DEGREES OF CERTAINTY AND SENSITIVE KNOWLEDGE: A REPLY TO SOLES

Samuel C. Rickless

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In recent work, I have argued that what Locke calls "sensitive knowledge" is not really knowledge, according to his own definition. Knowledge, as Locke defines it, is the perception of an agreement or disagreement between two ideas (E IV.ii.15: 538). However, on Locke's theory, sensitive knowledge, which is supposed to be knowledge via sensation of the existence of material objects outside the mind, is really better understood as a kind of assurance (i.e., assent or belief based on the highest degree of probability).¹ On this reconstruction, assurance, as Locke describes it, is a kind of doxastic state that is incompatible with reasonable doubt, but compatible with extreme hyperbolic skeptical doubt. But assurance, as Locke avers, falls short of knowledge, for it is a kind of non-factive presumption, rather than a kind of factive perception, of ideational agreement or disagreement. Locke, I claim, calls assurance of the existence of external material objects "sensitive knowledge" because assurance and knowledge are indistinguishable in their practical effects: assurance, no less than knowledge, leads to action without hesitation, given the absence of reasonable doubt that there is an external world to act in.

My conception of Lockean sensitive knowledge as a kind of assurance that falls short of genuine knowledge has recently been criticized in the pages of this journal by David Soles. My aim here is to answer Soles' criticisms. Having defined knowledge as the perception (rather than the presumption) of ideational agreement or disagreement, Locke claims that knowledge comes in degrees. Locke writes that there are three "degrees" of knowledge: intuitive, demonstrative, and sensitive (E IV.ii.14: 538, E IV.iii.2: 539). Intuitive knowledge is *immediate* perception of agreement or disagreement between two ideas (i.e., perception of agreement or disagreement that is not mediated by perception of agreements or disagreements involving further mediating ideas) (E IV.ii.1: 530-531), whereas demonstrative knowledge is *mediate* perception of ideational agreement or disagreement (E IV.ii.2: 531-532). Sensitive knowledge, which Locke classifies as the third degree of knowledge, is described as "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" (E IV.ii.14: 537).

I have argued that Locke's claim that sensitive knowledge does not reach perfectly to the degrees of certainty he calls "intuitive knowledge" and "demonstrative knowledge" cannot be explained on the assumption that sensitive knowledge is a kind of *bona fide* knowledge (Rickless, forthcoming). After all, between immediate perception and mediate perception there is no *tertium quid*: if perception of ideational agreement or disagreement is not immediate then it is mediate, and if it is not mediate then it is immediate. There is no such thing as a perception of ideational agreement or disagreement that is neither immediate nor mediate. It follows directly that if sensitive knowledge is *bona fide* knowledge, and if knowledge is the perception of ideational agreement or disagreement, then sensitive knowledge must be either a kind of intuitive

knowledge or a kind of demonstrative knowledge. Moreover, if sensitive knowledge is a kind of intuitive knowledge, then it is surely as certain as intuitive knowledge; and if sensitive knowledge is a kind of demonstrative knowledge, then it is surely as certain as demonstrative knowledge. But Locke claims that sensitive knowledge is "not altogether so certain, as our intuitive Knowledge, or the Deductions of our Reason" (E IV.xi.3: 631).

Soles begins by representing the main lines of this argument correctly:

Rickless maintains that, having argued that knowledge requires certainty and having admitted that our awareness of objects external to the mind falls short of the certainty of intuition and demonstration, Locke is forced to concede that beliefs about the existence of objects external to the mind do not satisfy his criterion of knowledge. (2014, 159)

But, a few lines later, he takes me to be arguing as follows:

[C]ertainty does not admit of degrees so, in conceding that beliefs about the existence of extra-mental objects fall short of the certainty of intuition and demonstration, Locke is conceding that such beliefs literally do not constitute knowledge. (2014, 159)

And in response to this reasoning Soles insists, following Rockwood (2013), that "Locke does explicitly and repeatedly assert that there are degrees of certainty and knowledge" (2014, 160).²

The first point that needs to be made here is that Soles has mischaracterized my argument. I claim that the following triad is inconsistent:

- 1. Sensitive knowledge is a kind of *bona fide* knowledge.
- 2. All knowledge is either intuitive or demonstrative.
- 3. Sensitive knowledge is not as certain as intuitive or demonstrative knowledge.

