Introduction

These essays present results of my efforts to understand and learn from Rudolf Carnap's, W. V. Quine's, and Hilary Putnam's writings about fundamental methodological questions, including such questions as whether rational inquiry is or should be governed by rules of language, whether some of our statements are analytic, whether there is a useful or explanatory notion of truth by convention, and whether there are terms whose references are the same despite fundamental differences in the beliefs we and other speakers use the terms to express. The essays present new interpretations of Carnap's, Quine's, and Putnam's answers to such questions; critically evaluate these authors' views in light of the interpretations; and develop new minimalist applications of central philosophical principles suggested by the interpretations.

The essays in Chapter 2 and Chapter 6 were written very recently and are published here for the first time. The other essays, which were published previously, are reprinted here without substantive revisions. In these essays I converted notes and references to a uniform style, changed the wording here and there, and removed minor errors. In the few places where I made changes that modify the content of a claim or argument I added footnotes to explain the changes. I did not reduce repetitions. The focus of each essay differs from that of the others, so the recurring topics are approached differently each time, thereby contributing, I believe, to a deeper understanding.

Taken together, and considered from a standpoint that abstracts from many details, the essays suggest that Carnap, Quine, and Putnam each accept that

> In our pursuit of truth, we can do no better than to start in the middle, relying on already established beliefs and inferences and applying our best methods for reevaluating particular beliefs and inferences and arriving at new ones.

> No part of our supposed knowledge, no matter how clear it seems to us or how firmly we now hold it, is unrevisable or guaranteed to be true.
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> Insofar as traditional philosophical conceptions of reason, justification, and apriority conflict with the first two principles, they should be abandoned. In particular, the traditional philosophical method of conceptual analysis should be abandoned in favor of the method of explication, whereby a term we find useful in some ways, but problematic in others, is replaced by another term that serves the useful purposes of the old term but does not have its problems.
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> A central task of philosophy is to clarify and facilitate our rational inquiries by replacing terms and theories that we find useful in some ways, but problematic in others, with new terms and theories that are as clear and unproblematic to us as the terms and methods of our best scientific theories.

One characteristic that unifies the essays is that they each take steps toward developing new applications of these four schematic principles. Another is that the steps they take include presenting new interpretations of Carnap's, Quine's, or Putnam's views and developing correspondingly new ways of extending or modifying these views.

The new applications are inspired by Carnap's revolutionary recommendation that we reject first philosophy, according to which philosophy should be based on insights that are "higher" and "deeper" than even the best results of scientific inquiry, and replace it with a positive program for clarifying and facilitating rational inquiry in scientific terms. The new applications differ significantly from Carnap's, however, in several closely connected ways. First, and most important, they are inspired by Quine's and Putnam's central insight that we can reject first philosophy without relying on Carnapian linguistic frameworks, by taking scientific method, loosely characterized, yet concretely applied in our best scientific judgments, as our ultimate arbiter of truth, and drawing on our best current judgments, vocabulary, and methods to clarify and facilitate our inquiries. Second, the new applications incorporate and extend several distinctively Quinean views, including that

> We can use our sentences to make assertions, and to support, rescind, or revise our assertions, without implying or presupposing that the meanings of our sentences are fixed by semantical rules.
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> The notions of satisfaction and truth, as explained in Tarski's way for particular languages, are better suited to serious philosophical work, such as defining logical truth, than any of our commonsense or intuitive philosophical notions of meaning.

Third, the new applications extend these Quinean views in ways that are often assumed to be incompatible with them, by developing and

incorporating minimalist extensional explications of some distinctively Putnamian positions, including that

> Our identifications of transtheoretical terms – i.e., terms whose references are the same despite fundamental differences in the beliefs we and other speakers use the terms to express – are integral to our actual practices of agreeing, disagreeing, adjudicating disputes, and revising our beliefs.
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> An account of our rational inquiries is adequate only if it fits with these practices.
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> The difference between statements that may be overthrown by the outcomes of experiments that we can describe and perform without creating radically new theoretical structures, and statements that may be overthrown only by conceiving of radically new theoretical structures, is of logical and methodological significance, and not just of psychological interest.

