

Liberty University
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REMOVING THE CLASSICAL LANDMARK:
ASSESSING AN EPISTEMOLOGY GOVERNED BY METHODOLOGICAL NATURALISM

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*Do not remove the ancient landmark
which your fathers have set.*

Proverbs 22:28

INTRODUCTION

Statement of Problem

Of the methods vying for use in epistemological inquiry there are two that are most prominent, at least according to one common conception of things. Broadly speaking, these methods are 1) that which is the scientist's standard and 2) that which is the philosopher's standard. There is no question that both methods have been followed in our advancement of knowledge and understanding and are still followed in the literature today. There is disagreement over how the questions of epistemologists are to be tackled, that is, whether via the scientific or philosophical method, or a certain combination of both. If epistemology ought to be the proper focus solely of trained cognitive scientists then epistemology ought to be naturalized.

The broad problem here concerns the proper way of going about finding answers to our most important epistemological questions. There is no obvious method for inquiry into the questions of human knowledge. Whatever methods are to be employed, these methodological concerns are going to be influenced not least by ontological issues referring to the exact target of epistemological investigation, as well as issues pertaining to the goods an epistemology should be expected to deliver. So, before a theory of knowledge is accepted or deemed acceptable, one should wonder both whether the method responsible for the development of that theory is sensible, given the supposed nature of the subject matter, and whether the theory has delivered answers that reach out as far as the questions.

Therefore, in addition to the project geared towards finding answers to the most profound epistemological questions - such as questions concerning the precise nature and scope of knowledge, questions of skepticism, normative questions concerning proper belief formation, etc., there are meta-epistemological questions about the proper way one ought to go about

answering epistemological concerns. This dispute is one that is meta-epistemological and that is about determining the proper means for answering our epistemological questions.

On the epistemological scene, this largely boils down to a dispute between methodological naturalists and methodological non-naturalists, between those who favor especially scientific methods for conducting general inquiry over those who do not. Methodological naturalists minimally hold that the scientific method is in some sense privileged over any other methods of inquiry. If the philosophical or theological or historical methods produce some theory, some tougher-minded methodological naturalists feel no obligation to accept it unless or until they can build it out of science. A good majority of popular scientists are among a wide species of naturalists that hold to methodological naturalism and hence feel that the findings of the philosophers ought not have any purchase on their scientific practices or theories. To these naturalistic folks, there is no first philosophy, no authoritative discipline above science for science but science itself. Science prescribes and evaluates its own methods and should not be held in contempt for failing to fit the mold of some philosophical prescription. Should science come up with descriptions of the world that run up against philosophical commitments, all the worse for those philosophical theories. The question, then, is about who has the corner on epistemological theory building.

This problem is a symptom of a wider conversation concerning the relationship between philosophy and science. Standard fare of methodological naturalism involves a view of traditionally philosophical problems that sees them as either ultimately genial to the scientific method or else pseudo-questions, or questions not deserving of human inquiry because they are incapable of being inquired of. Epistemological questions are no exception to this naturalistic attitude. If knowledge is known to be such and such a kind a thing then it will be science that

tells us so through methods of data collection and theory building from empirical test, not from the likes of conceptual analysis, typically including testing one's intuitions about the proper application of concepts against hypothetical scenarios.¹

However one determines to seek answers regarding epistemological questions, these means will have important implications for the answers he finds. And if knowledge is anything like water, than philosophical methods will at best grant us indirect access to the nature of knowledge itself and thus an incomplete or inaccurate understanding of its nature.²

Statement of Purpose

This paper proposes to assess the naturalist project in epistemology with an eye towards exposing the project as deficient for serving as a robust epistemological project. Epistemologists treasure a certain family of questions and burden themselves with a number of specific concerns the most important of which, I think, cannot be answered by the epistemological naturalist. Ignoring these questions, I will argue, essentially amounts to a dismissal of the principle tension that primarily motivates and properly guides epistemological theorizing. This tension is the familiar appearance vs. reality distinction and characterizes what I am calling the classical

¹ The problem at issue may be further clarified through a quick illustration. For instance, say a group of pilgrims approached a group of native Americans and asked them to conduct a study of the nature of water. Additionally, the pilgrims ask the native Americans to do this following a method akin to the standard philosophical method of conceptual analysis and reflection upon intuitions. These natives proceed to sit in a circle and, through introspection and discussion, attempt to get straight just what their concept of water consists of. They may come up with a list of necessary and sufficient conditions a thing must satisfy for it to count as an instance of water. Such a list may include wetness, transparency, coolness, odorlessness, tastelessness, useful for bathing, useful for drinking, useful for cleaning, etc; all these qualities consistent with a typical naive conception of water. But search their concepts of water as long as they may, they would never come upon the idea that water is two parts hydrogen and one part oxygen, or how it may behave in association with other elements, or in other environments, or how one might distinguish water from other similar but differing substances on the basis of more than mere appearance. The natives would not acquire this deeper knowledge without empirical interaction with the world using something akin to the scientific method. In other words, conceptual analysis and reflection upon one's intuitions about hypothetical cases, the standard philosophical practice, is not the way to go about studying the nature of water, at least if one is bent on getting at the thing directly. In this case, if conceptual analysis were exclusively followed, the native's final understanding of the nature of water will remain entirely minimal and incomplete; at worse incorrect.

