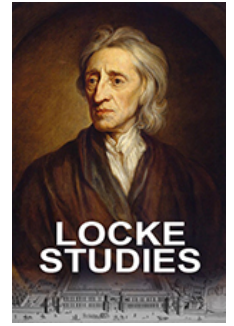


## Locke Studies

# Locke's Skeptical Realism

Christopher Conn



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Résumé de l'article

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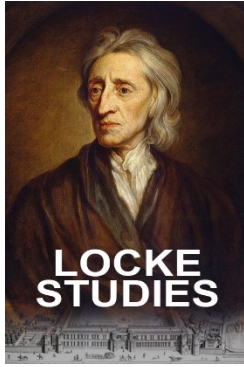
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## LOCKE'S SKEPTICAL REALISM

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### *Abstract:*

In this paper I contend that Locke is both a realist and a skeptic regarding the mind-independent bodies which are causally responsible for our ideas of sense. Although he frequently indicates that we have experiential knowledge of these bodies, I argue that this was not his considered position. In support of this conclusion I turn: first, to the basic contours of his accounts of knowledge and perception; second, to his argument for the existence of the material world; and third, to his discussions of judgment and probability. Locke's considered position, I contend, is that instances of veridical perception do not yield genuine instances of knowledge. Rather, these perceptual encounters give rise to empirical judgments that enjoy a high degree of probability. While this prevents them from being suitable objects of knowledge, since Locke thinks that we can be nearly certain of their truth, he contends that we should not hesitate to think, speak, and act as if they were instances of knowledge. I further argue that this account provides us with a more satisfying explanation of Locke's dismissive attitude towards the skeptical hypotheses that appear throughout the *Essay*.

*Keywords:* abductive reasoning, empirical knowledge, indirect realism, John Locke, perception, skepticism

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## 1. Introduction

In this paper I contend that John Locke is both a realist and a skeptic about the mind-independent bodies that are causally responsible for our perceptual experiences. His accounts of knowledge and perception share a common principle, namely, the thesis that the direct object of our mental awareness is restricted to our ideas. This principle bears quite different fruit in these contexts. It leads him, in the case of knowledge, to formulate a theory in which knowledge is direct and unmediated. On his view, one *knows* that a proposition *p* is true only if one is in a position to mentally “see” that *p* is true, and one *mentally sees* that *p* is true only if one is directly aware of the factors which make *p* true. The common principle leads him, in the case of perception, to formulate a theory in which perception is *indirect* and *mediated*. Although Locke is a realist about the corporeal objects that are causally responsible for our perceptual experiences, he does not endorse the universally held conviction that our senses afford us a direct and immediate awareness of these bodies. Since he is also convinced that we are in perceptual contact with these bodies, he concludes that we *indirectly* perceive these bodies by *directly* perceiving our ideas of these bodies. This happens, first, when our ideas of sense are causally produced by their putative objects and, second, when our ideas of sense suitably *resemble* their putative objects.

We are now in a position to consider the central question of this paper. Does Locke maintain that instances of veridical perception yield instances of perceptual knowledge? Suppose that you are currently having a veridical indirect perception of a tree which appears to you as tall and conical. On Locke’s account you do not merely seem to see this tree, you do see it, and you see it to be tall and conical. In virtue of this perceptual encounter, are you also in a position to know (i) that this tree exists and (ii) that it is both tall and conical? Locke frequently indicates that we do have this sort of knowledge: he suggests, on multiple occasions, that we have sensitive knowledge of the bodies that are causally responsible for our ideas of sense. Since he introduces this form of knowledge as the third degree of knowledge (alongside intuitive and demonstrative knowledge), it is natural to suppose that he takes instances of sensitive knowledge to be genuine instances of his general account of knowledge. In this paper I contend that this cannot be Locke’s considered position. Rather, I contend that his considered position is that instances of veridical perception do not yield genuine instances of knowledge. In support of this conclusion I appeal: first, to the general contours of his theories of knowledge and perception; second, to his argument for the reliability of perception and the existence of the corporeal world; and third, to his discussions of judgment and probability.

In section two of this paper I present Locke’s theory of perception and the skeptical concerns that inevitably attend this account. Since we are never in a position to ascertain whether a given idea of sense appropriately resembles the object that is causally responsible for its production, it certainly looks as if Locke is committed to denying that we have empirical knowledge of sensible particulars. Throughout much of the *Essay*, however, Locke appears to be unaware of this predicament. I say this, first, because he repeatedly indicates that we do have such knowledge and, second, because he is generally quite dismissive of skeptical hypotheses that run contrary to this position. Even so, I contend that Locke ultimately denies that we have experiential knowledge of the mind-independent bodies that are causally responsible for our ideas of sense. While he maintains that we can be highly confident both that such bodies

exist and that they appropriately resemble the ideas they cause in us, on Locke's view we are not in a position to *know* these sorts of claims. My initial reasons for this conclusion are grounded in the basic contours of his accounts of knowledge and perception: we do not know these claims to be true because we are not directly aware of the factors that make them true.

In section three my argument for Locke's skeptical realism is centered around his argument for the corporeal world in "Of our Knowledge of the Existence of other Things." In this chapter Locke is arguing: first, that our senses are reliable; and hence, second, that we exist in the presence of mind-independent bodies that suitably resemble our ideas of sense. Although people commonly suppose that the senses afford us with a direct and immediate awareness of these bodies, Locke maintains that this sort of awareness is restricted to our *ideas*. Locke's objective in this chapter is thus to provide reasons for supposing that our ideas of sense are generally produced in us by bodies which they appropriately resemble. He does this, first, by highlighting the various ways in which these ideas are produced in us and, second, by establishing that his account of perception provides the best explanation of these perceptual phenomena. Although his execution of this strategy is far from perfect, I contend that Locke has accomplished what David Hume judged to be impossible: he has provided very credible grounds for affirming the truth of indirect realism. I further argue that his reliance upon abductive reasoning in this context provides us with additional grounds for supposing that he is both logically and consciously committed to empirical skepticism. Although I take Locke's reasons for affirming the reliability of perception and the existence of the corporeal world to be quite strong, the evidential force of these reasons is not sufficient for the degree of certainty that Locke takes to be necessary for genuine knowledge.

If Locke maintains that instances of veridical perception do *not* yield genuine instances of knowledge, then what do they yield? And why does he frequently indicate that we do have such knowledge? In section four I take up Locke's answers to these questions. On Locke's view, the convictions that we commonly take to be instances of perceptual knowledge are in fact instances of perceptual *judgment*: they are not centered around propositions that we *see* to be true, but rather around propositions that we *take, judge, or believe* to be true. Locke maintains, in addition, that in typical cases these judgments enjoy a degree of certainty that closely approximates that of knowledge. Since these judgments regulate our thoughts and actions as surely as if they were instances of genuine knowledge, Locke maintains that we should not hesitate to think, speak, and act as though they are genuine instances of knowledge. Finally, I contend that this reading provides us with a more satisfying explanation of Locke's dismissive attitude towards the skeptical hypotheses that appear throughout the *Essay*.

## **2. Locke's Theory of Perception**

Locke's theory of perception involves a nest of controversial and largely implicit claims and distinctions. This account begins with an affirmation of *metaphysical realism*, the thesis that there exists a real world of objectively existing, mind-independent bodies and their spatiotemporal relations. As an advocate of the corpuscularian hypothesis, Locke maintains that matter is ultimately particulate in nature and, hence, that the material objects which surround us are composed of material corpuscles. Although we

may not be wholly composed of such corpuscles—Locke takes compositional substance dualism to be the most likely account of our nature<sup>1</sup>—our bodies are obviously to be numbered among corporeal objects that together constitute the material world.

Second, Locke's theory of perception rests upon an implicit rejection of direct realism: on his account we are not directly aware of the corporeal objects that surround us.<sup>2</sup> This denial is implicit because he never mentions nor alludes to this position, which Berkeley refers to as the "mistake of the vulgar" and which Hume takes to be "destroyed by the slightest philosophy."<sup>3</sup> Here Locke exhibits two similarities with René Descartes: he does not provide reasons for taking direct realism to be false, and he is reluctant to concede that human beings are naturally inclined to think and speak as though some version of direct realism were true.<sup>4</sup> Still, his rejection of this theory follows directly from his contention that we do regularly perceive mind-independent bodies, even though our perceptual encounters do not provide us with an immediate awareness of their existence.<sup>5</sup>

Third, Locke's theory of perception rests upon a largely implicit distinction between the *direct* (or *immediate*) and *indirect* (or *mediate*) objects of perception. Although he thinks that we are directly aware of our ideas, he also thinks that we perceive mountains and rivers and trees. Since he would have to concede that we perceive these objects in a manner that is *not* direct, Locke is committed to the thesis that we *indirectly* perceive mind-independent objects by *directly* perceiving our ideas of these objects.

Fourth, Locke's theory of perception implicitly depends upon something like Bertrand Russell's distinction between *physical space* and *perceptual space*.<sup>6</sup> The corporeal bodies that populate the cosmos exist in physical space, which Locke takes

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<sup>1</sup> John Locke, *An Essay concerning Human Understanding*, ed. Peter H. Nidditch (Oxford: Clarendon Press, 1975), II.xxvii.25.

<sup>2</sup> Although the scope of this paper prevents me from defending each of these points of interpretation in detail, it should not come as a surprise that divergent accounts have been offered. In this case, for example, a small minority of commentators have argued that Locke defends a direct realist account of perception. See John Yolton, *John Locke and the Compass of Human Understanding* (Cambridge: Cambridge University Press, 1970), 118–37; E. J. Lowe, *Locke on Human Understanding* (London: Routledge, 1995), 45–47.

<sup>3</sup> See George Berkeley, *Principles of Human Knowledge*, in *Principles of Human Knowledge and Three Dialogues*, ed. Howard Robinson (Oxford: Oxford University Press, 1996), pt. I, §§56, 48; David Hume, *An Enquiry Concerning Human Understanding*, ed. Eric Steinberg (Indianapolis: Hackett, 1993), §12, pt. 1, 104.

<sup>4</sup> René Descartes seems to concede as much in the Second Meditation. While reflecting upon the piece of wax that he had just used to illustrate the nature of matter, he claims to have been "almost tricked by ordinary ways of talking" as when "we say that we see the wax itself," *Meditations on First Philosophy*, in *The Philosophical Writings of Descartes*, 2 vols, eds. John Cottingham, Robert Stoothoff, and Dugald Murdoch (Cambridge: Cambridge University Press, 1985) (hereafter CSM), vol. 2, 21.

<sup>5</sup> See Locke, "Epistle to the reader," *Essay*, 13, and *Essay* II.viii.8; IV.i.1.

<sup>6</sup> See Bertrand Russell, *An Outline of Philosophy* (London: Allen and Unwin, 1927), 143–47.

to be a boundless three-dimensional continuum whose “unsolid, inseparable and immovable” parts or regions contain at most one body at any given time.<sup>7</sup> Although our perceptual encounters do not bring us into direct contact with these bodies, the ideas that are occasioned by these encounters certainly *appear* to be spread out before us in space. That is, the items of which we are immediately aware appear both (i) to be spatially extended and (ii) to exist in spatiotemporal relations with other such objects. So we must distinguish between the *real* spatial continuum that contains actual rivers, mountains, and trees and the *perceived* spatial continuum that contains our ideas of these objects. Physical space is the three-dimensional continuum that physically contains the bodies which act upon our senses. Perceptual space is the essentially private and apparently three-dimensional spatial continuum which contains our ideas of these bodies. It is worth noting that the sort of resemblance that Locke has in mind here does not require that physical space be structurally isomorphic with perceptual space. Indeed Locke evidently maintains that our ideas are two-dimensional images which (after the manner of tromp-l’oeil paintings) *merely* appear to us as possessing height, breadth, and depth.<sup>8</sup>

Locke does not suppose that our perceptual encounters are always veridical. How then do we distinguish between those cases in which one succeeds in indirectly perceiving a tree by directly perceiving an idea of this tree, and those cases in which one merely *seems* to do so (e.g., when one is dreaming or hallucinating). This ground is covered by the final two components of his account. In the first place, Locke frequently characterizes ideas as *mental images* or *pictures*,<sup>9</sup> with the idea being that as mental pictures they are imbued with representational content in much the same way as ordinary pictures. He thus affirms what has come to be known as the *resemblance thesis*, namely, the thesis that some of our ideas—namely, our complex ideas of substances—represent mind-independent bodies by resembling them. With Descartes, Locke does not suppose that perfect resemblance is a reasonable criterion. Rather, it is only requisite that an object’s manifest *primary* qualities (i.e., its intrinsic, structural, and geometrical properties) be adequately represented by our ideas of these qualities.<sup>10</sup> Locke is thus committed to the thesis that it is possible for the structural/geometrical features of rivers, mountains, and trees to be adequately represented by the apparent structural/geometrical features of our ideas of these objects.

