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Gilbert Harman and Ernie Lepore, eds. *A Companion to W. V. O. Quine*. Oxford: Wiley-Blackwell, 2014. 600pp. \$195 Hardcover. ISBN 978-0-470-67210-5.

Reviewed by James Pearson

Review: *A Companion to W. V. O. Quine*, edited by Gilbert Harman and Ernie Lepore

James Pearson

After a decade of companions to specific areas of philosophical study, 2007 saw Blackwell releasing its first volume devoted to a single philosopher (Martin Heidegger). The series has proceeded to feature a range of thinkers drawn from philosophy's history, but the present volume on W. V. O. Quine (together with recent ones on Donald Davidson [2013], John Rawls [2013], and David Lewis [2015]) marks a welcome turn to analytical philosophy. It would be good to see future companions dedicated to such figures as Gottlob Frege, Bertrand Russell, Rudolf Carnap, P. F. Strawson, or Hilary Putnam. (A volume on Ludwig Wittgenstein is already in the works.)

Each companion aspires to offer a "lucid and engaging coverage" of its topic for use by "students and specialists alike" (ii). The twenty-six new essays that comprise this one are variously rich and thought provoking. Some are written very accessibly, while others presuppose a good deal of familiarity with Quine's work. Some cleave closely to established (and expected) topics, while others carve out more esoteric pathways. Yet the editors, in their short and rather staccato introduction, provide little guidance about how to use their companion. After isolating key themes in Quine's philosophical approach and gesturing to the essays engaging them, they close with a rather humdrum "But what will be Quine's enduring legacy for this century? Only time can tell" (xx). Perhaps they are right, but given that so many of these contributions suggest ways that Quine's views might, or may not, be brought to bear on contemporary problems, this quick answer is a missed opportunity for them to offer their expert perspective on Quine's continuing significance.

Moreover, the editors do not direct the reader to the interesting scholarly disputes that emerge from these pages, which is a great shame. One of the more rewarding aspects of reading the volume cover to cover is a renewed appreciation of the fertility of research on Quine. Here we find disputes about the truth of his major claims, both in their historical context and from our own vantage point; disputes about the details of those claims; disputes about when Quine's philosophical outlook reached its zenith; and, to the reader paying attention to both what is said and what is shown, disputes about how best to write the history of analytic philosophy. In this review, rather than aspiring for total coverage of the wealth of material in the Companion, I shall extract some points about Quine that these papers seem to me to get right and highlight some of the more interesting disagreements among its contributors. My hope is that doing so will both inspire teachers to employ this volume in their courses and whet the appetite of Quine scholars, thereby ensuring that these essays get the readership that they deserve.

The essays in the Companion are grouped under four headings: Method; Language; Logic, Mathematics and Science; and Relation to Other Philosophers. On the whole, these groupings are well organized, and the volume certainly contains the fewest number of typographical errors that I have seen in a manuscript of this length. However, I found both the placement and the order of some of them puzzling. Why not swap, for instance, Gary Kemp's account of Quine's relationship to his contemporaries, currently in Method, with Martin Gustafsson's examination of Quinean explication, currently in Relation to Other Philosophers? And since Alan Weir criticizes Peter Hylton's interpretation of Quine's naturalism, why not lead with Hylton's paper on the topic instead of Weir's? It is also worth noting that, to this volume's credit, while naturalism is one of a handful of topics (others include observation and the indeterminacy theses) that command multiple chapters-and deservedly so given their centrality to Quine's project—there is admirably little repetition between the essays. At worst, the thunder of a subsequent discussion is occasionally stolen (as with Michael Glanzberg's masterful treatment of Quine's suspicion of modal notions just prior to Gary Ostertag's examination of Quine's and Russell's views on modality). In general, the essays complement each other well, and taken together equip the reader with a broad appreciation of Quine's distinctive contributions.

Newcomers to Quine are liable to misunderstand him in various ways, and a number of these essays offer elegant corrections for common missteps. One swiftly preempted by the editors is the thought that indeterminacy of translation has something to do with untranslatability, or ineffable ideas that cannot be put into words. A more serious mistake is that Quine's adherence to behaviorism, a discredited philosophy of mind, means that his views can only be of historical interest. Yet as Dagfinn Føllesdal recognizes, Quine's mature behaviorism is not an ontologically based opposition to distinctively mental entities, but an epistemologically based opposition to theories that exceed the available evidence (265). Quine tells us that, in a passage quoted many times in this volume, "In psychology one may or may not be a behaviorist, but in linguistics one has no choice" (1992, 37; quoted at 250, 375, 494, 533). The reason is that language is a social phenomenon. Theories purporting to explain how it is acquired, or to describe the nature of meaning, must accordingly be built from the evidence available to language users-namely, the behavior of others within their linguistic community.

However, few contributors are willing to follow Quine in holding that behavioral evidence is the *only* evidence relevant to linguistic theory. As cognitive psychologists uncover ways that our faculty of perception frames our ability to acquire concepts and learn language, according to Olav Gjelsvik, naturalists incur an obligation to engage their theories (329); Gilbert Harman suggests it was only "methodological caution" that prevented Quine from doing this work, since he understood how the behavioral hypotheses he advanced, unlike speculative neurophysiological ones, could be tested (228). Yet by adopting this cautious attitude, and in tension with his naturalism, Barry C. Smith argues that Quine fell out of step with working scientists of language, i.e., linguists. In his stimulating paper, Smith contrasts Noam Chomsky's theory of Universal Grammar with Quine's behaviorist approach and objects that Quine inflates the plausible principle that, for a language to exist, hearers must be able to know what a speaker means, to the implausible one that language requires speakers to be able to show what they mean through their behavior alone (495–96). Infant languagelearners have the former capacity, Smith believes, in virtue of an internal "apparatus for phonological segregation" that Quine "misses" (497). On the other hand, Peter Pagin emphasizes Quine's developing recognition of the need for language learners to possess an innate capacity for finding sensory stimulations similar-and for doing so similarly to one another. Nevertheless, in Pagin's view, and despite Quine's protestations to the contrary, translators might be said to know which manual for translating a community is correct after all, if they are able to reliably choose among competing manuals on the basis of this innate capacity (254).