² This is what Hilary Kornblith argues in his Hilary Kornblith, "Why Should We Care about the Concept of Knowledge?," *Episteme* 8.1 (2011): 38-52.

landmark or boundary-stone for epistemological theorizing. I will defend the claim that a full replacement of the traditional/classical epistemological project by a naturalized epistemology closes epistemology off from making important claims needed in a theory of *human* knowledge and, for that reason, a full replacement should be resisted. These claims that an epistemology should be expected to make issue from what I call the classical landmark for epistemological inquiry. Naturalist's effectively ignore this landmark and I caution them in the spirit of the proverb to not "remove the ancient landmark which your fathers have set (Proverbs 22:28).

The paper will begin by broadly characterizing naturalized epistemology, illuminating those key theses or convictions that are its central ingredients. I'll take my cues here from what I believe to be the kind of epistemology motivated by Quine, Kornblith, and Kitcher. I will then discuss the motivation for the naturalization of epistemology, explicating what I believe to be the most important and persuasive arguments for the position. This will involve both a negative case for a naturalization involving critiques of more standard non-naturalistic epistemological approaches, and a positive case for a naturalization involving arguments from other corners of inquiry. An assessment of the merits of the arguments contained in these two cases will be saved for a latter portion of the paper. Next, I will give naturalized epistemology the fairest shake I can by showing the prospects of the naturalistic strategy for delivering the kinds of goods that we would expect from an epistemology. For instance, there is a clear sense, I think, in which such a naturalistic project may be thought to be normative and prescriptive in function, contrary to Jaegwon Kim.³ In the last section, I will assess a naturalized epistemology in light of what I think should be expected from any epistemology that claims to bear the name. I will argue that a naturalized epistemology cannot, as Hilary Kornblith thinks, address all the legitimate

³ Jaegwon Kim, "What is 'naturalized epistemology'?" Edited by J.E. Tomberlin, *Philosophical Perspective 2: Epistemology* (Atascadero/CA, Ridgeview Publishing Co., 1988), pp. 381-405.

epistemological questions such that there is nothing left for more traditional approaches to deal with.⁴ There remains, I think, much that is wanting in a full naturalization by way of what an epistemology should be able to *say* to meet the individual at the level of his human condition. In this last section, I will put into proper perspective those comments I made in the preceding two sections, pulling the threads of the discussion together to illuminate my primary contention. I will conclude that an epistemology must crucially involve appeals to a priori justification and that therefor standard non-naturalist methods of philosophical analysis have an important and autonomous role for human inquiry.

Statement of the Importance of the Problem

Whether or not to naturalize epistemology is importantly consequential for how we understand the relationship between the sciences and philosophy. The results of this debate between the epistemological naturalist and non-naturalist will bear significantly on naturalism generally, especially insofar as certain species of naturalism anticipate the full replacement of traditionally philosophical practice with scientific practices and in so far as naturalists believe that all philosophical questions are scientific questions in disguise. In other words, whether or not the natural epistemological project is judged positively as a way of doing epistemology will influence how science is viewed generally in terms of its overall competency to address the full array of human concerns. On the flip side of the issue, the outcome of this discussion also has tremendous import for what is thought to be the autonomy of philosophy. Do philosophers have for themselves particular questions the answers to which are accessible via their privileged methods alone? The resolution to this problem will influence how scientists, as well as philosophers, view their discipline in the grand scheme of things. My view is that the classical landmark for epistemology represents a philosophical issue that, to my mind, is irreducibly

⁴ Hilary Kornblith, "Naturalistic Epistemology and its Critics," *Philosophical Topics* 23.1 (1995): 249.

philosophical. This is to say that I think epistemology is to retain a certain shape for itself and maintain a certain group of questions which demand out of the human condition that something be said of them. To my mind the naturalist's theoretical utopia will never be realized as certain irreducibly philosophical questions remain outside the reach of the scientific method.

Secondly, the accepted view on these issues will have no small effect on the academy as a disseminator of knowledge. For, at least as far as epistemology is concerned, the methods one uses will affect the determined nature and thus extent of knowledge; and what one can be said to know matters a great deal, after all. Those things that are thought to be unknown will not be filtered down through the academy to the general public. Relatedly, the results of this debate will also bear importantly on the scope of knowledge and the right strategies for acquiring new knowledge. Thoughtful people are prone to ask themselves: what is the horizon of my knowledge and how may I push it out further? Depending upon the going theory of knowledge, with its associated list of criteria for epistemically respectable belief, there will be certain propositions that will be deemed to lie either within or outside the grasp of human knowers.⁵

⁵ An enlightening example on the bearing of naturalism in epistemological matters relating to the scope of knowledge is found in the philosophy of religion. A great many people, philosophers included, suspect that they know that God exists, and this on the basis of an epistemological evidentialism that regards as sufficient for knowledge evidence and reasoned argument from other beliefs one knows. Depending on one's views about the conditions for justification or warrant or whatever, certain perceived a priori justified propositions may be considered unreliable as guides to the truth because they are in fact unjustified.. William Lane Craig defends an argument for God's existence that rests on intuitively based a priori assumptions about the nature of time, infinity, and causality such that, assuming these principles are sound or likely to be true, one can know deductively of a solid reason to think that God exists; namely, that the universe had some external transcendent cause for its existence.⁵

