THE KEY TO INTERPRETING QUINE
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There is a key to unlocking a correct interpretation of Quine which many of his critics and commentators have overlooked. That key is Quine's commitment to naturalism. In what follows, I briefly explain Quine's naturalism, then I sketch what I take to be a correct interpretation of a significant portion of Quine's philosophy in light of his naturalism, and, finally, I show that four widespread criticisms of Quine's thought arise only because his critics have failed to take seriously Quine's commitment to naturalism.

I. Quine's Naturalism

Quine's naturalism consists of the following two theses: First, that there is no first philosophy; second, that it is up to science (and, in particular, to physics) to identify and describe what there is (i.e., what exists).¹

The thesis that there is no first philosophy is a comment on the failure of traditional epistemologists to find a foundation outside of science upon which science—our best theory of the world—can be justified. On the doctrinal side of epistemology, traditional epistemologists attempted to deduce the laws of nature from self-evident premises by self-evident steps. They were, however, unsuccessful: rationalists found that they could not circumvent the Cartesian circle;² empiricists found that they could not hurdle the Humean predicament.³ Thus, traditional epistemologists must abandon their doctrinal goal of deducing science from a non-scientific foundation of clear and distinct ideas, or sense impressions, or the like. On the conceptual side of epistemology, traditional epistemologists attempted to define the notion of body in sensory terms. Both Hume and Mill had their turns at this project, but it reached both its apogee and its perigee in Carnap's heroic but failed attempt in his
Aufbau to reduce the theoretical discourse of science to discourse consisting only of experiential terms, formal logic, and set theory. Such reduction was to proceed theoretical sentence by theoretical sentence. If Quine is right, holism is the reason Carnap's project failed: not every sentence of scientific theories has its own unique experiential evidence. It is only holistically, and not sentence by sentence, that scientific theories confront experience. Consequently, the reductionist project of the sort envisioned by Carnap cannot work. This Carnapian collapse forces traditional epistemologists to recognize that their conceptual goal of defining the notion of body in sensory terms must be abandoned. Thus read, the history of epistemology from Descartes to Carnap is a history of reluctant retreats, but in the final analysis, epistemologists must surrender first philosophy.

Before turning to the second thesis of Quine's naturalism, I want to emphasize that while Quine sees traditional epistemology as having failed on both its doctrinal and conceptual sides, he still believes that two cardinal tenets of empiricistic epistemology remain unscathed: First, on the doctrinal side Quine maintains that "whatever evidence there is for science is sensory evidence,"4 and, second, on the conceptual side he maintains "that all inculcation of meanings of words must rest ultimately on sensory evidence."5

The second thesis of Quine's naturalism, that the business of identifying and describing what there is belongs to science and, in particular, to physics, is, at least in part, a comment on the historical role of science. It is also an expression of Quine's physicalist hypothesis that "nothing happens in the world, not the flutter of an eyelid, not the flicker of a thought, without some redistribution of microphysical states."6 In sum, then, Quine's naturalism calls for the "abandonment of the goal of a first philosophy. It sees natural science as an inquiry into reality, fallible and corrigible but not answerable to any supra-scientific tribunal, and not in need of any justification beyond observation and the hypothetico-deductive method."7

So, while the Cartesian circle, the Humean predicament, and the Carnapian collapse conspire to scuttle attempts to justify science from without, observation and the hypothetico-deductive method conspire to justify science from within. Thus, if there is to be a successor subject to traditional epistemology, say, a naturalized epistemology, then it must take the form of a scientific inquiry into the nature and justification of science itself. Quine sums up this naturalistic approach nicely when he says:
The naturalistic philosopher begins his reasoning within the inherited world theory as a going concern. He tentatively believes all of it, but believes also that some unidentified portions are wrong. He tries to improve, clarify, and understand the system from within. He is the busy sailor adrift on Neurath's boat. 

In light of these remarks on Quine's naturalism, I shall now briefly sketch what I take to be a correct interpretation of a significant portion of Quine's philosophy.

