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Or
"Epistemology Naturalized" Through Lockean Spectacles
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1.) Introduction

This paper has two projects, listed here in order of importance to the author, which is the reverse of their order in the paper. First, and foremost, the paper outlines a view of naturalized epistemology not currently considered one of the standard interpretations of Quine's famous "Epistemology Naturalized" nor one of the standard projects in epistemology. Secondly, the paper places this view of naturalized epistemology into the context of epistemology as well as the recent and overall history of philosophy, and evaluates the view as an interpretation of Quine and as an epistemic project. The order of importance is determined in part because the primary philosophical significance of the theory lies with its utility in epistemology. However, understanding the theory in a broader historical context is important to epistemology which all to often evinces and indifference and ignorance of its historical roots.

2. The Three Standard Interpretations/Programs of Epistemology Naturalized

Philosophers have taken Quine's essay in three distinct ways: (1) As a rejection of Epistemology/Normativity, (2) As an act of psychologism, (3) As a project in conceptual reduction or at least compatibility with physicalism. Perhaps the most famous statement of the view of Quine as rejecting normativity is in Kim's "What is Naturalized Epistemology?" or Stroud's "Naturalized Epistemology". Kornblith has given perhaps the clearest and best argued interpretation of Quine as psycholigism in "What is Naturalistic Epistemology". Feldman has discussed the interpretation of Quine as reducer/physicalist in "Goldman on Epistemology and Cognitive Science". Each has its own difficulties as an interpretation of Quine's actual works. This section outlines each view and discusses it's general difficulties.

The Replacement Thesis

The replacement thesis represents the most pervasive view of Quine's work. Kim (1988), Kornblith (1994), and Feldman (2001) among many others all base the replacement thesis on two single quotes from Quine:

> The stimulation of his sensory receptors is all the evidence anybody has had to go on, ultimately, in arriving at his picture of the world. Why not just see how this construction really proceeds? Why not settle for psychology? (Quine, 1969: 75)

> Epistemology, or something like it, simply falls into place as a chapter of psychology and hence of natural science. It studies a natural phenomenon, viz., a physical human subject. This human subject is accorded a certain experimentally controlled input -- certain patterns of irradiation in assorted frequencies, for instance -- and in the fullness of time the subject delivers as output a description of the three-dimensional external world and its history. The relation between the meager input and the torrential output is a relation that we are prompted to study for somewhat the same reasons that always prompted epistemology: namely, in order to see how evidence relates to theory, and in

> what ways one's theory of nature transcends any available evidence...But a conspicuous difference between old epistemology and the epistemological enterprise in this new psychological setting is that we can now make free use of empirical psychology. (Quine, 1969: 82-3)

The standard interpretation of the above passages is normally attributed to Kim:

> Quine's proposal is more radical than that. He is asking us to set aside the entire framework of justification-centered epistemology. That is what is new in Quine's proposals. Quine is asking us to put in its place a purely descriptive, causal-nomological science of human cognition." (Kim 1988: 388).

Though similar statements can also be found in Stroud's 1984 work, where Stroud tells readers that the traditional epistemologist...

> ...wanted to identify the indubitable information we could be said to acquire in perception so that he could pose more sharply and more precisely the question of how that information could ever justify our richer beliefs about an external world. But once the project of justification is abandoned, Quine thinks, we can sidestep the issue of awareness and simply try to explain how our torrential theoretical output arises from those events that take place at our sensory surfaces. (Stroud 1984: 224)

In general, there are three questions that interpreters of Quine seek to answer. (1) Is naturalized epistemology autonomous? (2) Is naturalized epistemology normative? (3) What sort of results might one expect from naturalized epistemology? Thus, one finds three elements of the replacement view:

(1r) Psychology replaces epistemology.

(2r) Epistemology renounces it's normative character.

(3r) The theory that will emerge from psychology is a causal-nomological explanation of belief genesis.

In later sections I will discuss the plausibility of (1). For now I will emphasize the interpretive difficulties that face the replacement thesis as regards (2) and (3). The main problem with the replacement thesis as an interpretation of Quine lies in the fact that Quine clearly never abandons normativity. He consistently distinguishes science from other less laudable human pursuits, he never disavows justification (See for example Quine 1990), and he continues to use evaluative terms such as theory and evidence. Thus, those who try to interpret Quine as advocating the replacement thesis find themselves at great pains to try to reconcile the non-normative, causal-nomological explanatory project with Quine's body of work. Inevitably, they cannot reconcile these two elements, and paint Quine as not only having a profound lack of insight into the consequences of his own view, but as unrepentant long after the consequences were made clear.

The Convergence Thesis

The versions of the second interpretation of Quine go under various names; The Weak Replacement Thesis, Psycholigism, Ballpark Psychologism (Kornblith 1994), Cooperative Naturalism (Feldman 2001), Epistemics (Goldman 1986), and Virtue Epistemology (Sosa 1985). For instance, Feldman tells us that,

> This view, Cooperative Naturalism, holds that, while there are evaluative questions to pursue, empirical results from psychology concerning how we actually think and reason are essential or useful for making progress in addressing evaluative questions. (Feldman 2001)

Kornblith similarly suggests that:

> This mutual readjustment will allow each discipline to advance at a more rapid rate than it would were it to proceed independently of the other. We may thus look forward to a long and fruitful relationship between philosophy and psychology. ... Even if we want to insist that revisions to our epistemological theories are always the product of *a priori* recognition of previous errors even when prompted by empirical results, it would be foolhardy to ignore this additional check on our *a priori* reasoning. (Kornblith 1994: 10-13).