But, if a naturalized epistemology is the arbiter of those propositions one is justified or warranted to believe, then no one can know a thing like the universe has some cause outside itself on the basis of those premises offered by Craig. After all, these premises are claimed to be known through cognitive mechanisms unsubstantiated by science. If such a thing like this is to be known on Craig's given premises, science will discover it through hard empirical work or else it will license those a priori cognitive faculties Craig's argument relies upon through neurological or psychological analysis of the functioning of brain states. But surely Craig's philosophical argument to his synthetic claim jumps way ahead of what the current science can license by way of justification conferring premises.

So, as this short example illustrates, the way epistemology ought to be practiced affects the beliefs epistemology licenses which in turn determine the proper scope of knowledge. Surely whether or not one can be said to know that God exists is no uninteresting fact, as are other possible knowledge items that are much contested over.

Statement of Position

As indicated above, I hold to a certain autonomy of philosophy, insisting that there are aspects of the philosophical method that are deserving of preservation for the long haul. I think the autonomy of the philosophical method deserves its autonomy given the nature of the questions humans ask themselves, specifically epistemological questions. If to naturalize epistemology is to bring it entirely under the domain of the scientific method then such a notion is a very bad idea. For, such move means a disrespecting of the classical landmark for epistemological inquiry, resulting in what will be an irredeemably stale and shallow epistemology that fails to rise to the level of human experience. Epistemology takes on a distinct flavor when it is naturalized, robbing itself of the very taste of what should be expected out of an epistemology, which is, minimally, a noticeable wrestling with the appearance vs. reality problem/tension. My argument is rather abductive in character. I argue that epistemologists must be able to tell themselves a certain story that they cannot tell themselves if epistemology is thoroughly naturalized, but which they can tell themselves if epistemology remains sufficiently philosophical. The naturalistic strategy for naturalizing epistemology will fail, in principle, to deliver the goods an epistemology requires. Such a move fails to provide an important necessary condition for an acceptable epistemological theory.

Limitations

While this paper will occasionally refer to notions of naturalism, a priori, conceptual analysis, and philosophical method, no space will be given in treatment of these issues in detail. These issues will be parsed out for application only in so far as these lend to a better understanding of my argument for the deficiency of naturalized epistemology.

The results of this push to naturalize epistemology, then, have tremendous implications that seep into every area of inquiry, in so far as those inquiries see themselves as providing knowledge.

Thesis Statement

The arguments thought to be most forceful for a thorough naturalization of epistemology rest upon assumptions regarding the proper character of an epistemology that ultimately betray or fail to take seriously those problems that gave rise to the discipline in the first place, such that if such an epistemological replacement took place, the resulting epistemology would be too shallow for serious epistemological concerns.

As indicated in the title of this work, there is something of a boundary stone or classical landmark that epistemology has kept for itself in guiding its inquiries into the possibility, nature and extent of knowledge. This classical landmark takes the form of distinctly human concerns that must be taken seriously if epistemology is to retain its defining focus and character. Ignore these concerns, or banish them to the philosophical Alcatraz of pesky pseudo-questions, then epistemology is unanchored and adrift, resulting in a serious skepticism for reflective human beings. The results of a naturalization of epistemology along the lines of a program sketched by such figures as Kornblith, Kitcher, and Quine, would, in effect, remove this classical landmark, leaving epistemology bereft of its defining function and out to sea in skepticism.

REASONS TO PREFER NATURALIZED EPISTEMOLOGY OVER TRADITIONAL EPISTEMOLOGY OR GETTING UNDER THE MOTIVATION TO NATURALIZE EPISTEMOLOGY

It will be at the outset beneficial to have before us a working concept of a naturalized epistemology so as to best appreciate its motivational threads. Having formulated such a notion, this section will then provide an account of what I believe to be the elements that make up the central core of the negative case to naturalize epistemology. This negative case is negative in that

it tries to sabotage the traditional epistemological practice from within by means of pointing out areas of incompetence. If this traditional characteristically non-naturalistic approach to analyzing epistemological questions has or is failed, then a new approach is needed. In so far as a naturalistic approach is the only remaining serious contender in the market of approaches, reasons to disparage of traditional non-naturalistic approaches will serve, albeit indirectly, as motivations to naturalize epistemology. This negative case works by holding the traditional epistemologist to account for his underachieving of his own epistemological goals. These goals are valued by all and so, thinks the naturalist, should the traditional philosophical non-naturalist fail to deliver, then he should, in a word, “be sent out to pasture.”⁶ Then, a positive case for the naturalization project will be developed, involving arguments from both science and epistemological externalism. At the end, these arguments for naturalizing epistemology will reveal what I take to be its two most distinguishing earmarks- the disparaging of conceptual analysis and general distrust of a priori methods.