Despite these objections, I stand with Føllesdal behind Quine's behaviorism, at least understood in its moderated form that "When we are seeking to understand certain social phenomena, for example, language learning and language use, *we must focus* on the evidence that is available to participants in the pertinent social situations" (276, my emphasis). For adopting this third-personal perspective forces us to confront the indeterminacies that infect theoretical discourse, and the continuity of theory and meaning, in a way that blinkered adherence to proto-meanings in the mind makes all too easy to sideline and, in the worst cases, simply ignore.

Quine vividly personified his behaviorist scruples in his figure of the radical translator, an imagined linguist attempting to construct a manual of translation for a totally unknown language on the basis of observation alone. He famously argued that translation is not merely underdetermined by the available evidence, but fully indeterminate: there is no fact of the matter about which manual for translating another speaker is correct. Furthermore, he argued, the reference of another speaker's terms is behaviorally inscrutable. While many of these papers engage radical translation and the indeterminacy theses, they do so at a fairly sophisticated level; readers seeking an introduction to this literature should look elsewhere. Alex Orenstein purports to scrutinize inscrutability, but since his main argument that, contra Quine, the inscrutability of reference entails the indeterminacy of translation relies upon pretheoretic intuitions about meaning that Quine is clearly at pains to avoid, his paper is of limited use to the novice reader. Pagin's exploration of the indeterminacy of translation is more faithful to Quine's viewpoint, and his closing critical discussions of objections from semantic externalists and compositionalists are particularly helpful, but students without some background in logic may find the technical apparatus he employs to clarify the thesis confusing.

The brief account of the indeterminacy theses that Adam Sennet and Tyrus Fisher provide in the course of evaluating Quine's views on the value of regimentation is more accessible than Orenstein's and Pagin's detailed examinations. However, Sennet and Fisher suggest that Quine's acquiescence in the home language as a response to the apparent paradox of referential inscrutability—for how can a speaker use language if the reference of her own terms is inscrutable—amounts to "simply ignoring the relativity" (104). Although Sennet and Fisher acknowledge that the home language is not understood via translation, they insist that the totality of "'S' means S" sentences that one who acquiesces in the home language endorses amounts to one acceptable translation manual among many, and so cannot suffice to determine one's own meaning. Yet as Harman recognizes, Quine views the disquotational schemata for reference (instances of "Singular term 'E' refers to E" and "Predicate 'F' refers to Fs") as characterizing an *immanent* reference relation within a language that warrants definitive, trivial answers to questions about reference phrased from within (227). Ontological relativity has not been ignored then, since its target is rather the intelligibility of a *transcendent* reference relation, defined across languages, which would render possible answers to questions about reference full stop.

Indeed, I found Harman's piece to be scattered with useful insights about Quine, together with striking claims, such as that, given variations in individuals' preferred phrasing, what one could say is more relevant to what one means than what one does say: "to require similarity in actual usage (rather than possible usage) as a criterion of translatability would almost certainly rule out all translation, since two different people almost certainly use their words differently" (233). I worry that to grant this gap between saying and meaning is to license sloppy articulation, allowing one's interlocutor to forever cry, "yes, that might be what I said, but it's not what I meant"; but in any event, passages like these make Harman's piece especially engaging. It is a pity, then, that he misleadingly attributes to Quine the view that "interpretation is translation" (218), using these terms interchangeably throughout his essay. Quine explicitly distinguishes his understanding of translation-systematically relating the sentences of two languages so that their speakers may pursue shared projects, which could in principle be achieved in a third language-from the program of interpretation made famous by Davidson, which involves trying to understand in one's own language what someone else means.¹

The relationship between Quine and Davidson is the topic of Hans Glock's contribution to the volume. (Others examined in the "Relation to Other Philosophers" section include Russell [Ostertag], Carnap [Gustafsson and Gary Ebbs] and Chomsky [Smith]; Sandra Lapointe also critically contrasts Quine's views on logical truth with Bernard Bolzano's. The Companion would have been strengthened, I think, had it included further chapters exploring Quine's relation to such figures as Strawson, Putnam, and perhaps Wittgenstein, none of whom receive sustained attention.) Glock regards both Quine and Davidson as "logical pragmatists" in virtue of their rigorous application of formal techniques to themes and positions characteristic of classical pragmatism (such as epistemic holism and the rejection of mentalism). He provides a useful overview of the points on which they differ, judging Quine the victor in all but his persistent opposition to taking mental phenomena seriously. While Glock acknowledges that Quine eventually followed Davidson in adopting anomalous monism, he judges that Quine's preference for a "scientistic" epistemology renders him incapable of properly capturing "the distinctive character of human beings" (547). Yet elsewhere in his essay, I worry that Glock underestimates the significance of this difference between them. He suggests, for instance, that Quine and Davidson's disagreement about the attitude one ought to adopt toward empirically equivalent but logically incompatible global theories—whether to be sectarian with Quine, and hold the theory one is currently using true and the other false, or ecumenical with Davidson, and hold both theories true in an overarching theory-could have been defused if they had remembered that truth is not merely

a matter of fitting the evidence; we also use the concept of truth to indicate the theory-independent goal of our inquiries. Since acknowledging our obligation to hold any empirically adequate theory true is not to reduce truth to empirical adequacy, Glock thinks, sectarianism and ecumenism amount to different accounts of what we are warranted in believing rather than constituting some deeper dispute about the nature of truth. But far from defusing their disagreement, I would argue that Quine's and Davidson's competing views about the philosophical significance of other uses of the concept of truth in our language, particularly in regard to our right to hold our inquires objective, reveals how great the divide between them actually is. The sectarian naturalist confidently holds her own theory true and empirically equivalent variants false, while asserting her right to switch to those variants should doing so prove expedient. The ecumenist Davidsonian views objective truth as the interpersonal standard governing and making intelligible her own investigation, which requires adopting a more humble, evenhanded attitude to her own theory and those of her epistemically competent peers.