The central ideas in what I term convergence thesis are that:

(1c) Psychology does not replace Epistemology, but the former is "relevant" to the latter as an expedient.

(2c) Epistemology retains its normative character.

(3c) Epistemology remains largely an armchair activity.

The idea behind (1) is simple: The belief-forming processes recommended by epistemology will, in the end, converge with processes empirically discovered by psychology. Or as Kornblith says,

> If the thesis under discussion is true, the psychology of belief acquisition and epistemology are two different fields, which ask different but equally legitimate questions and have different methodologies. In spite of these differences a complete (and true) psychology of belief acquisition will describe the same processes that a complete (and true) epistemology will prescribe. (Kornblith 1994: 8)

Thus, built into (1c) and (3c) is really the idea that psychology need not really be empirical. In the end we could discover all the relevant facts about our psychology through philosophical investigation. Also built into (1c) is the idea that only area of overlap between epistemology and psychology consists in the discovery of belief-forming processes. Psychology, then, is irrelevant to discovering the nature of knowledge. Indeed, the naturalized epistemology literature after Quine is rife with such statements. Kornblith opines that "the claim that knowledge requires

justified true belief is a mere truism." (Kornblith 1994: 132) Goldman expresses similiar thoughts in *Epistemology and Cognition*:

> (1) As the study of method, epistemology should be autonomous. It should be prior to the sciences; so it must not seek help from them. (2) Epistemology should only be concerned with the analysis of concepts, specifically epistemic concepts such as 'knowledge', 'warrant', 'rationality', and the like. But conceptual or linguistic analysis is the province of philosophy; so epistemology needs no help from behavioral or social sciences. (3) The true aim of philosophy is to "show the fly the way out of the fly-bottle,"l that is, to dissolve puzzles and paradoxes that lead to skepticism. Such dissolution requires only linguistic analysis, not a model of the mind-brain or empirical models of intellectual influence. (4) Epistemology is the study of methodology, and proper methodology is the province of deductive logic, inductive logic, probability theory, and statistics. Epistemology reduces to these subjects, all of which are *formal* disciplines. *Empirical* sciences are not needed. (Goldman 1986: 1-2)

It is the combination of (1c) and (3c) that I believe raise serious trouble for the convergence thesis as an interpretation of Quine. To Quote Kim, "Quine's proposal is more radical than that." (Kim 1988: 388) Quine does think that traditional epistemology as practiced should be rejected, not merely helped along by psychology. He likewise thinks that the methodologies of epistemology and psychology will not converge in the end. As Quine says, "better to discover how science is in fact developed and learned that to fabricate a fictitious structure to similar effect." (Quine 1969: 78). The questions, then, which I hope to answer in the next section of the paper are as follows: "If Quine does not reject the normativity of epistemology what is he rejecting and why?" "If he is not advocating a descriptive psychological project replace the epistemological one, then what is the connection between epistemology and science?"

Terminological Naturalism

The final version of naturalized epistemology to be considered goes under the heading of Substantive Naturalism (Feldman 2001) or Epistemic Supervenience (Kim 1988). Of the three possible interpretations, this is the least motivated by understanding Quine. Indeed, terminological naturalism is usually offered as alternative to Quine. For instance, Kim tells readers:

> But why should we think that there *must be* naturalistic criteria of justified belief and other terms of epistemic appraisal? If we take the discovery and systematization of such criteria to be the central task of normative epistemology, is there any reason to think that this task can be fruitfully pursued, that normative epistemology is a possible field of inquiry? ...The short answer is this: we believe in the supervenience of epistemic properties on naturalistic ones, and more generally, in the supervenience of all valuational and normative properties on naturalistic conditions. (Kim 1988: 50)

Feldman likewise suggests:

> Traditional epistemologists take these evaluative epistemological sentences to be objectively true or false, and thus they are committed to there being epistemological facts. The status and nature of these facts constitutes a second major issue falling under the heading of epistemological naturalism. ... Substantive epistemological naturalism is the view that all epistemic facts are natural facts. This is not informative unless it is supplemented with some account of what counts as a natural fact. One view is that the natural facts include all the facts that a complete science will acknowledge. Another way to characterize the natural facts is to provide a list of representative examples of the sorts of things that count as natural, with the hope that we have at least a reasonably good idea of what else might be included. (Feldman 2001)

Thus, terminological naturalism is essentially analytical philosophy with a broadly physicalistic bent. The central tenets look something like this:

(1) Is naturalized epistemology autonomous?
(1t) Psychology does not replace Epistemology, nor does Epistemology need to consult psychology, though Epistemology is broadly naturalistic.

(2) Is naturalized epistemology normative?
(2t) Epistemology retains its normative character.

(3) What sort of results might one expect from naturalized epistemology?
(3t) Epistemology remains largely an armchair activity of philosophical analysis.

The difficulties with terminological naturalism are straightforward. Quine rejects epistemology and analytical philosophy as a reductive analysis of meaning generally.

In summary, there are problems with each version of naturalized epistemology when considered as interpretations of Quine. They cannot reconcile Quine's rejection of epistemology as practiced with his seeming commitment to the normativity of epistemology. They fail to respect Quine's general philosophical commitments.