Naturalized Epistemology

A working conception of a naturalized epistemology is not so hard to pin down. A naturalist, among many other qualifications, takes his cue from the empirical sciences; that is to say, he in some sense trusts the propositional deliverances of the sciences above all other sources of or means of acquiring putative knowledge, including our knowledge of knowledge itself. These are earmarks of methodological naturalism, that facet of wider naturalism that implies that epistemology be naturalized. The methodological naturalist is very skeptical about what man may be able to cook up by way of theory apart from experimental interaction with the world. Just these few remarks have profound and far-reaching implications for epistemology.

⁶ Laurence Bonjour, “Kornblith on Knowledge and Epistemology,” *Philosophical Studies* 127 (2006): 335.

This in mind, to naturalize epistemology is, first off, to bring the discipline under the umbrella of the natural sciences. It is to treat its questions, concerns, interests, and projects as answerable from a naturalistic methodology (as opposed to some a priori methodology of conceptual analysis and eliciting of intuitions). Hilary Kornblith, a contemporary champion of the push to naturalize epistemology, writes in this connection:

“...the subject matter of epistemology is knowledge itself, not our concept of knowledge...I will not...be comparing my account of knowledge with my intuitions about various imaginary cases; I will not be considering whether we would be inclined to say that someone does or does not have knowledge in various circumstances. I do not believe that our intuitions, or our inclinations to say various things, should carry a great deal of weight in philosophical matters.”⁷

Here is a clear repudiation of the traditional philosophical method all too typical of the naturalist attitude. Elsewhere, Kornblith comments on what he believes to be naturalistic epistemology in a phrase: “I take the naturalistic approach to epistemology to consist in this: ...Descriptive questions about belief acquisition have an important bearing on normative questions about belief acquisition.”⁸ One wonders, however, whether Kornblith’s sentiment here is actually much stronger; for consider this comment from another work: “...the very important task of evaluating our processes of belief acquisition, and recommending correctives, can *only* be successfully performed by way of psychological investigation” (emphasis mine).⁹ This suggests that not only do descriptive questions about belief acquisition bear importantly on normative questions, but that our normative concerns ought to be treated exclusively by descriptive facts.

⁷ Hilary Kornblith, *Knowledge and Its Place in Nature* (New York: Oxford, 2002), 1-2.

⁸ Hilary Kornblith, “Introduction: What is Naturalistic Epistemology?” Edited by Hilary Kornblith, *Naturalizing Epistemology*, (London: The MIT press, 1985), 1-15.

⁹ Hilary Kornblith, *Inductive Inference and Its Natural Ground* (London: the MIT Press, 1993), 4.

James Maffie writes that “naturalists are united by a shared commitment to the continuity of epistemology and science.”¹⁰ A naturalized epistemology is committed to making all epistemic terms scientifically acceptable, and purports to be competent to best answer all epistemologically significant questions. Above all, the natural epistemologist views the discipline as amenable to scientific practice, suggesting for itself only those questions to which science can lend answers.

The Negative Case:

An Overview of the Problems Associated with Traditional A Priori Epistemological Investigations.

Quine’s Primary Complaint

It seems any accounting of the motivations behind the naturalist project in epistemology must begin with W.V.O. Quine. Minding Kornblith’s note¹¹ that Quine cannot be held wholly responsible for the full effects of what he initiated, nevertheless, Quine’s work may still be mined for better understanding prevailing motivations for the naturalist project in epistemology. While a broader review of Quine’s works would afford a more complete picture of his sentiments on the matter, this brief survey of Quinian insights will be contained to his famous *Epistemology Naturalized*¹² and *The Two Dogmas of Empiricism*.¹³

Given where he thought the traditional epistemological enterprise to be going, Quine called for a new management of sorts. Epistemologists had not achieved what they set out to

¹⁰ James Maffie, “Recent Work on Naturalized Epistemology,” *American Philosophical Quarterly*, 27.4 (1990): 281.

¹¹ Kornblith, *Inductive Inference and Its Natural Ground*, 1.

¹² W.V.O. Quine, “Epistemology Naturalized,” Edited by Sven Bernecker and Fred Dretske, *Knowledge* (New York: Oxford, 2009), 266-278.

¹³ W.V.O. Quine, “Two Dogmas of Empiricism” Edited by Martin Curd & J.A. Cover, *Philosophy of Science* (New York: Norton, 1998), 280-301.

accomplish, and the prospects of their future success were not any more optimistic. In other words, the traditional or classical epistemological program was considered sterile and a failure. In so far as epistemological questions are still deserving of focus, then, these need to be approached differently. Besides the philosophical approach there is only one other game in town for attacking epistemological questions: the naturalistic or scientific method.

