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Locke, Kant, and Synthetic A Priori Cognition

Abstract: This paper attempts to shed light on three related issues that bear directly on our understanding of Locke and Kant. The first is whether Kant believes Locke merely anticipates his distinction between analytic and synthetic judgments or also believes Locke anticipates his notion of synthetic a priori cognition. The second is what we as readers of Kant and Locke should think about Kant's view whatever it turns out to be, and the third is the nature of Kant's justification for the comparison he draws between his philosophy and Locke's. I argue (1) that Kant believes Locke anticipates both the analytic-synthetic distinction and Kant's notion of synthetic a priori cognition, (2) that the best justification for Kant's claim draws on Locke's distinction between trifling and instructive knowledge, (3) that the arguments against this claim developed by Carson, Allison, and Newman fail to undermine it, and (4) that Kant's own justification for his claim is quite different from what many commentators have thought it was (or should have been).

Introduction

Kant's relationship to his empiricist predecessors is complex, and this complexity is perhaps no more evident than in the case of Locke, whose philosophy influenced not only the likes of Berkeley, Hume, and Reid but also a generation of Kant's German predecessors. The "famous Locke" is the first philosopher Kant mentions in the *Critique of Pure Reason (CPR)*, but he is also critical of Locke's "**physiology** of the human understanding" and contrasts his transcendental de-

Citations from the *Critique of Pure Reason* use the standard A/B format to refer to the pages of the first (A) and second (B) editions. Citations from Kant's other works use the volume number and pagination of *Kants gesammelte Schriften*, edited by the Royal Prussian (later German, then Berlin-Brandenburg) Academy of the Sciences. 29 vols. (Berlin: De Gruyter 1900—). Quotations from Kant are taken from the Cambridge Edition of the Works of Immanuel Kant, in some cases with slight modifications. All other translations are my own. Citations from Locke's *Essay Concerning Human Understanding (Essay)* give the book, chapter, and section numbers and follow the Nidditch edition.

¹ See Pollok (2004), the literature cited therein, and Beiser (1987, 165 – 169) for discussion of Locke's influence on eighteenth-century German philosophy.

duction of the pure concepts of the understanding with Locke's attempted empirical deduction of them (CPR A ix, A x and B 127).2 Elsewhere, however, Kant is far more complimentary of Locke. For he claims in a number of places that Locke's Essay Concerning Human Understanding contains a hint of the distinction between synthetic and analytic judgments, and in the Prolegomena he appears to claim that Locke even anticipates his notion of synthetic a priori cognition.³ Given the importance of these distinctions to Kant's epistemology, this is high praise indeed.

Commenters are in general agreement that Kant believes Locke anticipates the analytic-synthetic distinction, but they disagree about whether he endorses the further claim that Locke anticipates his notion of synthetic a priori cognition.⁴ There is also disagreement about which, if either, of these views is true as a thesis about Locke and Kant, independent of what Kant may understand his relationship to Locke to be. Finally, on the assumption that Kant endorses the stronger claim that Locke anticipates both the analytic-synthetic distinction and his notion of synthetic a priori cognition, an assumption I shall argue is correct, questions have been raised about Kant's justification for this claim and, in particular, about why he does not appeal to the Lockean distinction between trifling and instructive knowledge, a distinction that I shall argue provides good evidence for the stronger claim.6

My goal in this paper is to shed light on this difficult set of issues and, in the process, on the relationship between Locke and Kant. In section one, I argue that Kant's comments about Locke suggest he believes Locke anticipates both the analytic-synthetic distinction and the notion of synthetic a priori cognition. In section two, I present what I take to be the best justification for this claim by com-

² See Guyer (2008) for a discussion of Kant and Locke on this point.

³ See Prolegomena to any future metaphysics that may come forward as a science (hereafter, Prolegomena) AA 4:270; On a discovery whereby any new critique of pure reason is to be made superfluous by an older one (hereafter, On a discovery) AA 8:245; and R 3738 dated to 1764-1768. I return to these passages in section one.

⁴ Beck (1978, 82) and Cicovacki (1990, 511) hold that Kant endorses the stronger view, as does Guyer in Kant (2005, 554, n20), while Ayers (1999, 26) suggests Kant endorses only the weaker view.

⁵ Fraser in the annotations contained in Locke (1894: II, 247, 299); Gibson (1917, 317); and Ryle (1933, 30 ff.) suggest the stronger view is true, while Caird (1889, 253 f.) and Ewing (1938, 18) suggest only the weaker view is true. Carson (2002, 359) assumes the truth of the strong view for the purposes of her paper, but her criticisms of Locke make clear that she would only endorse the weaker view, while Allison (2008, 68) and Newman (2007, 333-338) reject both views.

⁶ See Beck (1978, 82) and Cicovacki (1990, 513).

paring these Kantian distinctions to Locke's distinction between trifling and instructive knowledge. In section three, I consider three arguments against the claim that instructive knowledge meets the criteria Kant lays out for synthetic a priori cognition and argue that each is unsatisfactory. In section four, I identify Kant's justification for the claim that Locke anticipates his notion of synthetic a priori cognition and argue that it is plausible but different in important ways from the justification presented in section two. In particular, while the justification I provide and which many of Kant's commentators believe he should have provided draws heavily on Locke's account of mathematical judgment, Kant's actual justification ignores Locke's account of mathematical judgment completely and focuses instead on claims he makes about body and the mechanics of bodily motion. While the strongest argument that can be made on Kant's behalf for the claim that Locke anticipates his notion of synthetic a priori cognition relies on Locke's trifling-instructive distinction and his use of mathematical judgments to illustrate that distinction, the best reconstruction of Kant's justification for this claim relies, surprisingly in my view, on similarities between a claim Locke makes about motion and arguments Kant develops in the Metaphysical Foundations of Natural Science.

