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Review: *Science and Sensibilia, by W. V. Quine: The 1980 Immanuel Kant Lectures*, edited by Robert Sinclair

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1. Introduction

Quine's 1980 Immanuel Kant lectures are a middle point between *The Roots of Reference* (1974), and his *Pursuit of Truth* (1990) or *From Stimulus to Science* (1995a). In the Kant lectures, Quine is especially concerned with the normative dimensions of his naturalized epistemology, how to account within his physicalism for propositional attitudes like "perceives that" or "believes that", and how exactly he understands ontological commitment.

In addition to Quine's lectures, the volume also contains five interpretive essays and an introduction. Collectively, these essays draw out how Quine addressed questions central to Kant in the lectures, and how he thereby developed subtle replies to some of the main objections facing his philosophy. Specifically, the introduction discusses the relationship of Quine's thought to that of J. L. Austin. Three of the essays treat Quine's conceptions of objectivity, ontology, reference, and naturalism (chapters 6, 8, and 10). Chapter 7 addresses the extents to which Quine can and cannot account for normativity within his naturalized epistemology. And chapter 9 develops an interpretation of Quine's psychological, as opposed to his more prominent linguistic, behaviorism.

I will present an overview of the lectures, give a critical discussion of the essays, and conclude by arguing that Quine's is a middle position between Kant's and Hume's on the issue of objectivity.

2. The Lectures

In *Science and Sensibilia,* Quine sees himself as exercised by "much the same concern" as Kant with his question, "How are synthetic judgments *a priori* possible?" (19). Quine's less momentous question is: "How, on the strength of the mere sporadic triggering of our sensory receptors, is it possible to fabricate our elaborate theory of other minds and the external world?" (19). As one might expect from this question, and as Quine declares at the outset, the lectures that follow go on to repeat somewhat ideas that he has expressed before (20). Nonetheless, in the lectures he clarifies, pulls together, and fills in his account. The four lectures end up being, as he hopes, "an improved summing up", carried out with his characteristic panache (19).

In the first of his four lectures, Quine considers the prospects for the reduction of mental notions like belief or perception to merely physical descriptions. At the very least, he thinks that we should endorse Davidson's anomalous monism, "according to which mental events are physical but mentalistic terms nevertheless do not in general admit of coextensive physicalistic paraphrases" (27). Still, just as some diseases will have a clear underlying physical etiology while others will not, he thinks with some mental kinds, like "perceptual event", there will be a suitably exact corresponding physical kind, while with most others, like "belief", there will not (26–27). He then takes up the challenge that his naturalism can't adequately account for the normative dimensions of epistemology. Because his focus is externally observable behavior and language, he argues that the traditional business of epistemology "gives way primarily to a study of language learning" and Quine's original question becomes the question of "how it was possible to learn the language of science" (32).

In his second lecture Quine revisits his ontogenetic tale about the emergence of objective reference and re-works his conception of the canonical language of science through his predicate- func-

tor logic, which analyzes away variables. Although Quine sees objective reference "as emerging little by little" in language learning (44), there are three main stages: the stage prior to objective reference, the stage where everyday objective reference emerges, and the stage where our locutions are made logically precise in a canonical scientific language. The process begins with observational occasion sentences like "Ball" or "Box". At the pre-objective stage, the language may involve not only Strawsonian feature-placing sentences, which judge of a point whether it has a feature—whether it is, say, "red" or "wood" or "Fido";—but also individuative sentences, mass and count nouns, monadic and polyadic predication, as well as non-observational standing sentences like "dogs are animals" (41–42). "The positing of objects becomes serious", however, only "where the objects are largely nameless or, if they all have names, then infinitely numerous" (45). The mark of this is the introduction of relative clauses. Here we get an everyday counterpart of quantification and bound variables. These allow for the derivation of general descriptions from sentences (49), usable in plural predications of the form "x's such that Fx are x's such that Gx" (48). Quine takes such a general conditional idiom, together with negation, to suffice for the first-order predicate calculus (49). Quine then reduces the basic connective of the language to a quantified Sheffer stroke "Fx $|_x$ Gx" that abbreviates "for no x both Fx and Gx." At this point Quine turns to the logical subtleties of his predicate functors, which are operators that produce new general terms when applied to general terms (50). Using these Quine gives a formulation of first-order logic that eliminates variables (51).[1]