A central theme of the essays is that one way to learn from standard criticisms of Carnap's, Quine's, or Putnam's views is to try to reformulate and evaluate the criticisms in terms that the philosophers who are the targets of the criticisms can accept. In some cases, several of which I discuss in the essays, such efforts lead nowhere, or the reformulated criticisms fall flat, revealing that the criticisms are less powerful than they may at first appear. In other cases, several of which I also discuss in the essays, a reformulation of a criticism reveals an overlooked theoretical option, or a new one. One of the overlooked theoretical options revealed and developed in the essays, especially the essay in Chapter 3, is Quine's view that some statements of the most abstract parts of science are true by convention in a thin explanatory sense that does not guarantee truth. Another of the overlooked theoretical options, the focus of Chapter 5, is Quine's resolutely minimalist account of language use, according to which our use of language to make assertions is both pragmatically indispensible to scientific theorizing and independent of particular scientific theories of the semantic relations between words and things.

One of the new theoretical options revealed and developed in the essays, especially the essay in Chapter 7, is to introduce regimented languages by stipulating Tarski-style truth theories for them, thereby licensing us to regard their terms as (extensionally) univocal, while not regarding the stipulations as analytic. Another, presented in Chapter 9, is to combine our practices of identifying transtheoretical terms with revisable Bayesian confirmational commitments. A third, the focus of Chapter 10, is to combine our practical identifications of transtheoretical terms with a minimalist account of truth and reference, thereby fitting our account of truth and

reference with our actual practices of identifying agreements and disagreements, adjudicating disputes, and revising our beliefs.

I have grouped and ordered the essays to highlight their development of central themes. Here is a brief overview.

Carnap

Carnap recommends that we abandon first philosophy and begin inquiry in the midst of our already existing sciences, refining and clarifying them from within. The motivating idea behind his logic of science is that all disputes are resolvable by a series of uncontroversially correct applications of shared rules for inquiry. Chapter 1, "Carnap's Logical Syntax," argues that the only way to challenge, not simply reject, Carnap's logic of science is to question the pragmatic appeal of his movitating idea. The essay argues that this idea leads Carnap to be skeptical of all of our unregimented identifications of transtheoretical terms, even those we rely on in our most exact sciences, and concludes that to reject these identifications is too high a price to pay for the dubious benefit of ruling out the very possibility of engaging in unresolvable disputes. (Chapter 10, "Truth and Transtheoretical Terms," of Part IV, returns to this theme.)

Carnap's classic essay "Empiricism, Semantics, and Ontology" (Carnap 1950, henceforth ESO) presents one instructive way of identifying and eschewing traditional philosophical questions, with a special focus on questions about existence. Chapter 2, "Carnap on Ontology," argues that all of the general existence statements Carnap aims to clarify and defend in ESO – not only those about abstract objects, such as "There are numbers," but also those about concrete objects, such as "There are physical objects" – are, when viewed in the way Carnap recommends in ESO, analytic (that is, settled solely by the rules of the languages in which they are expressed) and trivially so (that is, derivable from the rules in a few simple steps). Chapter 2 also explains why these claims are central to Carnap's method of identifying and eschewing traditional philosophical questions about existence.

Carnap and Quine

Chapter 3, "Carnap and Quine on Truth by Convention," establishes, among other things, that Quine's debate with Carnap over the analytic–synthetic distinction is rooted in differences in how Quine and Carnap understand Carnap's recommendation that we abandon first philosophy

and begin inquiry in the midst of our already-existing sciences, refining and clarifying them from within. Quine's naturalistic interpretation of this new way of doing philosophy leads him to reject Carnap's analytic–synthetic distinction and to posit truth by convention as a transient yet integral part of our current best theory. Chapter 3 thereby shows how Quine appropriates and yet also transforms Carnap's recommendation that we reject the traditional philosophical assumption that there is a legitimate methodological, epistemological, or metaphysical standpoint that is higher or deeper than the standpoint of our best science.

Chapter 4, "Quine's Naturalistic Explication of Carnap's Logic of Science," further develops this interpretation of Quine by arguing that to understand Quine's epistemology, one must see how it incorporates, yet also transforms, Carnap's principled rejection of the traditional empiricist idea that our best theories of nature are justified by, or based on, our sensory evidence, and are for that reason likely to be true. Both Carnap and Quine regard this traditional empiricist idea as rooted in traditional epistemology, which they resolutely reject. Chapter 4 argues that contrary to standard interpretations of Quine, the goal of Quine's naturalistic account of the relationship between theory and evidence is not to show that our best theories of nature are justified by our sensory evidence, but to show that we can describe science from within science in a way that mirrors and thereby clarifies Quine's doctrinal principle (itself an explication of Carnap's methodological rejection of metaphysics, the topic of Chapter 2) that we can only judge truth from the standpoint of our best current theory.