It follows from (1) and (2) that sensitive knowledge is either intuitive or demonstrative. But, by (3), sensitive knowledge is less certain than intuitive knowledge and demonstrative knowledge. But intuitive knowledge cannot be less certain than intuitive knowledge, and demonstrative knowledge cannot be less certain than demonstrative knowledge. Hence, sensitive knowledge cannot be less certain than intuitive knowledge and demonstrative knowledge cannot be less certain than intuitive knowledge and demonstrative knowledge. Contradiction. (2) being a logical truth, and (3) being clearly stated (more than once) by Locke, it follows that Locke is committed to the falsity of (1). The important point is that nowhere in this argument is it assumed that certainty does not admit of degrees. Soles has committed the fallacy of the straw man.

Soles devotes the rest of his article to establishing that it is possible for Locke to hold, without inconsistency, "that there are degrees of certainty and that some beliefs about the existence of extra-mental objects attain a sufficient degree of certainty to be classed as knowledge" (2014, 160-161). If Soles were right about this, then there would be reason to doubt the conclusion of my argument, which is that, for Locke, "sensitive knowledge" (i.e., knowledge of the existence of extra-mental objects through sensation)

should not be classed as knowledge. It is therefore important to the viability of my interpretation that I explain why Soles' interpretation of Lockean certainty is mistaken.

According to Soles, Locke's account of certainty is (nearly) identical to Joseph Glanvill's account of "indubitable certainty" (as distinguished from "infallible certainty"). Glanvill describes indubitable certainty as "a firm assent to anything, of which there is no reason to doubt" (2014, 161), and Soles claims that for Locke "one is certain of a proposition when there are no reasonable grounds for doubt and one firmly assents to it" (2014, 175). On this account, when there are no reasonable grounds for doubt and one firmly assent to it is more or less firm. This is how Soles makes sense of Locke's talk of degrees of certainty.

Soles claims that this account of certainty, combined with a few reasonable assumptions, also entails that propositions acquired by deduction are less certain than propositions acquired by intuition. The problem is that "unlike truths intuitively perceived, not all truths acquired via deduction are indubitable": in particular, it can be reasonable to doubt the conclusion of a demonstration "when the proof is long and complicated", for length and complexity conduce to "mis-remembering or mis-recording" (2014, 173). At the same time, the fact that propositions acquired by deduction are less certain than other propositions is perfectly compatible with their being certain, for "rechecking [a proof] by oneself and others almost always eliminates any reasonable grounds of doubt" (2014, 173). So although assent to the conclusion of a long and complex proof is sometimes insufficiently firm to rise to the level of certainty, certainty of the truth of the conclusion can be achieved if the proof is carefully re-checked.

Finally, Soles claims that this account of certainty entails that "[m]any perceptually-based beliefs must remain less certain than those acquired via deductive inferences". The reason for this is that "there are so many ways of going wrong perceptually" and "techniques for removing reasonable doubt once it arises are not as successful as those for deduction" (2014, 175). The relevant ways of going wrong, according to Soles, involve misperceptual conditions (2014, 174). At the same time, particular beliefs acquired through sensation can be certain when they are verified, by making further observations, optimizing the perceptual conditions, asking others to confirm one's own observations, and so on (2014, 174). And certainty of any proposition (i.e., firm assent to that proposition in the absence of reasonable grounds for doubt), whether acquired through intuition, deduction, or sensation, constitutes knowledge (2014, 176).

This is an appealing and interesting view, but, as I believe, it is not Locke's. In the first place, Locke distinguishes in the plainest terms between knowledge on the one hand and assent on the other. Knowledge is the perception of agreement or disagreement between two ideas. Assent is a mental act that is completely different from knowledge:

Probability is likeliness to be true, the very notation of the Word signifying such a Proposition, for which there be Arguments or Proofs, to make it pass or be received for true. The entertainment the Mind gives this sort of Propositions, is called *Belief*, *Assent*, or *Opinion*, which is the admitting or receiving any

Proposition for true, upon Arguments or Proofs that are found to perswade us to receive it as true, without certain Knowledge that it is so. (E IV.xv.3: 655)

The mind *assents* to "Truths delivered in Words" when it takes the ideas immediately signified by those words to agree or disagree "without perceiving a demonstrative Evidence in the Proofs" (E IV.xiv.3: 653). This is presumption, rather than perception, of ideational agreement or disagreement (E IV.xiv.4: 653). The main difference between assent (belief, faith) and knowledge is "that in all the parts of Knowledge, there is intuition", but "in belief not so" (E IV.xv.3: 655).