1 Kant's comments on Locke

Although Kant credits Hume in the *Prolegomena* with striking a spark he will later kindle, there is no indication there or elsewhere that he believes Hume anticipates his notion of synthetic a priori cognition and only the passing suggestion that he believes Hume anticipates the analytic-synthetic distinction. With Locke, however, there is good reason to think Kant believes he anticipates both. Kant discusses Locke in a number of places, but only three of them bear directly on the question at hand:

Locke saw the distinction between analytic and synthetic judgments in his essay concerning human understanding. (AA 17:278)

By contrast I find a hint [Wink] of this division [between analytic and synthetic judgments] already in Locke's essays on human understanding. For in Book IV, Chapter III, §9f., after he had already discussed the various connections of representations in judgments and the sources of the connections, of which he located the one in identity or contradiction (analytic judgments) but the other in the existence of representations in a subject (synthetic

⁷ See AA 4:257 and CPR A 764/B 792.

judgments), he then acknowledges in §10 that our cognition (a priori) of these last is very restricted and almost nothing at all. (AA 4:270)

In order to be satisfied of this, we have only to examine the examples that have been previously introduced [die man bisher angeführt hat] to prove that the distinction in question [between analytic and synthetic judgments] is already known and fully developed in philosophy, albeit under other names. The first one (pointed out by myself, though only as somewhat like it) is from Locke, who assigns what he calls cognition of coexistence to judgments of experience, and cognition of relation to moral judgments; but he does not give a name to the synthetic aspect of judgments in general; nor, by this distinction from propositions of identity, has he extracted the most minimal of general rules for pure a priori cognition as such. (AA 8:245, translation modified)

The first of these passages is a note Kant made in the 1760s to his copy of Baumgarten's *Metaphysica*, and it claims unambiguously that Locke anticipates the analytic-synthetic distinction. Unfortunately, it tells us nothing about whether Kant also thought Locke anticipates the notion of the synthetic *a priori* since it was written at a time when Kant thought that all synthetic cognition was *a posteriori*.

The second passage is from the *Prolegomena*. It is part of the first paragraph of the section of the Preface entitled "Note on the general division of judgments into analytic and synthetic". Here we find a weaker version of Kant's claim in the reflection from the 1760s (instead of simply 'seeing' the analytic-synthetic distinction, Locke is only credited with 'hinting' at it), but he also refers us to passages of the *Essay* that he believes verify not only this weaker claim but also the additional claim that some of Locke's proto-synthetic judgments are known *a priori*. Although Kant only includes the phrase "*a priori*" in parentheses, the view we find in the *Prolegomena* is that Book IV, Chapter III of Locke's *Essay* contains an account of something like the analytic-synthetic distinction and that Locke there acknowledges the existence of something like synthetic *a priori* judgments.

The third passage is from *On a discovery*, a piece published in 1790 to counter the Wolffian attack on Kant's philosophy mounted chiefly by Johann August Eberhard, and must be interpreted with great care.⁸ At first glance, it appears that Kant is simply citing Locke as evidence that the analytic-synthetic distinction was "already known and fully developed in philosophy, albeit under other names" before the *Critique* and making a passing reference to his having already noted this seven years earlier in the *Prolegomena* ("pointed out by my-

⁸ For a detailed discussion of the Kant-Eberhard controversy, see Allison (1973).

self, though only as somewhat like it"). But the dialectical situation of this passage is more complex than this reading would suggest.

In one of the essays to which *On a discovery* is a response, Eberhard challenges the originality of Kant's analytic-synthetic distinction by arguing that it amounts to nothing more than the Wolffian distinction between identical and non-identical judgments. And in the pages surrounding the passage we have quoted, Kant wants to show against Eberhard (a) that the analytic-synthetic distinction is not identical to the identical-non-identical distinction and (b) that the analytic-synthetic distinction was first properly formulated in the *Critique*. It is against the background of these arguments that he makes reference to Locke.

Kant's argument for (b) is a counterfactual *modus tollens*. Had the analytic-synthetic distinction been properly formulated before the *Critique*, debate about the possibility of *a priori* knowledge, which had been going on at least since the time of Locke, would have immediately led to debate about the possibility of synthetic *a priori* knowledge, at which point it would have become obvious that "the success or failure of metaphysics depends entirely on how the latter problem might come to be resolved", and all metaphysicians would have suspended their work until the guiding question of the *Critique* had been answered (AA 8:244). But since metaphysicians have not suspended their work and no one before Kant considered how synthetic *a priori* judgments are possible, the analytic-synthetic distinction was not properly formulated until the *Critique*.

Kant's argument for (a) is more complex, but the general idea is that the identical-non-identical distinction is different from the analytic-synthetic distinction because the concept of synthesis naturally suggests the idea that a "third thing" (i.e. intuition) is required to make synthetic *a priori* judgment possible, whereas the concept of merely being non-identical does not. Since the identical-non-identical distinction does not naturally suggest this idea, the insight that intuition is required for synthetic cognition and, more importantly, that *a priori* intuition is required for synthetic *a priori* cognition "could not be expected through the characterization of synthetic judgments as *non-identical*, and has never *in fact* resulted from it" (AA 8:245, second italics mine).

It is in the service of supporting this latter claim—i.e. that characterizing synthetic judgments as non-identical has *in fact* never led anyone to the realization that intuition is a necessary condition of the possibility of these judgments in general and *a priori* intuition a necessary condition of the possibility of synthetic *a priori* judgments—that Kant makes his third reference to Locke. With this

⁹ I shall speak of 'intuition' when discussing Kantian *Anschauung* and of 'intuitive knowledge' or 'intuitions' when discussing features of Locke's account of knowledge.

context in mind, the first thing to note is that the "this" we are to satisfy ourselves of in the passage is the historical claim just cited. That is, if we look at the examples "previously introduced" we will see that in no case did anyone who understood what Kant calls the analytic-synthetic distinction in terms of the distinction between identical and non-identical judgments realize that intuition was necessary for synthetic judgments or that a priori intuition was necessary for synthetic a priori ones. And the first example that was "previously introduced" is Locke.

At this point, however, it becomes clear that Kant is not speaking in propria persona since, first, he does not claim in the Prolegomena or, indeed, anywhere else, that Locke or anyone has "fully developed" the analytic-synthetic distinction and, second, it would undermine his efforts to defend the originality of this distinction against Eberhard's criticism if he were to make this claim now. Rather, what Kant is doing in the first sentence of the passage is referencing the following passage from Eberhard's essay:

It is only in Locke's Essays on human understanding that Mr. Kant finds a hint [Wink] of this division. A follower and commenter of the Königsberg philosopher has, however, subsequent to Kant found this entire distinction exhaustively presented [völlig ausführlich angezeigt] in §260 of Dr. Crusius' Path to certainty and reliability in human cognition; and it is not little worthy of note, that such an acute dogmatist as Crusius could not be healed of his firm and far-reaching dogmatism by deep acquaintance with this distinction. 10

The examples Kant refers to in On a discovery are thus not in the first instance ones that he has given but rather ones Eberhard discusses in the essays to which Kant is responding, which is why Kant includes the parenthetical comment in the passage to indicate, first, that in contrast to the other examples "previously cited" which he did not cite as forerunners to the analytic-synthetic distinction, he did cite the example from Locke he discusses and, second, that in contrast to the suggestion by Eberhard and others that the analytic-synthetic distinction was "fully developed" in Locke, he believes that Locke's distinction was only "somewhat like" his (AA 8:245).