II. Naturalism, Physicalism, Empiricism

As we have seen, Quine advocates naturalism, physicalism, and empiricism, but his arguments for each of these 'isms' are different: "Naturalism," Quine says,

has two sources, both negative. One of them is despair of being able to define theoretical terms generally in terms of phenomena, even by contextual definition. A holistic or system-centered attitude should suffice to induce that despair [cf. the Carnapian collapse]. The other source of naturalism is unregenerate realism, the robust state of mind of the natural scientist who has never felt any qualms beyond the negotiable uncertainties internal to science. 

Physicalism, the doctrine that there is no difference in matters of fact without a difference in the fulfillment of the physical-state predicates by space-time regions, is, for Quine, a hypothesis, but one that has held up well thus far. Empiricism, the doctrine of nihil in mente quod non prius in sensu, is, for Quine, a tentative finding of science: "Science itself teaches that there is no clairvoyance; that the only information that can reach our sensory surfaces from external objects must be limited to two-dimensional optical projections and various impacts of air waves on the eardrums and some gaseous reactions in the nasal passages and a few kindred odds and ends."11

It is crucial for understanding Quine's philosophy that one appreciate the connections holding among his naturalism, his physicalism, and his empiricism. Empiricism is Quine's epistemology, his theory of method and evidence; physicalism (which includes both physical objects and sets) is Quine's ontology, his theory of what there is. Since empiricism is a tentative finding of current science, and physicalism is a tentative hypothesis of current science, both Quine's current epistemology and his current ontology might in the long run turn out to be false. However, it is important to realize that the falseness of empiricism and of physicalism does not entail the falseness of naturalism. For, still, there may be no first philosophy, and science may continue to
provide the best (now non-empiricist) epistemology and best (now non-physicalist) ontology.

A great deal of Quine's philosophical effort over the past decades has been devoted to naturalizing both the doctrinal and conceptual sides of epistemology. On the doctrinal side Quine has proffered an account of how evidence is related to theory. On the conceptual side, an account of the ontogenesis of reference. On both sides he has revolutionized epistemology by "externalizing empiricism," i.e., by talking of language rather than of mental states and processes. Thus, on the doctrine side Quine writes of observation sentences and of how they are related to theoretical sentences. On the conceptual side, of how reference emerges full blown with the advent of plural predication and the relative clause.

In his decades-long attempt to naturalize empiricism, Quine has spun off many of his most famous doctrines and theses; for example: underdetermination of physical theory, indeterminacy of theoretical sentences as wholes, indeterminacy of reference (or, inscrutability of reference, or ontological relativity), and holism. However, one must constantly bear in mind, if one is to interpret these doctrines and theses correctly, that all this epistemologizing is done from within an accepted theory of the world (read: ontology). In short, Old Salt that he is, Commander Quine's epistemological feet are firmly planted on Neurath's ontological deck. It is science, after all, that tells us that the two cardinal tenets of empiricism are true, even if empiricism then goes on to tell us that science is underdetermined by all possible sensory evidence, that meaning and reference are indeterminate, and that scientific theories do not confront experience a sentence at a time. Quine makes this all-important point very clearly in a number of places; here's one:

Epistemology, for me, or what comes nearest to it, is the study of how we animals can have contrived that very science, given just that sketchy neural input. It is this study that reveals that displacements of our ontology through proxy functions would have measured up to that neural input no less faithfully. To recognize this is not to repudiate the ontology in terms of which the recognition took place.12 (My emphasis)

And, more recently:

This global ontological structuralism may seem abruptly at odds with realism, let alone naturalism. It would seem even to undermine the ground on which I rested it: my talk of impacts of light rays and molecules on nerve endings. Are these rays, molecules, and nerve endings themselves not disqualified now as mere figments of an empty structure?

Naturalism itself is what saves the situation. Naturalism looks only to natural science, however fallible, for an account of what there is and what
what there is does. Science ventures its tentative answers in man-made concepts, perforce, couched in man-made language, but we can ask no better. The very notion of object, or of one and many, is indeed as parochially human as the parts of speech; to ask what reality is really like, however, apart from human categories, is self-stultifying.\textsuperscript{13} (First emphasis mine.)