Glock ably distinguishes Quine's radical translator from Davidson's radical interpreter, pointing out that the goal of these thought experiments is to "enforce the austere [thirdpersonal] approach to meaning they deem proper" rather than to yield practical insights about anthropological methodology (539). The status of Quine's creative account of the psychogenesis of reference has not always been so clear, as Glanzberg brings out in his piece. If Quine's account of how children progress from facility with observation sentences (such as capably pairing "Mama" with the appropriate stimuli) to becoming capable of referring to things in the world is to be understood as empirical speculation, subsequent psychological evidence suggests it is false (378). On the other hand, as a conceptual investigation of the linguistic abilities that must be in

¹"Interpretation is broader than translation. There are scientific sentences in today's English that cannot be translated even into the English of 1900, let alone classical Arabic or Swahili; but still they can be adequately interpreted in all those languages" (Quine 1999, 75).

place in order for us to sensibly ascribe a grasp of ontology to another, Quine's remarks may retain contemporary importance. Glanzberg carefully leads the reader through Quine's story, rightly emphasizing his view that mastering predication (and, via relative clauses that allow us to distinguish complex properties from the things we predicate them of, grasping the structure of bound variables needed for quantification) is more important than mastering naming for developing an ontology. Quine's attitude here, Glanzberg notes, is entirely consonant with his belief that the ontological commitments of our theories are best determined by regimenting them in a language that does not employ names.

Quine famously endorsed first-order predicate logic plus identity as his favored language for regimentation, but some interesting disputes emerge in this volume regarding the motivation for and enduring need to abide by his recommendation. Glanzberg distinguishes Quine's merely "pragmatic" preference for first-order logic's familiarity, complete proof procedure, and single unambiguous existential quantifier, from his "more substantial" opposition to second-order logic (381). For one thing, choosing to view formulae that initially appear to assert general claims about predicates (such as " $(x)(Fx \lor$ $\sim Fx$)") as metalinguistic schemata—recipes for picking out certain object-language formulae of interest-allows us to avoid the paradoxes that threaten if we instead allow predicate letters to act as variables ranging over classes. Moreover, according to Quine, since predicates are not names (of, for instance, "properties" or "universals"), they do not occupy a logical position that could be bound by a quantifier; they contribute to the meaningfulness of those sentences in which they occur without possessing their own "meaning." Logicians more optimistic about avoiding semantic paradox and less skeptical than Quine about intensional objects may disagree with him here, and Glanzberg gestures the reader toward the technical

achievements of George Boolos and others in exploring secondorder plural logic as an alternative language for theory regimentation. But Glanzberg insists that Quine thought his choice of regimentation language *correct*, not merely *preferable* to alternatives, on the basis of his understanding of how language works: "Other options for how to measure ontological commitments embody mistakes, and the criterion Quine does endorse [viz. inspect regimented theories in a first-order language] can help sustain the ontological 'desert landscape' Quine prefers" (387).

In contrast, Sennet and Fisher suggest that Quine's preference for first-order logic results from his idiosyncratic endorsement of various syntactic, semantic, metaphysical, and epistemic constraints that "can be adopted or dismissed" by contemporary Quineans "depending on [their personal] predilections" (95). They acknowledge that Quine himself viewed the role of regimentation as part of a "philosophical package" comprising "naturalistic epistemology, a theory of meaning, an approach to ontology, and a novel philosophy of logic" (108). Yet one may refuse some or any of these doctrinal points, Sennet and Fisher maintain, and still count as a Quinean if one minimally accepts that regimentation into a formal language (or more carefully, as they usefully remind the reader, regimentation into a formal extension of natural language), instead of questing for clearer, synonymous formulations in extant natural language, is a useful method for theory improvement. In their view, the Quinean proponent of regimentation holds that it is only once a theory has been regimented that it can be sensibly said to have a determinate ontology, or perhaps even to count as a theory at all.

By choosing to emphasize the structure of Quine's approach at a level that abstracts from his more controversial views, Sennet and Fisher successfully motivate the clarificatory value of regimentation. But I worry that, since their Quinean may vehemently disagree with Quine about what constitutes an improvement to a theory, particularly to (but not limited to) his craving for a minimal ontology, the concept of "theory" at play has become too weak to be of much interest. Indeed, I suspect that Sennet and Fisher cast their net so broadly that Quineans may not even care if their regimented theories pass scientific muster, and so, may differ quite greatly from Quine. If this is right, then readers wanting to learn about Quine's own position should look elsewhere.

Another paper that explores the contemporary value of Quine's methodology is Gustafsson's on explication. To explicate an unclear expression, Quine tells us, one first identifies the function that "make it worth troubling about" and then proceeds to "devise a substitute, clear and couched in terms to [one's] liking, that fills those functions" (1960, 258–59). But although Quine credits Carnap with the idea in Word and Object, Gustafsson argues that their conceptions of explication importantly differ. In order to contrast them, he leans heavily on Carnap's condition that adequate explications be formally exact, "[belonging] to some precise calculus or semantic system" (513), if they are to warrant toleration. Quine then emerges as the more nuanced and appealing linguistic engineer, who views explication as one tool among many for clarifying colloquial language, and who only requires it in cases where colloquial "messiness" poses problems for ongoing inquiry, rather than being a precondition for any sufficiently rigorous program of investigation (515). Yet since Carnap wrote that a given explication must be exact only "to a sufficient degree" (1950, 7), his position here seems quite close to Quine.