We are now in a position to judge the bearing of our third passage on the question at hand. In the note from the 1760s, Kant claims that Locke "saw" the analytic-synthetic distinction, and in the *Prolegomena*, Kant repeats a version of this claim and makes the additional claim that some of Locke's proto-synthet-

¹⁰ The quotation is from Eberhard (1789b, 311), reprinted in Kant (1998b, 72). Kant's subsequent reference to Reusch in the continuation of the passage from *On a discovery* is evidently to Eberhard (1789a, 299), also reprinted in Kant (1998b, 65). The 'commentator' Eberhard refers to is Carl Christian Erhard Schmid.

ic judgments are also known a priori. The passage from On a discovery is, on the whole, consistent with the other two passages and thus consistent with attributing the strong reading to Kant. It reasserts the qualified view of the *Prolegomena* that a "hint" of the analytic-synthetic distinction can be found in Locke, and while it is silent on the question of whether Locke recognizes anything like synthetic a priori cognition, its dialectical context explains this silence. Kant's goal in this and the surrounding passages of On a discovery is to build a case against Eberhard's claim that the analytic-synthetic distinction is not a novel one, and his discussion of Locke is in the service of building this case. That he does not return to all the issues about Locke he addresses in the *Prolegomena* is of course disappointing, since we might have liked to hear more about which Lockean judgments are like Kantian a priori ones, but his silence is not a reason to think his view has changed since 1783. On the whole, then, Kant's comments about Locke suggest that he believes Locke anticipates both the analytic-synthetic distinction and the notion of synthetic a priori cognition.

2 Evaluating Kant's Claim

If Kant believes that Locke anticipates both the analytic-synthetic distinction and his notion of synthetic a priori cognition, it is natural to ask whether he is right to do so. To answer this question, however, we must first say more about the analytic-synthetic distinction in general and Kant's notion of synthetic a priori cognition in particular. Since these distinctions are among the most complex in Kant's philosophy, my discussion of them is intended to provide a general orientation not an exhaustive analysis.

In the first Critique and Prolegomena Kant introduces three—and on some readings four-characterizations of the analytic-synthetic distinction. The first three of these are: containment vs. non-containment, identity vs. non-identity, and explicative vs. ampliative. According to the first, a judgment is analytic when the predicate is 'contained in' the subject-concept and synthetic when the predicate is not so contained. According to the second, a judgment is analytic when the predicate is identical to part or all of the subject-concept and synthetic when the predicate is not identical to any part of the subject. According to the third, a judgment is analytic when it merely clarifies existing cognition by making the content of our concepts explicit and synthetic when it amplifies or extends our knowledge. These criteria are not coextensive, and Kant's view

about which is central appears to change over the course of the critical period, 11 In these works, however, Kant also claims that analytic judgments "rest" on or are "cognizable" through the principle of contradiction, and these claims are sometimes thought to be an additional criterion of analyticity.¹² As recent commentators have observed, however, there is good reason to believe that Kant is not providing a fourth criterion of analyticity in these passages but simply making a claim about how analytic judgments (or their truth) can be known.¹³

In the A edition of the *Critique*, Kant introduces the notion of the *a priori* by way of three concepts (necessity, strict universality, and independence from experience) that he subsequently treats separately in the B edition. Here Kant's view is that necessity and universality are "sure indications" of a priori cognition, but his official definition of a priori cognition is in terms of independence from experience: "[...] we will understand by a priori cognitions those that occur absolutely independently of all experience" (CPR B 3-4). Kant cannot mean exactly what he says here, however, since he proceeds to distinguish pure a priori judgments in which "nothing empirical is intermixed" from a priori judgments involving concepts such as 'alteration', 'body', or 'gold', which can "be drawn only from experience" (CPR B 3; cf. AA 4:267). 14 Since some a priori judgments involve empirical concepts, it is generally recognized that the relevant sense of independence invoked by Kant in his characterization of a priori knowledge is justificatory: a judgment is a priori just in case its justification requires no experience other than that sufficient for the acquisition of the concepts involved in the judgment. And while this formulation is also problematic in certain ways, it will suffice for our purposes.¹⁵

Within Locke's epistemology, the distinction that most closely parallels the Kantian ones we have been discussing is that between trifling and instructive

¹¹ As I have formulated them here, for example, the first and second criteria only apply to affirmative judgments (e.g. 'All bodies are extended'). A more complete formulation of these criteria would allow for negative analytic judgments as well. I have not provided such a formulation, despite the fact that Kant clearly holds there are negative analytic judgments, for two reasons: (1) Kant's initial discussion of the analytic-synthetic distinction in the first Critique considers only affirmative judgments, and (2) Locke's examples of trifling and instructive propositions are all affirmative. For different accounts of which of these criteria is central and at what point in Kant's development, see Anderson (2004; 2005) and Proops (2005).

¹² See CPR A 151/B 190 and AA 4:267. Both Van Cleve (1999, 20) and Hanna (2001, 146) argue that cognizability through the principle of contradiction is Kant's central criterion of analyticity.

¹³ See Anderson (2005) and Proops (2005).

¹⁴ Kitcher (1998, 2) and Anderson (2010, 77) note this point.

¹⁵ See Kitcher (1998, 3).

knowledge, and it is the latter that many commentators have suggested anticipates Kant's notion of synthetic a priori cognition. ¹⁶ To understand this distinction, however, we must first say something about Locke's account of knowledge, since knowledge is the larger epistemological category under which trifling and instructive knowledge falls.

Locke holds that knowledge gives us the "utmost light and greatest certainty" our cognitive faculties are capable of and that it consists in the "perception of the connection and agreement, or disagreement and repugnancy of any of our ideas" (Essay 4.2.1 and 4.1.1). There are four kinds of agreement and disagreement-identity/diversity, co-existence or necessary connection, relation, and real existence—and the manner in which each kind is perceived determines which of three kinds or "degrees" of knowledge a particular perception constitutes: intuitive, demonstrative, and sensitive (Essay 4.1.3 and 4.2.1–2,14).

For our purposes, only the first two kinds of knowledge are important. Intuitive knowledge consists in the immediate perception of agreement or disagreement and is the "clearest and most certain" knowledge we can possess, while demonstrative knowledge consists in the perception of agreement or disagreement of two ideas mediated through one or more intervening ideas (Essay 4.2.1). Locke calls these intervening ideas proofs or mediums, and the combination of these ideas and those they connect is a demonstration. In demonstrative knowledge, then, the agreement or disagreement cannot be perceived by considering the two ideas alone but requires the mediation of other ideas. Since the connection between proofs is always intuitive, the certainty of these intuitions is transferred to the demonstration they constitute.