In the third lecture Quine returns to perception and spells out exactly how he envisages the reduction of the "perceives that" locution to physical vocabulary. Quine's first step is to point out that if we take "a" as an observation sentence naming someone, and "p" to be an observation sentence, then the sentence "a perceives that p" will also be an observation sentence (53–54). In this way we already have a division between physicalistic and mentalistic talk at the level of observation sentences. The perception relation involves an object of perception (56). These visual, auditory, etc., objects will be diverse, as will the neural events underlying the perceptual events. Still, Quine holds that there will be classes of proximate enough perceptual events for there to be an observation sentence (or other response) conditioned to that class (58). What binds these classes together as deserving "a single verb 'perceives' " is just the higher-order trait that "each such class is a class of perceptual events by which the subject can be taught to name the object in question or otherwise relate to it" (58). Because of the sheer diversity of the observation sentences "p", "there is no hope of a physicalistic rendering of "perceives that" as a general operator on observation sentences, even though there be in principle a physicalistic rendering of each separate case 'perceives that p' " (59–60). Thus, for "perceives that", Quine's monism is anomalous, although each "perceives that p" has a general physicalistic rendering. Quine then turns to propositional attitudes more broadly. He argues that although idioms expressing these attitudes are indispensable in developing the language of science, their meaning is, more than "perceives that", contextual, and so "they have no place in an austere natural science, or system of the world" (64). We will develop our theory of the world, which will be a web of standing sentences, and for every such sentence "p", there are mentalistic echoes, such as the intensional sentences "a believes that p" about other minds (65). We will ascribe these based on the professions of the bearers of these minds, or, if we do not trust these, then through betting (66). But such ascriptions of beliefs, along with their further distinctive and elaborate mentalistic apparatus, are derivative upon our scientific language proper (66).

[1] These final moves of the lecture are especially quick and obscure. Quine's discussions of predicate functor logic go all the way back to "Towards a Calculus of Concepts" (1936), and he returns to it over the years (1960; 1972; 1981). Steven Kuhn (1983) gives an axiomatization. See these sources for a fuller sense of what Quine is after. (Thanks to Sanford Shieh for these references.)

Finally, complementing his anti-Carnapian arguments in essays like "Reference and Modality", Quine closes with a brief argument which maintains that if we recognize that the main use of modal adverbs like "necessarily" is their "local and transitory" use in argumentation, then "the sublimity of necessary truth turns thus not quite to dust, but to pretty common clay" (68).

In his fourth and final lecture Quine returns to ontology. At the end of the second lecture Quine had reached the conclusion that "to be is to be denoted" by a general term (72), and here he picks up by asking what we should admit as these denotata. He argues that in a scientifically precise physicalism, we should admit physical objects, where these are four-dimensional portions of space time that can also include events (74). Further, although it seems that we should also admit numbers, he argues that with them we can ultimately remain "innocent of any reification" (77). This is because "given any progression, and any member n thereof, we can say that a class has n members simply by saying that its members are in correlation with the members of the progression up to n" (77). Quine develops "this broad freedom of choice in the interpretation of the natural numbers" by using Ramsey's method of "*anonymization*" to give an equally non-committal account of the successor, sum, and product functions (77). This method replaces each of these functions with classes. It rewrites numerical quantifiers as quantifying over members of the domain of the successor class and rewrites signs of addition and multiplication using their classes (77). Quine's point is that what grounds the numbers can remain indeterminate, and because any progression will do, numbers go by the board. In the ontology, at this stage, because Quine construes properties as classes (76), we only have physical objects and classes (78). Another indeterminacy, however, also infects classes. Every general term determines a "class of those physical objects of which the term can be truly predicated" (79), but "Peter's class of all dogs might be Paul's class of all physical objects except dogs, and Peter's dyadic general term 'member of' might then be a translation of Paul's 'non-member of'; the two discrepancies would cancel out, and one would never know" (79). In this sense their classes are inscrutable, and what matters is the structure of the classes (80–81). Quine takes this point to be anticipated by Russell, Ramsey, and Bentham, and he claims that "it is already implicit in the recognition of sentences as primary in semantics" (81). He now thinks that it should be clear that a number of different ontologies with their corresponding classes will do, so long as the appropriate structure is preserved (82–83).[2] Here at the end of the "Immanuel Kant Lectures" Quine thinks that "there is a grim fitness in having run up against his *Ding an sich*", but "it has feet of clay" (83). This is because it "is only an equilibrium of empty symmetries, a deadlock" of interchangeable ontologies, "without a difference either in perceptual evidence or in theoretical structure. Yet there is in general no denying" that these ontologies are different (83).