Speaking about epistemology governed by philosophical method, Quine notes that from the doctrinal studies (that aspect of epistemology that treats justification or warrant) “ideally...the proofs would generate all the theorems from self-evident truths....and [the doctrinal side] means justifying our knowledge of truths of nature in sensory terms.”¹⁴ Quine speaks of traditional epistemologists seeking *certainty* and *obviousness* with respect the propositions (or sentences) at the foundations of theories. In so far as certainty or obviousness is required here, Quine feels that Hume took the seeker after these things as far as one can. If anything can be known with certainty, it is the sentences containing the sensory stimuli one is conscious of at some particular moment- not about some enduring object those sensory stimuli are supposed to represent. The moment we infer from these appearances to an external enduring object we are beyond the realm of certainty. This is the Humean problem, which Quine calls the human problem; and he for one sees no solution to this human problem to emerge from traditional epistemology. In keeping with the epistemic demand for certainty, Quine thinks that to derive as one would a mathematical proof one’s total theory from observation sentences is hopeless and a lost cause.¹⁵

It is in light of this apparently failed Cartesian program of justifying theory from some foundational belief set that principally motivates Quine in his naturalization of epistemology- at

¹⁴ Quine, “Epistemology Naturalized,” 260.

¹⁵ Ibid., 272.

least so far as his *Epistemology Naturalized* indicates. His more broad naturalist convictions may be said to issue from his repudiation of what he terms the two dogmas of empiricism. Convinced that there is no real sense to be made of the analytic/synthetic distinction, Quine readily denies that any sentences may be justified a priori, that all sentences ultimately face the tribunal of experience, and that “no statement is immune to revision.”¹⁶ This is largely a critique of philosophical practice in general and lies just outside our main focus (that being the competency of specifically philosophical epistemology, rather than philosophy in general). But the negative critique outlined so far involves doubts about the classical Cartesian project to accomplish its own goals.

Complaints Against Internalism and Accessibility Requirements

In his *Knowledge and its Place in Nature*,¹⁷ Hilary Kornblith argues along a different line against the traditional Cartesian program, particularly with respect to its assumed internalist constraints. One critique is largely influenced by pragmatic concerns, pointing out that classical internalist programs - such as foundationalism and coherentism - fail to be applicable by human persons seeking epistemic advice. Regardless of whether the foundationalist is able to meet his own justificatory criteria for non-foundational beliefs, as Quine doubts he can, Kornblith argues that, on internalist pictures, the nature or character of knowledge is so construed that, should the internalist be right about knowledge, no one hardly knows anything at all.

Here, Kornblith is attacking internalist theories from the inside. Characteristic of internalist theories of knowledge and justification is the applicability constraint: that whatever the rules or criteria for justifiedness are, those rules ought to be recognizable as such and

¹⁶ Quine, “Two Dogmas of Empiricism,” 297.

¹⁷ Kornblith, *Knowledge and Its Place in Nature*.

applicable by rational agents.¹⁸ The argument goes, internalist programs bury themselves in that they cannot accomplish in practice what they prescribe in theory. Foundationalist and coherentist accounts of knowledge must require, argue's Kornblith, that the subject essentially be aware of the sum total of her beliefs in order that she be justified on any occasion. This is clearly the case for coherentism. Such a theory prescribes for justification that a belief cohere or hang together in some specified way with one's entire noetic structure. If the accessibility constraint is true, this entails that one be aware of the sum total of her beliefs whenever she is justified in believing one of them. As for foundationalist theories, it is not enough for justification that a belief be either properly basic or else properly related to such beliefs. The agent must also be aware of any background information she has that might undermine the prima facie justification she has upon first consideration. But to be aware of any relevant background information would entail that the subject be aware of the sum total of her beliefs as the coherentist account demands. In other words, the epistemic advice offered by internalists is such that either the advice is correct and the applicability constraint is false, or the applicability constraint is true and internalist accounts of the criterion for knowledge are false - either way one is left with bad advice.

A second argument Kornblith expounds quite forcefully against internalist accounts derives from supposed liabilities of introspection. Studies in human psychology reveals that subjects are wholly incapable, at times, to recognize cognitive mishaps in belief formation, thereby throwing into question the internalist's privileged faculty of introspection (especially in so far as this faculty is supposed to lead one away from believing falsehoods). In so far, then, as epistemologists are expected to provide some measure of epistemic advice that is useful for

¹⁸ See Kornblith's development in Hilary Kornblith, "The Psychological Turn," *Australasian Journal of Philosophy*, 60.3 (1982): 240.

humans in directing their belief formation, internalist programs, with all their dependence on introspection, are deficient.

Moreover, thinks Kornblith, introspection is doubly damned. For psychoanalysts report that when subjects introspect to determine the quality of their beliefs, not only are these subjects incapable of locating cognitive mishaps in belief formation, but they emerge from their introspection more confident about the truthfulness of those malformed beliefs than before introspecting. In other words, after having introspected, the subjects have further dug themselves into a dubious hole, emerging from introspection more confident about beliefs that are likely false. In this regard, Kornblith argues that introspection is not only unhelpful for determining erroneously formed beliefs, but it is harmful or counter-productive in one's search for the truth.

Now to what extent do these critiques of internalism motivate naturalized epistemology? A naturalistic epistemology is thoroughly externalistic. Given the naturalists's convictions regarding the nature of the target of epistemological investigation - its being a natural kind - however precisely knowledge and justification are going to be characterized, our understanding of these targets on naturalism is going to involve mental states and cognitive processes of a kind that science can work with. Science cannot work with subjective phenomenological appearances or seemings (the sorts of things internalist accounts value). Science may be able to describe the casual relationships involved in the psychological process of some subject coming to believe q on the basis of his beliefs p and *if p then q* ; but science cannot get at, it seems, the phenomenology involved in one seeing that *if p then q* and p , then, necessarily, q . If beliefs are justified solely in virtue of features of which the conscious subject is aware, then naturalists cannot hope to answer these epistemological questions via their preferred methods. In so far, then, that internalist accounts of knowledge and justification seem wrong-headed, naturalists

seem to be in a good position because the features in virtue of which knowledge obtains do not appear to be phenomenological states of subjects.