The morals of these two quotations that I want to emphasize are the same: Quine's epistemologizing takes place \textit{within} an accepted theory, and his epistemological findings do not undermine or repudiate his acceptance of that theory. This is the sense in which \textit{naturalism} is the key to unlocking a correct interpretation of Quine. In what follows I show that a number of widely held criticisms of Quine's philosophy arise from a failure to grasp this key.

\textbf{III. Some Widespread Criticisms}

There are four claims that a number of authors have proffered as criticisms of one or another of Quine's views; they are: (1) Quine's theory of reference presupposes a noumenal reality; (2) Quine's theory of reference is inconsistent; (3) Quine's claim that there is a fact of the matter to physics but not to semantics is unjustified; and (4) Quine cannot answer the epistemological sceptic. I shall argue that all four of these claims are misdirected since they each arise from a failure to take seriously Quine's commitment to naturalism.

(1) In his recent essay, "Model Theory and the 'Factuality' of Semantics," Hilary Putnam claims that Quine's theory of reference presupposes a noumenal reality. Putnam makes this claim in the context of discussing his own Model Theoretic Argument against what he calls Traditional Metaphysical Realism. Putnam's Model Theoretic Argument claims that for any suitably formalized consistent theory that posits the existence of more than one object, there is always more than one way to assign extensions to the individual constants and to the predicate and function symbols of the language without violating any observational or theoretical constraint. Each such way of assigning extensions Putnam calls a "reference relation." Putnam's Traditional Metaphysical Realist maintains that there is at most only one factually correct reference relation, one that represents the point of view of the universe. But which one is that? Putnam surveys and rejects the Semantical Physicalist's answer, namely, that the factually correct reference relation is the one that causally connects (in the right way) \textit{terms} in the language to mind-independent \textit{objects} in the world. Putnam rejects this account primarily because it relies on an assumption that the factually correct reference
relation of the metalanguage is itself known, an assumption which Putnam believes is either unwarranted or incoherent.

Putnam next turns to what he takes to be Quine's response to the Model Theoretic Argument, which, after all, is not very different from Quine's own proxy function argument for indeterminacy of reference (i.e., inscrutability of reference). While the Semantical Physicalist tried to find some physical basis for saying that some one reference relation is the factually correct one, Quine's response is, according to Putnam, to deny the existence of objective facts about reference. Here's Putnam's account of the matter:

In ... [Theories and Things] the upshot of the doctrine of the "inscrutability of reference" is expressed by saying that all a translation scheme does is connect the "free-floating reference" of the term being translated with the equally free-floating reference of its translation into the home language. When I say that lapin refers to rabbits I do not say what lapin refers to "absolutely", Quine is telling us; I am only informing you that lapin and rabbit are coupled, they float together, presumably remaining side by side as they float. . . . But what does the "water" stand for in this passage in Theories and Things? As far as I can see, it can only stand for something like a noumenal reality. Quine writes as if there were a noumenal reality, and what his model-theoretic argument shows is that our terms have an infinite number of ways of being modelled in it. I argue that at least the naturalistic versions of metaphysical realism land one in precisely such a conclusion as Quine reaches here—and I conclude that there must be something wrong with metaphysical realism! Of course, I am not accusing Quine of metaphysical realism; rather I am suggesting that the familiar Kantian image of our world as a "product" with some kind of noumenal world providing the "raw material" haunts Quine's thought. 14