¹⁶ In addition to the relevant citations in footnotes five and six, see Woolhouse (1994, 163) and Jolley (1999, 181f.). One might object to the implicit identification these authors and I make between Lockean knowledge and Kantian cognition (Erkenntnis) on the grounds that Kant believes it is possible for cognitions to be false, while Locke regards knowledge as necessarily true (CPR A 58/B 83). Indeed, it is in part because Kant allows for false Erkenntnisse that many translators prefer to render 'Erkenntnis' and its cognates as 'cognition' in the first Critique and elsewhere. Moreover, it is certainly true that cognition or even true cognition does not entail knowledge (Wissen) in Kant's view, for which are also required taking-to-be-true (Fürwahrhalten), subjective sufficient for belief or 'conviction' (Überzeugung), and 'certainty' (Gewissheit) (CPR A 822/B 850). In the case of a priori theoretical cognition, however, cognition does entail knowledge both in the sense that it justifies and guarantees our adoption of the particular form of holding-to-be-true that for Kant is knowledge. While there are certainly differences between Lockean knowledge and Kantian cognition, then, they are not great enough in the case of the cognition at issue here to raise suspicions about the view I am presenting. For discussion of Kant's taxonomy of doxastic attitudes, see Stevenson (2003), Chignell (2007), and Pasternack (2011).

Propositions are the "joining or separating of signs", whether these signs are mental as in the case of ideas or verbal as in the case of words, so the perceptions of agreement or disagreement among ideas that constitute knowledge are also *de facto* propositions (*Essay* 4.5.2). Locke divides these propositions into two sorts: *trifling* and *instructive*. The former "add no light to our understandings" and "bring no increase to our knowledge" because they either "affirm the same term of itsself" or predicate part of a complex idea "of the name of the whole" (*Essay* 4.8.1–4).¹⁷ The proposition 'White is white' is trifling by the first criterion, and the proposition 'Lead is a metal' is trifling by the second. Instructive propositions "affirm something of another, which is a necessary consequence of its precise complex *idea*, but not contained in it", and we come to know them by means of demonstration (*Essay* 4.8.8). The dependence of instructive knowledge on demonstration is emphasized in Locke's initial contrast of the two forms of knowledge:

Instruction lies in something very different, and he that would enlarge his own, or another's Mind, to Truths he does not yet know, must find out intermediate *Ideas*, and then lay them in such order one by another, that the Understanding may see the agreement, or disagreement of those in question. Propositions that do this, are instructive [...] (*Essay* 4.8.3)

So instructive propositions express kinds of agreement or disagreement among ideas that the ideas do not, as it were, wear on their sleeves and that therefore require proofs or mediums in order to be perceived. Locke's examples of these propositions are typically geometrical, such as the proposition "the external angle of all triangles is bigger than either of the opposite internal angles", but he believes many of the propositions of moral philosophy are also instructive in this sense (*Essay* 4.8.8).¹⁸

If we suppose that *containment* is the central criterion of analyticity, the trifling-instructive distinction does appear to anticipate the analytic-synthetic distinction. Synthetic judgments ascribe predicates to objects that are not contained in our concepts of those objects, while analytic judgments ascribe predicates that are contained in these concepts; and instructive propositions ascribe predicates to objects that are not contained on our ideas of them, while trifling propositions ascribe objects that are contained in these ideas. The same is true if we suppose

¹⁷ Locke also says a proposition is trifling when it "predicate[s] any other part of a definition of the term defined" (*Essay* 4.8.5). Since a definition is simply a complex idea associated with a particular word, however, this class of trifling propositions is a subset of the second I have listed here.

¹⁸ On the connection to moral philosophy, see *Essay* 4.4.7 - 10 and 4.3.18 - 19.

that identity is the central criterion of analyticity. Synthetic judgments ascribe predicates to objects that are not identical to any part of the concepts of those objects, while analytic judgments ascribe predicates to objects that are identical or partially identical to our concepts of those objects; and instructive propositions ascribe predicates to objects that are not identical to any part of our ideas of them, while trifling propositions express relations of identity among ideas, either total in the case of propositions such as 'White is white' or partial in the case of propositions such as 'Lead is metal'.

The situation changes only slightly if we suppose that *explication* is the central criterion of analyticity. Some trifling propositions cease to anticipate analytic judgments if analyticity is construed in terms of explication, but the similarity between synthetic judgments and instructive propositions and the argument in favor of believing that instructive propositions anticipate synthetic a priori judgments remain intact. Synthetic judgments augment our knowledge because they "add to the concept a predicate that was not thought in it at all" and "could not have been extracted from it by any analysis", while instructive propositions augment our knowledge by ascribing a predicate to a subject that is not contained in our idea of it (CPR A 7/B 11). In at least one place, however, Kant denies that purely identical propositions are analytic on the grounds that they do not explicate or analyze their ideas (AA 20:322).19 So if explication is the central criterion of analyticity for Kant, only the second class of trifling propositions, those that predicate part of a complex idea or definition of the whole, will anticipate analytic judgments. Still, this is quite a large class of propositions, so the case for the claim that Locke anticipates both the analytic-synthetic distinction and the notion of synthetic a priori cognition would be weakened only slightly if it turned out that explication was more central to Kantian analyticity than containment or identity.

Moreover, on each of these criteria, there is good reason to believe that instructive propositions anticipate synthetic a priori judgments. While Locke's concept empiricism prevents any knowledge from being 'pure' in Kant's sense, instructive propositions are a priori in the other relevant senses. Since they involve the comparison of ideas through demonstrations, they are a priori in the justificatory sense; and since they ascribe predicates to a subject that are "necessary consequence of its precise complex idea, but not contained in it (Essay 4.8.8, first emphasis mine)," they exhibit the first of the two "sure indications" of apriority (CPR B 4). Moreover, there is reason to think they exhibit the second one as well. For while there are some kinds of Lockean knowledge (e.g.