Anyone who distinguishes between knowledge and assent as Locke does cannot consistently hold *both* (a) that certainty is knowledge *and* (b) that certainty is a kind of assent (namely, firm assent in the absence of reasonable grounds for doubt). It follows that Soles' interpretation of Locke's conception of certainty, which entails both (a) and (b), is mistaken.

Some part of Soles' interpretation, then, must give. And it is clear that it must be the claim that certainty is a kind of assent, for Locke insists in many places that certainty and knowledge are the same thing. For example, he writes that "Certainty [is] but the Perception of the Agreement, or Disagreement of our *Ideas*" (E IV.iv.7: 565—see also *Works* 4: 289). And knowledge being defined as the perception of ideational agreement or disagreement, it follows directly that certainty is knowledge. This is confirmed in Locke's correspondence with Edward Stillingfleet:

[W]ith me, to know and be certain, is the same thing; what I know, that I am certain of; and what I am certain of, that I know. What reaches to knowledge, I think may be called certainty; and what comes short of certainty, I think cannot be called knowledge. (*Works* 4: 145)

[A]ll along in my Essay I use certainty for knowledge. (Works 4: 273)

Now it is possible that by "assent" Soles means something different from what Locke means by "assent". Perhaps Soles uses the word to mean something like "belief", where belief is something weaker than, or different from, the idea of taking two ideas to agree (disagree) when one does not perceive them to agree (disagree). But this can't save Soles' interpretation, because, as I have already argued, in order for us to be certain (that is to say, know) that there are extra-mental objects on the basis of sensation, our certainty must be either intuitive or demonstrative, for it must involve the immediate or the mediate perception of ideational agreement or disagreement. Thus, inasmuch as firm belief in the absence of reasonable grounds for doubt falls short of intuitive or demonstrative knowledge, it cannot be a kind of knowledge (certainty).

There is another significant problem with Soles' account of Lockean certainty. For Soles, degree of certainty is a function of degree of firmness of assent. And firmness of assent is to be measured by the extent to which one's commitment to the truth of a proposition is resistant to purported reasons for doubt: the easier (the more difficult) it is for purported reasons for doubt to dislodge one's commitment to a proposition's truth, the less (more) firm is our assent to that proposition. On this conception, firmness of assent is a scalar property: X's assent to P can be just ever so slightly more or less firm than Y's assent to P. Now, according to Soles, certainty is identical to firmness of assent in the absence of reasonable grounds for doubt. So if firmness of assent is scalar, then so is certainty. But certainty, as Soles has it, is identical to knowledge. So if certainty is scalar, so is knowledge. That is, if it is possible for X to be just ever so slightly more or less certain of P's truth than Y is, then it should be possible for X to know P ever so slightly more or less than Y does. But, for Locke, knowledge is the perception of ideational agreement or disagreement. So the possibility of X's knowing P ever so slightly more or less than Y does hinges on the possibility of X's perceiving ideational agreement or disagreement ever so slightly more or less than Y does. And the problem, of course, is that perception of such agreement or disagreement is not scalar. Perception is binary: either you perceive that two ideas agree or disagree or you don't. It follows that degrees of certainty, as Locke conceives of them, do not map onto degrees of certainty, as Soles conceives of them. Degrees of Lockean certainty are, while degrees of Solesian certainty are not, compatible with the binary nature of certainty.

How, then, should we understand Locke's talk of "degrees of knowledge" or "degrees of certainty"? The history of usage of the word "degree" suggests that although it could in the 17th century be used to refer to scalar properties, it could also be used to refer to discrete steps on a (literal or figurative) ladder.³ The word "degree" is rarely used in the latter way nowadays, but it continues to have uses that pick up on the "discrete step" meaning. For example, we talk of academic degrees (Bachelor of Arts, Master of Arts, Doctor of Philosophy), where these are discrete steps in a hierarchy. This, I submit, is how we should think of "degrees" of knowledge or certainty. Intuitive

knowledge is one degree of knowledge, while demonstrative knowledge is another. Locke picks up on this usage in writing of the "steps and degrees" of a proof in the case of demonstrative knowledge (E IV.ii.4: 532).