The Positive Case:

Reasons to Think Methodological Naturalism Has Better Hope for Answering Epistemic Questions.

Science Indicates that Knowledge is a Natural Kind.

An epistemology governed by methodological naturalism is a fantastic idea if knowledge is to be properly conceived of as solely a natural kind. Therefore, if there are good reasons to think that the subject matter of epistemology is nothing more extravagant than a natural kind, then these will be good reasons to naturalize the discipline. This is just what the naturalist is convinced of: knowledge is not some socially constructed notion devised for pragmatic ends, it is not some abstract platonic entity that has its nature across every possible world, nor is it reducible to some shared social concept. Rather, knowledge is a category in nature and thus a natural phenomena that can be assessed and characterized via empirical methods just as items of iron and water molecules are. In this connection Kornblith states, “I am assuming there is a single phenomenon here to be studied, that [certain] clear-cut cases of knowledge constitute a natural kind and not some grue-like hodgepodge...”¹⁹ Knowledge is nothing more a natural kind, of the same ontological category as atoms, lipids, trees, and clouds.

But where does this idea come from, that knowledge is a natural kind? It is through the sciences, specifically cognitive ethology, that suggest that the target of epistemology is to be viewed as a natural kind. Kornblith has done groundbreaking work in this area in his book *Knowledge and Its Place in Nature*, a work we’ve already alluded to. As it turns out, and this is taken right from Kornblith, knowledge as a natural category does excellent explanatory work in

¹⁹ Kornblith, “Naturalistic Epistemology and its Critics,” 244.

cognitive ethology. Scientists observe various types of animals as they behave in their environments. In seeking to make sense of the many discordant visual phenomena of animal behavior - including animal moving, flapping, running, turning, eating, etc - ethologists posit this category of knowledge to effectively unify these otherwise discrepant data and to make successful predictions. Considering that the biological and evolutionary sciences also suggest a conception of human beings as being no different in kind from other non-human animals, these scientists conclude that the two groups know and do not know along the same grade of criteria. It is in this way that the natural epistemologist thinks himself correct in his scientific approach to questions of knowledge, for knowledge itself is just another feature of the natural world to be fully articulated, in time, by the sciences.

But if knowledge is thus conceived, how effective will the traditional epistemological program be in discovering the nature of knowledge. No one thinks it a good idea for geologists to go about their discipline a priori, via conceptual analysis and testing of intuition. Kornblith cautions, “One may... acquire [a] concept when one is almost entirely ignorant of the features of the thing it is a concept of, or, alternatively, when one has utterly mistaken beliefs about that thing.”²⁰ If knowledge is indeed a natural kind should one not care more about getting at the thing itself rather than one’s concept of the thing? Surely this is right. If molecular biologists all but sat around and inquired of their concepts of bacterial viruses very few diseases would now have their cures. It is known that water consists of two parts hydrogen and one part oxygen not because a group of philosophers of water sat down and pondered their ideas of water, but because chemists have gone out and done the hard empirical work in the world.

²⁰ Kornblith, “Why Should We Care About The Concept of Knowledge?” 42.

So science seems to indicate that knowledge is a natural kind. In so far as there is good reason to think knowledge ought to be characterized in this way, there is good reason to do epistemology exclusively from the perspective of the cognitive sciences.

Plausibility of Externalist Notions in Epistemology:

Promoting Naturalization from Externalism or Arguing From the Inside Out

Naturalized epistemology implies externalism with respect to knowledge and justification. If internalism were true, then epistemically significant features of our beliefs would be inaccessible to the scientific method, making it very difficult to see how a naturalization of the discipline would be a help. Perhaps, though, this may be doubted. Does naturalized epistemology entail externalism? It is possible that psychologists may one day discover that whenever subjects reflect on their beliefs critically, according to some specified internalist criteria, they more often than not hit on the truth. But even in this possible case, although subjects are able to arrive at the truth consistently by providing for themselves evidences of their beliefs in this way, it will not be in *virtue of those evidences* that the beliefs are probably true, but in virtue of the scientifically respectable causal relations between the brain states responsible for those beliefs. The resulting internally accessible evidences would be a mere psychological throw-off of these causal processes, having no important epistemological bearing. So, naturalized epistemologists are eager to find out that externalism is true. While an externalist need not be an epistemological naturalist, the naturalist does need some way of conceiving of knowledge that makes the subject amenable to the scientific method. I see an argument to naturalize epistemology not only from outside the standard epistemological tradition, as sketched above, but also from within.