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<sup>7</sup> Although he follows Newton in affirming an absolute conception of space (see *Essay* II.iv.2–3, 5; II.xiii.2–4; II.xvii.4), at II.xiii.17 Locke refrains from taking a position on whether space is substance.

<sup>8</sup> At *Essay* II.ix.8 Locke maintains that when a globe is set before our eyes, the idea that is “thereby imprinted in our Mind, is of a flat Circle variously shadow’d, with several degrees of light and Brightness coming to our eyes.” Although this idea is not itself a sphere, by “habitual custom” we judge it to be one. See also *An Examination of P. Malebranche’s Opinion of Seeing All Things in God*, §§10–12, in *The Works of John Locke* (London: Tegg, 1823), vol. 9, 216–18. For an account of this aspect of Locke’s theory of perception, see Michael Jacovides, *Locke’s Image of the World* (Oxford: Oxford University Press, 2017), 133–49.

<sup>9</sup> See Locke, *Essay* II.xxix.8; II.xxx.5; II.xxxi.3, 6; III.iii.7.

<sup>10</sup> Locke affirms this qualified notion of resemblance at *Essay* III.viii.15.

Finally, Locke affirms a causal account of the conditions under which veridical indirect perception takes place: we indirectly perceive a tree by directly perceiving an idea of this tree only if this idea is produced in us by its putative object. As an advocate of the corpuscularian hypothesis who is accustomed to supposing that such causal activities involve body-to-body contact, Locke surmises that these causal interactions are mediated by “singly imperceptible Bodies” that come from these objects “to the Eyes, and thereby convey to the Brain some *Motion*, which produces these *Ideas*, which we have of them in us”.<sup>11</sup> It is worth noting that Locke takes the final leg of this causal story—the transition from neural impulses in one’s *brain* to the production of ideas in one’s *mind*—to be inexplicable. On his view, there is “no conceivable connexion” between a bodily impulse and an idea in one’s mind.<sup>12</sup> We thus have no idea how a given quantity of neural motion could give rise to *any* sort of idea, much less how one sort of impulse should generally give rise to the (visual) idea of redness and another should generally give rise to the (gustatory) idea of bitterness. He is therefore content to attribute these causal regularities “wholly to the good pleasure of our Maker.”<sup>13</sup>

With these six components in place, we are in a position to formulate Locke’s official account of perception:

A perceiver P ***indirectly perceives*** a mind-independent object O (in real space) by ***directly perceiving*** (in perceptual space) an idea of this object ( $I_O$ ) if and only if both

(i) O is causally responsible for the production of  $I_O$  in P; and

(ii)  $I_O$  resembles\* O, where a (complex) idea resembles\* an object if and only if its constituent, simple ideas of O’s primary qualities *resemble* O’s primary qualities.

In connection with this account I would like to make three initial observations. First, it is clearly one thing for these conditions to be satisfied in a given context and quite another for one to *know* this to be the case. Second, although there are externalist accounts of knowledge that would allow for such instances of knowledge, on Locke’s account of knowledge—in which *knowing* that proposition  $p$  is true is likened unto *seeing* that  $p$  is true—it seems quite out of the question that one could be in a position to know that conditions (i) and (ii) have been satisfied in a given context. Finally, if one is never in a position to know that these conditions have indeed been satisfied, it is hard to see how instances of veridical indirect perception can yield instances of experiential knowledge.

Let us suppose, for the sake of argument, that things are largely as Locke’s official theory requires. That is, let us suppose (i) that metaphysical realism is true, (ii) that direct realism is false, and (iii) that the two conditions for veridical perception are

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<sup>11</sup> Locke, *Essay* II.viii.12.

<sup>12</sup> Locke, *Essay* IV.iii.28.

<sup>13</sup> Locke, *Essay* IV.iii.6.

generally satisfied. It is not hard to see that even with these assumptions in place, the viability of Locke's position is far from obvious. For one thing, he is in no position to maintain that these conditions are *always* satisfied. He must concede, in other words, that we either do or could have ideas of sense that are produced in us by objects that they do not resemble. In addition, he must concede that we are not, in any particular case, in a position to determine whether our ideas of sense have the right sort of causal ancestry. So we must ask, first, whether we have reason to suppose that our perceptual encounters are *generally* veridical, and if we do have such reasons, we must ask, second, whether instances of veridical perception yield instances of perceptual knowledge. We find Locke raising both of these questions in the following passage:

'Tis evident, the Mind knows not Things immediately, but only by the intervention of the *Ideas* it has of them. *Our knowledge* therefore is *real*, only so far as there is a conformity between our *Ideas* and the reality of Things. But what shall be here the Criterion? How shall the Mind, when it perceives nothing but its own *Ideas*, know that they agree with Things themselves?<sup>14</sup>

Suppose that you are currently having a veridical indirect perception of a white cat in your front yard. If we only have direct and immediate access to our ideas, then you are clearly not in position to ascertain whether your idea of this cat “conforms” or “agrees” with its putative object. So there is no hope for the sort of criterion Locke is asking about here, at least not one that can be applied piecemeal. The difficulty, for Locke, is that he follows Descartes in supposing that knowledge involves certainty: one *knows* that all Fs are G only if one is in a position to mentally “see” that nothing could be F without also being G. With this conception of knowledge it is hard to see how Locke can avoid empirical skepticism with regard to the existence and nature of mind-independent bodies.

Although I contend that Locke ultimately denies that we have experiential knowledge of mind-independent bodies, there are two reasons for being suspicious of this thesis: he repeatedly insists that we do have this sort of knowledge,<sup>15</sup> and he is generally quite dismissive of skeptical allegations to the contrary. Let us consider these points in turn.

Locke's general account of knowledge is grounded in the thesis, first, that knowledge is restricted to the immediate objects of our mental awareness and, second, that our ideas are the sole occupants of this category. He thus concludes that human knowledge is “nothing but *the perception of the connexion and agreement, or disagreement and repugnancy of any of our Ideas.*”<sup>16</sup> Locke subsequently identifies three *degrees* of knowledge: *intuitive* knowledge, *demonstrative* knowledge, and *sensitive* knowledge. Whereas the first two categories of knowledge are concerned solely with ascertaining relations between our ideas,<sup>17</sup> sensitive knowledge involves

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<sup>14</sup> Locke, *Essay* IV.iv.3.

<sup>15</sup> See Locke, *Essay* IV.iii.5, 21; IV.ix.2; IV.xi.2, 9–11; IV.xv.5.

<sup>16</sup> Locke, *Essay* IV.i.2.

<sup>17</sup> Locke, *Essay* IV.ii.1–2. In instances of *intuitive* knowledge one ascertains these relations between ideas in a manner that is direct, irresistible, and effortless: the mind “perceives the Truth, as the Eye



the relation of *real existence*, that is, the relation that obtains between an idea in one's mind and the mind-independent object which is causally responsible for its existence. Locke thus takes sensitive knowledge to be knowledge of "the existence of particular external Objects, by that perception and Consciousness we have of the actual entrance of *Ideas* from them."<sup>18</sup> Does Locke think that we have this sort of knowledge? He seems to say as much on many occasions. That is, Locke frequently indicates that we do have sensitive knowledge of the mind-independent bodies which are causally responsible for our current ideas of sense.<sup>19</sup> Since he introduces sensitive knowledge as the third degree of knowledge (alongside intuitive and demonstrative knowledge), it is natural to suppose that he takes instances of sensitive knowledge to be genuine instances of his general account of knowledge. Although I hope to show that this cannot be his considered opinion, I think it is fair to say that Locke has generally been read in this manner. I shall henceforth refer to this interpretation as the *received account* of Locke's position regarding the nature and scope of sensitive knowledge.

One advantage of the received account is that it helps to explain his generally dismissive attitude towards the skeptical hypotheses that appear throughout the *Essay*. After all, if I am quite sure that I *know* that there is a white cat in my front yard, and I am confident of this fact because I can *see* it there, then I am likely to be unmoved by the suggestion that I do not know this because I might be dreaming or hallucinating.<sup>20</sup>

Although the received account might help to *explain* Locke's general attitude towards skeptical hypotheses, it does not excuse it. For he is on record as affirming (i) that we are only directly aware of our ideas, (ii) that our knowledge is *restricted* to our ideas and their relations, (iii) that sensitive knowledge involves the relation of real existence, (iv) that we have no idea how mind-independent bodies could be causally responsible for our ideas, and (v) that we are in no position to ascertain, in any specific perceptual context, whether our ideas of sense have the right sort of causal ancestry. The very contours of his position provide him with multiple reasons for concluding that sensitive knowledge is out of our reach. Since the basic contours of his position are (to put it mildly) forcefully pushing in the direction of empirical skepticism, he is hardly in a position to be dismissive of these challenges to his position.

I think it must be said that his particular responses to these skeptical worries are problematic in additional ways. On some occasions, for example, Locke dismisses such

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doth light." In instances of *demonstrative* knowledge one comes to ascertain these relations through a series of inferential stages, each of which is held to be intuitively certain.

<sup>18</sup> Locke, *Essay* IV.ii.14.

<sup>19</sup> See *Essay* IV.iii.5, 21; IV.ix.2; IV.xi.2, 9–11; IV.xv.5.

<sup>20</sup> I am not suggesting that it would be appropriate for Locke to respond in this manner, only that it would be natural for him to do so. As a direct realist who affirms an externalist account of epistemic justification, I do think it would be appropriate for me to respond in this manner, at least in the absence of reasons either (i) for taking my experiential grounds to be defective or (ii) for taking the proposition at issue to be false.

charges as misguided or disingenuous,<sup>21</sup> but this response is clearly fallacious. For one thing, the truth of a given proposition is not determined by one's motives for advancing it, and one can of course have bad reasons for affirming a true proposition. And again, since these skeptical worries are grounded directly in the contours of *his* accounts of knowledge and perception, Locke is hardly in position to reject such worries as misguided or disingenuous.

On other occasions Locke dismisses these skeptical worries on the grounds that it is psychologically impossible for us to doubt what our senses tell us to be true. The idea here seems to be that we *know* such claims because we are *certain* of their truth, and we are certain because it is impossible for us to doubt their veracity.<sup>22</sup> This response is clearly defective. Although *we* might be certain of the propositions at issue here, it is not the case that *they* are certain: here Locke is conflating certainty with certitude, and certitude is not a reliable indicator of truth. It is also worth asking why Locke takes it to be impossible for us to doubt “what our senses tell us to be true” in typical cases. It is not difficult to locate the source of this confidence: our cognitive responses to perceptual stimuli are instinctively guided by the precepts of direct realism. If our cognitive responses were fully under the thrall of Locke's indirect realism, it would not be impossible—even in typical cases—for us to raise doubts about the veracity of what the senses “tell us to be true.”

On several occasions Locke rejects these skeptical concerns on theistic grounds.<sup>23</sup> The idea here is that wholesale empirical skepticism cannot be right, since God has given us sufficient light for us to discharge our moral and epistemic duties. Now even if one grants that Locke had adequate grounds for his theism, the position which unfolds here is a sort of theistic pragmatism, according to which God, in his goodness, has made it possible for us to regulate our thoughts and actions in a manner which largely enables us to avoid hardship and pain. Although most of us seem to have this ability most of the time, there is no reason to suppose that it is sufficient for the kind of certainty which Locke takes to be requisite for genuine knowledge.

Finally, Locke occasionally rejects these skeptical concerns on the grounds that they are impracticable: one who consistently lived in accordance with this position would likely suffer needless pain and an untimely demise.<sup>24</sup> But this clearly won't do, since even if one retains the general contours of his epistemology, one who thinks it is impossible for us to know that one is the presence of some physical danger can still affirm that there are credible reasons for *believing* this to be the case.