Recent interpretations, such as A.W. Carus's (2007), have built upon passages such as these to argue that Carnap came to view explication as an operation *external* to formal languages, and so, one that could never be made fully precise. In an exchange with Strawson, Carnap even writes that making use of an artificial language when explicating is optional: one might instead "state a few simple rules" for clarifying the use of a contested concept (1963, 937). Gustafsson objects that Carnap's "conciliatory rhetoric" here is misleading, since explication can only accomplish the philosophical aims Carnap envisaged against a sharply defined semantic system (514). And he is certainly right to emphasize the gap between Carnap's and Quine's conceptions of the philosophical work of explication: whereas Carnap sought to dissolve metaphysical disputes by showing that explicating key terms like "truth" and "consequence" in different formal languages allows us to reconceive seemingly fundamental disputes as mere terminological disagreements about which calculus to adopt, Quine thought firstorder logic the sole canonical language into which one should explicate, with the comparably modest aim of clarifying one's theory (and exposing its ontological commitments). Nevertheless, Carnap's concession that there are various methods by which one might explicate our concepts-coupled with his toleration of multiple formal (and possibly informal) languages for doing so-provides some reason for thinking him the more nuanced linguistic engineer.

Gustafsson closes his essay with a particularly insightful analysis of Quine's discussion of ordered pairs, asking why Quine characterizes the set theoretic constructions of Norbert Wiener and Kazimierz Kuratowski as an achievement of *clarity*, given that mathematicians already possessed perfectly clear identity criteria for ordered pairs. In fact, Gustafsson contends, it seems that in general explicators need to be pretty clear about their explicanda before they get to the task of explication. The real advantage Quinean explication offers, he concludes, is not *general* clarity or the removal of everyday confusion, but what we might call *naturalist* clarity or the removal of confusion among those philosophers who stand with Quine in thinking science the arbiter of existence. Fixing the entities ranged over by the quantifiers appearing in stretches of scientific (in this case, mathematical) discourse provides an answer to what that discourse commits us to believing exists. Yet once again, if the intended audience for and value of Quinean explication is restricted to confirmed naturalists, I suspect that Carnap's broader conception of explication will have a more lasting significance for philosophers aiming for conceptual clarity.

In contrast to Gustafsson's and Sennet and Fisher's assessments of the contemporary value of Quinean regimentation and explication, Kemp offers a historical evaluation of why Quine chose these methods, and what his choice reveals about his relationship to analytic philosophy. Kemp manages to introduce Quine's thought to the novice reader while contributing a distinctive interpretation that should interest experts, making this essay one of the best in the volume. Given Quine's scornful attitude toward "meaning," Kemp frames his paper by wondering, how did he come to be placed in a school of thought that prizes linguistic or conceptual analysis? Kemp answers his question by telling two tales: first, that of the young Quine, a talented logician inspired by the Vienna Circle (and especially Carnap) to pursue philosophy as a rigorous science, and second, the older Quine who sought to apply his logico-scientific outlook to the study of language. The structure of Quine's philosophical approach, Kemp believes, was already in place by the publication in 1951 of "Two Dogmas of Empiricism"; although his later application of that approach explored topics in the philosophy of language also studied by his contemporaries, he did not share their interest in describing "meaning" or analyzing ordinary language. Rather, his goal was to show how the fact that working scientists could speak in logically more careful ways meant that their actual ways of speaking didn't commit them to mysterious entities. Ultimately, Kemp argues, Quine's scientific approach to philosophy gives us reason to group him "with Kuhn, Feyerabend, Lakatos, and van Fraassen, not so much with Kripke, Lewis, and Davidson" (86).

One way that Kemp makes the case for his historical classifi-

cation is by drawing out the ways that Quine's commitment to extensionalism worked in practice. Behind Quine's forthright slogans, he shows, a surprisingly subtle view emerges that treats properties, dispositions, causation, modal terms, and propositional attitudes variously depending upon the extent to which their use is embedded within (and explicable by) ongoing scientific activity. Mentalistic idioms, for instance, while practically indispensible for social science, must in general be counted second-grade by the naturalist since they lack a clear connection to the physical facts. Yet some mentalistic idioms are more respectable than others. Those propositional attitude ascriptions that we can understand as having a scientifically objective behavioral (and so physical) basis-the belief that it is currently raining, for instance, as opposed to belief that man is essentially noble-are legitimate. "The key," Kemp writes, "is not to either ban or to accept the (de dicto) propositional attitude idioms as a whole, but to accept most, while rejecting some" (80-81). Kemp's Quine is first and foremost a scientific logician, not a philosopher of language, who seeks to better understand what science has to tell us about what we know, how we know it, and how the answers to those questions are related to how we talk about it.

Kemp reads Quine's examination of extreme ontological theories (such as the hyper-Pythagoreanism that reduces the physical universe to ordered quadruples of real numbers) as similarly exposing a merely scientific interest in metaphysics; Quine hopes to discern what scientific inquiry forces us to admit, rather than exploring what our ordinary language reveals about our metaphysical commitments. Once Quine formulated his account of ontological relativity and realized that no empirical data could count in favor of a particular ontology over a variant obtained via a suitably defined proxy function, his interest in ontology subsided. In Kemp's view, Quine's austerely scientific approach means that his "actual views in metaphysics and the philosophy of science were *very* much out of kilter with the ideas that were growing in popularity in the 1960s and 1970s" (81).

In another standout contribution—indeed, one that I intend to assign my undergraduates when next I teach Metaphysics-Gideon Rosen asks how, given that ontological relativity appears to undermine the interest of traditional ontology, speculative metaphysics has achieved a surprising revival in Quine's own name. Inspired by Quine's slogan that "to be is to be the value of a bound variable," metaphysicians may perhaps regiment their theories of reality to better grasp their ontological commitments; but any attempt to characterize theoryindependent reality directly seems hopeless. Yet as Rosen explains, both Quine's conception of scientific respectability and his pragmatic criteria for adjudicating between theories has provided a framework within which traditional metaphysics has flourished. Rather than providing a historical account of how Quine's views influenced and shaped the next generation of analytic metaphysicians—a "detailed microhistory" that, with Rosen, I hope that someone writes-he instead distinguishes Quinean from non-Quinean forms of argument in contemporary metaphysics, paying particular attention to Lewis's defense of modal realism (553).