It seems that epistemology even operating under traditional philosophical methods hints towards a naturalization of the discipline. This may be conceived as an argument from the inside out. This argument in favor of the naturalization project may proceed from observed trends within traditional epistemology to the conclusion that we must conceive of the nature of epistemology's subject matter differently; and thus those former traditional ways of doing epistemology are wrong-headed. This leads to the idea that one ought to move 'out' into a naturalist frame of mind. Let me develop this just a little further.

Consider this familiar story in the epistemological literature. Inspired by Gettier problems²¹, Alvin Goldman²² began writing about knowledge as a function of some right relation or connection of the belief with the fact that makes the belief true. Clearly Smith does not know that Jones owns a ford or Brown is in Barcelona if the fact that makes Smith's belief true has nothing to do whatsoever with the origin of Smith's belief. This was an insight triggered by Gettier and appreciated by his contemporaries via traditional philosophical analysis. Gettier proceeded here along traditional philosophical lines, proposing a hypothetical case for consideration to illicit other's intuitions about whether or not such a case was an instance of the concept of knowledge. The resounding response was negative, thus suggesting a needed revision of the standard JTB model of knowledge (for such an account did not encapsulate sufficient conditions for knowledge).

This is because, says the externalist, knowledge is not a mere matter of one correctly handling and interpreting information downstream from experience. Additionally, things must be going right behind the curtain of phenomenal awareness. Despite how things may appear

²¹ Edmund L. Gettier, "Is Justified True Belief Knowledge?" Edited by Sven Bernecker and Fred Dretske, *Knowledge* (New York: Oxford, 2009), 13-15.

²² Alvin Goldman, "What is Justified Belief?" Edited by G.S. Pappas, *Justification and Knowledge* (Holland: D. Reidel Publishing, 1979), 1-23.

phenomenally to the subject the right kinds of causal connections must be taking place behind the scenes. Smith's possibly knowing that either Jones owns a Ford or Brown is in Barcelona is not a matter of Smith proportioning his belief to the evidence he has, for the evidence may only be accidentally reliable. In addition, right relations must be obtaining outside Smith's conscious awareness.

So, through the testing of intuitions about the proper application of the concept of knowledge, it was figured that justification, conceived solely internalistically, was not sufficient together with true belief for knowledge. Within the context of the fight to save notions of justification from Gettier problems, externalist notions of knowledge and justification gained popularity. Why think, after all, that the cognizer must be aware of the features of his beliefs in virtue of which those beliefs are instances of knowledge to know something? Instances of cell death happen all the time to cognizers without them being aware of the features in virtue of which they are such instances, but this doesn't mean they do not occur. One wonders why instances of knowledge must be so peculiar in this way, that one should have all this special introspective access into its features.

It is thus that a motivation to naturalize epistemology - to characterize epistemic terms in a fashion that is scientifically respectable - may arise from epistemology traditionally conceived, governed by traditional philosophical methods of reflection and conceptual analysis. It seems that *traditional epistemologists, through their own methods, have come upon good reasons to abandon those very methods themselves*. This is because, within the traditional epistemological camp, epistemologists such as Goldman, Dretske, Armstrong, and others have found that knowledge, the thing in itself, must be something quite different from what our methods were first designed to inquire of. Knowledge does not obtain with the conscious awareness of specific

phenomenological features or certain characteristics of internally accessible mental states, but with certain right causal-nomological relations among psychological brain states. And this is discovered, arguably, by adopting traditional epistemologist's own rules of play.

Alvin Goldman is, in fact, a shining example of one adopting an externalist account of knowledge and justification from within the non-naturalist fold. Kornblith writes concerning Goldman: "Although Goldman was engaging in conceptual analysis, and in that respect was very much in tune with epistemologists of the sixties and seventies who had no sympathy whatsoever with naturalism, his proposed analyses of knowledge and justification nevertheless marked a radical break with tradition."²³ It is by the standard philosophical method that Goldman thinks it right that however precisely knowledge is to be characterized in the end, it is at least reliably produced true belief²⁴ (indeed, Kornblith adopts Goldmanian reliabilism wholesale). In testing one's intuitions about the kind of thing knowledge must be, it seems that the crucial ingredient of knowledge must not consist solely in any subjects phenomenological evidence base or logical relations among or between believes one already believes, but also in the proper functioning of cognitive mechanisms successfully aimed at true belief.²⁵ But if this is the ontology of knowledge, then epistemologists have good reason to naturalize their discipline.

Conceptual Analysis: Concepts of Things Do Not Get Us at the Reality of Things

Unimportance of Concepts for Science

These two above mentioned arguments motivate a more general complaint concerning the function of concepts in epistemological inquiry. The above two arguments from science and

²³ Kornblith, "Naturalistic Epistemology and its Critics," 241.

²⁴ Alvin Goldman. *Epistemology and Cognition*. (New York: Harvard University Press, 1986).