3. The Introduction and Essays

Before discussing each essay individually, let me make a brief general remark. As a student of both Kant and early analytic philosophy, I appreciated how many of our contributors took up the relationship between Kant and Quine, although Quine's explicit remarks about Kant in the lectures are sparse. The interpretation of Kant on offer throughout seemed most influenced by the interpretations of Strawson (1966) or Stroud (1968). Although it would be overly demanding to expect Quine experts to be sophisticated readers of Kant, on more up-to-date inter-

[2]Indeed, as Juliet Floyd pointed out to me in correspondence, in "Ontological Reduction and the World of Numbers" (1964) Quine argues for a logically precise characterization of how to construct proxy-functions for carrying out ontological reductions, and he shows that, by itself, the results of the Löwenheim-Skolem Theorem are insufficient.

pretations,[3] Kant can look closer to Quine in certain respects. My sense is that if these respects had been in view, then the differences with Kant could have been brought into sharper focus. Specifically, the essays tended to read Kant as committed to taking up a standpoint that looked upon the endeavor of science from outside science, and they tended to align Quine with Hume and Kant with Descartes. Kant, however, aims to put philosophy on the secure path of a science (Bxviii) and sees metaphysics as a part of science (e.g., 844/B872)—although not an empirical science.[4] In developing his own transcendental metaphysics, Kant does not begin without any starting points, but begins from reason, takes for granted that we have experience, and that this is everyday knowledge (*Erkenntnis*). There is a sense, then, in which he also begins *in Mediis Rebus* and is concerned with how from this beginning we arrive at science. Of course, Kant and Quine are very different philosophers, but with a more accurate reading of Kant, my sense is that we could get farther in seeing exactly where these differences do and do not lie.

Turning to the introduction, after briefly describing the Kant lectures and before summarizing the Essays, the volume's editor, Robert Sinclair, examines the influence of J. L. Austin on the lectures, from whom Quine has adapted his title. Sinclair focuses on Austin's criticism of sense-data and of the argument from illusion (4). He argues that the miscellany of perceptual events in Quine's third lecture parallels the diversity of 'looks' that objects can have on Austin's account, and that Quine's grouping of perceptual events through the responses that they elicit parallels the unification of Austin's perceptual judgments through what we see. Sinclair's remarks are brief, however, and there is much more to say about this line of influence as well as, further, how Quine's view is and is not in the vicinity of disjunctivism.[5]