Beyond Quine's rejection of the analytic/synthetic distinction, and the corresponding erosion of any firm boundary between evidential and pragmatic considerations for theory choice, Rosen identifies his "lack of interest in *testability* as a criterion of scientific respectability" as particularly significant for subsequent metaphysics (557). Instead of requiring novel theories to have new observable (and so testable) consequences, Quine demands that they allow their users to better navigate and negotiate the world. (Rosen argues that this is how Quine defends physicalism over phenomenalism: we find positing physical bodies more manageable than positing a multitude of sensations.) Speculative metaphysicians who follow Quine are thus licensed to merely establish that their descriptions of reality are useful, and to deny that a sharp line can be drawn between truth and usefulness; there is no need for them to first justify the "reliability" of their metaphysical methods.

Rosen proceeds to extract three influential metaphysical argument forms from Quine's defense of classes: the argument from ideological parsimony (adopting classes allows us to make do with fewer primitive expressions), the argument from ontological parsimony (adopting classes commits us to fewer kinds of objects), and the argument from indispensability (working mathematicians find classes indispensible). He then explains how Lewis modified Quine's parsimony arguments to give an economic defense of modal realism, with the ontological costs of accepting an explosion of existing possible worlds being worth the ideological benefits of explaining counterfactual reasoning. (Lewis's claim that possible worlds are a philosopher's paradise also seems to gesture toward Quine's indispensability argument, but Rosen does not examine this parallel in detail.) Quine was unmoved by Lewis's arguments, but given their shared extensionalism and methodological approach Rosen judges the ultimate ground of this disagreement to lie not in logic but the philosophy of mind and language. Whereas Quine remained optimistic about the theoretical prospects of behaviorism, Lewis thought modal realism needed to adequately account for human thought and communication. If Rosen is right in his analysis, it would seem that those contemporary Quineans in the volume who cast aspersions upon behaviorism are obliged to take Lewis's arguments seriously.

Rosen closes his essay by briefly reviewing metaphysical strategies to which Quine would clearly be opposed, such as appeals to intuition or attempts to preserve a special domain for metaphysical reflection by insisting that it explores a "fundamental" and perhaps supra-scientific sense of "real." Quine's opposition, Rosen rightly stresses, would not be the flat-footed caricature sometimes attributed to him by critics, that "this notion of fundamentality is meaningless" (568). Rather, his opposition would be that the onus is upon so-called "deep ontologists" to provide an account of the *usefulness* of their notion of "fundamentality" for its introduction into our theory of reality to be warranted.

The fundamental divide between Quineans and non-Quineans, in metaphysics and elsewhere, is widely recognized to turn on whether to follow Quine in adopting naturalism and viewing philosophical and scientific inquiry as continuous. (Indeed, given recent discussion in our culture about the relationship between philosophy and the Humanities, I suspect that the divide between naturalists and non-naturalists will become as important in 21st century philosophy as the analytic/continental divide was to 20th century philosophy, cementing Quine's enduring significance; cf. Glock 2013, 340.) Yet one of the most interesting disputes in this volume is exactly how to characterize naturalism—and Quine's distinctive brand of naturalism in particular.

After noting that Quine's naturalism is methodological rather than ontological—he happily accepts non-natural mathematical entities as real, for instance—Weir emphasizes that articulating naturalism requires making appeals to a particular conception of science and scientific method. The difficulty, he believes, is to draw the boundary of scientific inquiry in such a way that naturalism retains both its interest and its credibility. Weir is underwhelmed by Quine's "scattered and diffuse comments" on scientific methodology; while recognizing that their diffusion is a deliberate move on Quine's part, motivated by his Humean skepticism that norms of rationality as opposed to generalizations can be extracted from the behavior of inquirers, Quine's remarks fail to distinguish science from non-science (119). Positivist attempts to characterize scientific theories as those with observable consequences risk being both too narrow (since quantum electrodynamics, for instance, is scientific yet does not plausibly entail Quinean observation categoricals) and too broad (since tacking on an extraneous claim, such as "the Absolute is lazy," to an extant theory will result in another theory wrongly counted scientific). Virtue-based attempts risk circularity (theories that the scientific community judge good count as scientific, and qualifying as a member of the scientific community involves accepting certain theories as good), and require making an *ad hoc* decision about when exactly a theory counts as endorsed by the community. In sum, Weir concludes, "Quine's naturalism is in danger of becoming not so much a blunt instrument, less than useful for separating out epistemic sheep from goats, as rather a frail wisp incapable of cutting through melting butter" (127).

Weir's surprising counsel for escaping this unsatisfactory situation is to interpret Quine as a radical hard line semantic reductionist: "if a term cannot be given a reductive analysis in the language of the hard sciences then it should be dropped" (128). Physics is real science, and only expressions reducible to the language of physics are legitimate. He acknowledges that this interpretation faces severe challenges, both textual (since, for instance, Quine counted reductionism the second dogma of empiricism) and philosophical, since it ultimately characterizes Quine's philosophy as "riven with inner tension" (142). Nevertheless, he maintains that his reading picks up a thread evident in at least some of Quine's writings, and successfully inflates naturalism into a clear, substantive position. In Weir's hands, Quine becomes a curiosity in the museum of philosophical history. Pondering his works "reveals where a radical, scienceminded empiricism, if it is thought through systematically by an (in general) consistent thinker of great philosophical power can take us" (143).

