.

But in fact there is no compelling reason to suppose that Locke's thinking-matter hypothesis violates the principle that powers of bodies must be grounded in categorical properties. Carefully read, Locke is entertaining the hypothesis that, for all we know, God has given a power of thinking to systems of matter *that are fitly disposed*[26]. God's ability to superadd the power of thinking thus appears to be subject to what we might call a 'fit disposition' constraint. Such a key qualification on God's power of superaddition suggests that there is indeed a parallel with what Locke says about secondary qualities: just as fire engines are red, for example, by virtue of the primary qualities of their insensible parts, so too brains may have the power of thinking by virtue of the 'fit disposition' of their insensible parts. There is of course an epistemic difference in the status of the two theories. Locke regards his theory of secondary qualities as reasonably well assured since it is in line with the best science of his time; by contrast, in IV.iii.6 at least, the thinking-matter hypothesis is no more

[24] Locke, *Essay*, cit., IV.iii.6, pp. 540-3.

[25] *New Essays on Human Understanding*, Preface, *G.W. Leibniz*: *Sämtliche Schriften und Briefe*, ed. German Academy of Sciences, series VI, vol. vi, Berlin Academy, Darmstadt-Berlin 1962, pp. 66-67; trans. by P. Remnant and J. Bennett, 2nd edition, Cambridge University Press, Cambridge 1996, pp. 66-67. (The pagination of the Remnant and Bennett translation is identical with that of the Academy text).

[26] When Locke writes of matter being 'fitly disposed', he is not talking about its dispositional properties in the modern sense; rather, he is talking about the arrangement or texture of the corpuscles. The same point applies in the case of Descartes when he writes about the dispositions of bodies with regard to sensible qualities. See *Principles of Philosophy* IV.198. On this issue see Lawrence Nolan, "Descartes on 'What We Call Color'", in L. Nolan (ed.), *Primary and Secondary Qualities: The Historical and Ongoing Debate*, Oxford University Press, Oxford 2011, p. 90.

than an epistemic and logical possibility. But the contents of the two theories, if not their epistemic credentials, are on a par.

Some readers may be inclined to object, in the spirit of Leibniz, that this reading gives insufficient weight to what Locke says in IV.iii.6 about God's good pleasure. Such passages suggest that if matter does indeed have the power of thinking it is as a result of God's making an arbitrary decision to endow certain systems of matter with this power. It is possible to give a twofold reply to this objection. First, drawing on the work of Edwin McCann, we might concede that if matter does indeed have the power of thinking, it is because of the role that God plays in establishing a connection between some systems of matter and this power[27]. But to concede this point is consistent with saying that the connections that God ordains are both lawlike and necessary. Secondly, this feature of the thinking-matter hypothesis does not serve to distinguish it from Locke's theory of secondary qualities: in each case God ordains necessary connections between the primary qualities of the insensible parts and their powers. It is true that on this interpretation God is subject to a 'fit disposition' constraint only in a weak sense, for the necessary, lawlike connections do not obtain independently of his willing them. But he is subject to the 'fit disposition' constraint in the sense that he will not (and perhaps cannot) break the necessary connections that he has ordained by his will.

It must be admitted that there is room for disagreement over how Locke's talk of 'fit disposition' is to be understood in the case of the thinking-matter hypothesis. In particular, as we have seen, one can disagree over whether, in superadding the power of thinking, God is constrained by properties of matter that obtain independently of his will. There is similarly room for disagreement over how in precise terms Locke understands the relation between secondary qualities and the primary qualities of the insensible parts on which they depend. But in neither case is there any reason to suppose that Locke has abandoned his commitment to a key necessary condition on defensible talk of powers in the case of bodies: such powers must be grounded in the categorical properties of the 'insensible parts'.

4. Locke's thinking-matter hypothesis can thus be read in such a way that it satisfies the demands of the principle that powers of bodies must be grounded

[27] E. McCann, "Locke's Philosophy of Body", in V. Chappell (ed.), *The Cambridge Companion to Locke*, Cambridge University Press, Cambridge 1994, p. 75.

in categorical properties. But of course in IV.iii.6 of the *Essay* Locke merely entertains the hypothesis; his concern is to defend its epistemic and logical possibility against its detractors. I now wish to argue that Locke is under some philosophical pressure to go further and hold that the hypothesis is not only epistemically and logically possible but actually true. To say this is not to say that Locke is strictly committed to holding that matter thinks in the case of human beings; other options are formally consistent with his key claims concerning powers. But the truth of the thinking-matter hypothesis is arguably the most philosophically attractive of the options available to him.