What, asks Putnam, does 'water' stand for in this passage in Theories and Things? 15 His own answer is that it can only stand for a noumenal reality, that Quine writes as if there were a noumenal reality. Surely, though, this uncharitable answer rests on a misinterpretation, one born of not taking seriously Quine's repeated avowals of naturalism. For there are two naturalistic ways to answer the question of what 'water' stands for in the passage in Theories and Things. From a proximal perspective 'water' stands for patterns of activated nerve endings. On this construal reference floats free of neural input; stimulus meaning does not determine reference. From a distal perspective 'water', let us suppose, stands for space-time regions. On this construal reference to kinds of objects, e.g. to rabbits or to undetached rabbit parts, floats free of space-time regions: rabbits and undetached rabbit parts fill just the same space-time regions. My own, and I would guess Quine's, favored construal is the proximal one, but, construed either proximally or distally, 'water' does not stand for a noumenal reality. Only by overlooking or
ignoring Quine's naturalistic point of view could one say with Putnam that Quine writes as if there were a noumenal reality. To be sure, others besides Putnam have tended to read Quine as though he were some kind of Kantian. But I think that tendency leads only to confusion and misunderstanding. Whatever else Quine is, he is no Kantian; whatever else Kant was, he was no naturalist.

(2) Another widespread criticism of Quine's theory of reference is that it is inconsistent since it implies both that reference is a word-word relation and a word-world relation. For example, Quine has written that

To say what objects someone is talking about is to say no more than how we propose to translate his terms into ours; we are free to vary the decision with a proxy function. The translation adopted arrests the free-floating reference of the alien terms only relatively to the free-floating reference of our own terms, by linking the two.\(^\text{16}\)

This passage suggests that Quine believes reference is a word-word relation, but he has also written that

'Refer' has various uses, and [J. N.] Mohanty rightly cautions against confusing mine with others. I use the word to relate linguistic expressions to objects. Real objects, I am tempted to say, despite the redundancy. When language is regimented in the familiar way, reference in my sense has three species: denotation by general terms, designation by singular terms, and taking as value by bound variables.\(^\text{17}\)

This passage indicates that Quine believes reference is a word-world relation. Critics maintain that Quine cannot have it both ways.\(^\text{18}\) Here I shall maintain that he can. My explanation is that reference is a word-word relation when viewed from an epistemological perspective, but it is a word-world relation when viewed from an ontological perspective.

From an epistemological perspective all reference is seen to be floating free of neural input (speaking proximally): At the level of neural input there just is no saying what the concrete general term 'gavagai' (or even 'rabbit') refers to. Transcending neural input, one set of analytical hypotheses might arrest the free-floating reference of 'gavagai' by pairing it with the free-floating reference of 'rabbit'. A different set of analytical hypothesis might do likewise by pairing 'gavagai' with 'undetached rabbit part'. Thus, from an epistemological perspective all reference looks to be a word-word relation. The thought experiment of radical translation, where heterophonic translation is the norm, emphasizes the epistemological perspective. However, in the home language, where homophonic translation is the norm, the ontological perspective dominates. Quine summarizes the latter point as follows:
But if we choose as our manual of translation the identity transformation, thus taking the home language at face value, the relativity is resolved. Reference is then explicated in disquotational paradigms analogous to Tarski's truth paradigm . . . ; thus 'rabbit' denotes rabbits, whatever they are, and 'Boston' designates Boston. 19

Thus, homophonic translation, the identity transform, construes reference as a word-world relation.

In sum, from the epistemological perspective reference looks to be a word-word relation, but from the ontological perspective it looks to be a word-world relation. Now the important additional point is that according to Quine's naturalism there is no exclusively epistemological perspective (there is no first philosophy). The epistemological perspective presupposes the ontological perspective. The recognition that reference is a word-word relation does not repudiate the word-world reference relation of the terms of the theory in which that recognition took place. We can repudiate it, but that would mean deviating from homophonic translation, the identity transform, in the home language. Thus, by paying attention to Quine's naturalism, one can explain how he can consistently maintain that reference is both a word-word and a word-world relation.

(3) Quine's thesis of underdetermination of physical theory claims that there could be at least two global theory formulations that are empirically equivalent (i.e., both formulations imply all and only true observation categoricals) yet logically incompatible (i.e., some theoretical sentences of the two formulations are mutually incompatible). Two such formulations could be rendered logically compatible simply by a change of spelling, so that if one formulation asserts 'Electrons have a negative charge' and the other asserts 'Electrons have a positive charge', then one or the other references to electrons could be reworded as a claim about, say, "selectrons." The resulting thesis of underdetermination is, then, that there could be at least two global theory formulations that are empirically equivalent, logically compatible, but not logically equivalent.