3. Quine, Epistemology, and Science

So far my task has been relatively easy. I have discussed other conceptions of naturalized epistemology and their plausibility as interpretations of Quine. In this section, I undertake the much harder task of crafting a conception of naturalized epistemology and defending it as a plausible interpretation of Quine's broad project. I'll begin my interpretation of Quine in a slightly different place than most of the other commentators I've mentioned. I'll begin with the beginning of Quine's essay, specifically with his long analogy between the relatively recent history of mathematics and the history of epistemology.

The beginnings of Quine's intellectual and professional life were times in which the formal tools of mathematics and logic seemed to be reaching their fullest realization. Science was flourishing. Moreover, these formal tools and the rigor of science generally appeared to many to offer insight into all areas of intellectual pursuit. As an undergraduate Quine's thinking was shaped by Peano,

Russell, and Whitehead. During his studies at Harvard Quine was further exposed to Whitehead, then the chair at Harvard, and to Russell. In 1936, the young Dr. Quine returns from studying with Moritz Schlick, Hans Reichenbach, Rudolf Carnap and Adolph Tarski. However, by 1969, when Quine publishes "Epistemology Naturalized," he is grappling with the limitations of the tools he has studied all his life and the failure of the many projects that had seemed so powerful and close to completion in those earlier years. Those projects can trace their lineage to Euclid, and include the axiomatization of mathematics as well as the rational reconstruction of science.

Thus, I think the key to understanding Quine is really Gödel as much as Hume or Carnap. Quine sees in Gödel's incompleteness theorem a repudiation of subjective certainty as an independent means (epistemically autonomous) of knowing about the world. For Quine, all such constructions of any sophistication have been shown to be either inconsistent or incomplete. It is not surprising, if viewed this way, that Quine seems to writeoff the doctrinal project so completely and so quickly. And for Quine "Epistemology Naturalized" is an attempt to understand both the ramifications of that result and to understand how best to continue. It is, ironically, the scepticism born of the dreams of his intellectual fathers that prompts the positive views that he espouses. For Quine, certain experiences are destined to create incomplete world views, whether the certainty of what we might call logical intuition or the certainty of immediate experience. Indeed, Quine's famous line, "The most modest of generalizations about observable traits will cover more cases than its utterer can have had occasion actually to observe," is nothing more than what he thought Hume discovered and Carnap merely reaffirmed–the construction of objects from the certainty of immediate experience is doomed to be incomplete. (Quine, 1969 p.74)

Quine does not abandon certainty, but rather recognizes (some of) its limitations. Perhaps if he had further reflected upon Hegel, Descartes, and even Euclid, he would have devalued certainty even further. Hegel's famous pronouncement regarding the number of planets, i.e., must be prime (Dissertatio philosophica de orbitis planetarum), Descartes' certainty regarding, for instance, his causal maxim, and Euclid's parallel lines hypothesis are all examples of subjective certainty fooling us into false views. Empirical results regarding overconfidence likewise give one pause. (For instance, Oskamp 1965; Lichtenstein and Fischoff 1977; Fischoff, Slovic, and Lichtenstein 1977). Regardless, recognizing (some of) the inherent limitations of certainty has two general consequences for Quine. First, he realizes that science cannot rely upon certainty alone in its ambitious project to know the nature and operations of the world. Second, and of greater importance, Quine realizes that ontological/metaphysical neutrality promised by certainty is likewise an illusion. The skeptical methodology of hyperbolic doubt is attractive precisely because people imprudently assume that certainty supplies one with an ontologically neutral basis for constructing world views. Certainty is not adequate to this task, nor is the methodology of hyperbolic doubt epistemology without ontology.

For Quine, I suggest, his positive views flow from his reconsidering the nature of skeptical questions, specifically Descartes' own maxim:

> I ought to withhold my assent just as carefully from what is not obviously certain and indubitable as from what is obviously false, I can justify my rejection of my beliefs if I can find some ground for doubt in each. (Descartes M1 ¶2)

In practice, Descartes' above assertion has led to the following methodology: If one can conceive of an alternative ontology/metaphysics whereby the evidence for one's belief is misleading (i.e., the evidence is the same to me, but the belief is false), then one should reject the belief. It is in this methodology that Quine faults epistemology. He faults traditional epistemology (1) because certainty cannot build a world view and (2) because hyperbolic doubt asks us, in effect, not to neutrally evaluate our beliefs, but to hold our beliefs to evaluation in every conceivable ontology. Skeptical claims are, thus, not ontologically neutral. Rather each skeptical hypothesis contains the strong ontological claims that conceivability implies possibility, and possibilities are all relevant. Traditional epistemologists, who have not already stopped reading, might object that relevance is not a metaphysical claim. I deny the neutrality of relevance claims, I would assert that if one asserts that one is not presupposing any ontological principles, then one has no means of determining the relevance of dimly conceived alternative ontologies.

Instead, skeptical arguments assume an ontology of immediate sensations. Dreaming or evil demon hypotheses are claimed to be not merely nomologically consistent with this ontology of immediate sensations, but as likely as any other hypothesis to be the complementary portion of the ontology of immediate sensation. For now, I'll just claim that the skeptic has done nothing to establish this claim. Later, I'll claim that as normally formulated, the claim seems false.

To understand what I mean, let me step back a moment and introduce a hopefully helpful metaphor. Suppose that you went to mechanic and asked him if he could fix your car. He answers "yes." To which you respond, "ah, but suppose that 'cars' refers to something else, possibly nothing at all, and the same for your 'tools,' and your abilities, suppose that they could be quite different from your understanding of them, could you still fix my car?" Our hypothetical mechanic might punch you in the nose or he might simply walk away, but what he will not do, and ought not do, is try to establish his mechanic's prowess by showing that no matter what cars are, tools are, and he is, he can fix cars. He is a mechanic in this world, and that is not diminished by his status in other vaguely imaginable worlds.