In contrast to Weir's largely critical appraisal of Quine's naturalism, Hylton's paper on the same topic serves as an introduction to the sympathetic reading he developed in his 2007 monograph, a reading that has won over many contemporary Quineans, and to which a number of papers in this volume are explicitly indebted. Hylton argues that Quine's epistemological starting point in mediis rebus shows that he is attempting to build up a coherent account of knowledge from mundane beginnings. Descartes, too, sought to establish what he knew from what he currently took himself to know; but whereas his recognition of his own capacity for error led him to develop the skeptical method of inquiry and to quest after certain foundations, Hylton explains, Quine's starting point is the result of natural scientific inquiry, understood as continuous with (though more careful than) ordinary common sense. On the basis of contemporary theories in natural science-a basis that may itself be revised by ongoing scientific inquiry—the Quinean naturalized epistemologist attempts to better understand the structure and content of what she knows, and her capacity for knowing it. Naturalism is the Quinean foundation of empiricism; epistemologists incur an obligation to be empiricists because contemporary science accounts for our access to the world in terms of causal chains from the world to our sense organs. Naturalism itself has no foundation: "the claim that the methods and techniques of natural science are our best source of knowledge about the world ... must be based on natural science. (If this is circular, [Quine] simply accepts the circularity)" (150). Hylton shows how naturalism enables Quine to defuse the problem of skepticism, and emphasizes the role regimentation plays for the naturalist in clarifying our knowledge of objective reality. Whereas Weir views Quine's objection to concepts such as "meaning" and "analytic" (and less obviously, to "experience") as issuing from their irreducibility to a physical basis, Hylton instead believes Quine doubts their usefulness once incorporated into a regimented theory. It is only through regimentation, Hylton argues, that Quine believes terms can exhibit their theoretical value. If Quine's preferred language for regimentation leads to an ontology that we find austere, Hylton urges us to see him on the side of the angels. To label Quine in the museum of history as a scientific extremist is to miss his enduring value as a model for showing how to develop a serious argument that philosophical reliance upon an unchecked concept like meaning "[engenders] an illusion of progress, which may hinder real progress" (160).

Like Weir, Hylton is concerned to establish "naturalism" as a non-trivial, interesting position, and a particularly useful aspect of his paper is showing that adopting naturalism is to incur significant obligations that some who currently claim the appellation conveniently ignore. To be a true Quinean naturalist, Hylton writes, is not merely to "have permission to draw on the concepts and results of natural science as and when it is appropriate or helpful" (152), but to subject one's own theory to the epistemic standards laid out in the scientific tribunal. Furthermore, to be a true Quinean metaphysician, one must demonstrate how one's discourse may be regimented into a canonical language, rather than resting content with vague appeals to the usefulness of one's preferred way of talking.

Weir is unpersuaded by Hylton's reclamation of naturalism as an insistence that the terms we admit into our theory have a clear and demonstrable use, exhibited by their role in suitably regimented versions of our theories. He finds the distinction Hylton introduces between properly objective idioms (those with a physicalist basis in natural science) and practically indispensible but second-grade ones (such as propositional attitudes) to exhibit exactly the sort of binary thinking Quine's holism is at pains to avoid. He also judges implausible the idea that Quine would have thought it legitimate for philosophers to tell scientists which of their terms were genuinely explanatory or empirically acceptable. "[Quine] would not dream," Weir writes, "of interfering in scientific disciplines of which he was not an expert in order to urge the elimination of concepts (such as *species, social class*) for which highly empirical tests rarely, if ever, determine their application, nor would he argue for their restriction to the highly empirical cases" (141).

I side with Hylton on this debate. First, there is the textual evidence of Quine using the language of gradations, as when he considers "[accommodating] the half-entities [of propositional attitudes] in a second-grade system" (1969, 24, italics mice). Second, there is no need for the gradation between idioms to be made fully precise. As Kemp shows, the Quinean may identify expressions of particular interest in a given idiom (propositional attitudes typically attributed to one's lab mates, for instance), and classify them along a continuum of scientific respectability or objectivity. Finally, while Quine wouldand quite rightly-object to an uninformed philosopher making proclamations about what scientists do, or ought to do, and would certainly deny that such a philosopher occupied a privileged vantage point from which to criticize science, he would insist upon the right of philosophers to participate in scientific conversation. Quine viewed philosophers and scientists as crewmates on Neurath's boat, working together to make the epistemic vessel of humankind seaworthy. Switching metaphors, naturalist philosophers' interest in the more abstract branches of the philosophical-scientific enterprise of determining what there is earns them a seat at the scientific roundtable. By working on the abstract questions in which the majority of working scientists are uninterested, philosophers become skilled at isolating and evaluating the theoretical tradeoffs between different positions, positioning them to propose ways for the philosophical-scientific community to refine their theories, including assessing the explanatory value of particular terms. In any event, the dispute exhibited by Weir and Hylton

is undoubtedly a fascinating aspect of reading this volume.

With respect to naturalized epistemology in particular, there has been a long-standing dispute among epistemologists about whether the normative aspects of the discipline are neglected if we follow Quine's call to view it as a branch of psychology, an attempt to provide a scientifically robust account of knowledge as a natural phenomenon. If epistemologists are merely to describe what knowledge is by providing a scientific explanation of how humans attain it, critics of naturalized epistemology complain, there is no room for critiquing the normative standards embedded in scientific inquiry itself, or providing an account of what we *ought* to believe. In different ways, the papers Thomas Kelly, Bredo C. Johnsen, and Lars Bergström contribute to the *Companion* all defend the project of naturalized epistemology.

Kelly ably introduces Quine's proposed revision of epistemology at a level suitable for undergraduates, urging that in requiring a scientific account of even logical and mathematical knowledge it amounts to a return to pre-positivist empiricism. Although he has written on naturalism and normativity elsewhere, in this contribution Kelly limits himself to pointing out that Quine did not see himself as eliminating normativity from epistemology, but rather thought epistemic normativity "simply the normativity of instrumental reason" (27). In other words, Quine views knowledge as the end of scientific investigation, and counts the work of finding efficient means to that end a mere technological or engineering problem that is already part of the scientific enterprise. Later, Johnsen smoothly defends Quine from the charge that naturalizing epistemology involves treating one's sensory stimulations as both evidence for and the cause of one's theory of reality, a position that would rob us of the critical distance necessary to evaluate our beliefs. Johnsen notes Quine makes an "expository misstep" in describing stimulations as evidence that a person