In the first of the interpretive essays, "Quine and the Kantian Problem of Objectivity" (ch. 6), Gary Kemp asks "How did Quine respond to the question of what makes objectivity possible" (92)? His main claim is that Quine externalized and physicalized "a set of Kant-style maxims" for transforming subjective processes into objective states or acts (98–99) and that the core of this account is that we have evolved innate standards of perceptual similarity that tend to harmonize both with the environment and intersubjectively (103). Kemp claims that this core only comes into place in the mid- nineties (101), but with this developmental claim I found his case unconvincing because it is not clear what he takes to be the substantive difference between the Nineties doctrine and the parallel claims in the *Roots of Reference* (1974, 19, 23). A critical piece of Kemp's reading is his claim that "Quine did not seriously question whether we do achieve objectivity" (107). Of course, he acknowledges the kind of indeterminacy that Quine lays out in his fourth lecture and elsewhere (105), but he claims that the upshot of it is not that two speakers such as Linus and Lucy might actually be speaking of different objects with their utterances of 'rabbit,' but rather that the explanation of why they are speaking of the same rabbit does not "employ concepts of semantics or logic, but partakes of simple physics, psychoacoustics, phonology, physiology and in particular neurology (and further linguistics)" (106). It is in this way, Kemp suggests, that traditional epistemic—e.g., "transcendental" (107)—explanations of the possibility of objectivity give way in Quine to a more hum-drum natural scientific explanation. In my concluding remarks I will return to this feature of Kemp's reading.

In "Quine on the Norms of Naturalized Epistemology" (ch. 7), Gary Ebbs argues that on Quine's considered view the norms

[3] For the issues in question here I have in mind, for example, Ameriks' "Moderately Regressive" interpretation (2003, esp. ch. 1—from 1978) or that of Engstrom (1994).

[4] References to Kant's works will follow the standard citation practices of "volume:page number" of the Academy Edition and the standard A/B edition numbering of the *Critique of Pure Reason*.

[5] Sinclair (2018) is more expansive.

of his epistemology fall exclusively on its doctrinal, rather than its conceptual side (118). Quine holds that the conceptual side of epistemology is concerned with meaning, with "clarifying concepts by defining them," while the doctrinal side is concerned with truth, "with establishing laws by proving them" (119–20). Ebbs associates the conceptual side with Carnapian rational reconstruction (122–23), as well as Quine's account of language learning (134), whereas he associates the doctrinal side of epistemology with the critique of thinking, which is "on a par with engineering" (127). Something that I thought should have been clearer in Ebbs' chapter is that on his reading it is critical that the doctrinal side of Quine's epistemology is undertaken from a standpoint *internal* to the theory by those who are *using* the language, while the conceptual side of his epistemology is undertaken from a standpoint *external* to it and *mentions* the language studied. (Ebbs 2011 develops this distinction, as does Ricketts 2011.) With this in mind, it is easier to see why Ebbs takes the doctrinal engineering of better and better theories by those who accept them to be where normativity remains, and not in the conceptual description of the relations between the sentences of the language and the impacts at nerve endings of its speakers. While Ebbs is quite right to stress the fundamental difference between the internal and external standpoints, I found thin the textual case that Quine was thinking of his doctrinal/conceptual distinction in terms of them. In part as a result, I was also not convinced that Quine himself fully endorses the doctrinal/conceptual distinction, as Ebbs takes him to.

Paul Gregory, in his "Quine's *Ding an Sich*: Proxies, Structure, and Naturalism" (ch. 8), examines the discussions of Kant's *Ding an Sich* throughout Quine's work, and traces how the evolution across these discussions illuminates Quine's structuralism. It is striking that for Gregory, like for Ebbs, the critical distinction is between the standpoint where we acquiesce in our language, use it, and know what our words refer to, and a standpoint external to the language, where reference is inscrutable. Gregory claims that in the former we are "doing ontology," whereas the conclusion about the indeterminacy of reference is "a *startling* epistemological result" (144). Like Ebbs, Gregory is surely right about how fundamental the distinction between these standpoints is for Quine, but I found his case that Quine draws this distinction through the contrast between ontology and epistemology unconvincing. In particular, although ontological relativity is an epistemic doctrine, it's not clear that when we acquiesce in our language and use it to pursue science, Quine thinks of this as doing ontology, a traditional task of metaphysics, and not simply as doing natural science. One of Gregory's main concerns is to explicate Quine's "Anti-Transcendentalism". Here, a better interpretation of Kant would have been useful, but the poor Kant interpretation is in part Quine's fault. Quine says: "What evaporates is the transcendental question of the reality of the external world—the question whether or in how far our science measures up to the *Ding an sich*" (145). Here he is conflating external, physical reality with the existence of Kant's thing-in-itself, which is defined as non-physical, non-spatial, and non-temporal. Furthermore, the thing-in-itself, for Kant, is not something against which we can measure our science or "run up against" (146), and it is not "unconceptualized" (147). Indeed, once one considers that for Kant, when we use our concepts of objects to think of things-in-themselves, these concepts lose "all significance" because things-in-themselves cannot be objects of sense (B307–309), one begins to wonder where exactly he and Quine, on Gregory's interpretation, disagree. This is because, according to Gregory, Quine's main complaint is that the question of how our theories measure up to a mind- or theory-independent reality, the thing-in-itself, is meaningless (e.g., 150), but that doesn't sound so different from Kant's main complaint against transcendental realists, like Descartes.