On my view, Quine sees the same absurd ontological/metaphysical requirements in the skeptical methodology practiced in epistemology. If one follows Descartes, our mental states are justified or count as knowledge only in so far as they would be true regardless of the nature of the world, the nature of our minds, and the nature of the possible interactions between the two. As Stroud aptly describes it,

> The traditional Cartesian examination aims at an assessment of all our knowledge of the world all at once, and it takes the form of a judgement on that knowledge made from what looks like a detached 'external' position. (Stroud 1984: 209)

However, unlike Stroud, Quine does not follow Descartes' reasoning:

> All possible evidence is ultimately sensory.... .it cannot be denied that any particular course of sensory experience could fail to give us reliable information as to how things are; the world can be different from the way it is perceived to be. ... If all our knowledge of the world around us is in question all at once we cannot then help ourselves to some independently reliable information about the world, as we usually do, to settle the question whether our present course of experience is or is not on this occasion a reliable guide to the way things are. (Stroud 1984: 209)

Of course, in practice, each skeptical argument evokes a particular ontology/metaphysics and this is what Quine realized. Skeptical hypotheses really ask one to evaluate (or perhaps to vindicate) the epistemic status of our mental states in light of a particular ontology/metaphysics. External world skepticism really asks us to evaluate (or perhaps to vindicate) the epistemic status of our beliefs in light every conceivable (i.e., internally weakly consistent) ontology/metaphysics. As Quine notes, such an evaluation/vindication would be a tremendous intellectual triumph, were it possible. But, its relevance to the epistemic status of our beliefs given the actual nature of our mind, the world, and the interactions between mind and world is far from clear. An atomic bomb will kill a fly, but it's not necessarily preferable to a fly swatter.

> This interplay is reminiscent again of the old threat of circularity, but it is all right now that we have stopped dreaming of deducing science from sense data. We are after an understanding of science as an institution or process in the world, and do not intend that understanding to be any better than the science which is its object. (Quine 1969, p. 83-4)

Quine realized, all be it with sadness, that the important evaluation of the epistemic status of our mental states was the one based upon our best theory about the nature of our minds, the world, and the interactions between the two. It is this view, I suggest, that informs his famous (or infamous) quote:

... skeptical doubts are scientific doubts. ... Epistemology is best looked upon, then as an enterprise within natural science. Cartesian doubt is not the way to begin. (Quine 1975: 68)

One can thus fruitfully contrast the epistemic pictures of Quine and Descartes with regard to humanity as follows: Descartes viewed the goal of epistemology as distancing oneself from all ontological commitments via hyperbolic doubt. The resulting picture is one where all knowledge must follow with complete certainty from the modifications of one's own mind by operations comprehended in their totality in a single instant. Quine, in contrast, sees humanity as unable to escape ontological presuppositions for the purposes of epistemic reflection. Humanity must, instead, make a forced choice among a limited range of ontological suppositions. While certainty still plays a diminished role, epistemic theorizing occurs against a background of ontological supposition.

4. Quininean Epistemology

Suppose, then, that we follow Quine and pursue a naturalized epistemology. What would we do? Quine himself seems rather vague and programmatic when he discusses naturalized epistemology. Much of the last half of the 1969 paper is devoted to speculation as to the impact

of his suggestions. The literature, I suggest, has shown that Quine's quotable comments have been more influential than his subsequent work in shaping the general perception of the goals and methodology of naturalized epistemology. Quine's own epistemic activities are well-known, though often ignored in speculating as to the nature of the naturalized epistemology he envisioned. (See Johnsen 2006 and Kitcher 2003 for more balanced approaches). Quine primarily pursues two general projects. He outlines a general coherentist view which includes an evidential prioritization. He works on language-acquisition as a means to understanding the relation between observation and scientific theory. It is in this second project that he likely sees the true project of naturalized epistemology:

> It is no shock to the preconceptions of old Vienna to say that epistemology now becomes semantics. For epistemology remains centered as always on evidence, and meaning remains centered as always on verification; and evidence is verification. (Quine 1969, p. 89)

In the face of a vagueness of nearly Wittgensteinian proportions in the text. I propose to choose my quotes and stick with them. Because at this point my shaky credentials as a historian of philosophy and a Quine scholar are Parkinsonian in magnitude, I name my "interpretation" of naturalized epistemology "Quininean Epistemology". The name has the virtues of sounding like sort of like "Quineian Epistemology," while also pointing out just how bitter it will taste to "traditional epistemologists". I do not claim that my comments here are flawless historical exegesis. In fact, I candidly admit that my own agenda in epistemology rears its ugly head. However, I do think that much of what I say here are largely the facts as Quine sees them, even if I veer slightly from the course he would have steered.