¹⁹ This is another instance in which Kant's criteria are not coextensive. See note 11 above.

sensitive knowledge) that are not strictly universal in the sense Kant describes, it is clear that mathematical propositions—Locke's paradigmatic instance of instructive knowledge—are universal in this sense.²⁰

So regardless of which criterion we focus on, there is good reason to believe that Locke's trifling-instructive distinction anticipates Kant's analytic-synthetic distinction, and there is a straightforward sense in which instructive propositions anticipate synthetic *a priori* ones as well. Moreover, although I cannot fully defend this claim here, there is good reason to believe that containment is the central criterion of analyticity for Kant, and it is on this criterion that the distinctions turn out to be most similar.²¹

3 Objections to Kant's Claim

Despite its intuitive appeal, the suggestion that Lockean instructive knowledge anticipates Kantian synthetic *a priori* cognition has been subject to a number of objections. Emily Carson (2002) has denied that instructive knowledge anticipates synthetic *a priori* cognition on the grounds that the former is not in fact *a priori*. Henry Allison (2008) has argued that the trifling-instructive distinction does not anticipate analytic-synthetic distinction because some trifling propositions are *synthetic*, and Lex Newman (2007) has argued that, properly understood, both trifling and instructive propositions are *analytic*. In what follows, I consider each of these objections in turn.

To evaluate Carson's objection, we must first say a bit more about *why* Locke believes mathematical propositions are *not* empirical. According to Locke, these propositions are not empirical because they are propositions about modes. Modes are modifications of one or more simple ideas that do not include the idea of "subsisting by themselves" and are thought to be "dependencies on,

²⁰ A judgment is strictly universal for Kant when it is thought in such a way that "no exception at all is allowed to be possible" (*CPR* B 4).

²¹ In addition to the historical considerations Anderson (2004; 2005) cites, one should note, first, that Kant begins his discussion of the analytic-synthetic distinction in both the A and B editions of the first *Critique* with the containment criterion and, second, that he consistently uses this criterion to clarify his notion of analyticity and defend the originality of his analytic-synthetic distinction in *On a discovery*. See AA 8:228–233. I note in passing that claiming Locke anticipates either the analytic-synthetic distinction or the notion of synthetic *a priori* cognition is obviously not the same as claiming that Locke has a fully developed notion of either in the Kantian sense. Consequently, Kant's instance in *On a discovery* and elsewhere that he was the first to fully develop the distinction is not in tension either with the passages examined in section one or with the argument of this section.

or affections of substances" (Essay 2.12.4). In addition, modes are voluntary creations of the mind, and it is because of this that they occupy a special place in Locke's theory of ideas: they are one of the two kinds of ideas whose real and nominal essences coincide (Essay 3.5.14). As Locke puts it, "a figure including a space between three lines, is the real, as well as the nominal essence of a triangle" because it is not only "the abstract idea to which the general term is annexed" but also "that foundation from which all its properties flow" (Essay 3.3.18). If there is any object answering to our idea of a triangle, we can be sure that any of its external angles will be greater than either of the opposite internal angles, not because it is part of our abstract idea (the nominal essence) of a triangle that its angles stand in this relation but because we discover that the idea of "a figure including a space between three lines" agrees in equality with the idea of an object each of whose external angles is greater than either of the opposite internal angles. This agreement is discovered merely by comparing our ideas, so its justification is not empirical. Since what is discovered is a property that "flows from" the real essence of the triangle and, given the identity of modal real and nominal essences, is also a "necessary consequence" our idea of triangle "but not contained in it", the proposition expressing this agreement is also instructive (Essay 3.3.18 and 4.8.8).

Locke uses geometrical examples to argue that mathematical knowledge is instructive and suggests that his argument can be generalized to apply to moral knowledge as well (Essay 4.4.6-7).²² So any weakness in his argument for the instructiveness of geometrical propositions will threaten to undermine his account of instructive knowledge in general. Carson believes there is such a weakness in the origin of our simple idea of space. Locke maintains that we acquire this idea through sensation. Given this origin, Carson argues that Locke cannot claim that our ideas of spatial figures such as triangles are entirely creations of the mind since the features of our simple idea of space constrain the ways in which it can be modified to produce ideas of such figures. In particular, she argues that it is *these* features that give content to our ideas of spatial figures over and above the content included in our ideas of them and make it possible for us to have instructive knowledge of them.²³ To the extent that geometrical propositions are instructive, then, they must also be empirical; and to the extent

²² What Locke argues in these passages is that mathematical and moral claims are instances of real knowledge, but he makes clear at Essay 4.5.6 that real knowledge is instructive knowledge. 23 For example, there is something about the simple idea of space that allows it to be modified in such a way that we can form the idea of a three-sided closed figure but not a two-sided one; similarly, there is something about this idea that allows us to form the idea of a three-sided closed figure whose external angle is greater than its interior angles but not vice versa.

that they are empirical, they are contingent and, hence, cannot be known a priori.

It seems to me, however, that this objection is not to the apriority of Lockean mathematical knowledge but to the applicability of that knowledge to objects encountered in experience. For what is contingent about my knowledge of the modes of space, where these modes are understood to be modifications of an empirically-acquired simple idea of space, is whether the things that are true of those modes are also true of figures encountered in space. This contingency might manifest in two ways. On the one hand, it is theoretically possible (although quite unlikely) on Locke's account for the simple idea of space I acquire at one time to be different in kind from the idea I acquire at another time; and were it different, there would be no guarantee that both simple ideas could be modified in the same way and, hence, no guarantee that the relations among the ideas of their respective modes would be the same. On the other hand, it is possible for me to take my empirically-acquired simple idea of space, construct the mode of a triangle from it, determine through demonstration that its interior angles are equal to two right angles, which angles are themselves modes constructed from the simple idea of space, and nevertheless find no object in the world that is triangular.²⁴ What is not contingent is the claim that the interior angles of any object will be equal to two right angles if that object answers to my idea of a triangle. And while the content of this claim is empirical—insofar as it is about an empirically-acquired idea, the modes of that idea, and what is true about those modes—the claim itself is still a priori in the justificatory sense outlined in the previous section since the only experience necessary to know its truth is the experience necessary to acquire the simple idea of space.

According to Allison (2008, 68) the trifling-instructive distinction does not anticipate the analytic-synthetic distinction because some trifling propositions are synthetic.25 In particular, Allison argues that propositions like 'Lead is a

²⁴ Cf. Essay 4.4.6 and 4.6.10-11.