The strength of the case for saying that Locke should hold that matter does think can be appreciated by reflecting on the issue of the scope of the grounding principle. Locke holds that powers of bodies must satisfy the demands of this principle. Does he also hold that mental powers (for example, the power to imagine) must likewise be grounded in categorical properties if they are to be defensible? The question is a highly pertinent one, for we know that the issue of whether talk of mental powers and faculties was any more defensible than talk of physical powers and faculties was a live one among Locke's contemporaries. Malebranche is famous for throwing down a challenge to the Cartesians here. In Elucidation X to *The Search After Truth* Malebranche imagines a Cartesian objection to his theory of vision in God:

> Our soul thinks because of its *nature*. In creating it, God gave it the faculty of thinking and it needs nothing more; but if it does need something, let us stick to what experience teaches us about the senses, i.e. that they are the cause of our ideas. To argue against experience is a bad way of philosophizing[28].

Malebranche's reply to this imagined objection is highly instructive:

> I am amazed that the Cartesian gentlemen who so rightly reject the general terms *nature* and *faculty* should so willingly employ them on this occasion. They criticize those who say that fire burns by its *nature* or that it changes certain bodies into glass by a natural *faculty* and yet some of them do not hesitate to say that the human mind produces in itself the ideas of all things by its *nature* because it has the *faculty* of thinking. But, with all due respect, these terms are no more meaningful in their mouth than in that of the Peripatetics[29].

[28] N. Malebranche, *The Search After Truth*, *Œuvres complètes de Malebranche*, ed. by A. Robinet, Vrin, Paris 1958-67, III, p. 144; trans. by T.M. Lennon and P.J. Olscamp, 2nd edition, Cambridge University Press, Cambridge 1997, p. 622.

[29] Malebranche, *The Search After Truth*, cit., p. 144; p. 622.

We have seen how Locke is able to block Malebranche's forthright criticism in the case of bodies: talk of powers is intelligible and defensible provided such powers are grounded in categorical properties – specifically, the primary qualities of their 'insensible parts'. If Locke thinks that he needs to offer an analogous reply in the case of mental powers, then it is natural ask what are the categorical properties that serve to ground them. Obviously, to say that even in the case of minds powers need to be grounded in categorical properties does not settle the issue of the ontological character of these properties.

One interesting way of rising to Malebranche's challenge is found in the philosophy of Leibniz. Implicitly at least, Leibniz accepts that the grounding principle applies to the case of mental powers; they, no less than physical powers, must be based in categorical properties. Leibniz then places a remarkable spin on this principle in the case of mental powers by insisting not only that the categorical properties that serve to ground them are microstructural but that they are also mental in character: they are minute, unconscious perceptions (*petites perceptions*); these perceptions are minute in terms of their intensive, not extensive magnitude. In the Preface to the *New Essays* Leibniz even draws attention to the parallel with corpuscles, or tiny particles, in the physical realm:

> In short, insensible perceptions are as important to pneumatology as insensible corpuscles are to natural science, and it is just as unreasonable to reject the one as the other on the pretext that they are beyond the reach of our senses[30].

Although Leibniz here is officially engaged in defending a version of nativism against Locke's objections, he also shows how it is possible to respond to the Malebranchian objection that talk of powers and faculties in the case of minds, no less than in the case of bodies, is condemned to empty circularity.

Leibniz's application of the grounding principle to the case of minds is characteristically ingenious, and draws on essential principles of his philosophy, but it is clear that it would not be acceptable to Locke. For however he may seem to depart from it on occasion Locke is officially committed to the Cartesian doctrine of the transparency of the mental; there is nothing occurrent in the mind of which we are not conscious. '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'[31]. Thus Locke would claim that Leibniz's attempt to extend the scope of the grounding principle to the case of

[30] Leibniz, *New Essays*, cit., p. 56.
[31] Locke, *Essay*, cit., II.i.19, p. 115.

minds is fatally flawed: it is an illusion to suppose that there is a mental microstructure of the kind envisaged by Leibniz.

If Locke is to apply the grounding principle to the case of minds, then, he cannot entertain the idea of a mental microstructure analogous to the realm of tiny corpuscles. Nonetheless there would be no actual incoherence in retaining the Leibnizian idea that the items that serve to ground mental powers are themselves mental: the items in question would be occurrent conscious thoughts and perceptions. This approach to the problem would at least have the merit of allowing him to remain faithful to the mental transparency principle to which he, like Descartes, subscribes; it would also have the advantage, in the eyes of his orthodox readers, of allowing him to stay within the metaphysical framework of substance dualism: the conscious thoughts and perceptions could be straightforwardly properties of an immaterial thinking substance. This way of satisfying the demands of the grounding principle in the case of mental powers would not commit Locke to substance dualism, but it would certainly be consistent with it.

But the disadvantages of such an approach are obvious. The claim that mental powers are grounded in conscious thoughts and perceptions would be open to a fundamental objection that Locke himself makes in his polemic against Descartes's thesis that the mind always thinks: the claim is susceptible to empirical refutation[32]. If there were such items, then *ex hypothesi* we would be aware of having them, but it is simply not the case that we are: introspection fails to turn up any such items. In Malebranche's words, 'to argue against experience is a bad way of philosophizing.' It is true that this approach to satisfying the demands of the grounding principle would not be vulnerable to one of Locke's objections against Descartes's thesis that the mind always thinks; it could not be objected that this would be '*a very useless sort of thinking*'[33]. On the contrary, the thinking in question would serve the purpose of grounding mental powers. But the empirical objection of course would remain, and in Locke's eyes, would be overwhelming.