In essence, my position is simply that Quine thought that epistemology ought to continue to pursue its traditional projects. As Quine notes,

> But I think that at this point it may be more useful to say that epistemology still goes on, though in a new and a clarified status. (Quine 1969, p.82)

Of course, Quine's conception of epistemology was limited to those aspects of the project of logicism to which he feels important inroads can still be made. I have a gentleman's disagreement with Quine on this issue. So, I depart here from Quine slightly by following one of his heros–David Hume. Quine and I agree that by advocating traditional projects, one does not say that epistemology will continue *a priori* speculation as to the nature of knowledge. Rather, the traditional epistemology to which I refer is the tradition including Plato's *Theaetetus*, Locke's *An Essay Concerning Human Understanding*, and Hume's *A Treatise of Human Nature* and *Enquiry Concerning Human Understanding*. (See Kitcher 2003) Specifically, epistemology will continue to seek the answer to three questions, each of which are posited by each of the British Empiricists:

(1)What is the nature of knowledge?

(2) What are the sources of knowledge for humans (and others?)?

(3) What are the limitations of knowledge for humans (and others?)?

The first of these questions is what is most often thought of as traditional epistemology. An adequate answer to the first question would tell us what sorts of things can be or are knowledge, what sort of properties they must have to be instances of knowledge, what is so good about knowledge, and so on. In Quininean Epistomology theorists are still very much concerned with the nature and value of knowledge. However, theories of knowledge must be informed by a systematic empirical attempt to understand the nature and goals of human cognition. In this way, the naturalized epistemology, I suggest, bears as much or more affinity with Locke as with Hume. The second and third questions are what many people here would call applied epistemology. An adequate answer to the second question would tell us the sources for human knowledge, how these sources give us knowledge, if these sources would provide knowledge for other creatures, how we could tell if other sources were potential sources of knowledge for some creatures, etc.. I mean sources here in a larger sense than mere carriers of information, included among sources are methods and cognitive processes. Applied epistemology seeks to understand both the nature and limits of our own natural cognitive processes, but also how best to augment, amend, replace, or even sidestep that list. Work in this area includes among other things Dawes (1990), Faust (1984), Meehl (1954), Stanovich (1999), Trout and Bishop (2004). Finally, an answer to the third question would tell us what, if anything, humans cannot know and what conditions would prevent knowledge. Answering the third question also addresses the nature and limitations of our methods and cognitive processes. Included among the findings in this third area are the results which I claim shaped Quine's intellectual perspective: Gödel's incompleteness proof (1931), the Church/Turing's proof that the halting problem has to universal solution (1936 and 1936), and Tarski's theorem that arithmetic truth cannot be defined in arithmetic (1956). Also included in these findings are such empirical works as Dawes (1990), Meehl (1954), Nisbett's and Wilson's (1977) summary, and Stanovich (1999), Tversky and Kahneman (1974).

Though I suspect that the epistemology I outline here has broader contours than the normal practices of many epistemologists, its true point of divergence from the "traditional" epistemological project lies in the nature of its methods and the scope of its results. Quininean epistemology pursues the answers to the three questions above against the background of the ontology and general understanding of science (i.e., rational inquiry). Its results are likewise contingent upon the supposition of that same scientific ontology. Thus, Quine's statement that

> ....such scruples against circularity have little point once we have stop dreaming of deducing science from observations. If we are simply to understand the link between observation and science, we are well advised to use any available information, including that provided by the very science whose link with observation we are seeking to understand. (Quine 1969, p. 76)

and

> The old epistemology aspired to contain, in a sense, natural science; it would construct it somehow from sense data. Epistemology in its new setting, conversely, is contained in natural science, as a chapter of psychology. But the old containment remains valid too, in

> its way. We are studying how the human subject of our study posits bodies and projects his physics from his data, and we appreciate that our position in the world is just like his. (Quine 1969, p. 83)

and again

> in recognizing that the skeptical challenge springs from science itself, and that in coping with it we are free to use scientific knowledge. The old epistemologist failed to recognize the strength of his position. (Quine 1973, p.3)

and finally

> The positing of bodies is already rudimentary physical science; and it is only after that stage that the sceptic's invidious distinctions can make sense. Bodies have to be posited before there can be a motive, however tenuous, for acquiescing in a non-committal world of the immediate given. (Quine 1975, p.67)

If we suppose, as I believe Quine does, that ontological neutrality or at least minimalism is attainable neither by the skeptic nor the epistemologist, then we must pursue of inquiries in the context of the best ontology we have available to us. Our results are understood as contingent upon this ontology, but we have no realistic reason to desire more unless and until it becomes clear that alternative undermining ontologies are relevant, i.e., truly as plausible as the one to which we have tied our current understanding. I'll return to this point later in defending Quine. As Quine notes in his reply to Stroud:

> Experience might, tomorrow, take a turn that would justify the sceptic's doubts about external objects. Our success in predicting observations might fall off sharply, and concomitantly with this we might begin to be somewhat successful in basing predictions upon dreams or reveries. At that point we might reasonably doubt our theory of nature in even its broadest outlines. But our doubts would still be immanent, and of a piece with the scientific endeavor. (Quine 1981, p. 475)

Quine's view is not, as commonly supposed, the view that epistemology merely reads its results off of psychology. Quine sometimes suggests this at times, but I think it is incorrect to suppose that he had deep commitments to epistemology as psychology's toady. Indeed, even psychology of human judgements abilities is not exclusively engaged in discovering our reasoning processes without interest in epistemic norms. Equally important, Quine thought that all of science may prove relevant at various points to our inquiry, and that the inquiry would be pursued at various levels of abstraction. For instance, as Quine tells readers in *The Roots of Reference:*

> For we can fully grant the truth of natural science and still raise the question, within natural science, how it is that man works up his command of that science from the limited impingements that are available to his sensory surfaces. This is a question of empirical

> psychology, but it may be pursued at one or more removes from the laboratory, one or another level of speculativity. (Quine 1973, p. 3)

So, I should summarize Quininean Epistemology, or alternatively, the Wallisian interpretation as I've done with the other interpretations:

(1) Is naturalized epistemology autonomous?
(1w) Epistemology seeks to understand the nature sources and limits of knowledge in the ontological/metaphysical context of science generally, but especially such disciplines as history of human inquiry, sociology of science, and psychology.