Sander Verhaegh takes up the topic of Quine's psychological behaviorism in his " 'Mental States Are Like Diseases' Behaviorism in the Immanuel Kant Lectures" (ch. 8). Verhaegh distin-

guishes three varieties of psychological behaviorism: ontological (Watson), logical (Hempel), and epistemological (Skinner). They agree in replacing appeals to mental entities with appeals to behavior; they differ in their arguments against mental entities (159). Although in the introduction Verhaegh claims that Quine does not fully accept any of the three versions of psychological behaviorism (158), with the first and the third, why Quine doesn't accept them should have been clearer. Verhaegh does not explicitly discuss whether he thinks Quine counts as an ontological behaviorist. As we have seen above, Quine is a non-reductive physicalist because he thinks that although every mental event is identical to a physical event, there are some mental types that cannot be reduced to physical types (168). In discussing Watson's ontological behaviorism, Verhaegh brings up Watson's claims about the reduction of mental states to non-mental states (160). This suggests that he takes type-reduction to be essential to ontological behaviorism, but because he does not make this commitment clear, it is not clear whether this is why he would not count Quine as an ontological behaviorist. Verhaegh argues that Quine is not a logical behaviorist because he does not in principle rule out the appeal to mental entities in proper science. He takes Quine to hold that some mental statements that cannot be reduced to behavioral statements might be acceptable, if they contribute to our overall theory of the world (165, 169). In this case they would be like electron spin (Quine 1980b, 126). They lack an observational criterion, but they simplify the theory. Still, *in point of fact* Verhaegh holds that Quine maintains that there are no mental entities that actually contribute to our best theory (167). When Verhaegh turns to epistemological behaviorism, he argues that although Quine and Skinner are close in their arguments for why mental entities are not explanatory, because Quine believes that behavior often ultimately requires a further neural explanation, he is not an epistemological behaviorist (170). At the outset, however, Verhaegh was explicit that what differentiates the three varieties of behaviorism is their arguments against mental entities, not their positive proposals for proper explanations in psychology (159), so by his own lights it seems that Quine should count as an epistemological behaviorist.

Frederique Janssen-Lauret argues in "Quine, Ontology, and Physicalism" (ch. 9) that between the 1980 Kant lectures and the 1990 *Pursuit of Truth*, Quine's view shifted in two ways. First, in the Kant lectures Quine argues that for each specific observation sentence "p", there exists a physicalistic rendering of "perceives that p" (59). Janssen-Lauret argues that by *Pursuit of Truth* he has given up on even this limited kind of type-type identity between the mental and the physical (198). Here I found Janssen-Lauret's case compelling. Second, she argues that whereas in the Kant lectures Quine endorsed introspection as a source of knowledge, by *Pursuit of Truth* this commitment disappears. Here I found her case less compelling, not because she is wrong exactly, but because Quine never sees introspection as an important source of knowledge. Janssen-Lauret sees introspection as incompatible with what she calls his "global epistemic structuralism," according to which "we only ever have knowledge of the external world insofar as its denizens collectively exhibit the structure of our best theories" (183). The incompatibility is supposed to arise because introspection gives us direct "knowledge by acquaintance" of our mental states where this direct reference to mental states "is at odds with the inscrutability of reference" (183). In the Kant lectures, however, Quine does not bring up introspection as a fundamental kind of knowledge that allows for direct reference, but in order to give an explanation of why descriptions of privately introspected mental states really trace back to publicly observable symptoms (21, 26). Still, although I think introspection is a red herring, there is a related apparent tension in Quine's views that came up in our discussion of the contributions from Ebbs and Gregory, and which is related to what Putnam once called "the most subtle question in the whole of Quinian philosophy" (1985, 66). Although reference