What does Quine say regarding the truth of such a pair of theory formulations? 20 An empiricist who was also an instrumentalist might, without paradox, declare both formulations true; but Quine is no instrumentalist. If, as he says, "to be is to be the value of a variable," 21 then he must adopt a realist attitude toward both theory formulations, the one quantifying over electrons and the one quantifying over selectrons. But must Quine conclude, then, that both formulations are true, that there are electrons and selectrons?
No; not if he is willing to play his naturalism card. The epistemological reflections that give rise to the thesis of underdetermination of physical theory presuppose some physical theory, but they do not repudiate it. To think otherwise is to lapse into first philosophy. Thus, Quine can consistently maintain that were we to accept some one global scientific theory formulation replete with empiricistic epistemology and physicalist ontology we would be quite justified in steadfastly maintaining both that this theory formulation is true and that its rivals are false or meaningless. In this sectarian way, then, Quine can maintain that among competing global theory formulations there is a fact of the matter to the question of which one is true: namely, the one that we accept.

Quine's thesis of indeterminacy of translation of theoretical sentences as wholes claims that different manuals of translation can be set up in such ways that the same foreign sentence can be translated into the home language by different sentences which may not be interchangeable in home language contexts, and yet such translations can be consistent with all possible evidence.22 Furthermore, Quine maintains that there is no fact of the matter to the question of which translation is correct: all such translations are correct.

Many philosophers deny that Quine can justifiably maintain that there is a fact of the matter to physics, but none to translation.23 After all, both physics and translation are on an epistemological par—they both go beyond the observable evidence—so why not treat them on an ontological par: either there is a fact to both or to neither?

We have already seen that if Quine plays his naturalism card, then he is committed (at least for now) to a physicalist ontology and an empiricist epistemology. The physicalist ontology settles the factuality of what there is. The point about indeterminacy is that "even the adoption of a full theory of nature, from among the under-determined options, still leaves translation indeterminate."24 In other words, even if all the physical facts about nature were known, still, there would be no ontological basis for choosing one fully adequate translation over another.

However, caution must be exercised here if we are to interpret Quine aright. For although Quine is a professed physicalist, physicalism is not a required premise for his argument for indeterminacy.25 One could be a mentalist and still accept indeterminacy, if one also accepts that no irreducibly mental states are relevant to semantics. Thus, the premise required for the argument for indeterminacy is not
physicalism, but semantic behaviorism: “two complete manuals of translation can conflict with each other without conflicting with any speaker’s verbal behaviour or propen­sities.”26 In other words, from Quine’s naturalistic perspec­tive, only the facts of behavior are relevant to meaning.

(4) A number of philosophers would agree with Donald Davidson’s claim that “Quine’s naturalized epistemology, because it is based on the empiricist premise that what we mean and what we think is conceptually (and not merely causally) founded on the testimony of the senses, is open to standard sceptical attack.”27 The standard sceptical attack that Davidson has in mind is the argument that “a person’s sensory stimulations could be just as they are and yet the world outside very different. (Remember the brain in the vat.)”28

The issue between Quine and his critics over scepticism is a large and tricky one, one that cannot be adequately dealt with here. However, I would like to make a few general remarks on the topic. First, as Davidson correctly suggests, Quine’s epistemology (empiricism) underdetermines his ontology (physicalism), but ought we to agree with Davidson when he concludes that a person’s stimulations could be just as they are and yet the world outside very different? Well, maybe we should in the sci-fi case of some one terribly afflicted soul, but for all people?