(2) Is naturalized epistemology normative?
(2w) Epistemology retains its normative character.

(3) What sort of results might one expect from naturalized epistemology?
(3w) Epistemology formulates hypotheses as to the best fashion to proceed in theory generation against a background ontological theory.

5. Defending Quine (Hopefully Better Than Quine Himself)

In my final section I hope briefly to offer some defense of Quininean Epistemology against the more common objections to naturalized epistemology. Specifically, I will try to answer the following questions:

(1) Why favor the scientific ontology over any of the infinite possible ontologies consistent with the evidence?

(2) Isn't naturalized epistemology blatantly circular or changing the subject in a blatantly unmotivated manner–maybe even both?

(3) What makes you suppose that empirical considerations are at all relevant to normative theory?

The sort of objection lurking in (1) is explicit in many commentaries on Quine. For instance, Stroud opines that,

> ...I argued that the sceptical reasoning does not turn directly on the simple fact that illusions sometimes occur. That alone does not imply that we know nothing about the world around us. ***The sceptical conclusion comes only with the realization that everything we get through the senses is compatible with countless different 'hypotheses' about what is the case beyond those sensory data, so there is no way of telling which of the many different possibilities actually obtains.*** (My italics Stroud 1988, p.231-2)

and

> But whether scepticism is the correct answer to the epistemological question is not something to be settled by further observation or experimentation. If the question is posed correctly--as Quine himself poses it--we already know that whatever future experience might be like, it can only give us more of what will remain laughably meagre sensory data relative to our rich set of beliefs about the world around us. We will always be faced with the question of whether we have any more reason for adopting the physical object 'hypothesis' rather than anyone of a hundred others that equally go beyond all possible data. (Stroud 1988, p.232-3)

and

> The results of an independently-pursued scientific explanation of knowledge would be in the same boat. They would be 'scientific' versions of Moore's 'common sense' remarks. But if we feel that the philosophical question is not and could not be answered directly in Moore's simple way (as I think we do), we should also find that it cannot be answered by apparently more scientific assertions to the same effect. The scientific story is not more true or more highly confirmed or more clearly based on experience than what Moore says; it is just more complicated. For Quine 'science is self-conscious common sense' (WO, 3). (Stroud 1988, p.230)

and

> Countless ‘hypotheses’ or ‘theories’ could be ‘projected’ from those same slender ‘data’, so if we happen to accept one such ‘theory’ over others it cannot be because of any objective superiority it enjoys over possible or actual competitors. (Stroud 1988, p.248)

As I’ve portrayed Quine, he’s really offering a relevant alternatives view against the sceptic. Given this fact, it seems appropriate that Quine offer a viable view of relevant alternatives which excludes the sceptic’s ontologies in favor of science. Unfortunately, as I read Quine, his efforts here a woefully inadequate. Most often, Quine merely points to science’s standards in a rather oblique fashion. Likewise, Quine often appears to suggest that conservativism about belief revision and simplicity gives us license to reject skeptical ontologies. There is an inherent belief revision conservativism in the relevant alternatives approach I attribute to Quine. One uses what one sees as the best theory unless and until one sees other alternatives which rise to the level of plausibility necessary to become relevant. However, in light of confirmation bias and belief perseverance, I have deep suspicions as to the epistemic virtues of any conservativism about belief revision that extends beyond the basic view I’ve just outlined. I do believe, however, that Quine and I can do a better job of specifying a relevant alternatives response to the sceptic. At least, I’ll try.

First, I think that skeptical hypotheses, as commonly forwarded are not particularly viable alternatives to science on rather flat-footed grounds. For reasons of time my objections here are limited to the evil demon hypothesis and number two: (1) Skeptical ontologies are, at least as commonly formulated, falsified, and (2) skeptical ontologies explain and predict very little and are thus not nearly as empirically adequate as their scientific rivals.

Take, for example, the evil demon hypothesis. As Descartes tells us,

> I will suppose, then, not that Deity, who is sovereignly good and the fountain of truth, but that some malignant demon, who is at once exceedingly potent and deceitful, has employed all his artifice to deceive me;.... (M1 ¶12)

The evil demon, it is commonly asserted acts to make all of my beliefs about the external world false. It is this potential for universal falsehood that raises difficulties for the evil demon hypothesis. The hypothesis predicts that **ALL** of one's beliefs about the external world are false. However, in order to make sense of the evil demon scenario, one must have certain beliefs which would be true on the evil demon scenario, thereby falsifying its central prediction. Such beliefs would violate the very supposition of the evil demon hypothesis. To name a few of these beliefs:

"It's possible that this red object is not really exactly as I perceive it."

"It is at least remotely possible that I am wrong in many of my beliefs about the external world."

"Sensory experience does not rule out an evil demon with complete and utter certainty."