²⁵ In Allison (1985), he also argues that one cannot have a full-blown conception of synthetic judgments and, hence, a fully Kantian conception of the analytic-synthetic distinction without also recognizing the complementary roles of concepts and intuitions in cognition, which, he further argues, none of Kant's predecessors did; and he continues to endorse the general outlines of this view in Allison (2008). Insofar as Allison means to argue that there is nothing in Kant's predecessors, Locke among them, identical to the analytic-synthetic distinction (as opposed to being importantly similar to it), these views are not objections to the account presented here. Indeed, Allison (1985, 33) seems to indicate that the way Kant characterizes synthetic judgments in both editions of the first Critique, Prolegomena, and On a discovery does not require the notion of Kantian intuition. Kant of course does not provide an account of how synthetic a priori judgments are possible in these passages, and such an account does of course turn

metal' and 'All gold is fusible' are trifling for Locke but "paradigmatic examples of the synthetic *a posteriori*" for Kant (Essay 4.8.4–5).²⁶ But while it is certainly true that these propositions are trifling for Locke-insofar as they involve the predication of part of a nominal essence of an object falling under that essence-Allison gives us no reason to think that Kant would have regarded them as synthetic.²⁷ Moreover, it seems clear that Kant's attitude toward empirical concepts is quite Lockean. As we saw in section two, for example, Kant is happy to regard judgments involving empirical concepts as a priori as long as nothing empirical is required for the judgment beyond the concepts in question. Indeed, when he makes this point in the *Prolegomena*, his example is evocative of precisely the kinds of propositions Allison claims he regards as "paradigmatically synthetic":

[...] all analytic propositions are still *a priori* judgments even if their concepts are empirical, as in: Gold is a yellow metal; for in order to know this, I need no further experience outside my concept of gold, which includes that this body is yellow and metal; for this constitutes my very concept, and I did not have to do anything except analyze it [...] (AA 4:267, second emphasis mine)

If Kant regards the judgment 'Gold is a yellow metal' as analytic, it is quite difficult to see why he would not say the same of the Lockean propositions Allison cites or, indeed, of trifling propositions in general.

Finally, Lex Newman (2007) has argued that, properly understood, both trifling and instructive propositions are analytic. Newman acknowledges that Locke's characterization of instructive knowledge in terms of containment invites comparison with Kant, but he argues that it is a mistake to suppose that the notions of containment invoked by Locke and Kant are the same. Moreover, he argues that Locke actually invokes two notions of containment, one that characterizes both instructive and trifling propositions and another that only characterizes trifling ones. So while it may appear that the trifling-instructive distinction anticipates the analytic-synthetic distinction, this appearance is due entirely, as Locke might put it, to verbal identity.

on what Allison calls the discursivity of the human understanding. But since Kant of all people must allow a distinction between the idea of synthetic a priori cognition and an account of the possibility of such cognition, it must be possible to have or anticipate the former without being in possession of the latter.

²⁶ Allison (2008, 68).

²⁷ Allison (ibid.) includes a footnote referring us to Allison (1985), but I can find no attempt to substantiate the present claim in that piece either.

The first of Locke's two notions of containment on Newman's view is ideational containment. One idea is ideationally contained in another just in case the first is a part (perhaps an improper one) of the second. So if A and B are simple ideas and AB is a complex idea, then both A and B are contained in AB and the propositions 'AB is A' and 'AB is B' will be analytic. 28 The second is *epistemic* containment. One idea is epistemically contained in another just in case it is ideationally contained in the other and it is already known to be so contained. So if ABC is a complex idea containing the simple ideas A, B, and C and I know that A and B are ideationally contained in ABC but do not know that C is ideationally contained in ABC, then A and B will be both ideationally and epistemically contained in ABC, while C will only be ideationally contained in ABC. Nevertheless, ideational containment suffices for analyticity, so the propositions 'ABC is A', 'ABC is B', and 'ABC is C' will all be analytic. With this distinction in place, Newman argues that trifling propositions express epistemic containment relations among their component ideas, while instructive propositions express ideational containment relations among their component ideas. Since ideational containment suffices for analyticity, however, both kinds of propositions turn out to be analytic.

In my view, however, this cannot be correct. To be sure, Locke does allow that our ideas may have content that is unrecognized or unknown to the person possessing the idea, so there is a sense in which he recognizes something like Newman's notion of epistemic containment; but this distinction is not relevant to the way Locke draws the trifling-instructive distinction. First, the cases Locke discusses of a person recognizing or knowing only part of the content of an idea she has, such as the passage from the solution to the Molyneux problem Newman cites, all concern ideas of sensation. And we should be wary of applying what Locke says about these ideas to ideas of reflection, which are the ideas whose agreement or disagreement is most often at issue in knowable propositions.²⁹ Second, on Locke's official view at least, it does not seem possible for our ideas of modes to have any content of which we are not aware since these ideas are voluntary creations of the mind.³⁰ And since of all the ideas modes

²⁸ Newman (2007, 335) emphasizes that ideational containment expands the notion of containment to include particular as well as general propositions.

²⁹ Newman (2007, 336) cites the passage at Essay 2.9.8, but one could also include the discussion of selective attention in the previous sections. I say "most often" because knowable agreements of real existence do involve ideas of sensation, such as my knowledge of the existence of external things. See *Essay*, 4.11.1-2.

³⁰ So it could not be true of, say, my idea of a triangle, that there was some idea contained in it of which I have never been aware. Surely, when I formed the complex idea I associate with 'tri-

loom largest in Locke's discussion of instructive propositions, the notion that a person might have an idea of a mode and vet be unaware of some of its content cannot play a role in Locke's characterization of instructive knowledge.

Moreover, while Locke does indeed characterize trifling propositions in epistemic terms, this does not strike me as evidence that he is working with a peculiarly epistemic notion of containment above and beyond whatever other notion of containment he may employ but merely that he is contrasting propositions that do not expand our knowledge (trifling propositions) with propositions that do (instructive propositions).³¹ This language is certainly consistent with Newman's reading, but since the trifling-instructive distinction is an epistemic one on any reading, Locke's use of this language does not, at least by itself, constitute evidence for this reading. Further, when it comes time to specify the feature of propositions in virtue of which they are instructive as opposed to trifling, Locke eschews all epistemic language and says that these propositions "affirm something of another [object] which is a necessary consequence of its precise complex idea but not contained in it" (Essay 4.8.8). If the absence of merely epistemic containment were the distinguishing feature of instructive propositions as Newman believes, we would expect Locke to say that the idea affirmed of the object was not known to be contained in the idea of the object. That he does not suggests that it is the absence of containment in general, what Newman calls ideational containment, and not merely of epistemic containment that characterizes instructive propositions. In short, Locke's use of epistemic language is not evidence for Newman's thesis, and Locke's failure to use epistemic language in his characterization of instructive knowledge is evidence against it.