Quine

Chapter 5, "Quine Gets the Last Word," addresses two fundamental kinds of criticisms of Quine's effort to work out a naturalistic, Carnapian rejection of traditional metaphysics, without relying on the analytic–synthetic distinction. The first criticism is that Quine's naturalistic epistemology is descriptive, not normative, and so fails to provide an account of epistemic justification. The second is that Quine's naturalistic account of meaning leads to the absurd conclusion that our sentences are meaningless, so we cannot use them to make assertions. Chapter 5 argues that the entrenched criticisms ultimately rest on a failure to grasp Quine's resolutely minimalist characterization of language use. According to Quine, Chapter 5 argues, insofar as we are using, and not also mentioning, a given string of nonsemantic words, no particular relation between those words and

things is asserted, presupposed, or implied. Thus understood, our use of language to make assertions is not undermined by Quine's naturalistic account of meaning. Chapter 5 also argues that if we focus on what Quine tells us about epistemology from the standpoint of our own evolving theory, we find a minimalist, context-dependent sort of normativity that goes hand in hand with Quine's minimalist characterization of language use.

The criticisms that Chapter 5 refutes are based on assumptions about language use that Quine explicitly rejects. Chapter 6, "Reading Quine's Claim That Definitional Abbreviations Create Synonymies," and Chapter 7, "Can Logical Truth Be Defined in Purely Extensional Terms?" investigate two apparently powerful criticisms of Quine's naturalism that question the internal coherence of his naturalistic transformation of Carnap's radical rejection of traditional philosophical methods of inquiry. In "Two Dogmas of Empiricism" Quine claims that definitional abbreviations create transparent synonymies and that all other species of synonymy are less intelligible (Quine 1953a, p. 26). Against this, Grice and Strawson assert that "the notion of synonymy by explicit convention would be unintelligible if the notion of synonymy by usage were not presupposed" (Grice and Strawson 1956, pp. 152–153). This superficially plausible claim has been repeated many times in the literature on Quine and is now among the standard reasons that philosophers give for rejecting Quine's arguments in "Two Dogmas." Chapter 6 demonstrates, however, that Quine's claim about abbreviations does not presuppose a general notion of synonymy by usage, as Grice and Strawson claim, but is trivially derivable from his starting assumption that first-order logical truths, defined purely extensionally, are analytic, together with a commonsense observation about conventional abbreviations. Chapter 6 concludes that Quine's claim that definitional abbreviations create synonymies is not in conflict with his skepticism about the general notion of synonymy.

The argument in Chapter 6 takes for granted that Quine successfully defines first-order logical truth extensionally. Chapter 7 investigates a little-known but apparently powerful internal criticism of Quine's efforts to define logical truth extensionally. Strawson argues that one cannot say what it is for a particular use of a sentence to exemplify a logical form without appealing to intensional notions, and hence that Quine's efforts to define logical truth in purely extensional terms cannot succeed. Chapter 7 shows that Quine's reply to this criticism of Strawson's is confused and develops a better reply using resources that Quine can accept. The better reply is that we can introduce regimented languages by stipulating Tarski-style truth theories for them. From the stipulations we can then easily

infer that the terms of the regimented languages are (extensionally) uni-vocal. Chapter 7 thereby answers Strawson's internal challenge, and, as a consequence, also defends the argument of Chapter 6 from the criticism that Quine's easy way with definitional synonymies presupposes a prob-lematic conception of logical truth.

Chapter 8, "Reading Quine's Claim That No Statement Is Immune to Revision," addresses a very different but equally fundamental misun-derstanding of Quine's appropriation of Carnap's rejection of traditional philosophy: most critics and defenders of Quine's arguments in "Two Dogmas of Empiricism" read his claim that "no statement is immune to revision" as the claim that for *every statement S that we now accept there is a possible rational change in beliefs that would lead one to reject S.* Against this standard reading, Chapter 8 argues that Quine's claim is that

> (P) No statement we now accept is guaranteed to be part of every scientific theory that we will later come to accept.