is inscrutable when interpreting others or ourselves at another time, for Quine it is basic that we know the reference of our own words when we acquiesce in, and use, our home language. This knowledge is captured through Tarskian disquotational schemas (Quine 1951). He counts this referential apparatus not as a part of psychology—introspective or otherwise—but of logic. Unlike introspection, this is an important piece of Quine's account, and it appears to create the kind of conflict that Janssen-Lauret is interested in. Ricketts (2011) offers a resolution to this apparent conflict on which the asymmetry between truth and reference in the home and alien languages is required and coherent within Quine's basic outlook.

4. Conclusion: Quine, Kant, and Intersubjective Agreement

I am tempted to close by remarking on the common role of logic as the key to the nature of objects on both Kant's and Quine's accounts. Instead, let me sketch a different comparison that the preceding brings to the fore. In his Refutation of Idealism, Kant addresses Descartes and Berkeley, who he reads as declaring that "the existence of objects in space outside us as doubtful," although he takes them not to doubt inner experience (B274–79). Kant argues that inner and outer experience are on all fours, because both are determined in time, and that allowing for inner experience requires allowing for outer experience. Neither here nor elsewhere does he claim to refute a skepticism that takes nothing for granted, and he is not looking for an unassailable Archimedean point from which to vindicate knowledge. Rather, he is taking reason with its conception of cognition or knowledge (*Erkenntnis*) as his starting point, and he is working to give an account of how such knowledge could be possible. Sharing this starting point involves accepting that experience is knowledge, that as knowledge it is valid of its object, that because of this validity, it is also valid for all knowing subjects, and that, thus, we can expect knowledge to grant intersubjective agreement (*Prolegomena*, 4:298).

Unlike Kant, Quine does not begin with objects and their knowledge, which are intersubjectively available, but begins with the home language in use. In this sense, like how Hume's mental geography begins by surveying the private perceptions that come forward onto the stage of the subject's mind, his starting point is private. But in shifting his starting point from knowledge and the mental to the home language, Quine begins with a subjective phenomenon that has an external and intersubjectively available component: linguistic behavior. In this sense, it is like Kant's consciousness of his own existence as determined in time, because determinate temporal position is objective, and thus intersubjectively available. Linguistic behavior is insufficient to guarantee as a matter of logic (or metaphysics) that different practitioners of science will get onto the kind of intersubjectively knowable objects that Kant takes to be commonly available between knowing subjects. But so long as conversation flows smoothly, and our linguistic interactions proceed without friction, then, by Quinean lights, the differences between our referents remain irrelevant.

Furthermore, as Gary Kemp points out, once we reach past logic to psychology, then we will see that our best science suggests that our referents will be the same, even if in principle reference is inscrutable. In this way, we can expect conversation to flow smoothly due to the contingently similar psychological makeup of human beings, and so although Kantian objectivity goes by the board, Quine thinks we get a suitable replacement. In this sense, Kemp's claim that Quine did not seriously question whether we do achieve objectivity deserves care (107), since Quine was trying to replace traditional notions of objectivity—be they, e.g., Cartesian or Kantian—with a two-part view. (1) As a matter of logic, reference is stable in the home language in use. And (2) reference is in principle inscrutable with alien languages, although conversation generally flows smoothly and we will usually happen to have intersubjective agreement.