To reason thus is . . . to fall into a fallacy: a peculiarly philosophical fallacy, and one whereof philosophers are increasingly aware. We cannot significantly question the reality of the external world, or deny that there is evidence of external objects in the testimony of our senses; for, to do so is simply to dissociate the terms ‘reality’ and ‘evidence’ from the very applications which originally did most to invest those terms with whatever intelligibility they may have for us.29

For a naturalist like Quine, the standard sceptical attack that Davidson alludes to presupposes the illicit vantage point of a first philosophy: a vantage point of vanishing verbal intelligibility. Quine’s naturalistic conception of language as a social art is not like that; words derive their meaningfulness and reference from the ways people use them amid intersubjectively appreciable circumstances. The details of how this is achieved “is a question for the natural science of the external world: in particular, for the psychology of human animals.”30

Second, as we have noted, Quine’s naturalism leads not only to empiricism but to fallibilism. Accordingly, for Quine:

The quest for knowledge is properly an effort simply to broaden and deepen the knowledge which the man in the street already enjoys, in moderation,
in relation to the commonplace things around him. To disavow the very core of common sense, to require evidence for that which both the physicist and the man in the street accept as platitudinous, is no laudable perfectionism; it is a pompous confusion, a failure to observe the nice distinction between the baby and the bath water. 31

Thus, if the standard sceptical attack is, or includes, the claim that knowledge requires infallibly true belief and no such belief about the external world is forthcoming, then the sceptic and Quine are in agreement, for when Quine denounced first philosophy he thereby renounced the Cartesian quest for certainty in epistemology.

These brief remarks on Quine and scepticism barely scratch the surface, but perhaps enough has been said to appreciate that once one sees first philosophy for the will-o-the-wisp that it is, once one takes the naturalistic turn, then one rightly sees the sceptic and the epistemologist as shipmates on Neurath's boat. This, I believe, is how Quine sees the sceptic as a legitimate critic of science. 32

IV. Summary and Conclusion

In sum, let me recall the main points of this paper:
1. Quine's naturalism is the pair of claims that there is no first philosophy and that it is up to science to determine what there is.
2. Quine's epistemology (empiricism) and his ontology (physicalism) are themselves findings of contemporary, fallible science.
3. Because science is fallible, future science may reject empiricism and physicalism; even so, naturalism would remain unscathed.
4. Quine's epistemological perspective (empiricism) presupposes his ontological perspective (physicalism); and the key to interpreting Quine is the recognition that the findings of empiricism do not repudiate the ontology in which those findings are articulated.
5. Appreciation of the previous point defuses various widespread criticisms of certain of Quine's doctrines and theses; viz., (a) that Quine's theory of reference presupposes a noumenal reality, (b) that Quine's theory of reference is inconsistent, (c) that Quine's claim that there is a fact of the matter to physics but not to semantics is unjustified, and (d) that Quine cannot answer the epistemological sceptic.

In concluding, I fully acknowledge that if my claim is correct, that Quine's naturalism defuses various of his critics' arguments, that alone certainly does not show the disputed doctrines and theses to be true. However, I do think
naturalism provides the key for correctly interpreting Quine's philosophy, and therefore, the key to critically evaluating Quine's many philosophical contributions.

V. Afterword

I said that Quine has engaged in a decades-long attempt to naturalize both the doctrinal and conceptual sides of epistemology. Reflecting upon his effort, Quine once wrote that naturalized epistemology is "A far cry . . . from old epistemology. Yet it is no gratuitous change of subject matter, but an enlightened persistence rather in the original epistemological problem." However, by Quine's lights, the original epistemological problem is one of relating evidence to theory, not one of answering the Cartesian sceptic. Recently, in the same vein, Quine wrote:

I am of that large minority or small majority who repudiate the Cartesian dream of a foundation for scientific certainty firmer than scientific method itself. But I remain occupied . . . with what has been central to traditional epistemology, namely the relation of science to its sensory data. I approach it as an input-output relation within flesh-and-blood denizens of an antecedently acknowledged external world, a relation open to inquiry as a chapter of the science of the world. To emphasize my dissociation from the Cartesian dream, I have written of neural receptors and their stimulation rather than of sense or sensibilia. I call the pursuit naturalized epistemology, but I have no quarrel with traditionalists who protest my retention of the latter word. I agree with them that repudiation of the Cartesian dream is no minor deviation.