4 Kant's Justification for his Claim

The argument of sections one and two is therefore correct. Kant holds that Locke anticipated the analytic-synthetic distinction and also the notion of synthetic a

angle' and with the vocal utterances associated with that word, I knew all of its constituent ideas. After all, its formation was completely voluntary. Further, if I at any point modify this idea by adding or subtracting ideas, I will surely know these ideas as well. This point is of course consistent with Locke's view that demonstrations of mathematical propositions yield instructive knowledge (i.e. knowledge of the necessary relations among ideas that are not merely a consequence of their containment relations) since demonstrations reveal agreement or disagreement among ideas that is not intuitively knowable and such agreement and disagreement is a broader category than containment.

³¹ Newman (2007, 337 – 338) cites *Essay* 4.8.5 and 4.8.7 as instances of this characterization.

priori cognition, and Locke's distinction between trifling and instructive knowledge provides a strong basis for this claim. Nevertheless, it is not at all clear whether Kant's justification for this claim is the same as the one given in section two. Indeed, two of his more sympathetic commentators on this subject, Beck (1978, 82) and Cicovacki (1990, 513), claim that he was unaware of the similarities between instructive knowledge and synthetic a priori cognition we identified in that section. Cicovacki gives two reasons for this. The first is that Kant's comments at AA 4:268 in the Prolegomena, which he liked enough to include verbatim in the second edition of the *Critique* (cf. CPR B 14), suggest that he believes he is the first person to hold that mathematical propositions are synthetic a priori. The second is that the only text in which Kant explicitly mentions Locke's views on mathematics suggests that Kant believes mathematical propositions are empirical for Locke.

If Kant was unaware of the similarities between instructive knowledge and synthetic *a priori* cognition, however, it is not for the reasons Cicovacki claims. The "empiricism" Kant refers to in the second text Cicovacki cites concerns the origin of mathematical concepts not the status of mathematical judgments, so it is consistent with ascribing to Locke an a priori account of the latter.³² As for the first passage, the comment Cicovacki likely has in mind is Kant's claim that the synthetic nature of mathematical judgments "appears to have completely escaped the observations of analysts of human reason" (Prolegomena, AA 4:268). On its face, however, this comment suggests only that Kant regards himself as the first to claim that mathematical judgments are synthetic not that they are synthetic a priori; and while Kant clearly holds the latter claim as well, the view this comment implicitly attributes to the "analysts of human reason" is that mathematical judgments are not synthetic. That Kant means to attribute the latter claim to the "analysts" is clear from the continuation of the passage, in which he writes that because these analysts "found that the inferences of mathematicians all proceed in accordance with the principle of contradiction [...] they were persuaded that even the fundamental propositions were known through the principle of contradiction" (ibid). And since the principle of contradiction is what Kant previously calls the "common principle of all analytic judgments", what the first passage really suggests is (a) that Kant regards himself as the first to claim that mathematical judgments are synthetic and (b) that he be-

³² The passage Cicovacki has in mind is the following from *On a discovery:* "Leibniz wanted to refute the empiricism of Locke. For this purpose examples taken from mathematics were well suited to prove that such cognitions reach much further than empirically acquired concepts could do, and thereby to defend the a priori origin of the former against Locke's attacks" (AA 8:211, first emphasis mine).

lieves all the other "analysts of human reason" regard these judgments as analytic (AA 4:267). On the plausible assumption that Locke is one of these analysts. AA 4:268 would seem to suggest that Kant has failed to understand that many Lockean mathematical judgments are instructive and, hence, more like Kantian synthetic *a priori* judgments than analytic *a priori* ones.

It is perhaps for this reason that the passages in the *Essay* Kant cites in support of his claim do not discuss mathematical judgments but instead approach the notion of instructive knowledge from a different angle:

By contrast I find a hint [Wink] of this division [between analytic and synthetic judgments] already in Locke's essays on human understanding. For in Book IV, Chapter III, §9f., after he had already discussed the various connections of representations in judgments and the sources of the connections, of which he located the one in identity or contradiction (analytic judgments) but the other in the existence of representations in a subject (synthetic judgments), he then acknowledges in §10 that our cognition (a priori) of these last is very restricted and almost nothing at all. (Prolegomena, AA 4:270)

Essay 4.3.9 does not discuss 'identity or disagreement', so it is likely that Kant first means to refer us to the previous section of the Essay in which Locke argues that we have intuitive knowledge of identity and diversity (not contradiction) and that this knowledge extends "as far [...] as our ideas themselves" (Essay 4.3.8). The reason this knowledge extends so far is that, for any idea, we can immediately perceive—that is, perceive without the aid of intervening ideas—its identity with itself and non-identity with all our other ideas. As Locke puts it, "there can be no idea in the mind, which it does not presently, by intuitive knowledge, perceive to be what it is, and to be different from any other" (ibid).

In §9 Locke then proceeds to discuss the extent of our knowledge concerning co-existence or necessary connection, the second of the four knowable agreements discussed in section two. He writes that our knowledge of this kind of agreement is "very short" despite the fact that this kind of knowledge constitutes "the greatest and most material part of our knowledge concerning substances" (Essay 4.3.9). The reason our knowledge of coexistence is very short is twofold. First, most of it consists merely in knowledge of the nominal essences of species of substances, and this knowledge is trifling by the standards Locke will introduce in Essay 4.8. Second, any other knowledge of coexistence we might have concerning species of substances would require the perception of agreement or disagreement in coexistence of the complex idea of a species of substance and some other idea not contained in it, and such knowledge "however weighty and considerable a part soever of Humane Science, is yet very narrow, and scarce any at all" (Essay 4.3.10, my emphasis). The reason such knowledge is so scarce, Locke continues, is:

[...] that the simple *Ideas* whereof our complex *Ideas* of Substances are made up, are, *for the most part* such, as carry with them, in their own Nature, no visible necessary connection, or inconsistency with any other simple *Ideas*, whose *co-existence* with them we would inform ourselves about" (ibid, third emphasis mine).