"has," since few of us could provide a scientific account of how we are being stimulated at any given moment (345). Quine's point is rather the innocent one that from a third-personal point of view science tells us that humans rely on sensory stimulations to navigate the world, while from a first-personal point of view one's evidence for one's theory is not stimulations but one's knowledge of one's experience and observations. Nothing prevents us from a first-personal assessment of our theories using our third-personal grasp of how beings like us gain knowledge. Bergström tries to rekindle conversation between Quineans and those contemporary epistemologists with rationalist sympathies by suggesting, surprisingly, that a naturalized epistemologist may be thought of as accepting a form of a priori justification. He maintains that this interpretation is credible providing that the naturalized epistemologist views her a priori justification as fallible and reckons the a posteriori justification her entire theory enjoys to apply indirectly to those propositions she justifies a priori. Bergström interprets Quine as a coherentist who takes a person's evolving theory (which contains her current, fallible beliefs about justification) to be justified by empirical evidence, but departs from many scholars in denying that Quine adopted a Nelson Goodman-inspired view that the reflective equilibrium of our web of belief constitutes a default position of justification for it. Rather, he argues, Quine took individual strands of our web to be justified because they are a part of the web, which is in turn empirically supported. And here we hit the bedrock of justification: "[We] simply do accept and conform to coherentism ... no further justification is needed for this" (49).

John Burgess also discusses Quine's attitude to the *a priori* in the course of exploring Quine's various contributions to logic and mathematics, such as his brief flirtation with but official agnosticism about nominalism. He provides a very helpful overview of the development of the *a priori* through Kant, Frege,

Russell, and Carnap. Where Bergström seeks to show that Quine would accept a reconceived, contemporary, fallibilist understanding of *a priori* justification, Burgess examines Quine's opposition to the historical conception of *a priori* knowledge. He correctly emphasizes that Quine did not hold all of our knowledge *a posteriori*, but instead rejected the distinction itself: once empiricism is cleansed of the two dogmas, the only epistemic differences that remain are of degree, not kind.

Like Weir, however, Burgess is pessimistic about the viability of Quine's naturalized epistemology, and argues that Quine's use of regimentation to determine the ontological commitments (or, as Burgess prefers, the "existential implications") of a theory exposes Quine reaching beyond that which his theory allows. If Quine is not simply abandoning prescriptive epistemology, Burgess thinks, then once epistemology is naturalized he is only entitled to thin empiricist prescriptions, such as that theories be reliable, or, as Kelly points out, that methods be efficient. But Quine's swipes at the excesses of scientific ontology depend upon far thicker philosophical principles. Burgess insists that there is simply "no basis for a bias against any kind of theoretical apparatus that might prove useful" (293) in Quine, and so, that naturalized epistemologists lack the means to criticize contemporary science.

Burgess's interpretation pictures naturalized epistemologists as doomed to offer a dispensable commentary on the passing show of science; in turn, scientists are depicted as perfectly capable of determining for themselves how to practice their discipline. (Once again, I think that this interpretation underestimates the distinctive ways that naturalist philosophers trained and interested in abstract matters can refine, clarify, and unify scientific theories.) Ultimately, he charges Quine with being a prophet rather than a practitioner of naturalism, judging him for his failure to keep up to date with contemporary scientific developments: while allowing that regimentation may usefully surface the conventionality of theory, Burgess "fear[s] Quine may to the end have tended to think of his favored 'regimentations' as improvements, as if the actual theories of scientists weren't good enough already" (294).

Burgess's paper is one of the very few secondary sources cited, and with approval, by Scott Soames in his sweeping critical evaluation of Quine's philosophy. The two papers stand out in this volume (perhaps with Weir's) as sharing a rather low estimation of Quine's overall achievement. Soames extracts and numbers key claims that Quine made over the course of his long career, and offers formal reconstructions of Quine's arguments for the inscrutablity of reference and against modal logic. These arguments suffer, in Soames's view, from Quine's failure to distinguish the analytic/synthetic, a priori/a posteriori, and necessary/contingent distinctions from each other. He tells us, for instance, that "Quine was right: if necessity is nothing more than analyticity, then quantified modal logic is of little interest" (441); yet since in our post-Kripke moment we have learned how these concepts may be distinguished, Quine's arguments are of historical interest only. Certainly, Soames allows, Quine was an influential figure who corrected the errors of his philosophical predecessors, most notably Carnap's confused doctrine that logical truths are true by convention, and who did valuable work in "moving philosophy away from conceptual analysis and toward something continuous, though not identical, with science" (461). Yet he roundly dismisses the most distinctive Quinean theses, such as the rejection of "meaning," as "spectacular mistakes" (461).

Soames's approach to the history of analytic philosophy is divisive, but whatever one's views about its scholarly merits, I have found that students in my history classes respond best to charitable appraisals of key figures. To that end, I should like to close this review by briefly highlighting three papers that meet the *Companion's* aim to introduce students to aspects of Quine's philosophy: Gillian Russell's analysis of Quine's rejection of the analytic/synthetic distinction, Ebbs's exploration of Carnap and Quine, and Gjelsvik's chronicle of Quine's developing understanding of observationality.

Russell's main focus is getting clear about the argumentative structure of "Two Dogmas of Empiricism," and she organizes her own paper extremely engagingly around questions typically pressed against Quine. By briefly detailing the logical positivist's linguistic doctrine of necessary truth (that necessity is to be explained by appealing to analyticity), she provides the historical context needed to grasp the force of Quine's circularity argument and correctly situates the paper in dialogue with Carnap. She sympathetically presents Grice and Strawson's objection that a single philosopher's failure to define the analytic/synthetic distinction could not suffice to establish its meaninglessness, particularly given its more-or-less consistent usage across the philosophical community, but firmly explains why this misses Quine's point: he was not "casting about for any possible definition of analytic" but rather thought he already knew the best attempt available for clarifying it, namely, Carnap's (189). Carnap is the target of the circularity objection. His recursive specification of the extension of "analytic" in a closed circle of other theoretical terms, Quine complains, is not semantically grounded in the world. We cannot explain analyticity in terms of necessity if we also explain necessity in terms of analyticity.