Until now, my purpose has been, simply, to drive home the point that naturalism is central to Quine's thought, and that if one loses sight of that fact then one is likely to misunderstand him. But I would like to conclude by offering a suggestive, even if highly speculative, conjecture as to why it is so easy for many of Quine's philosopher-readers to lose sight of that fact. My conjecture is, simply, that many such readers acquired their sense of how to do philosophy, i.e., what a philosophical question or a philosophical theory is, from the Cartesian and/or Kantian traditions. For readers who embrace either of these traditions as paradigmatic of philosophy, Quine is likely to be read as someone who tried but failed to solve traditional epistemological problems or as someone who is not, despite appearances, doing epistemology at all. My own view is that Quine is not trying to solve the traditional epistemological problems of refuting the Cartesian sceptic, or demonstrating the existence of the external world, or the like, but he is nevertheless engaged in
"real epistemology," i.e., normative and descriptive epistemology.\textsuperscript{36} That said, I can still endorse Quine's agreement with the traditionalists: Naturalized epistemology is, indeed, "no minor deviation."\textsuperscript{37}

\section*{NOTES}


\textsuperscript{2} The Cartesian circle, nearly enough, is the criticism that in his \textit{Meditations on First Philosophy} Rene Descartes' argument against the sceptic is circular. He relies on the "mark" of clarity and distinctness to validate his proof for the existence and goodness of God, but he also relies on God's existence and goodness to validate his criterion of clarity and distinctness.

\textsuperscript{3} David Hume's predicament, as elaborated in his \textit{A Treatise of Human Nature}, is that only one's immediate experience can be known with certainty. Furthermore, since knowledge of nature (absent matters of fact) cannot be grounded on immediate experience in any firmly logical way, there is no hope of achieving certain knowledge of nature. See Quine's discussion of Hume's predicament in W. V. Quine, \textit{Ontological Relativity and Other Essays}, p. 72.

\textsuperscript{4} Quine, \textit{Ontological Relativity and Other Essays}, p. 75.

\textsuperscript{5} Ibid.

\textsuperscript{6} Quine, \textit{Theories and Things}, p. 98.

\textsuperscript{7} Ibid., p. 72.

\textsuperscript{8} Ibid.

\textsuperscript{9} Ibid.


\textsuperscript{12} Quine, \textit{Theories and Things}, p. 21.


\textsuperscript{15} The word 'water' does not actually occur in the passage that Putnam cites in \textit{Theories and Things}.

\textsuperscript{16} Quine, \textit{Theories and Things}, p. 20.

\textsuperscript{17} W. V. Quine, "Replies to the Eleven Essays." \textit{Philosophical Topics} 12 (1981), p. 229.

\textsuperscript{18} See, for example, Donald Davidson's "The Inscrutability of Reference," in his \textit{Truth and Interpretation} (Oxford: Oxford University Press, 1984), pp. 227-241; see Hartry Field's "Quine and the Correspondence Theory." \textit{The Philosophical Review} 83 (1974), pp. 200-228.


\textsuperscript{20} See Quine, \textit{Pursuit of Truth}, pp. 95-102


Quine, "Let Me Accentuate the Positive," p. 118.


28 Ibid.


30 Ibid., p. 230.

31 Ibid., pp. 229-230.


in keeping with my naturalism, I am reasoning within the overall scientific system rather than somehow above or beyond it. The same applies to my statement, quoted by Stroud, that "I am not accusing the skeptic of begging the question; he is quite within his rights in assuming science in order to refute science." The skeptic repudiates science because it is vulnerable to illusion on its own showing; and my only criticism of the skeptic is that he is overreacting.

33 Quine, *The Roots of Reference*, p. 3.


35 See my *The Philosophy of W. V. Quine: An Expository Essay* (Tampa, Fla.: University of South Florida Press, 1982), and *Enlightened Empiricism: An Examination of W. V. Quine's Theory of Knowledge* (Tampa, Fla.: University of South Florida Press, 1988).


37 This paper was read at a conference on the philosophy W. V. Quine held at Wittenberg University on April 29-30, 1992.