On the received account, Locke takes instances of veridical indirect perception to yield instances of sensitive knowledge, thus conceived as instances of his general account of knowledge. If this account is correct, Locke's dismissive attitude towards the skeptical hypotheses that run contrary to this account appears to be wholly

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<sup>21</sup> See Locke, *Essay* IV.ii.14; IV.xi.3, 8.

<sup>22</sup> See Locke, *Essay* IV.ii.14; IV.xi.2, 8, 9.

<sup>23</sup> Locke develops this account at *Essay* I.i.5 and II.xxiii.12–13, and he uses it as a foil for skepticism at IV.ii.14 and IV.xi.3.

<sup>24</sup> See *Essay* IV.xi.8, 10.

unjustified. I say this, first, because the contours of his position provide him with fairly compelling reasons for concluding that sensitive knowledge is out of our reach and, second, because his reasons for resisting these skeptical challenges are inadequate.

At this juncture I feel bound to lay my cards on the table: I am convinced that the received account is mistaken. Although Locke frequently indicates that instances of veridical perception give rise to instances of sensitive knowledge, and it is natural to suppose that he takes sensitive knowledge to be a genuine form of knowledge that falls under his general account, I do not see how this could have been his considered opinion. I say this because this position is contradictory in ways that would have been hard to miss. In the opening sections of Book IV Locke defines knowledge as involving “nothing but *the perception of the connexion and agreement, or disagreement and repugnancy of any of our Ideas.*”<sup>25</sup> In this context he is using “perception” to denote an act of mental awareness: to perceive that all Fs are G in this sense is to mentally *see* that nothing could be F without also being G. Since he thinks that our ideas are the sole objects of our direct mental awareness, he concludes that knowledge is *solely* confined to those relations among our ideas that we are in a position to mentally *see* or *perceive*. In the sentence that follows he makes it clear that this act of mental seeing is both *necessary* and *sufficient* for knowledge. He thus writes that “where this Perception is, there is Knowledge, and where it is not, there, though we may fancy, guess, or believe, yet we always come short of Knowledge.”<sup>26</sup> Since sensitive knowledge involves the relation of real existence, which is a resemblance relation between an idea of sense and its putative, mind-independent object, I do not see how Locke could have taken sensitive knowledge to be a category of his general account of knowledge: the contradiction at issue here is far too obvious.<sup>27</sup>

The problem with Locke’s taking sensitive knowledge to be a genuine category of knowledge is not simply a function of his official definition of knowledge. This problem is ultimately grounded in the fact that he takes *knowing* that *p* to involve mentally *seeing* that *p* is true, where one *sees* that *p* is true only if one is directly aware of the

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<sup>25</sup> *Essay* IV.i.2.

<sup>26</sup> *Essay* IV.i.2.

<sup>27</sup> Nicholas Jolley takes Locke’s affirmation of sensitive knowledge to indicate that he does not take knowledge, in general, to involve the perception of relations between ideas. See *Locke: His Philosophical Thought*, (Oxford: Clarendon Press, 1999), 187. Several commentators have recently attempted to resolve the tension between Locke’s general account of knowledge and his affirmation of sensitive knowledge by providing an alternative account of the relation of real existence, namely, one that involves a relation between an idea of a thing and the idea of this thing’s real existence. See Lex Newman, “Locke on Knowledge,” in *The Cambridge Companion to Locke’s “Essay concerning Human Understanding,”* ed. Lex Newman (Cambridge: Cambridge University Press, 2007), 333–43; A. J. Pyle, *Locke* (Cambridge: Polity Press, 2013), 58; Scott Stapleford, “Locke on Sensitive Knowledge as Knowledge,” *Theoria* 75, no. 3 (2009): 221–30; and Nathan Rockwood, “Is Sensitive Knowledge ‘Knowledge?’,” *Locke Studies* 13 (2013): 15–30. Finally, some commentators have responded to this tension in the manner that I shall defend in what remains of this paper, namely, by suggesting that Locke does not take sensitive knowledge to constitute a genuine form of knowledge. See Roger Woolhouse, *Locke* (Minneapolis: University of Minnesota Press, 1983), 146; John Dunn, “Locke,” in *The British Empiricists: Locke, Berkeley, Hume* (Oxford: Oxford University Press, 1992), 78; Samuel Rickless, “Is Locke’s Theory of Knowledge Inconsistent?,” *Philosophy and Phenomenological Research* 77, no. 1 (2008): 94.

factors that make  $p$  true.<sup>28</sup> Although intuitive knowledge is the clearest case of mental seeing, Locke that maintains demonstrative reasoning enables one to perceive the truth of propositions that are not knowable “at first sight,” and “not without pains and attention,” and not without a “great mixture of dimness.” He thus likens demonstrative reasoning to be akin to seeing “a Face reflected by several Mirrors one to another.”<sup>29</sup> Although it is not entirely clear that knowledge-as-mental-seeing can be extended to cases of demonstrative reasoning, Locke does not suppose that it can be extended further. For he does not suppose that our mental gaze is able to penetrate the veil that lies between our ideas of sense and their putative, mind-independent objects. And this explains why he sometimes indicates that demonstrative knowledge (rather than sensitive knowledge) is the weakest form of genuine knowledge.<sup>30</sup>

Thus far I have proposed reasons for supposing that Locke cannot *consistently* maintain that instances of veridical perception give rise to genuine instances of knowledge. Since the contradictory nature of this position would have been hard to miss, these considerations give us some reason to suppose that he does not maintain this thesis. This conclusion is further supported by those passages in which Locke affirms or implies that demonstrative knowledge is the weakest form of genuine knowledge. I fully concede that these reasons, by themselves, are not sufficient to establish that Locke is consciously embracing empirical skepticism, much less that he is doing so in a manner that is both coherent and reasonable. For this we must examine his answers to the following questions. First, what grounds do we have for believing that our ideas of sense are generally caused by mind-independent bodies that they suitably resemble? Second, do these grounds provide an adequate basis for knowledge in particular cases? Third, if instances of veridical perception do not give rise to genuine instances of knowledge, then what do they give rise to? Finally, if these cognitive states are not instances of knowledge, why does he regularly describe them as such? In section three I present Locke’s answers to the first pair of questions, and in section four I present his answers to the second pair.

### 3. Locke’s Abductive Argument for Indirect Realism

In “Of our Knowledge of the Existence of other Things” Locke is attempting to establish the existence of the corporeal world. The “other Things” at issue here are things other than oneself and God, namely, the mind-independent corporeal objects which are causally responsible for our ideas of sense. Whereas Descartes attempts to

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<sup>28</sup> At IV.xiii.2 Locke discusses the “great Conformity” between knowledge and vision. Just as what we see is (presumably) a function of the objects that are present to our senses, what we come to know is solely a function of the objects of our immediate awareness. He thus writes that “*our Will hath no Power to determine the Knowledge of the Mind one way or the other; that is done only by the Objects themselves, as far as they are clearly discovered.*”

<sup>29</sup> Locke, *Essay* IV.ii.4, 6.

<sup>30</sup> See Locke, *Essay* IV.ii.14; IV.xiv.3–4; IV.xv.1; IV.xviii.1. Locke also affirms this position in chap. 12 of his *Elements of Natural Philosophy*; see *The Works of John Locke*, vol. 3, 329–30. I will discuss the first three of these passages in section four of this paper.

*prove* that we are in reliable perceptual contact with the corporeal world,<sup>31</sup> Locke begins this chapter by explicitly disavowing this objective. There is no possibility of intuitive knowledge in this case because we are not directly aware of the relevant, mind-independent entities. Demonstrative knowledge is also out of the question here, since demonstrative reasoning involves iterations of logical or conceptual necessity, and there are no such connections between our complex ideas of substances and the real existence of their putative objects. In the opening section of this chapter he thus observes that since there is “no necessary connection of real Existence” between any idea and any mind-independent reality, “having the *Idea* of any thing in our Mind, no more proves the Existence of that thing, than the picture of a Man evidences his being in the World, or the Visions of a Dream make thereby a true History.”<sup>32</sup> Since he is conceding here that we either do or could have ideas of sense that are not caused in us by bodies that resemble them, he must settle for the more modest claim that it is *reasonable* for us to suppose that our ideas of sense are *generally* caused by such bodies. In a parallel passage from Draft B of the *Essay* he thus takes himself to be providing “reasons to persuade us” that our senses “do not ordinarily erre in the information they give us of the existence of things without us when they are affected by them.”<sup>33</sup>

Although he has disavowed any attempt at *proving* “the Existence of Things without us,” Locke is still keen to defend this conclusion, and in the final sentence of §3 he proposes an argument to this effect that relies upon a series of “concurrent reasons.” As we shall see, these reasons are drawn from the form and content of our perceptual experiences, that is, from the features that are possessed by our ideas of sense and from various ways in which we come to have them. He takes these reasons to *concurrently* support his position because he thinks that his account of perception provides the best explanation of these perceptual phenomena. Although I am far from alone in taking Locke to be proceeding in this manner,<sup>34</sup> it is one thing to make this observation in passing and quite another to provide a detailed reconstruction of this approach, and so far as I can tell that has yet to be done in a manner that does justice to the nature and significance of this argument.

Before we examine this argument in detail it is worth pointing out that in this very context Locke repeatedly indicates that we are in a position to *know*, through

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<sup>31</sup> See Descartes, *Principles of Philosophy*, pt. 2, art. 4, CSM 1, 224; Sixth Meditation, CSM 2, 55.

<sup>32</sup> Locke, *Essay* IV.xi.1.

<sup>33</sup> John Locke, *Drafts for the Essay concerning Human Understanding and Other Philosophical Writings*, ed. Peter H. Nidditch and G. A. J. Rogers (Oxford: Clarendon Press, 1990), §36, 144. In the *Essay* version of this passage (IV.xi.3) the word “ordinarily” is omitted.

<sup>34</sup> See John Mackie, *Problems from Locke* (Oxford: Clarendon Press, 1976), 62–67; “Locke on Representative Perception,” in *Locke*, ed. Vere Chappell (Oxford: Oxford University Press, 1998), 66; Rickless, “Is Locke’s Theory of Knowledge Inconsistent?,” 96; James Beebe, “The Abductivist Reply to Skepticism,” *Philosophy and Phenomenological Research* 79 (2009): 606; Stapleford, “Locke on Sensitive Knowledge as Knowledge,” 222; George Dicker, *Berkeley’s Idealism: A Critical Examination* (Oxford: Oxford University Press, 2011), 53–63; Dicker, *Locke on Knowledge and Reality: A Commentary on An Essay concerning Human Understanding* (Oxford: Oxford University Press, 2019), 290–307; Jacovides, *Locke’s Image of the World*, 173f.

experience, that we are presently surrounded by the bodies that are causally responsible for our ideas of sense.<sup>35</sup> Given the sort of argument that he is now proposing, these asseverations of empirical knowledge are more than a little confusing. Why is Locke offering speculative, non-conclusive reasons for *believing* what he thinks we're in a position to know? George Dicker suggests that Locke's abductive argument is a sort of "rear guard action" that is intended to "humor the skeptic."<sup>36</sup> On this reading, Locke is providing the *skeptic* with concurrent reasons for believing what he takes himself to know though experience. Dicker further suggests, following Martha Bolton and Jennifer Marušić, that Locke's epistemic confidence in the face of these skeptical challenges is at least partly grounded in his doctrine regarding the adequacy of our simple ideas of sense, to wit, that these ideas are *always* adequate.<sup>37</sup> I think this cannot be right, and not merely (i) because I think that Locke ultimately denies that we have of empirical knowledge of mind-independent bodies, and (ii) because it would be unfortunate for his confidence in this regard to be grounded in a dubious proposition, which merely appears to be true by definition. In the first place, in "Of the Reality of our Knowledge" Locke is working with a weaker version of his adequacy doctrine. Since the laws that govern the correlation between neural impulses and simple ideas are determined "by the Wisdom and Will of our Maker," Locke contends that we can be sure that our simple ideas of sense "*are not Fictions of our Fancies*" and, hence, that "they carry with them all the conformity which is intended; or which our state requires."<sup>38</sup> The presence of the latter clause, in particular, indicates that our simple ideas need not all be adequate: they need only be *serviceable*. In addition, he never supposes that the presumptive adequacy of our simple ideas also extends to our complex ideas of substances. At IV.iv.11 he concedes that such ideas "may, and often do fail of being exactly conformable to Things themselves." Finally, after pointing out that real knowledge of substances only requires these ideas to be *true* (i.e., to be *accurate*), he observes, first, that the scope of such knowledge "will not be found to reach very far" and, second, that "so far as it does, it will still be *real Knowledge*."<sup>39</sup> While he confidently affirms the reality of our ethical and mathematical knowledge in this chapter, he appears to be hedging in the case of substances. The latter statement tells us nothing about the scope of empirical knowledge, and the former indicates that its scope is quite limited. These are hardly the words of someone who takes empirical skepticism to be without merit.