But doesn't Locke think of intuitive knowledge as being at a degree or step that is higher than the degree or step occupied by demonstrative knowledge? And isn't this because the certainty of intuitive knowledge is greater than the certainty of demonstrative knowledge? The answer, I believe, is that there is indeed a scalar property that differentiates between intuitive knowledge and demonstrative knowledge. But this property is not certainty or knowledge itself: it is, rather, clarity (or, as Locke sometimes calls it, brightness or lustre). Locke clarifies:

This Knowledge by intervening Proofs [i.e., demonstrative knowledge], though it be certain, yet the evidence of it is *not* altogether *so clear* and bright, nor the assent so ready, *as* in *intuitive* Knowledge. For though in *Demonstration*, the Mind does at last perceive the Agreement or Disagreement of the *Ideas* it considers; yet 'tis not without pains and attention: There must be more than one transient view to find it. (E IV.ii.4: 532)

And, again:

'Tis true, the Perception, produced by *Demonstration*, is also very clear; yet it is often with a great abatement of that evident lustre and full assurance, that always accompany that which I call *intuitive*; like a Face reflected by several Mirrors one

to another, where as long as it retains the similitude and agreement with the Object, it produces Knowledge; but 'tis still in every successive reflection with a lessening of that perfect Clearness and Distinctness, which is in the first, till at last, after many removes, it has a great mixture of Dimness, and is not at first Sight so knowable, especially to weak Eyes. Thus it is with Knowledge, made out by a long train of Proofs. (E IV.ii.6: 533)

Locke's view, then, is that even though intuitive knowledge and demonstrative knowledge are *equally* certain, in the sense that they both constitute knowledge (i.e., the perception of ideational agreement or disagreement), they differ with respect to the scalar property of clarity (brightness, lustre). Demonstrative knowledge, though certain, is less clear than intuitive knowledge.

Locke does not explain what clarity of knowledge amounts to, but it is probably similar in some respects to what he characterizes as the clarity that belongs to ideas. Locke writes that "our *simple Ideas* are *clear*, when they are such as the Objects themselves, from whence they were taken, did or might, in a well-ordered Sensation or Perception, present them", and that ideas are obscure when "they either want any thing of that original Exactness, or have lost any of their first Freshness, and are, as it were, faded or tarnished by Time" (E II.xxix.2: 363). This is not the clearest explication of clarity, but explications must come to an end somewhere. Locke is thinking that the perception of agreement or disagreement between two ideas becomes faded or dim when it is the result of combining a large number of immediate perceptions of ideational agreement or

disagreement in a long proof. But this is not to say that demonstrative knowledge is somehow *less* certain than intuitive knowledge.

The fact that Locke describes sensitive knowledge as less certain than either intuitive and demonstrative knowledge indicates, therefore, that he does not take it to be a kind of genuine knowledge: it is, instead, a kind of assurance, the highest form of assent in Locke's classification (E IV.xvi.6: 661-662). The fact that sensitive knowledge is described as a kind of knowledge reflects the fact that it is more similar to knowledge than it is to other forms of assent in its practical effects, as a result of its being utterly resistant to reasonable, ordinary, non-hyperbolic grounds for doubt. Soles' account of Locke's account of sensitive knowledge, is mistaken.

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ENDNOTES

¹ See Rickless (2008; forthcoming).

² Soles goes on to provide evidence that "philosophers of the seventeenth century are working within a tradition that cheerfully countenances talk of degrees of certainty" (2014, 161), and claims that "[i]n the absence of any explicit statement to the contrary and given his talk of degrees of certainty, his admiration for Bacon, his close association with other members of the Royal Society and his careful study of Descartes,...[t]o even suppose [that Locke does not countenance degrees, levels or types of certainty] is the height of anachronism" (2014, 163).

In response, let me say that the most important piece of evidence concerning what Locke himself accepts is what Locke himself says. Admiration for a philosopher does not automatically translate into acceptance of the philosopher's tenets. We know, for example, that Locke admires Descartes: "I must always acknowledge to that justly-admired gentleman the great obligation of my first deliverance from the unintelligible way of talking of the philosophy in use in the schools in his time" (*Works* 4: 48). And yet we also know that Locke disagrees with a significant number of Cartesian theses: that some ideas and principles are innate (E I.ii, E Liv), that "actual thinking is as inseparable from the Soul, as actual Extension is from the Body" (E II.i.9: 108), that "*Body and Extension are the same thing*" (E II.xiii.11: 171), that the idea of infinity is prior to the idea of finitude (E II.xvii), that a science of bodies is possible (E IV.iii.29: 560), and more. And what is true of admiration also applies to close association and careful study:

the fact that philosopher X is closely associated with, or has carefully studied the works of, philosopher Y does not entail that X agrees with Y on any particular issue.

³ See Oxford English Dictionary, under "degree, n.".