So, the very nature of the evil demon hypothesis predicts the falsehood of many beliefs that it itself requires–beliefs that most open-minded people would likely hold. This is not to say that no appropriately qualified version of the evil demon hypothesis could predict all and only the right false beliefs. I suspect that such a version would prove wildly *ad hoc,* but as Quine says...the naturalized epistemologist does not dogmatically assert the existence of an external world exactly as science describes it:

Experience might, tomorrow, take a turn that would justify the sceptic's doubts about external objects. Our success in predicting observations might fall off sharply, and concomitantly with this we might begin to be somewhat successful in basing predictions upon dreams or reveries. At that point we might reasonably doubt our theory of nature in even its broadest outlines. But our doubts would still be immanent, and of a piece with the scientific endeavor. (Quine 1981, p. 475)

My point is simply that the sort of versions of the evil demon hypothesis offered up as relevant alternatives in epistemology are not really remotely adequate to the task. Skeptics travel quite quickly from a very weak sense of conceivability to ontological possibility to relevant alternative. I suspect, as did Quine, that this ease of movement is greased by an unwarranted confidence in the power and ontological neutrality of certain experience. If one thinks that certainty provides one with a way to step outside of the limitations of our own perspective thereby discover the ontological irrelevancy of such scenarios, one will be less worried or suspicious about allowing them. Likewise, such scenarios benefit from the feature of our thinking whereby we will find possibilities more probable when we are told a story (or even imagine one) about how those possibilities could come to be. (See for example, Carroll 1978) Thus, we find the possibility of the universal failure of our cognitive systems more probable when we hear a story, even if the story itself is very vague and unlikely.

Turning next to the explanatory and predictive adequacy of skeptical hypotheses. Here again Hume is of help to Quine and myself. The evil demon hypothesis has at least one of the same difficulties raised by Hume in regard to the teleological argument for the existence of a benevolent God, i.e., rational, even if evil, choice always requires explanation via the principle of sufficient reason. Therefore, such explanations only raise more difficult questions for which no obvious answer emerges:

What's up with this evil demon's seeming perpetual obsession with creating false beliefs?!

If the evil demon wishes only to cause false beliefs, why these sensations and regularities as opposed to others?

Why regularities at all?

Why isn't evil better served by totally disorientating us?

How can this omnimalicious being allow for sensations of pleasure and fulfillment?!

I don't consider these questions and objections particularly profound. In a way, that is my point. The sceptic has always considered himself and herself exempt from even superficial requirements of plausibility. Indeed, I would suggest that the notion of conceivable alternative operative in most skeptical arguments is little more than superficial internal consistency. Indeed, I am often struck by philosophy professors who rail against intelligent design in the hallway and then pontificate on the pernicious and inescapable mental prisons of evil demons in the classroom.

As Quine aptly recognizes, these details only come into relief once one steps out of the mind set wherein skeptical hypotheses make no ontological claims and certainty provides one with ontological neutrality/universality. Philosophers either by selection or education seem to me particularly prone to making decisions on the basis of possibilities, the relevance of which are totally unknown. I've often seen philosophers argue that something ought or not ought to be done because of some possible outcome without any consideration as to the likelihood, i.e, relevance of that outcome. "The Dean might not like that," is treated as data in decisions without ever bothering simply to ask the Dean.

My brief list of relevancy considerations is not intended to be complete. However, for my part, I'll move on to worries about circularity. Specifically, I wish to discuss the dual objections made by asking, (2) isn't naturalized epistemology blatantly circular or changing the subject in a blatantly unmotivated manner–maybe even both?

On my reading of Quine does not want to change the subject in the sense that he still recommends the same sorts of epistemological questions still require theorist's attention. Indeed, as I suggested and (Kitcher 2003 greatly elaborates), the orientation of naturalized epistemology is far from uncommon in the history of philosophy. Nor is Quine's suggestion unmotivated. Quine actually sees his position as based upon not merely the failure of Hume and Carnap, but

upon theoretical results in the philosophy of logic and mathematics. Gödel shows that certainty is inadequate to even the most basic of world building.

But what of circularity? How could Quine possibly escape the charge that he is being circular?! There are, I think, two circularity concerns that one might raise for Quine. (1) Does Quine's rejection of external world scepticism amount to nothing more than assuming the external world? (2) Can Quine justify any of his epistemic principles in a manner which is non-circular.

I think that the first concern is relatively straightforward. Quine's answer to the sceptic is not simply that there is an external world. Rather Quine tells readers that the hypothesis of the external world is merely the most relevant of the alternatives available in the project of asking and answering epistemic questions. The move here is a shift from ultimate justification to constrained hypothesis formation: given that we wish to understand the relationship between theory and evidence, and such an understanding requires ontological commitments, which of the ontological commitments available to us seem the most relevant ones upon which to base our further speculation. Science helps one to understand how we might generate a veridical science, so that science contains epistemology. But, epistemology also contains science in that the veridicality of science is thereby explained by epistemology. Such a mutual containment, unlike an externalist (to science) justification, makes the epistemic justification of science relative to a specific ontological context, i.e, the world as described by science. This is less beautiful than the original project, but it is rendered necessary once we understand that there is no stepping out of an ontology either to ask epistemic questions or to answer them. So long as we do not loose sight of the ontological commitments upon which we base our understanding, nor are we indifferent to alternatives as potentially relevant the naturalized epistemologist. There is a circularity here, but it is not dogmatic or question begging. Rather it is a recognition of the hypothetical nature of all of our understanding. To repeat:

> Experience might, tomorrow, take a turn that would justify the sceptic's doubts about external objects. Our success in predicting observations might fall off sharply, and concomitantly with this we might begin to be somewhat successful in basing predictions upon dreams or reveries. At that point we might reasonably doubt our theory of nature in even its broadest outlines. But our doubts would still be immanent, and of a piece with the scientific endeavor. (Quine 1981, p. 475)

The answer to the second question is more problematic. Not simply because it is not clear if Quine can escape circularity, but because Quine is vague in discussing both the methodology of the normative project and in discussing its circularity. For instance, Johnsen (2005) suggests:

> There is no reason to suppose that Quine had any interest whatever in the concept of knowledge, much less that he saw his proposals in "Epistemology Naturalized" as bearing on its proper explication.
>
> As for justification, we have already seen one perfectly adequate explanation for his lack of interest in contemporaneous accounts of it: he thought he had already specified the right account in terms of scientific method. However, there is an equally important, and deeply ironic, point to be made about how he would have viewed externalist accounts of

> it framed in terms of such things as reliable processes and causal relations: he would have faulted them for abandoning the normative in favor of the descriptive. (Johnsen 2005, p. 91)

The standard story I've told above is often given as an answer to both the question about ontological circularity and methodological circularity. However, I'm more inclined to suppose that the story is an inadequate account of what Quine's really up to in justifying principles. Consider the following:

> I am not appealing to Darwinian biology to justify induction. This would be circular, since biological knowledge depends on induction. Rather I am granting the efficacy of induction, and then observing that Darwinian biology, if true, helps explain why induction is as efficacious as it is. (Quine 1975, p.70)

and

> Such speculations would gain, certainly, from experimental investigation of the child's actual learning of language. Experimental findings already available in the literature could perhaps be used to sustain or correct these conjectures at points, and further empirical investigations could be devised. But a speculative approach of the present sort seems required to begin with, in order to isolate just the factual questions that bear on our purposes. For our objective here is still philosophical--a better understanding of the relations between evidence and scientific theory. (Quine 1975, p.78)

and

> For me normative epistemology is a branch of engineering. It is the technology of truth-seeking, or, in a more cautiously epistemological term, prediction. Like any technology, it makes free use of whatever scientific findings may suit its purpose. It draws upon mathematics in computing standard deviation and probable error and in scouting the gambler's fallacy. It draws upon experimental psychology in exposing perceptual illusions, and upon cognitive psychology in scouting wishful thinking. It draws upon neurology and physics, in a general way, in discounting testimony from occult or parapsychological sources. There is no question here of ultimate value, as in morals; it is a matter of efficacy for an ulterior end, truth or prediction. The normative here, as elsewhere in engineering, becomes descriptive when the terminal parameter is expressed. We could say the same of morality if we could view it as aimed at reward in heaven. (Quine 1986, p. 664)

For Quine epistemic principles are hypotheses about how to reach a goal, i.e., truth, in an ontological context. Moreover, one must use such principles. One's epistemic position is a forced choice. Likewise, one must select from those principles available to one. So, the epistemic situation in which one finds oneself is one in which one must choose among principles available to one against a background of a particular ontology with a specific goal in mind, i.e., truth. There are two sources of hypotheses for Quine; humanity has inherited many hypotheses and humanity can speculate with regard to other potential hypotheses. Thus, the motivation for

choosing one principle over another for Quine seems to be largely the same as the motivation for choosing an ontological background: Of the principles available to date, the chosen principle seems better suited to the goal of truth in the world as we understand it. The answer one gives is not immune from doubt, nor is it unrevisable. It is an engineering solution proposed in a specific context for a specific use. If it fails, if it fails to jive with our general understanding of the way in which the world works, if something better comes along, then we must abandon it.

Read in this manner, Quine's comments, I suggest, make better sense. One could rewrite Quine's comments to say something like "Given the world as one's best commitments describe it, Darwin's theory provides inter-theoretic reasons to suppose our forced choice of induction is a reasonable alternative in such a world."

But is this approach, whether Quine's or not, circular in the ways that worry epistemologists? There are two ways in which epistemologists might worry about circularity. Both worries are really worries about begging the question: (1) Rules that prescribe themselves are have no independent means to answer skeptical questions regarding their epistemic virtuosity. To take a concrete case: Suppose the dictates of induction play an ineliminable role in supporting the contention that induction is a reliable inference rule. If one doubts the reliability of induction, appealing exclusively inductive evidence will not answer such doubts. (2) The methodology of using the results of rules to argue for the adoption of rules is an indiscriminate methodology in that it allows for prescriptions of rules far from those that we perceive as epistemically virtuous. Again, suppose the dictates of induction play an ineliminable role in supporting the contention that induction is a reliable inference rule. The prescription in our argument for induction, then begs the question in ways that do not distinguish it from, say, crystal ball gazing. To wit, suppose that the dictates of crystal ball gazing play an ineliminable role in supporting the contention that crystal ball is a reliable inference rule. If crystal ball gazing can prescribe itself in the same manner as induction, surely our reasons for the one can be no better than our reasons for the other. Some expressions of the rationale behind worries about circularity are given below:

> We can see the problem if we assume, for the sake of exposition, that I am justified in a belief on a basis only if this basis answers any legitimate doubt that pertains to the task of justifying the target belief. (Schmitt 2004, pp.379-80)

> Independence Requirement: adducing an argument in support of its conclusion succeeds in supporting the conclusion only if adducing it supports the conclusion (to some degree, at least) independently of support the conclusion receives in any other way (e.g., from adducing other arguments in support of the same conclusion). (Schmitt 2004, p.382)

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