I think that we can be quite sure that Locke's abductive argument for the reliability of our senses and the existence of the material world is no mere *ad hominem*. We can be sure, in particular, that the concurrent reasons at issue here are *his* reasons for affirming these conclusions. I say this not merely because he was well acquainted with

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<sup>35</sup> Locke, *Essay* IV.xi.2, 9–11.

<sup>36</sup> Dicker, *Locke on Knowledge and Reality*, 291.

<sup>37</sup> Dicker, *Locke on Knowledge and Reality*, 286–89. Locke affirms this thesis at *Essay* II.xxxi.2.

<sup>38</sup> Locke, *Essay* IV.iv.4.

<sup>39</sup> Locke, *Essay* IV.iv.12.

this method of inquiry, given his collaboration with Robert Boyle.<sup>40</sup> We also know from his manuscript notes that this was his *preferred* method of inquiry regarding questions that cannot be settled through demonstrative reasoning.<sup>41</sup> In addition, we find him defending his theory of perception in just this manner in other contexts. In particular, Locke uses this method to establish the truth of his “hypothesis” in opposition to those offered by Nicolas Malebranche and John Norris. Not only is he not responding to skeptics in these cases, in both contexts Locke ends up defending skepticism. Although this mode of inquiry can lead to the discovery of truths that lie well beyond the reach demonstrative reasoning, these conclusions will inevitably be more-or-less *probable*, and this precludes them from being suitable objects of knowledge. Before we examine his use of this method I would like to briefly describe his account of how it is supposed to work.

In his discussion of explanatory hypotheses at IV.xii.13 Locke observes that our minds are naturally inclined to “penetrate the causes of things.” We earnestly desire to understand why things are the way they are. Since reality is vastly greater than the scope of our knowledge, our desire for understanding is frequently concerned with questions that lie beyond the reach of demonstrative reasoning. In such cases, Locke maintains that our search for truth should involve the comparative assessment of competing explanatory hypotheses. Locke thus writes in his manuscript notes on method that “the way to finde truth as far as we are able to reach it in this our darke & short sighted state is to pursue the hypothesis that seems to us to carry with it the most light & consistency.”<sup>42</sup> Here Locke takes it for granted both: (i) that our explicandum will generally involve a plurality of established phenomena; and (ii) that these phenomena can be explained in a plurality of ways. In addition, he is assuming both: (iii) that competing explanations will generally be grounded in a deeper, systemic account of reality; and (iv) that all systems of reality are vulnerable to substantive objections.<sup>43</sup> To borrow a phrase from James Farr,<sup>44</sup> Locke’s “way of hypotheses” thus involves assessing the relative merits of competing explanatory hypotheses for a set of

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<sup>40</sup> Thus Dicker, *Berkeley’s Idealism*, 53–63; A. J. Pyle, *Locke*, 80.

<sup>41</sup> Locke, “Method,” Bodleian Library, MS Locke, e. 28, fols 115–16, printed as an appendix to “The Way of Hypotheses: Locke on Method,” by James Farr, *Journal of the History of Ideas*, 48, no. 1 (1987): 70–72. Farr discussed Locke’s application of this method to a number of contexts (e.g., medicine, astronomy, and politics); he does not discuss the application that is at issue in this paper. Although the manuscript entry is undated and Farr does not himself suggest a date, the chronological listing of manuscripts, which is published by the John Locke Bibliography, tentatively indicates that this entry was made in September 1694, <https://openpublishing.psu.edu/locke/mss/c1694.html>.

<sup>42</sup> Farr, “Locke’s Way of Hypotheses,” 70.

<sup>43</sup> Locke thus warns us against the twin dangers both: (i) of prematurely *accepting* a hypothesis which has yet to survive this method of comparative assessment; and (ii) of prematurely *rejecting* a hypothesis that has sustained a substantive criticism. See Farr, “Locke’s Way of Hypotheses,” 71–2.

<sup>44</sup> Farr, “Locke’s Way of Hypotheses,” 54.

established phenomena, with an eye towards identifying the one “which is accompanied with the greater light & evidence.”<sup>45</sup>

How do we carry out this comparative assessment of competing explanatory hypotheses? Locke is clearly working with a plurality of evaluative criteria here. Suppose that we have identified four established phenomena:  $P_1$ ,  $P_2$ ,  $P_3$ , and  $P_4$ . Suppose, in addition, that two competing hypotheses,  $H_1$  and  $H_2$ , have been proposed to account for these phenomena and that  $H_1$  and  $H_2$  are themselves applications or extensions of wider theoretical systems,  $S_1$  and  $S_2$ . With regard to this pair of competing hypotheses Locke thus writes that “to shew which side has the best pretence to truth and followers the two whole systems must be set by one another & considered entirely & then see which is most consistent in all its parts; which least clgd with incoherences or absurdities & which freest from begd principles and unintelligible notions.”<sup>46</sup> Assessing the relative merits of  $H_1$  and  $H_2$  thus requires one to consider these hypotheses both: (i) in relation to their background systems  $S_1$  and  $S_2$ ; and (ii) in relation to  $P_1$ – $P_4$ . Do these hypotheses and their systemic parents employ unintelligible terms? Are they internally consistent? Do we have independent reasons for taking these systems to be true or false? Do they rest upon principles that are dubious? If these competing hypotheses (in conjunction with their parent systems) prove to be sufficiently coherent and consistent we will then be in a position to ask the most important question of all, namely, the extent to which  $H_1$  and  $H_2$  are able to *explain*  $P_1$ – $P_4$ .

At IV.xii.13 of the *Essay* Locke distinguishes between the extent to which an hypothesis is able to *accommodate* a given phenomenon, and the extent to which it is able to *explain* this phenomenon. Accommodating a specific phenomenon is relatively easy, since it is simply a matter of logical consistency.  $H_1$  accommodates  $P_1$  only if  $H_1$  does not preclude the existence of  $P_1$ . Explaining a phenomenon, on the other hand, is far more difficult: a hypothesis *explains* a given phenomenon only if it *predicts* it.  $H_1$  *explains*  $P_1$  only if we would reasonably expect  $P_1$  to be the case if  $H_1$  is the case. Although a successful theory should be *consistent* with the phenomena in question, Locke does not suppose that a successful theory should be able to explain all of the relevant phenomena. Rather, it should explain at least some of these phenomena, particularly those that we take to be most important, and it should be able to explain them better than its competitors.<sup>47</sup> Finally, in the course of this discussion Locke articulates two additional criteria for theory choice. First, a good hypothesis will exhibit accuracy on a wide scale, or as Locke says here, “it will not be as inconsistent

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<sup>45</sup> Farr, “Locke’s Way of Hypotheses,” 71.

<sup>46</sup> Farr, “Locke’s Way of Hypotheses,” 71.

<sup>47</sup> It is Boyle rather than Locke who suggests that some phenomena in our explicandum might be more important than others. While Boyle’s criteria for theory choice are similar to Locke’s, Boyle’s account has the advantage of providing one set of criteria for determining whether an explanatory hypothesis is *good*, and additional criteria for determining whether it is *excellent*. This is important, since the best available explanation for a given set of phenomena might not be good enough to warrant our credence. In addition, Boyle includes the principle of simplicity in the latter set of criteria. See Robert Boyle, “MS Notes on a Good and an Excellent Hypothesis,” in *Selected Philosophical Papers of Robert Boyle*, ed. M. A. Stuart (Indianapolis: Hackett, 1991), 119.



with one *Phaenomenon* of Nature, as they seem to accommodate, or explain another.” In addition, a good hypothesis will “direct us to new discoveries,” which is to say, in Boyle’s words, that “it will enable a skillful Naturalist to Foretell Future *Phaenomena*.”<sup>48</sup>

With these points in hand let us now turn to Locke’s reasons for affirming the reliability of perception and the existence of the corporeal world. As we have seen, at IV.xi.1 Locke concedes that these matters lie beyond the reach of demonstrative reason, and in §3 of this chapter he proposes to support these conclusions through a series of concurrent reasons, reasons that are garnered from the form and content of our perceptual experience. As we shall see, Locke adduces a list of features that is quite remarkable.

Locke’s abductive argument for the reliability of perception and the existence of the corporeal world officially begins in §4, which runs as follows:

*First, ’Tis plain, those Perceptions are produced in us by exterior Causes affecting our Senses: Because those that want the Organs of any Sense, never can have the Ideas belonging to that Sense produced in their Minds. This is too evident to be doubted: and therefore we cannot but be assured, that they come in by the Organs of that Sense, and no other way. The Organs themselves, ’tis plain, do not produce them: for then the Eyes of a Man in the dark, would produce Colours, and his Nose smell Roses in the Winter: but we see no body gets the relish of a Pine-apple, till he goes to the Indies, where it is, and tastes it.*<sup>49</sup>

It looks as if Locke’s argument for indirect realism is starting off on a most inauspicious note. In the course of identifying his “first” concurrent reason he appears to be presupposing the existence of mind-independent bodies, namely: (i) the sense organs that make it possible for use to see and taste; and (ii) the mind-independent bodies (e.g., roses and pineapples) that are causally responsible for our perceptual experiences.<sup>50</sup>

I would like to suggest a more charitable reading of this passage and others like it, one that fits better with his general argument strategy. For this we need to focus entirely on the aspects of our perceptual experience to which he is drawing our attention and, thus, to set aside (for the nonce) his preferred explanation of these occurrences. In this section Locke is drawing attention to four basic facts of experience. First, ideas of sense are produced and sustained in us in a manner that is

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<sup>48</sup> Boyle, “MS Notes on a Good and Excellent Hypothesis,” 119.

<sup>49</sup> Locke, *Essay* IV.xi.4.

<sup>50</sup> Thus Jonathan Bennett, *Locke, Berkeley, Hume* (Oxford: Clarendon Press, 2001), 66; also Bennett, *Learning from Six Philosophers: Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume*, Volume 2, (Oxford: Clarendon Press, 2001), 130; Jolley, *Locke: His Philosophical Thought*, 197; Beebe, “Abductivist Reply,” 617; Dicker, *Berkeley’s Idealism*, 55; Dicker, *Locke on Knowledge and Reality*, 297.

independent of our wills.<sup>51</sup> We do not merely come to have these ideas, they *happen* to us: we can neither produce nor sustain them through sheer dint of will. Second, our perceptual experiences and the ideas they occasion fall into various categories or modes. Some of our perceptual experiences are *visual* in nature, some are *tactile*, some are *olfactory*, some are *auditory*, and some are *gustatory*. Experiences of the first sort are forcefully and invariably occasioned by visual ideas, ideas of the second sort are similarly occasioned by ideas of touch, and so on. Third, within each of these sense modalities, ideas are produced in us in a manner that appears to be causally mediated by specific, properly functioning sense organs. Thus, for example, it seems for all the world that we *see* by means of our eyes and that we *hear* by means of our ears. Finally, ideas of sense are produced in us in a manner that appears to be subject to intersubjective confirmation. That is, it seems to be the case that the ideas which are currently being produced in me are similar to those that are being produced in others who are appropriately situated and suitably endowed. In addition, it seems to be the case that those who lack properly functioning sense organs do not have the ideas that we associate with them. Whether or not I am alone in the world, the visual ideas that are briskly produced in me *appear* to come through my eyes in a manner that is replicated in other perceivers who are both appropriately situated and endowed with properly functioning eyes. And of course the same can be said about our other sense modalities, and all of this can be described in a manner that does not beg the question in favor of metaphysical realism.