The key to the alternative interpretation presented in Chapter 8 is to see that in paragraph 1 of section 6 of "Two Dogmas of Empiricism" Quine sketches a bold new naturalistic explication of the traditional notion of empirical confirmation, and that his aim in paragraph 2 is to show that the explication of confirmation he sketches in the previous paragraph is of no help in characterizing a boundary between analytic and synthetic state-ments. Chapter 8 argues that contrary to the standard view, Quine agrees with defenders of the analytic–synthetic distinction that there are some sentences we cannot now make sense of rejecting without changing their meanings, and argues that this fact is not relevant to the question whether the statements expressed by those sentences are analytic in any philosoph-ically substantive epistemological sense. Chapter 8 therefore shows that one main source of the currently entrenched resistance to Quine's way of developing Carnap's rejection of traditional metaphysics and epistemol-ogy is based on a misunderstanding of Quine's position.

Quine and Putnam

Chapter 9, "Conditionalization and Conceptual Change: Chalmers in Defense of a Dogma," considers a recent attempt to refute what many philosophers take to be the central challenge to analyticity – the claim that any sentence can be revised without changing its meaning. The previous essay, Chapter 8, argues that Quine is not committed to this claim, but he is also not committed to rejecting it, and his commitment to fallibilism

implies that he cannot rule it out. The claim is central to Putnam's devel-
opment of Quine's challenges to analyticity, however, and so Chapter 9
is relevant to evaluating both Quine's and Putnam's views on analyticity.
David Chalmers argues that Bayesian conditionalization is a constraint
on conceptual constancy, and that this constraint, together with standard
Bayesian considerations about evidence and updating, is incompatible
with the Quinean claim that every belief is rationally revisable. Chalmers's
argument presupposes that the sort of conceptual constancy that is rel-
evant to Bayesian conditionalization is the same as the sort of concep-
tual constancy that is relevant to the claim that every belief is rationally
revisable. To challenge this presupposition Chapter 9 explicates a kind of
"conceptual role" constancy that a rational subject could take to be nec-
essary and sufficient for a rule of Bayesian conditionalization to govern
her belief updating, and shows that a rational subject may simultaneously
commit herself to updating her beliefs in accord with such a rule and
accept the claim that every belief is rationally revisable.

Chapter 10, "Truth and Transtheoretical Terms," discusses Putnam's
central objection to Quine's deflationary view of truth and reference – that
it apparently leads to the absurd conclusion that two speakers cannot gen-
uinely agree or disagree with each other. What Putnam's central argument
against Quine shows, however, if we reconstruct it in the way Chapter 10
suggests, is that an account of truth and reference is satisfactory only if it
fits with and makes sense of our actual practices of agreeing and disagree-
ing, adjudicating disputes, and revising our beliefs. Chapter 10 sketches a
new minimalist account of truth and reference that meets this condition.

Putnam

Chapter 11, "Putnam and the Contextually Apriori," explores a central
question for a Quinean methodology of inquiry: what is the method-
ological or epistemological significance of our current inability to specify
how a statement may actually be false? Clearly, our current inability to
specify how a statement may actually be false does not guarantee that we
will never be able to do so. Nevertheless, according to Putnam, when we
cannot specify how a statement may actually be false it is epistemically
reasonable for us to accept the statement without evidence and hold it
immune from disconfirmation. Against this, one might be inclined to rea-
son as follows:

> It is epistemically reasonable for a person to accept a particular statement
> only if she has epistemic grounds for accepting it. But a person's inability

to specify a way in which a statement may actually be false gives her no epistemic grounds for accepting it. Therefore, if the epistemic role of the statement for her is exhausted by her inability to specify a way in which the statement may actually be false, it is not epistemically reasonable for her to accept it.

Chapter 11 argues, on the contrary, that

If a person has not irresponsibly ignored clues or hints about how to specify a way in which a statement S that she accepts may be false, and she cannot make sense of doubting S, then it is epistemically reasonable for her to accept S.

Chapter 11 also argues that Putnam's efforts to explain why this statement is true are ultimately unsuccessful, and that the failure of Putnam's efforts reveals that the statement is not best viewed as an empirical generalization about the psychology of inquirers, but as a central methodological principle the endorsement of which can help inquirers to stay focused on truth and thereby resist the siren call of first philosophy.