Russell proceeds to reconstruct Quine's argument from confirmation holism, noting in passing that she suspects all of its premises are false; but rather than belaboring this point, she shifts her focus to observe that the "alternative worldview" Quine offered Carnapians is an especially powerful part of the paper, and so takes the opportunity to sketch a third route that drops the assumption that "metaphysical and semantic features must track the epistemological ones" (195–96). The contrast here with Soames is especially striking. The reconstructions of Quine's arguments that Russell and Soames offer are some of the clearest in the *Companion*, but where Soames leaves one with the impression that to study Quine is to follow out a dead end, Russell invites one to contribute to an ongoing conversation. There is, of course, room for both approaches, but for bringing out to students the value of studying philosophy's history, I recommend Russell.

Russell closes her paper by reviewing Quine's arguments against truth in virtue of meaning in "Truth by Convention" and "Carnap and Logical Truth," and suggests that despite their power, we can make out a sense in which a sentence's truth depends upon meaning after all, "if its meaning is sufficient to determine the value *true* regardless of the worldly facts" (200). I am not certain that the distinction between language and theory needed to isolate "the worldly facts" in Russell's proposal can be made precise, but in any case exploring how Quine and Carnap might respond to her suggestion would make for an excellent class discussion.

Ebbs's paper combats the lingering impression (found in, e.g., Kelly's contribution) that Quine's epistemology recovers the traditional empiricist idea that our best theories of nature are based solely upon sensory evidence, an idea that Carnap rejected in allowing our logico-mathematical knowledge to depend instead upon our choice of linguistic framework. According to Ebbs, Quine rather provides a "naturalistic explication" of Carnap's logic of science, rejecting his commitment to the analytic/synthetic distinction as lacking explanatory value, and thus applying the "pragmatic" considerations Carnap identified as relevant for choosing a linguistic framework across the board of scientific inquiry. In Quine's view, we evaluate and refine scientific theories according to criteria borne out by our ongoing scientific inquiries. The holistic picture that results is not a traditional empiricism where one views all knowledge (in-

cluding logico-mathematical knowledge) as justified by sensory evidence; indeed, as Quine tells us, "the term 'evidence' gets no explanation and plays no role" in naturalized epistemology (Quine 1990, 78, quoted 478). Quine's extensive attention to sensory stimulations is rather part of his naturalist reformation of the conceptual side of epistemology, which he seeks to align with his acceptance, on the doctrinal side, that truth is to be judged from within current scientific theory. Carnap's insight about the distinctive role of logico-mathematical statements is not rejected, but reformulated: "Quine reveals the conventional character of a law not by describing it at a P-rule, but by noting that to decide to accept it as a law from the standpoint of our best current theory is, when described naturalistically, to acquire speech dispositions that link that sentence to other sentences, including one's observation sentences, in certain characteristic ways" (476). Although Ebbs's choice of "explication" to present his interpretation is somewhat confusing, since he does not intend to track Quine's technical use of the word as explored by Gustafsson, the central argument of the paper is compelling and important. Were that not enough to recommend it, Ebbs offers a particularly lucid introduction to Carnap's Syntax-period terminology.

Finally, Gjelsvik presents an exceptionally clear account of both how and why Quine refined his conception of observation sentences over the course of his career. Quine first characterizes them as those sentences whose stimulus meaning (the class of stimuli that would elicit assent to them if queried) does not vary under the influence of collateral information (such as knowledge that a person is married, information that affects the stimulus meaning of the sentence "He is a bachelor"). Yet once we ask which sentences are observational for a group instead of a solitary inquirer, this definition implausibly presupposes a homology of sensory receptors across a community. Gjelsvik recounts how, under sustained pressure from Bergström and Davidson, Quine offered various subtle refinements of his account, culminating in his late appeal to natural selection to explain how different people become disposed to react similarly to their environment. On this mature conception, Quine counts a sentence observational for a community if all of its members share a behavioral disposition to assent to it in similar circumstances. Yet if this final distal position solves the problem of rendering sentences observational for a community, Gjelsvik notes, Quine's early ambition for a "naturalistically acceptable account of the prelinguistic resources on which concept possession and language mastery should rest" is thwarted (324). Proximal sensory stimulations retain a causal role in the account, but no longer bear any explanatory weight in accounting for our ability to use language. What matters is that we react to the right things in our shared environment, not the way that the environment stimulates us. Gjelsvik historically contextualizes Quine's views by contrasting both earlier work by the British empiricists and later developments in Davidson, Tyler Burge, and Jerry Fodor. Ultimately, he contends, science has overtaken Quine's behaviorist approach, so that naturalist philosophers of language ought now "think through how the account of language mastery should be informed by an account of how cognitive science accounts for perception" (329).

It is perhaps inevitable that a volume of this sort will commit some sins of omission, and I am certain that the editors had difficult decisions to make about what material to include. Nevertheless, I was surprised and disappointed to find nothing in the *Companion* about the considerable impact Quine's naturalized epistemology has had on feminist epistemology via the work of Louise Antony and others. Nor is there any discussion of Quine's role in the methodological dispute between ideal and ordinary language philosophy. Turning to a student's perspective, I think newcomers to Quine would have benefited from a treatment of the seemingly paradoxical but surely crucial "mutual containment" of ontology and epistemology in his philosophy, and also some commentary motivating his rejection of a firm divide between theory and meaning. Finally, it would have been interesting to learn more about Quine's intellectual relationship to members of Harvard's philosophy department, and how his longtime colleague and friend Burton Dreben disseminated and interpreted his views through a Wittgensteinian lens.

Overall, I hope that I have shown how much there is to learn from this volume—and how far its contributors go in relaying Quine's continued importance for our current moment. Several of these essays are so accessible that I plan to incorporate them into my undergraduate classes in philosophy of language (Russell), epistemology (Kelly, Gjelsvik), and metaphysics (Rosen); working through the entire volume would be a useful exercise for graduate courses on Quine; and all serious scholars of Quine's philosophy will find much in the *Companion* to stimulate them.

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