In §5 of this chapter Locke highlights some obvious differences between our ideas of sense with the ideas that come by way of memory and imagination. In particular, he observes that the former exhibit a degree of clarity, intensity and detail that is unmatched by the latter. It is one thing to imagine or remember the Sun, and quite another to gaze upon it.<sup>52</sup> Here again, Locke appears to be describing this aspect of our experience in a manner that begs the question in favor of metaphysical realism. But as before, this tendency does not undermine his argument since the feature to which he is drawing our attention can be described in a manner that does not presuppose the existence of mind-independent bodies. We can simply say that there is a manifest difference between imagining or remembering the Sun and having what we *take* to be a perceptual encounter of the Sun.

In §6 Locke draws attention to another significant difference between our ideas of sense and our ideas of memory or imagination: while ideas of sense are often produced in us in a manner that is accompanied by pleasure or pain, when we imagine or remember these ideas, they are bereft of these sentiments. It is one thing to have a headache, to be ravenously hungry, or to suffer from intense heat or cold, and quite another to *remember* or *imagine* these experiences.<sup>53</sup> Or as he puts earlier in the *Essay*, there is a profound difference between being immersed in fire and merely

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<sup>51</sup> He mentions this feature in IV.xi.5, but it is clearly implied in IV.xi.4.

<sup>52</sup> Locke, *Essay* IV.ii.14; IV.xi.5.

<sup>53</sup> Locke, *Essay* II.ii.14; IV.xi.3, 6.

dreaming this to be the case.<sup>54</sup> As the first examples nicely illustrate, it is easy for Locke to highlight this aspect of our perceptual experience in a manner that does not presuppose the existence of mind-independent bodies. Whether or not metaphysical realism is true, the pain that is occasioned by what one takes to be a real injury is not present when one remembers or imagines this occurrence.

In §7 Locke highlights three additional aspects of our perceptual experiences. First, ideas of sense are generally produced in us in a predictably continuous or repeatable manner. Thus, for example, the visual ideas that we have *now* are generally continuous with the ones we're having *now*, and the same holds true with what we seem to hear, taste, touch, or smell. Second, the ideas of sense which we associate with distinct sense modalities are produced in us in a *systematically interconnected* manner: we seem to *hear* the very bird that we also seem to *see*; we seem to *taste* the very apple that we also seem to see, feel, and smell. Finally, although ideas of sense are produced in us independently of our wills, we nonetheless enjoy a modicum of control over our future experiences so that we are generally able to secure pleasant experiences and to avoid unpleasant ones. Taken together, Locke is highlighting an aspect of our perceptual experience that is far from trivial, namely, that ideas of sense are produced in us in systematically interconnected manner that we can reliably predict and substantially control.

In the course of highlighting these aspects of our perceptual experiences, Locke includes two additional features that deserved to be addressed. In §6 he observes that we are able to carry out complex mathematical demonstrations by means of visual diagrams. The fact that our visual ideas can be employed in a manner which facilitates such demonstrations “gives great credit to the Evidence of our Sight, and seems to give it a Certainty approaching to that of the Demonstration itself.” For, Locke continues,

it would be very strange, that a Man should allow for it an undeniable Truth, that two Angles of a Figure, which he measures by Lines and Angles of a Diagram, should be bigger one than the other; and yet doubt of the Existence of those Lines and Angles, which by looking on, he makes use of to measure that by.<sup>55</sup>

Since Locke has no qualms about the reliability of demonstrative reasoning, the fact that our visual senses can evidently be employed in a manner that facilitates this form of reasoning is an indication that our visual senses are reliable as well.

Finally, in §7 of this chapter Locke identifies an aspect of our perceptual experience that builds upon our ability to predict and control our perceptual encounters. He begins by noting that this ability is especially clear in the context of writing:

Thus I see, whilst I write this, I can change the Appearance of the Paper; and by designing the Letters, tell before-hand what new *Idea* it shall exhibit the very next moment, barely by drawing my Pen over it: which will neither appear (let me fancy as much as I will) if my Hand stands still; or though I move my Pen,

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<sup>54</sup> Locke, *Essay IV*.ii.14.

<sup>55</sup> Locke, *Essay IV*.xi.6.

if my Eyes be shut: Nor when those Characters are once made on the Paper, can I chuse afterwards but see them as they are; that is, have the *Ideas* of such letters as I have made. Whence it is manifest, that they are not barely the Sport and Play of my own Imagination, when I find, that the Characters, that were made at the pleasure of my own Thoughts, do not obey them; nor yet cease to be, whenever I shall fancy it, but continue to affect my Senses constantly and regularly, according to the Figures I made them.<sup>56</sup>

Here Locke is drawing attention to the fact that we are evidently capable of producing a string of text through an act of will that perfectly complies with our desires and expectations. And though the initial content of this text is apparently up to us, once our intentions have been—in fact or in fancy—committed to paper, we have effectively no control of its resulting form and content. And this, he thinks, is an indication that we have produced something *real*. He subsequently offers an additional reason for embracing this conviction. Locke continues:

To which if we will add, that the sight of those shall, from another Man, draw such Sounds, as I before-hand design they shall stand for, there will be little reason left to doubt, that those Words, I write, do really exist without me, when they cause a long series of regular Sounds to affect my Ears, which could not be the effect of my Imagination, nor could my Memory retain them in that order.<sup>57</sup>

Here Locke is arguing for the existence of words, i.e., *real words* in *real space*, which, in virtue of their order and meaning, are causally responsible for the concatenation of thoughts that unfold in our minds as we read. For Locke it is not essential that this body of text be authored by someone else: it is only necessary that it convey information in a manner and degree that exceeds one's powers of memory and spontaneous imagination. Although we are surely capable of underestimating the extent of these capacities, they appear to be quite limited. The fact that reading generally brings us into contact with informational content that greatly surpasses these apparent limits is an indication that we are in contact with mind-independent realities that are fashioned by us or others like us.<sup>58</sup>

Locke has thus identified eight aspects of our perceptual experience, aspects which he takes to strongly-though-non-conclusively support the thesis that our ideas of sense are generally produced in us by bodies that resemble them. Before I characterize this argument further, let us briefly review what I have been referring to as Locke's facts of experience. Here they are in summarized form:

- (F1) Ideas of sense are briskly produced and sustained in us in a manner that is independent of our wills (§§4–5);

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<sup>56</sup> Locke, *Essay IV*.xi.7.

<sup>57</sup> Locke, *Essay IV*.xi.7.

<sup>58</sup> For a more recent version of this argument, see Karl Popper, *Realism and the Aim of Science* (Totowa, NJ: Roman and Littlefield, 1983), 83–84.

- (F2) The ideas of sense that are produced in us fall into qualitatively distinct modes (visual, auditory, tactile, olfactory, gustatory) in a manner that appears to be causally mediated by properly functioning sense organs (§4);
- (F3) Ideas of sense are produced in us in a manner that appears to be intersubjectively confirmable (§4);
- (F4) Ideas of sense are substantially clearer, more vivid, and more detailed than the ideas which we produce in ourselves through memory or the imagination (§5);
- (F5) Many ideas of sense are produced in us in a manner that is occasioned by pleasure and pain; the remembrance (or imagination) of these ideas is not accompanied by pleasure or pain (§6);
- (F6) We encounter ideas of sense from individual sense modalities in a predictably continuous or repeatable manner; when we encounter ideas of sense from a plurality of sense modalities (at the same time or in close succession), these ideas arise in a systematically interconnected and corroborating manner; these features make it possible for us to reliably predict and control our future experiences (§7);
- (F7) Ideas of sense are produced in us in a manner that appears to facilitate instances of demonstrative reasoning (§6); and
- (F8) Ideas of sense are often produced in us in a manner that includes a degree of informational content that appears to exceed our capacities of memory and spontaneous imagination (§7).

Although one might well insist upon a different way of framing these descriptions (e.g., one which does not involve a reference to *ideas*), the features to which he is drawing our attention are unquestionably present in our experience.

If Locke is offering an abductive argument for this position, then what are the competing hypotheses? Why, in addition, does he take his hypothesis to provide us with the best explanation of these phenomena? In the course of this discussion Locke considers and rejects four hypotheses on the grounds that they are at odds with various aspects of our perceptual experience. He begins with two hypotheses that propose *we* are (unwittingly) responsible for the production of our ideas of sense. In §4 he considers the possibility that our sense organs are causally responsible for the production of ideas. We can be sure that our ideas of sense are not produced by the sense organs we associate with them, he contends, “for then the Eyes of a Man in the dark, would produce Colours, and his Nose smell roses in the Winter: but we see no body gets the relish of Pine-apple, till he goes to the *Indies*, where it is, and tastes it.”<sup>59</sup> Here Locke is suggesting that this hypothesis is *inconsistent* with several aspects of our perceptual experience. He is suggesting, in particular, that if this hypothesis were true, then our ideas of sense would *not* arise both: (i) in a manner which appears to be intersubjectively confirmable (F3); and (ii) in a reliably predictable and controllable manner involving the corroborating outputs of multiple sense modalities (F6). Here Locke is trying to show too much: he does not need to establish that this hypothesis is inconsistent with these facts of experience. Rather, he only needs to point that this hypothesis is not in a position to *explain* these facts, which is certainly the case. For if this hypothesis were true we would not *expect* our ideas to arise in either of these ways.

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<sup>59</sup> Locke, *Essay* IV.xi.4.

In §5 Locke considers the hypothesis that our *minds* are somehow responsible for our ideas of sense. He rejects this explanation because he takes it to be at odds with the felt difference between our ideas of sense and the ideas that we produce in ourselves by means of memory and the imagination (F4). If our minds were causally responsible for our ideas of sense, as they are for our ideas of memory and imagination, then they would not present themselves to us in such a starkly different manner. Here again, Locke seems to be overreaching. He does not need to establish that this hypothesis is inconsistent with (F4). He only needs to point out that we would not expect these phenomenal differences if our minds were causally responsible for all of our ideas, whereas this is exactly what we would expect if our ideas of sense are the result of mind-independent bodies acting on our own bodies.

In §6 Locke considers and rejects a position that sounds a lot like Humean phenomenalism. Thus Locke writes:

[W]e remember the pain of *Hunger*, *Thirst*, or the *Head-ach*, without any pain at all; which would either never disturb us, or else constantly do it, as often as we thought of it, were there nothing more but *Ideas* floating in our Minds, and appearances entertaining our Fancies, without the real Existence of Things affecting us from abroad.<sup>60</sup>

In this passage Locke is arguing that the hypothesis that there is nothing but “*Ideas* floating in our minds” should be rejected because it is inconsistent with (F5), the thesis that ideas of sense that are occasioned by pleasure and pain are remembered or imagined in a manner that does not involve these sentiments. Although his argument strategy is admirably clear, his reason for rejecting this position is not convincing. It is not obvious that this hypothesis is incompatible with (F5) since there is no reason to suppose that our perceptual lives would have to be different if this hypothesis were true. In particular, there is no reason to suppose that if this hypothesis were true, then our ideas of sense and our ideas of memory and imagination would be alike in this regard. Even so, I think it must be said that he was in a position to do better than this since he does not need to establish that this hypothesis is incompatible with these features of our perceptual experience. Instead, he only needs to show that this account does not explain these features as well as his account. And indeed it does not. Since this account does not include any reference to the causal history of our perceptual encounters, it isn’t in a position to explain anything. And that is a sufficient reason for rejecting it, particularly if there is a theory that can do better, which is certainly the case with regard to his theory, at least.

Finally, in §8 Locke confronts Descartes’s dream hypothesis, the suggestion that for all we know, we might now be dreaming. The idea here is that if we are not able to refute the hypothesis that we might be dreaming, then we do not know that we are not dreaming. This would mean, in turn, that our veridical perceptual encounters do not yield instances of perceptual knowledge. Although Locke tends to be dismissive of this hypothesis, it is pretty clear that he wants to do better than that here. In the course of rejecting this hypothesis in §8 Locke makes two appeals to (F6), the observation that our ideas of sense are produced in us in a systematically interconnected manner that

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<sup>60</sup> Locke, *Essay* IV.xi.6.

allows for us to reliably predict and control our future experiences.<sup>61</sup> Perhaps because he is aware that this hypothesis is compatible with any actual or possible perceptual experience, Locke does not try to establish that this hypothesis is *incompatible* with (F6). That is, he does not try to establish that our perceptual experiences would be quite different if this hypothesis were true. Even so, he does not do what he might easily have done: he does not explicitly reject this hypothesis on the grounds that it does not *explain* (F6), or at least that it does not explain (F6) as well as his account.