It seems, then, that if Locke is to apply the grounding principle to the case of mental powers then there is only one candidate that he can seriously consider: this is the thesis that the categorical properties that serve to ground mental powers are physical in nature. In other words, Locke must avail himself of the thesis that matter can have the power of thinking. On the most plausible

[32] Ibid., II.i.10, p. 108.
[33] Ibid., II.i.15, p. 112.

version of this option, the categorical properties are the primary qualities of the insensible parts of the brain; they are the size, shape, motion and texture of the corpuscles that compose it. Cartesians will of course object that it is metaphysically impossible for bodies to be endowed with mental powers. But as we have seen, Locke argues that the thinking-matter hypothesis is free from the conceptual difficulties with which Descartes and his disciples charge it. There is an irony in the situation here which should be noticed: it is Locke's commitment to the Cartesian principle of the transparency of the mental that pushes him, or at least helps to push him, in the direction of a materialist solution to the problem of applying the grounding principle to the case of mental powers.

To show how Locke could naturally employ the thinking-matter hypothesis in this area is not of course to say that he has no avenues of escape from this position. It is still open to Locke to limit the scope of the grounding principle to the case of physical powers: it applies to secondary qualities, for instance, but it does not apply to mental powers. But then Locke would be vulnerable to the objection that such a restriction on the scope of the principle is simply *ad hoc*: he would need to show that there is a principled basis for limiting the scope of the principle in this way. Moreover, he would be wide open to Malebranche's objection that all talk of mental powers and faculties is explanatorily vacuous and thus succumbs to the very objections that early modern philosophers made against the Scholastics. All things considered, it seems that Locke's best philosophical option is to hold that mental powers are grounded in the categorical properties of bodies. Here, as elsewhere, Locke is under philosophical pressure to embrace at least a weak form of materialism[34].

Bibliography

M.R. Ayers, "The Ideas of Power and Substance in Locke's Philosophy", in *Philosophical Quarterly* 25 (1975), 1, pp. 1-27.

N. Jolley, "Hume, Malebranche, and the Last Occult Quality", in Id., *Causality and Mind*, Oxford University Press, Oxford 2013.

N. Jolley, *Locke's Touchy Subjects: Materialism and Immortality*, Oxford University Press, Oxford 2015.

[34] On the other pressures towards materialism in Locke's philosophy see N. Jolley, *Locke's Touchy Subjects: Materialism and Immortality*, Oxford University Press, Oxford 2015.

G.W. Leibniz, *Die Philosophischen Schriften von G.W. Leibniz*, 7 vols., ed. by C.I. Gerhardt, Weidmann, Berlin 1875-90.

G.W. Leibniz, *Sämtliche Schriften und Briefe*, ed. by German Academy of Sciences, Berlin Academy, Darmstadt-Berlin 1923ff. References are to series and volume.

G.W. Leibniz, *Philosophical Essays*, trans. by R. Ariew and D. Garber, Hackett, Indianapolis 1989.

G.W. Leibniz, *New Essays on Human Understanding*, trans by P. Remnant and J. Bennett, 2nd edition, Cambridge University Press, Cambridge 1996.

J. Locke, *An Essay Concerning Human Understanding*, ed. by P.H. Nidditch, Clarendon Press, Oxford 1975.

E. McCann, "Locke's Philosophy of Body", in V. Chappell (ed.), *The Cambridge Companion to Locke*, Cambridge University Press, Cambridge 1994, pp. 56-88.

C.J. McCracken, *Malebranche and British Philosophy*, Clarendon Press, Oxford 1983.

N. Malebranche, *Œuvres complètes de Malebranche*, 20 vols., ed. by A. Robinet, Vrin, Paris 1958-67.

N. Malebranche, *The Search after Truth*, trans. by T.M. Lennon and P.J. Olscamp, 2nd edition, Cambridge University Press, Cambridge 1997.

L. Nolan, "Descartes on 'What We Call Color'", in L. Nolan (ed.), *Primary and Secondary Qualities: The Historical and Ongoing Debate*, Oxford University Press, Oxford 2011, pp. 81-108.

W. Ott, *Causation and Laws of Nature in Early Modern Philosophy*, Oxford University Press, Oxford 2009.

W. Ott, "Locke and the Real Problem of Causation", in *Locke Studies* 15 (2015), pp. 53-77.

N. Rockwood, "Secondary Qualities as Dispositions", in *Locke Studies* 20 (2020), pp. 1-16.

M. Stuart, *Locke's Metaphysics*, Clarendon Press, Oxford 2013.

Nicholas Jolley
University of California, Irvine
sjolley@uci.edu