In these passages, Locke clearly indicates that there is a limited sort of knowledge about the co-existence of qualities in substances that is distinct from our knowledge of the nominal essences of the kinds those substances may fall under, and it is this knowledge that Kant refers to in the passage from the *Prolegomena* we have been examining.³³

Moreover, when we consider the examples of these propositions Locke gives, one of them does seem like a good candidate for a synthetic *a priori* claim:

Indeed, some few of the primary Qualities have a necessary dependence, and visible Connexion one with another, as Figure necessarily supposes Extension, receiving or communicating Motion by impulse, supposes Solidity. But though these, and perhaps some others of our *Ideas* have [a visible connection with another]: yet there are so *few* of them, that have a *visible Connexion* one with another, that we can by Intuition and Demonstration, discover the co-existence of very few of the Qualities [that] are to be found united in Substances: and we are left only to the assistance of our Senses, to make know to us, what Qualities they contain. (*Essay* 4.3.14)

Given that Locke has previously characterized our idea of figure as a modification of our idea of extension, the first example he lists does not serve his point.³⁴ The second claim, however, that "receiving or communicating motion by impulse, supposes solidity", is a claim asserting a necessary connection between two primary qualities that does not appear to follow from a mere analysis of their contents. To be sure, in his discussion of the idea of solidity, Locke does claim that the "mutual impulse" of bodies depends on their solidity, but there is nothing in his discussion to indicate that this claim is made on the basis of a mere analysis of the idea of solidity, so this discussion is consistent with his

³³ Although Kant does not refer to them, it is worth noting that there are other passages in the *Essay* in which Locke appears to acknowledge the existence of knowledge of this sort. In *Essay* 4.6.6, for example, he writes that our complex ideas of substances are "such combinations of simples ones, as carry not with them any discoverable connection or repugnancy, <u>but with a very few other *Ideas*</u>" (my underlining). And in reference to the chapter of the *Essay* we have been discussing, he comments in the next section that we can "go but a very little way" in discovering the "natural dependence" between the primary qualities of substances, which implies that we can go *some* way in discovering these dependencies. Similar claims can be found at *Essay* 4.6.13 and 4.6.15.

³⁴ See *Essay* 2.13.3 – 5.

claim in the above passage that there is a perceivable and hence knowable necessary connection between the solidity of a substance and its ability to receive and communicate motion that is not merely a matter of unpacking the content of the complex idea of some species of substance (Essay 2.4.5).

What is more, when we consider what Locke means by solidity, this property of body turns out to be quite similar to the repulsive or expansive force Kant ascribes to matter in the Metaphysical Foundations of Natural Science (hereafter Metaphysical Foundations) and that he holds is a necessary condition of its receiving or communicating motion. According to Locke, solidity is "that which [...] hinders the approach of two bodies, when they are moving towards each other" in the same way in which the chair on which I am currently sitting hinders the downward movement of my body (Essay 2.4.1). Similarly, Kant holds that all matter has a repulsive force, which is "that by which a matter can be the cause of others removing themselves from it (or, what is the same, by which it resists the approach of others to it)" (AA 4:498). Since this force is a necessary condition for the existence of matter, it is *a fortiori* a necessary condition for matter's receiving or communicating motion (cf. AA 4:510).35 And since the strategy of the Metaphysical Foundations is to apply the principles of the Transcendental Aesthetic and Transcendental Analytic of the first Critique to the empirical concept of matter in order to determine what, given these principles, is necessarily true of matter, Kant regards the conclusions he reaches about matter in the Metaphysical Foundations as synthetic a priori cognition.³⁶

Thus, it is Locke's views on body and bodily motion that lead Kant to claim in the *Prolegomena* that Locke anticipates his notion of synthetic a priori cognition; and these views are, moreover, ones that appear to agree at least in the main with views Kant himself holds and that he would later articulate in the Metaphysical Foundations, a book that appeared in print three years after the passage from the Prolegomena we have been examining. Whether Kant understood Locke's claim about solidity to be an example of instructive knowledge, however, is difficult to determine, in part because Locke does not use the term in the pas-

³⁵ For a more detailed discussion of this part of the Metaphysical Foundations, see Warren (2001). In drawing the comparison between Locke and Kant in the way I have, I depart from Warren's characterization of Locke's idea of solidity, which Warren takes to be the idea of a property and not a power of body. While resolving this question is not necessary for my purposes, it seems to me that the distinction Locke draws between solidity and hardness at Essay 2.4.4 justifies treating solidity as a kind of power, as do the similarities between Locke's examples in this section and the examples Kant uses to illustrate the impenetrability of matter at AA 4:501. 36 For a general presentation of the argument of the Metaphysical Foundations along these lines, see Guyer (2006, 157 – 165).

sages from the Essay Kant cites. Regardless of the state of Kant's understanding of Locke, however, it does appear that *Locke* understood his claim about solidity to be instructive knowledge, so while the argument of this section makes clear that Kant's justification for his claim about Locke is quite different from the one I provided in section two, it also provides additional support for the argument of that section.

5 Concluding Remarks

In this paper, I have attempted to shed light on three sets of issues that bear directly on our understanding of Kant and Locke and on their relationship to one another. The first is whether Kant believes Locke merely anticipates his distinction between analytic and synthetic judgments or whether he also believes Locke anticipates the epistemological notion central to Kant's project in the first Critique, the notion of synthetic a priori cognition. The second is what we as readers of Kant and Locke should think about this question, and the third is the nature of Kant's justification for the comparison he draws between his philosophy and Locke's.

In regard to the first, I have argued that Kant's comments in the *Prolegomena* are clear evidence that he believes Locke anticipates both the analytic-synthetic distinction and Kant's notion of synthetic a priori cognition and that Kant's subsequent comments in On a discovery, when understood in light of the details of his dispute with Eberhard, do not provide any evidence that Kant changed his mind about this question.

In regard to the second, I have argued that the best justification for Kant's claim draws on Locke's distinction between trifling and instructive knowledge and that the arguments against this claim by Carson, Allison, and Newman fail to hit their marks. The concerns about Locke's account of mathematical judgments raised by Carson are more relevant to the application of these judgments to objects encountered in experience than to their apriority. Allison's suggestion that Kant would have regarded some of Locke's trifling propositions as synthetic is belied by the similarities between these propositions and Kant's examples of a priori judgments involving empirical concepts. And the distinction Newman wishes to draw between ideational and epistemic containment, while consistent with Locke's discussion of the trifling-instructive distinction, is not entailed by it.

In regard to the third, I have argued that Kant's own justification for his claim is rather different than many commentators have thought it was (or should have been). It is clear that Kant does not appeal to the features of Lockean mathematical judgment to justify his claim, but the reason he does not is not, as Ci-

covacki claims, that he believes Locke holds these judgments to be synthetic a posteriori but rather that he thinks Locke holds them to be analytic a priori. Moreover, the parallels between Locke's views and the synthetic a priori to which Kant draws our attention concern our knowledge of the nature of bodies; and while it does appear that Locke regards the very limited knowledge we can have about the co-existence of ideas in substances over and above our knowledge of the elements of our complex ideas of those substances as a kind of instructive knowledge, there is no direct evidence that Kant was aware of Locke's instructive-trifling distinction or that it played a role in his own understanding of his complex relationship to Locke.³⁷

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