I think that it must be said that Locke does not execute this form of argument as effectively as he might have. Before I draw attention to some weaknesses in his abductive argument for indirect realism, I would like to briefly mention what I take to be its greatest virtues. In the first place, I find his analysis of the various aspects of our perceptual encounters to be singularly impressive. I say this because the features which he has identified really are present in our experience. And since these are non-trivial features which our perceptual lives might not have included, he is right to suppose that they call for an explanation. Consider, by way of comparison, the “facts of experience” that inform Descartes’s argument for this position. At least as this argument occurs in the *Meditations* and the *Principles*, Descartes only appeals to (F1), (F4), and (F5). He does not draw attention to the appearance of intersubjective confirmability (F3); he does not draw attention to the way in which ideas of sense are produced in an interconnected manner that makes it possible for us to predict and control our experience (F6); and he does not consider the epistemic significance of the fact that our senses appear to facilitate our deductive reasoning (F7) or that we frequently encounter realities which appear to be endowed with informational content that vastly exceeds our powers of memory and spontaneous imagination (F8).

In the second place, Locke’s reliance upon abductive reasoning in this context is both historically significant and philosophically promising. It is historically significant because it involves a decisive shift away from what Harold Brown refers to as the classical model of rationality, according to which reasoning is restricted to inferential connections that exhibit logical or conceptual necessity.<sup>62</sup> Consider now the objection, given first by Berkeley and echoed by Hume, that Locke’s indirect realism is indefensible since it cannot be supported through reason or experience.<sup>63</sup> This position cannot be supported through *reason*, they argue, since reason trades in matters of logical or conceptual necessity, and there is no necessary connection between the occurrence of an idea and the existence of its putative object. They further argue that this position cannot be supported by *experience*, since experience can take us no further than our ideas, and this clearly won’t suffice for Locke’s purposes. Although historically decisive, this objection presents Locke with a false dilemma because it presupposes an unduly narrow understanding of Locke’s evidential resources. Although Locke concedes that a conclusive demonstration of this conclusion is beyond our reach, by relying upon non-conclusive reasons that are centered around salient aspects of our perceptual experiences, he is able to provide a

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<sup>61</sup> At Locke, *Essay* IV.xi.8, see page 634, lines 31–24; and page 635, lines 1–4.

<sup>62</sup> See Harold Brown, *Rationality* (London: Routledge, 1990), 14–17.

<sup>63</sup> See Berkeley, *Principles* I.18, 31; and Hume, *Enquiry*, §12, pt. 1, 105.

credible degree of support for this position in a manner that relies upon reason *and* experience.

I would now like to draw attention to some problems with Locke's abductive argument for indirect realism. One problem has already been noted: his description of the relevant facts of experience are frequently presented in a manner that appears to presuppose the existence of corporeal objects. Second, apart from the criterion of empirical adequacy (i.e., consistency with the phenomena to be explained) he does not articulate or self-consciously employ any of his criteria for theory choice. Third, he tends to employ the criterion of empirical adequacy in a manner that is problematic. Not only does he fail to explain or illustrate the difference between a theory's *explaining* a given phenomenon and its merely *accommodating* this phenomenon, on more than one occasion he also rejects a hypothesis on the grounds that it is inconsistent with a specific phenomenon, when the real problem is that it cannot *explain* it.

Partly because his argument does not draw upon his official criteria for theory choice, Locke does not take sufficient pains to establish that his account of perception provides us with the *best* explanation of his facts of experience. For starters, he does not draw attention to the fact that none of the competing explanatory hypotheses that he considers is grounded in a deeper, systemic account of reality. This matters because his hypothesis is grounded in a system of reality (the corpuscularian hypothesis) that enjoys a great deal of independent evidence. In addition, he does not do enough to establish that his account of perception provides a substantially better explanation of the relevant facts than any of the competitors he mentions. In particular, he does not explain why these facts are exactly what we would expect if his theory were true nor why this is not the case with regard to any of the alternative explanations.

Finally, Locke's argument does not include a sufficiently broad set of competing explanatory hypotheses. In addition to the four hypotheses that he does consider, there are at least three others that he ought to have considered. In the first place, he ought to have taken up the Cartesian demon hypothesis since it has more explanatory power than the dream hypothesis. For unlike the dream hypothesis, this hypothesis is able to explain: (i) why our perceptual lives include mutually corroborating sense modalities (F6); (ii) why our perceptual faculties seem to facilitate our logical and mathematical demonstrations (F7); and (iii) why ideas of sense arise in a manner that appears to vastly exceed our capacities of memory and spontaneous imagination (F8). Although Locke does not take up this skeptical hypothesis in the *Essay*, we can be sure that he would have had little patience with it. Although we cannot be certain that reality conforms to our most basic psychological expectations with regard to our place in the world—for example, that we are in reliable perceptual contact with a coherent natural order—we are certainly justified in supposing this to be the case, and this rules out the demon hypothesis, tout court. Moreover, even if one could show that this hypothesis is able to explain the relevant facts of experience as well as his own, he could still reasonably conclude that his account is better since unlike the demon hypothesis, his theory is grounded in a systemic account of reality that enjoys a substantial degree of independent confirmation.

In addition, Locke should have considered the possibility (also considered and rejected by Descartes) that our ideas of sense are caused by corporeal objects that they do *not* resemble in any significant respect. How would Locke have responded to this



hypothesis? He might have confronted it head on. Although this hypothesis is apparently consistent with the fact that ideas of sense from different sense modalities are produced in a systematically interconnected and corroborating manner (F6), I do not think we would *expect* (F6) to be true if this were the case, so it does not explain (F6) as well as his own theory. Then again, Locke might simply have dismissed this hypothesis. We have no choice but to suppose that we are in contact with a natural order which is at least *partly* intelligible to us and, hence, that there is not a permanent and extensive gap between how things are and how they seem. We thus tend to dismiss systemically ungrounded hypotheses that run contrary to this expectation. We have seen Locke exhibit this tendency on many occasions, and he would have had solid grounds for doing so here. For he is deeply committed to the idea that the world is largely intelligible to us, first, because this is part and parcel of his theism and, second, because he is confident that the natural sciences have made genuine progress in our understanding of the natural order.

Finally, it is unfortunate that Locke did not consider the hypothesis—rejected by Descartes but subsequently defended by Malebranche and Norris—that our ideas of sense are directly produced in us by God. This is unfortunate because unlike the other competing hypotheses, this one is grounded in a systemic account of reality (namely, the metaphysics of classical theism), one that Locke himself shares and one that he takes to enjoy a substantial degree of evidential support. Since Locke believes that God is the source of our cognitive faculties, he cannot suppose that there is no connection between God’s goodness and veracity and the reliability of these faculties.<sup>64</sup> Although he does not follow Descartes in grounding the reliability of perception directly upon God’s goodness and veracity, he certainly has some reason for doing so. For he is convinced (i) that we have demonstrative knowledge of God’s existence, (ii) that we can be equally certain of God’s goodness and veracity, (iii) that as the creator of all things God is causally responsible for our cognitive capacities, and (iv) that God alone is in a position to “see” the extent to which our ideas of sense resemble their putative objects. Since he is also convinced that God is *able* to produce such ideas in us, why should we not suppose that this is generally the case? The good news is that we do not need to speculate as to how Locke *might* have responded to Malebranche and Norris: he responded to both accounts in the year that preceded the second (1694) edition of the *Essay*.<sup>65</sup> As we shall see, the position that unfolds sheds a great deal of light on Locke’s use of abductive reasoning in this context, both with regard to how it works and with regard to the epistemic status of its findings.

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<sup>64</sup> Locke clearly does think that there is a connection between God’s nature and the reliability of our cognitive faculties. At *Essay* I.i.5 he writes that “though the Comprehension of our Understandings, comes exceeding short the vast Extent of Things; yet, we shall Cause enough to magnify the bountiful Author of our Being, for that Portion and Degree of Knowledge, he has bestowed on us, so far above all the rest of the Inhabitants of this our Mansion.” At III.i.1 he takes God to be responsible for our linguistic capacities. And at II.xxxi.2 and IV.iv.4 his accounts of the adequacy of our simple ideas are explicitly grounded in God’s providence and veracity.

<sup>65</sup> On the somewhat dramatic circumstances that evidently precipitated Locke’s responses to Malebranche and Norris, see Charlotte Johnston, “Locke’s Examination of Malebranche and Norris,” *Journal of the History of Ideas* 19, no. 4 (October 1958): 551–58.

Locke rejects Malebranche's account of perception, captured in the phrase that "we see all things in God," first, because he takes it to be unintelligible and, second, because he takes it to be inconsistent with the tenets of classical theism.<sup>66</sup> His response to Norris is far more instructive, in part because he takes it to be free from these difficulties. On Norris's occasionalist version of indirect realism, our physical proximity to mind-independent objects is the occasion of God's causing us to have ideas of sense that appropriately resemble these objects. Since Locke thinks that God is able to produce ideas in this manner, he must concede that Norris's account is *consistent* with the form and content of our perceptual experience. Even so, he does not think that Norris's account is equally capable of *explaining* these features. In this first place, this account cannot explain why it seems to be the case that the production of these ideas is causally mediated by organs of sense (F2). Thus Locke writes:

If visible objects are seen only by God's exhibiting their ideas to our minds, on occasion of the presence of these objects, what hinders the Almighty from exhibiting their ideas to a blind man, to whom, being set before his face, and as near his eyes, and in as good a light as to one not blind, they are, according to this supposition, as much the occasional cause to one as the other? But yet under this equality of occasional causes, one has the idea, and the other not; and this constantly; which would give one reason to suspect something more than a presential occasional cause in the object.<sup>67</sup>

Here Locke is suggesting that Norris's theory cannot explain why visual ideas are produced in us in a manner that *appears* to be causally mediated by properly functioning eyes. If God alone were causally responsible for our ideas of sense, we would expect the same result in both cases. Although God could bring it about that it merely *seems* as if our visual ideas are causally mediated by properly functioning eyes, he contends that the best explanation of this appearance would still be that our eyes are substantially involved in the causal ancestry of our ideas. He takes this conclusion to be further supported by scientific findings in anatomy and optics. He thus writes that

He that understands optics ever so little, must needs admire the wonderful make of the eye, not only for the variety and neatness of the parts; but as suited as to the nature of refraction, so as to paint the image of the object in the retina; which these men must confess to be all lost labour, if it contributes nothing at all, in the ordinary way of causes and effects, to the producing of that idea in the mind.<sup>68</sup>

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<sup>66</sup> Locke, *An Examination of P. Malebranche's Opinion*, §2, 211–12. In §29, 226–28, Locke argues that this account implies that all things exist in God, and he takes this to be incompatible with the doctrine of divine simplicity.

<sup>67</sup> Locke, *Remarks upon Some of Mr. Norris' Books*, in *The Works of John Locke*, vol. 10, §12, 253–54.

<sup>68</sup> Locke, *Remarks upon Mr. Norris' Books*, §3, 249.

Locke goes on to identify two additional perceptual phenomena which support his hypothesis over Norris's. In §14 he draws attention to two forms of sensory adaptation:

Outward objects are not, when present, always occasional causes. He that has long continued in a room perfumed with sweet odours, ceases to smell, though the room be filled with those flowers; though, as often as after a little absence he returns again, he smells them afresh. He that comes out of bright sunshine into a room where the curtains are drawn, at first sees nothing in the room; though those who have been there some time see him and everything plainly. It is hard to account for either of these phenomena, by God's producing these ideas upon the account of occasional causes. But by the production of ideas in the mind, by the operation of the object on the organs of sense, this difference is easy to be explained.<sup>69</sup>

Since his interlocutor in this case does not deny the existence of the relevant physical conditions, there is no need for Locke to present these examples solely in terms of how things seem. Even so, I think these observations are best expressed as an addendum to (F2), the observation that ideas of sense seem to be produced in us in a manner that is causally mediated by properly functioning sense organs. Here is the addendum: over an extended period of time we frequently come to have different ideas of sense in what appears to be the same physical conditions; in some cases we seem to become *less* aware of our surroundings, and in others we seem to become *more* aware of our surroundings. I think that Locke is right to conclude that his account of perception is in a substantially better position with regard to these phenomena. For on his account we can readily explain why our ideas of sense differ across time in what is (or seems to be) the same set of physical conditions. Since our sense organs are part of these physical conditions, when they are acted upon for an extended period of time, we would expect them to become habituated to these stimuli. Norris's hypothesis cannot easily account for these phenomena. Since the ensuing account as to how things *are* would involve a significant departure from how things *seem*, in the course of trying to explain these phenomena Norris will have explained them away.