Circling back around to logic, for Kant in transcendental logic the categories articulate the form of an object in general—the concept in which the manifold of intuition is united into an object (B137). For Quine ineliminable quantificational structure is the mark of ontological commitment and the emergence of objects proper in the ontology of a language speaker. Although also true of the home language, this is a third personal description of linguistic behavior. For both Kant and Quine, logic is the key to objecthood, and it is because of his reliance on logic that Quine charts a kind of middle course between Hume and Kant. While Hume's perceptions only ever have validity for the subject that they belong to, and they are neither valid of an object outside this subject nor valid intersubjectively in Kant's sense, from the standpoint of linguistic behavior, Quine is able to set the inner and the outer on a par and recapture a chunk of what Kant thinks goes missing with Hume. On the one hand, Quine's starting point is as parsimonious as Hume's. (Arguably more so, because as Kant rightly reads him, Hume presupposes objective time, and Quine does not.) On the other, he gets farther than Hume in accounting for the possibility of the kind of intersubjective agreement that science presupposes, because language is an intersubjective phenomenon that requires a good deal of structural agreement, even if this is built on top of home ontologies that could be radically different. The core of this structural agreement is logical since it is logic that points listeners to the objects that a speaker is relying on. Thus, it is because logic takes on a somewhat Kantian role for Quine as the guide to ontology that he is able to get farther than Hume in giving a philosophical reconstruction of our commonsense conception of knowledge.

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References

Ameriks, Karl, 2003. *Interpreting Kant's Critiques*. Oxford: Oxford University Press.

Ebbs, Garry, 2011. "Quine gets the last word." *The Journal of Philosophy* 108(11): 617–32.

Engstrom, Stephen, 1994. "The Transcendental Deduction and Skepticism." *Journal of the History of Philosophy* 32(3): 359–80.

Kant, Immanuel, 1979. *Gesammelte Schriften*, 29 volumes. Berlin: de Gruyter.

———, 1999. *Critique of Pure Reason*, The Cambridge Edition of the Works of Immanuel Kant in Translation. Cambridge: Cambridge University Press.

———, 2002. *Theoretical Philosophy after 1781*, The Cambridge Edition of the Works of Immanuel Kant in Translation. Cambridge: Cambridge University Press.

Kuhn, Steven, 1983. "An axiomatization of predicate functor logic." *Notre Dame Journal of Formal Logic* 24(2): 233–41.

Putnam, Hilary, 1985. "A comparison of something with something else." *New Literary History* 17(1): 61–79.

Quine, Willard V. O., 1936. "Towards a calculus of concepts." *Journal of Symbolic Logic* 1(1): 2–25.

———, 1951. "Notes on a theory of reference." In Quine (1980a).

———, 1960. "Variables explained away." In Quine (1995b).

———, 1964. "Ontological reduction and the world of numbers." *The Journal of Philosophy* 61(7): 209–16.

———, 1972. "Algebraic logic and predicate functors." In Quine (1976).

———, 1974. *The Roots of Reference*. La Salle, IL: Open Court Publishing Company.

———, 1976. *The Ways of Paradox and Other Essays*, Revised and Enlarged Edition. Cambridge, MA: Harvard University Press.

———, 1980a. *From a Logical Point of View*. Cambridge, MA: Harvard University Press.

———, 1980b. "Sellars on Behaviorism, Language, and Meaning." *Pacific Philosophical Quarterly* 61(1–2): 26—30.

———, 1981. "Predicate functors revisited." *The Journal of Symbolic Logic* 46(3): 649–52.

———, 1990. *Pursuit of Truth*. Cambridge, MA: Harvard University Press.

———, 1995a. *From Stimulus to Science*. Cambridge, MA: Harvard University Press.

———, 1995b. *Selected Logic Papers*. Cambridge, MA: Harvard University Press.

Ricketts, Thomas, 2011. "Roots of ontological relativity." *American Philosophical Quarterly* 48(3): 287–300.

Sinclair, Robert, 2018. "Science, sense, and sensibilia: Quine and Austin on perception." *Al-Mukhatabat* 27: 39–58.

Strawson, Peter, 1966. *The Bounds of Sense: An Essay on Kant's Critique of Pure Reason*. New York: Routledge.

Stroud, Barry, 1968. "Transcendental arguments." *The Journal of Philosophy* 65(9): 241–56.