These interchanges with Malebranche and Norris are important for at least three reasons. First, in both cases Locke is responding to theories of perception that are grounded in a deeper, systemic account of reality that appears to enjoy some degree of independent evidential support, namely, the metaphysics of classical theism. Because he shares their commitment to classical theism Locke takes their arguments quite seriously: he is not the least bit dismissive of their positions. In addition, by Locke's reckoning, Malebranche and Norris are both advancing abductive arguments for their respective theories of perception: each of them is arguing that his account of perception provides the best explanation of the form and content of our perceptual experiences.<sup>70</sup> Perhaps because they are defending their hypotheses in the same way

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<sup>69</sup> Locke, *Remarks upon Mr. Norris' Books*, §14, 254.

<sup>70</sup> This is particularly clear in the case of Malebranche. See Locke, *An Examination of P. Malebranche's Opinion*, §§1–2, 211–12; §42, 238.

that he is defending his, we find him employing this argument strategy in a more artful and self-conscious manner.

Finally, in this case we can be sure that Locke is not employing this argument in the way that Dicker has suggested: he is not providing his interlocutors with reasons for believing what he takes himself to know. On the contrary, Malebranche and Norris both take this mode of inquiry to yield instances of knowledge, and in both cases Locke is keen to refute this claim. Early in his response to Norris, for example, Locke takes up Norris's criticism that he has failed to provide an "account of the nature of ideas."<sup>71</sup> Since we all understand what it is to *have* ideas, Locke takes Norris to be suggesting that he has failed to provide an account of "their causes and manner of production in the mind." Locke argues, in response, that he cannot be faulted for failing to do what is impossible. While everyone knows what it is like to perceive an idea at one moment and not at the next, Locke contends that no one knows how this difference arises. He thus confesses that the ultimate causal basis for this difference is "for aught I see, unknown to one side as well as the other; only the one have the ingenuity to confess their ignorance; and the other pretend to be knowing."<sup>72</sup> Here Locke is conceding, once again, that his explanatory hypothesis includes causal processes that are unknowable in principle. If we cannot know this part of the story, surely he does not suppose that we are in a position to know the whole story to be true. Indeed he does not. In §17 of this discussion he indicates that on his account "it seems probable that, in us, ideas depend on, and are some way or other the effect of motion."<sup>73</sup> If Locke takes this thesis to be merely *probable*, then by his reckoning it is not something one could know.

Here, then, is an additional reason for taking Locke to be both logically and self-consciously committed to empirical skepticism. His theory of perception is an application of the corpuscularian hypothesis. Although he takes this hypothesis to enjoy a very substantial degree of evidential support, it remains for all that simply a hypothesis, one that is, at most, probable. Although he believes it to be true on grounds that are more than a little promising, even if it is true he does not suppose that any created intellect is in a position to *know* that it is true. Consider now his reasons for affirming the theory of perception that is grounded in this hypothesis. He takes this theory to be true because it provides the best explanation of the form and content of our perceptual experiences. This, in turn, provides us with *assurances* both: (i) that things in the world are generally as they seem; and hence (ii) that there is a corporeal world populated by objects that resemble our ideas of sense.<sup>74</sup> Locke is fully aware that his reasons are speculative and inconclusive. So, he cannot suppose that we are

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<sup>71</sup> Locke, *Remarks upon Mr. Norris' Books*, §2, 248. For his rejection of Malebranche's claim to knowledge in this regard see *An Examination of P. Malebranche's Opinion*, §51, 250.

<sup>72</sup> Locke, *Remarks upon Mr. Norris' Books*, §2, 249.

<sup>73</sup> Locke, *Remarks upon Mr. Norris' Books*, §17, 256.

<sup>74</sup> Locke does not take assurances to be mere *indications* of truth. Rather, to be *assured* that *p* is, is to be *made sure* that *p* is true through the possession of grounds that are strongly indicative of *p*'s truth. Jacovides thus suggests that for Locke, an assurance is "the highest degree of certainty that does not count as knowledge," *Locke's Image of the World*, 8. See also "assurance, n.," Oxford University Press, June 2022, Oxford English Dictionary Online.

genuinely in a position to know that we are presently surrounded by the objects that are causally responsible for our ideas of sense. The very fact that Locke is offering non-conclusive reasons for these conclusions is thus a clear indication that he takes them to lie “beyond the tether” of human knowledge.

In the *Enquiry* Hume characterizes Locke’s account of perception as a “pretended philosophical system,” which lacks any degree of evidential support.<sup>75</sup> Along the same lines, in his *Critique of Pure Reason* Immanuel Kant suggests that it is a “scandal for philosophy and human reason in general . . . that we have to accept merely on *faith* the existence of things outside us.”<sup>76</sup> I submit that Locke is in a position to successfully parry both of these criticisms. On the assumptions that allow for this predicament—namely, that metaphysical realism is true and direct realism is false—Locke is able to explain both: (i) why we are not in a position to *prove* the existence of the material world; and (ii) why this does not force us to accept its existence as an article of faith. Locke has succeeded in providing reasons for this conclusion that are quite substantial in spite of the fact that they are non-conclusive. I say this, first, because he has identified a significant array of perceptual phenomena that seem to *call* for an explanation and, second, because he is genuinely in a position to establish that his explanatory hypothesis is superior to any of its extant competitors.

Suppose, once more, that the broad contours of Locke’s indirect realism are correct and that you are indirectly perceiving a white cat in your front yard. Although Locke would readily grant that you *see* the cat under these conditions, he does not think that you are in a position to *know* that there is a cat in your front yard. You do know this because you are not directly aware of the conditions that make it true. If this is Locke’s considered position, why does he frequently insist that we do have such knowledge? Indeed, he says as much in the course of rendering his concurrent, non-conclusive reasons for the existence of things other than oneself and God.<sup>77</sup> Is Locke simply confused? I don’t think so. To see why, we need to address his answers to two additional questions. First, if instances of veridical perception do not give rise to instances of experiential knowledge, then what do they give rise to? That is, what is the epistemic status of those cognitive states that Locke regularly *describes* as instances of sensitive knowledge? Second, if Locke is convinced instances of veridical perception do not yield genuine instances of knowledge, why then why does he regularly indicate that they do?

#### 4. Locke on Sensitive Knowledge as Quasi-Knowledge

Although Locke frequently suggests that we have sensitive knowledge of mind-independent bodies, there is no shortage of passages that indicate that he takes

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<sup>75</sup> Hume, *Enquiry*, §12, pt. 1.

<sup>76</sup> Immanuel Kant, *Critique of Pure Reason*, trans. Werner Pluhar (Indianapolis: Hackett, 1996), B xl, 36n144.

<sup>77</sup> In this chapter of the *Essay* (IV.xi) Locke makes these claims in §§2, 9, 10, 11, and 12. This conviction is also registered in his title for this chapter: “Of our Knowledge of the Existence of other Things.”

sensitive knowledge to be conceptually impossible. Indeed, we find this emphasis in his initial description of sensitive knowledge at IV.ii.14. Thus, Locke writes:

These two, (*viz.*) Intuition and Demonstration, are the degrees of our Knowledge; whatever comes short of one of these, with what assurance soever embraced, is but Faith, or Opinion, but not Knowledge, at least in all general Truths. There is, indeed, another *Perception* of the Mind, employ'd about *the particular existence of finite Beings* without us; which going beyond bare probability, and yet not reaching perfectly to either of the foregoing degrees of certainty, passes under the name of Knowledge.<sup>78</sup>

This passage is quite surprising. Since his subtitle for this section is “Sensitive Knowledge of Particular Existence,” we expect Locke to be explaining why sensitive knowledge constitutes a genuine category of knowledge, but that is not what happens here. Rather, he is strongly implying that what we *call* sensitive knowledge is not a genuine category of knowledge, but rather a form of judgment or belief that in typical cases enjoys a high degree of probability. He suggests, in addition, that in virtue of their high degrees of probability it is appropriate to treat these judgments as though they were instances of knowledge. Locke is thus suggesting (i) that instances of veridical perception do not yield *genuine* instances of knowledge, (ii) that our empirical judgments regarding sensible particulars (namely, the ones that are causally responsible for our ideas of sense) enjoy high degrees of probability, and (iii) that in virtue of their high degrees of probability it is reasonable for us to think, speak, and act as though they were genuine instances of knowledge.

Although there are many passages from Locke that echo these claims, I shall center my case around four additional witnesses. The first is found in the chapter “Of our Knowledge of the Existence of other Things”:

*The notice we have by our Senses, of the existence of Things without us, though it not be altogether so certain, as our intuitive Knowledge, or the Deductions of our Reason, employ'd about the clear abstract Ideas of our Minds; yet it is an assurance that deserves the name of Knowledge. If we persuade our selves, that our Faculties act and inform us right ... it cannot pass for an ill-grounded confidence.*<sup>79</sup>

If our veridical perceptual encounters engendered actual instances of perceptual knowledge, there would be no talk of *assurances*, much less of assurances that *deserve to be called* instances of knowledge.<sup>80</sup> In saying that we have such an assurance, Locke is indicating we can be *all but certain* of their existence. This means, by Locke's reckoning, that we are *not* certain that our ideas of sense are produced in us by bodies that suitably resemble them, so Locke must say that we do not know these bodies to exist. But that does not prevent him from saying, in the same breath, that these

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<sup>78</sup> Locke, *Essay* IV.ii.14.

<sup>79</sup> Locke, *Essay* IV.xi.3.

<sup>80</sup> Thus Rickless, “Is Locke's Theory of Knowledge Inconsistent?,” 92–93.

judgments are so probable that we should not hesitate to think, speak, and act as though they were instances of knowledge.

In the above passage Locke is acknowledging that the epistemic status of our singular empirical judgments is largely a function of the reliability of the cognitive processes that give rise to them. We believe that mind-independent bodies exist, first, because our senses indicate that we are in the presence of such bodies and, second, because we have reason to suppose that our senses are reliable. It is worth noting, moreover, that Locke is affirming the latter conclusion in a manner that is quite modest: he is saying merely that it is *reasonable* for us to trust our senses. Although he has provided very credible grounds for taking our senses to be generally reliable, he does not think we're in a position to know as much. Nor are we in a position to ascertain whether they are "speaking truthfully" in a particular case. And if we cannot know this, we are hardly in a position to know that what they tell us is true.

My second witness comes from Draft A of the *Essay*. In the following passage Locke is concerned with the epistemic status of such empirical generalizations as "fire turns wood into ashes" and "lead bullets do not float in water":

These Probabilitys rise soe neare to certain knowledg, & there is soe little distance between them, that they are, pene scientia, That they governe our thoughts as absolutely & influence all our actions as fully as the most evident demonstration can & in what concernes us we make little or noe difference between these Probabilitys & certein Knowledg, & our Faith thus grounded arises to Assurance.<sup>81</sup>

The issue at hand is the epistemic status of lawlike generalizations concerning the relational and dispositional properties of corporeal objects. Here Locke is suggesting that these judgments are not suitable objects of knowledge: we do not know them because we cannot be certain of their truth. This does not prevent us from taking them to be true with high degrees of probability, so Locke refers to them as instances of *pene scientia*, that is, judgments that come so close to being instances of knowledge that we treat them as though they are instances of knowledge. For in functional terms they govern our thoughts and behavior as surely as if they were instances of knowledge.

My third witness is the recurrence of these sentiments in the *Essay* under the headings "Of Judgment" and "Of Probability." In "Of Judgment" Locke observes that "we would be at a great loss" if our thoughts and actions were based solely upon what we are in a position to know.<sup>82</sup> In §2 of this chapter he couches our epistemic predicament in theological terms: the propositions that God has empowered us to *know* are "limited to a few things" in comparison to what is necessary for our survival and flourishing. Although God has "set some things in broad day-light," the "greatest part of our Concernment" is restricted to what he refers to as the *twilight of probability*.

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<sup>81</sup> Draft A, in *Drafts A and B, John Locke: Drafts for the Essay Concerning Human Understanding and Other Philosophical Writings, Volume 1*, ed. Peter H. Nidditch and G. A. J. Rogers (Oxford: Clarendon Press, 1990), §§34, 64.

<sup>82</sup> Locke, *Essay* IV.xiv.1.

In “Of Probability” Locke maps out the divide between these epistemic regions, and the crucial difference is clear: while we are in a position to *know* those truths that exist “in broad daylight,” we are consigned to *believing* those truths that are shrouded in the twilight of probability. Although he maintains that it is possible for one person to believe what someone else knows,<sup>83</sup> at any given time there is no overlap between what one *believes* to be true and what one *knows* to be true since it is one thing to *see* a proposition to be true and quite another to *believe, take, or judge* it to be true.<sup>84</sup> In this chapter the dividing line between knowledge and probable belief is fixed by limits of demonstrative reasoning. If we cannot *intuitively* see that all Fs are G, and we likewise cannot *come to see* that all Fs are G by *proving* that nothing could be F without also being G, then we do not *know* that all Fs are G. Even so, we might still have very credible reasons for *believing* this proposition. Here Locke concedes that on this reckoning, the scope of human knowledge is “very narrow,” and hence that “most of the Propositions we think, reason, discourse, nay act upon, are such, as we cannot have undoubted Knowledge of their Truth.”<sup>85</sup> Even so, he suggests that many of these propositions “border so near upon Certainty, that we make no doubt at all about them; but *assent* to them as firmly, and act, according to that Assent, as resolutely, as if they were infallibly demonstrated, and that our Knowledge of them was perfect and certain.”<sup>86</sup> Although he does not say so here, he must suppose that our singular perceptual judgments are included in this number. On his account of perception, when our ideas of sense are produced in us by bodies which appropriately resemble them, we *indirectly* perceive these objects by *directly* perceiving our ideas of these objects. When we are in the position of *physically* seeing these objects, we are not in a position to *mentally* see that the conditions for veridical perception have been realized. Since we are likewise not in a position to prove that they have been satisfied, Locke must suppose that we merely *believe* them to have been satisfied. In addition, he has provided credible grounds for taking these beliefs to have very high degrees of probability. And so he thinks that we are free to think and act upon this belief as though we did know them to be true. It is not merely the case that we *do* give them full sway over the governance of our thoughts and actions, Locke thinks that we *should* do so. And he is once again in the position of taking these convictions to be instances of *pene scientia*.

My final witness hails from “Of the Improvement of our Knowledge,” the chapter that immediately follows his argument for the existence of “other Things.” Although Locke chronicles our search for knowledge under a number of headings in this chapter, his account of “our search after the Knowledge of *Substances*” makes a strong case for

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<sup>83</sup> At *Essay IV.xv.1* Locke suggests that one who has demonstrated the Pythagorean theorem knows it to be true, whereas one who affirms this theorem because it has been demonstrated by a competent authority merely believes it to be true.

<sup>84</sup> Locke thus writes that in cases of knowledge one “certainly perceives, and is undoubtedly satisfied of the Agreement or Disagreement of any *Ideas*.” In instances of judgment, on the other hand, these relations “are not perceived, but presumed to be so,” *Essay IV.xiv.4*.

<sup>85</sup> Locke, *Essay IV.xv.2*.

<sup>86</sup> Locke, *Essay IV.xv.2*.



empirical skepticism regarding the corporeal objects that surround us. He begins by pointing out that in this case, knowledge is not to be gained through an analysis of our ideas, since the contemplation of abstract ideas “will carry us but a very little way in the search of Truth and Certainty.” How then are we to secure “the improvement of our *Knowledge in substantial Beings?*”<sup>87</sup> Here is his answer:

Here we are to take a quite contrary Course, the want of *Ideas* of their real *Essences* sends us from our own Thoughts, to the Things themselves, as they exist. *Experience here must teach me*, what Reason cannot.<sup>88</sup>

If our goal is the pursuit of truth concerning the substantial beings that surround us, we need to do more than examine our ideas of these beings. Suppose, for example, that we want to learn as much as we can about cats. In such a case we would not be primarily interested in expanding our grasp of conceptual truths about cats, e.g., that all cats are mammals or that no cats have feathers. Rather, we would be most interested in expanding our repertoire of *contingent* facts about cats, i.e., facts about their intrinsic, relational, and dispositional characteristics. Just how good is their night vision? How effective are they as predators? To which pathogens are they particularly vulnerable? And so on. The point here is abundantly clear: no amount of conceptual analysis will enable us to answer these kinds of questions. If answers are to be found, they can only come by way of experience.

What then is the epistemic status of what we learn through experience rather than through intuition and reason? In the following passage Locke makes it clear that the carefully ordered perceptual experiences of the natural scientist do not yield experiential knowledge:

I deny not, but a Man accustomed to rational and regular Experiments shall be able to see farther into the Nature of Bodies, and guess righter at their yet unknown Properties, than one, that is a Stranger to them: But yet, as I have said, this is but Judgment and Opinion, not Knowledge and Certainty. This *way* of getting, and *improving our Knowledge in Substances only by Experience* and History, which is all that the weakness of our Faculties in this State of *Mediocrity*, which we are in in this World, can attain to, makes me suspect, that natural Philosophy is not capable of being made a Science.<sup>89</sup>

Here Locke is conceding that our only means of improving our knowledge of substances—namely, reliance upon experience and history—results in “judgments and opinions” rather than “knowledge and certainty.” If there is no knowledge in such cases, why is he speaking in terms of the *improvement* of our *knowledge*? Either Locke is contradicting himself in a manner that would be hard to fathom or he is using “knowledge” here as a euphemism for the all-but-certain information we gain through experience and history. Just how broad is the category of judgments? Since our current

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<sup>87</sup> Locke, *Essay* IV.xii.9.

<sup>88</sup> Locke, *Essay* IV.xii.9

<sup>89</sup> Locke, *Essay* IV.xii.10.

state of epistemic mediocrity is a function of the limited scope of intuition and demonstrative reasoning, Locke must suppose that this category includes *everything* that experience and history teaches us about these substances. In addition to the laws of nature that bear the names of Newton and Boyle, this category must also include the singular experiential judgments which arise in everyday life. Experience does not merely teach us that cats are vulnerable to certain forms of leukemia: it also teaches us that cats exist, and it sometimes informs us that one is present in our front yard.

These passages indicate that Locke had come to terms with the skeptical implication of his indirect realism. Although he is hardly shouting it from the rooftops, I take his considered opinion to be that instances of veridical perception do not yield genuine instances of knowledge. Since he thinks that we have very credible grounds for taking our senses to be reliable, he takes the empirical judgments that are grounded in perception to enjoy high degrees of probability. And while this means, by itself, that they are not suitable objects of knowledge, he contends that we are free to speak and act as though they were instances of knowledge. So that is what he does, both in the *Essay* and in his daily life.

Only one question remains: if Locke is himself committed to empirical skepticism, why is he so dismissive of the skeptical challenges that appear throughout the *Essay*? I think we now have a more satisfying answer to this question. On my reading Locke is not dismissing these skeptical challenges as one who knows what skeptics take to be unknowable. Rather, he rejects these skeptical hypotheses, first, because they lack explanatory power: his account of perception is in a much better position to account for the form and content of our perceptual experiences. He rejects them, second, because they are explanatory orphans: none of them is grounded in a systemic account of reality that is supported by independent lines of evidence. In this regard, in particular, his theory of perception is superior by a wide margin. Although he is himself committed to empirical skepticism, Locke rejects these skeptical hypotheses because they seek to undermine the credibility of our senses for reasons that are ultimately spurious. Finally, if these are his reasons for rejecting the skeptical challenges that appear throughout the *Essay*, then I take his dismissive attitude to be both reasonable and appropriate.<sup>90</sup>

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## Bibliography

- Beebe, James. "The Abductivist Reply to Skepticism." *Philosophy and Phenomenological Research* 79, no. 3 (2009): 605–36.  
<https://doi.org/10.1111/j.1933-1592.2009.00295.x>.
- Bennett, Jonathan. *Learning from Six Philosophers: Descartes, Spinoza, Leibniz, Locke, Berkeley, Hume*, Volume 2. Oxford: Clarendon Press, 2001.
- . *Locke, Berkeley, Hume*. Oxford: Clarendon Press, 1971.
- Berkeley, George. *Principles of Human Knowledge and Three Dialogues*. Edited by Howard Robinson. Oxford: Oxford University Press, 1996.
- Boyle, Robert. *Selected Philosophical Papers of Robert Boyle*. Edited by M. A. Stuart. Indianapolis: Hackett, 1991.
- Brown, Harold. *Rationality*. London: Routledge, 1990.
- Descartes, René. *The Philosophical Writings of Descartes*, 2 vols. Edited by John Cottingham, Robert Stoothoff, and Dugald Murdoch. Cambridge: Cambridge University Press, 1985.
- Dicker, George. *Berkeley's Idealism: A Critical Examination*. Oxford: Oxford University Press, 2011.
- . *Locke on Knowledge and Reality: A Commentary on An Essay concerning Human Understanding*. Oxford: Oxford University Press, 2019.
- Dunn, John. "Locke." In John Dunn, J. O. Urmson, and A. J. Ayer. *The British Empiricists: Locke, Berkeley, Hume*. Oxford: Oxford University Press, 1992, 1–90.
- Farr, James. "The Way of Hypotheses: Locke on Method." *Journal of the History of Ideas* 48, no. 1 (1987): 51–72. <https://doi.org/10.2307/2709612>.
- Hume, David. *An Enquiry Concerning Human Understanding*. Edited by Eric Steinberg. Indianapolis: Hackett, 1993.
- Jacovides, Michael. *Locke's Image of the World*. Oxford: Oxford University Press, 2017.
- Johnston, Charlotte. "Locke's Examination of Malebranche and John Norris." *Journal of the History of Ideas* 19, no. 4 (October 1958): 551–58.  
<https://doi.org/10.2307/2707923>.
- Jolley, Nicholas. *Locke: His Philosophical Thought*. Oxford: Oxford University Press, 1999.
- Kant, Immanuel. *Critique of Pure Reason*. Translated by Werner Pluhar. Indianapolis: Hackett, 1996.

- Locke, John. *The Works of John Locke*, 10 vols. London: Tegg, 1823.
- . *An Essay concerning Human Understanding*. Edited by Peter H. Nidditch. Oxford: Oxford University Press, 1975.
- . *John Locke: Drafts for the Essay concerning Human Understanding and Other Philosophical Writings, Volume 1*. Edited by Peter H. Nidditch and G. A. J. Rogers. Oxford: Clarendon Press, 1990.
- Lowe, E. J. *Locke on Human Understanding*. London: Routledge, 1995.
- Mackie, John. “Locke on Representative Perception.” In *Locke*, edited by Vere Chappell, 60–68. Oxford: Oxford University Press, 1998.
- . *Problems from Locke*. Oxford: Clarendon Press, 1976.
- Newman, Lex. “Locke on Knowledge.” In *The Cambridge Companion to Locke’s “Essay concerning Human Understanding,”* edited by Lex Newman, 313–51. Cambridge: Cambridge University Press, 2007.  
<https://doi.org/10.1017/CCOL0521834333.012>.
- Popper, Karl. *Realism and the Aim of Science*. Totowa, NJ: Roman and Littlefield, 1983.
- Pyle, A. J. *Locke*. Cambridge: Polity Press, 2013.
- Rickless, Samuel. “Is Locke’s Theory of Knowledge Inconsistent?” *Philosophy and Phenomenological Research* 77, no. 1 (2008): 83–104.  
<https://doi.org/10.1111/j.1933-1592.2008.00177.x>.
- Rockwood, Nathan. “Is Sensitive Knowledge ‘Knowledge’?” *Locke Studies* 13 (2013): 15–30.
- Russell, Bertrand. *An Outline of Philosophy*. London: Allen and Unwin, 1927.
- Stapleford, Scott. “Locke on Sensitive Knowledge as Knowledge”. *Theoria* 75, no. 3 (2009): 206–31. <https://doi.org/10.1111/j.1755-2567.2009.01040.x>.
- Woolhouse, Roger. *Locke*. Minneapolis: University of Minnesota Press, 1983.
- Yolton, John. *Locke and the Compass of Human Understanding*. Cambridge: Cambridge University Press, 1970.