²⁵ To borrow a phrase from Alvin Plantinga; see Alvin Plantinga, *Warrant and Proper Function* (New York: Oxford, 1993).

philosophy suggest that knowledge is a natural kind. The natural epistemologist critiques the traditional methods of epistemological inquiry because these latter methods are thought to be ill suited for the *target* of inquiry as a natural kind. If knowledge is reducible to a natural kind, one wonders how helpful an analysis of *one's concepts of knowledge* are for determining the nature of the thing those concepts are about. Does it not make better sense to study the thing itself, rather than our concepts of the thing? Kornblith ought to be quoted at length here, as this sentiment about knowledge being a natural kind is so integral to understanding his broader epistemological convictions. He writes,

“Analyzing our concept of knowledge, to the extent that we can make sense of such a project, is no more useful than analyzing the ordinary concept of, say, aluminum. The ordinary concept of aluminum is of little interest for two reasons. First, most people are largely ignorant of what makes aluminum the kind of stuff it is, and so their concept of aluminum will tell us little about the stuff itself. Second, most people have many misconceptions about aluminum, and so their concepts of aluminum will reflect this misinformation as well....[P]recisely because this concept is as much a reflection of ignorance and misinformation as it is a reflection of anything about aluminum, those who have an interest in aluminum are ill-advised to study our concept of it.”²⁶

In other words, scientists do not go after their concepts in doing science (nor should they), but they go after the world. But human knowers are a part of that world! Whether or not humans have knowledge, and if so, what sort of a thing it is, are just as much questions for science as are questions about whether or not bosons or mesons exist.

So for instance, concerning the question of the very existence of knowledge natural epistemologists have a ready answer from science. Given the emphasis on conceptual analysis the naturalist thinks strange the ordinary way that non-natural epistemologists have gone about explaining the existence of knowledge or defending an anti-skeptical position. From the naturalist's position, the more traditional philosophical epistemologist may be viewed as giving a

²⁶ Kornblith, “Naturalistic Epistemology and its Critics,” 243.

kind of strange *ontological argument for the existence of knowledge*. To make clear the naturalist's point let us use an analogue from natural theology.

Ontological Argument for the Existence of Knowledge

Within natural theology there exists a peculiar argument for the existence of God, termed by Kant the ontological argument. Arguments of this species purport to proceed from premises entirely independent of experience to the conclusion God exists. Proponents of these arguments apparently think a concept quite a powerful thing, or at least the concept of God; for from such a shy thing as a concept the existence in reality of the greatest conceivable being is purportedly demonstrated. Arguments of this type have met resistance from philosophers who expect any synthetic claim to be rooted, or grounded, or founded in, or in some other way produced by one's experience of the world. One cannot merely chase ideas into existence. In other words, these people say that concepts in the mind can be properly said to refer, or to have some object in reality answering back to them, only after we have done the hard work in the world, and outside of our heads, to discover them.²⁷

There are important similarities here between the naturalist's critique of traditional philosophical epistemology and the ontological argument for God's existence. In appreciating these similarities, one can better understand a key motivation for naturalizing epistemology. In understanding the principle reason motivating the majority of philosophers to reject natural theology's ontological argument, the push to naturalize epistemology becomes more palatable. It was hinted above that the ontological argument might be characterized, albeit crudely, as chasing ideas into existence, and for such reasons the argument may be considered inert. We should look to see if the traditional armchair epistemologists, those proceeding in epistemology via

²⁷ I will here forgo any discussion concerning the ontological status of logical or mathematical truths.

conceptual analysis and introspection, likewise chase concepts into reality; and then ask whether this is appropriate or helpful for epistemological purposes.

Natural theology takes God for its object of study, and wonders, among other things, about whether or not he exists, his putative nature, and what his possible relation to creation might be. In keeping with the same descriptive grid, epistemology has for its object of study knowledge; its nature, extent, and whether it exists being those issues appropriate for its inquiry.

This last issue about whether or not knowledge exists is best understood as the problem of skepticism. To answer the skeptic optimistically amounts to an affirmation of the claim that knowledge exists (to at least some extent); that in some cases, under some circumstances, and at some times, a subject can be said to know some proposition *p*.

But the thinking person wonders, to borrow a phrase from Ayer²⁸, what gives one the right to be sure about this optimistic claim concerning knowledge, and just what such an optimistic claim amounts to. To take the latter question first, the claim amounts to the straightforward assertion that knowledge exists. This is an existential claim with respect to knowledge. This is all very agreeable so far. Now the question becomes, and a meaningful question at that, how do we know such a thing; or what gives one the right to be sure that knowledge obtains in our world? In other words, how do we know that we know? What justifies one in believing the non-skeptical thesis?

The traditional way one goes about answering the epistemological skeptic follows a method that is a priori and from the armchair via conceptual analysis. According to this method, one knows she can know without any recourse to her empirical experience of the world. To put it crudely, she noticed in her concept of knowledge, or drew up from within that concept, among

²⁸ A.J. Ayer, "Knowing As Having The Right To Be Sure," Edited by Michael Huemer and Robert Audi, *Epistemology* (New York: Routledge, 2002), 440-42.

other properties, existence in reality. Kornblith repudiates the non-naturalist strategy for answering skeptical concerns:

“...answering the skeptic, has now been trivialized, because we are endorsing an account of knowledge in virtue of the very fact that it permits a response to skepticism. The ability to reject skepticism is not so much an interesting result...it is instead something we have built in from the beginning, a constraint on what we would even count as an adequate account of knowledge.”²⁹

Now, remembering the method according to which the proponent of the ontological argument argues for the existence of God, the thing to see here is: it appears the armchair epistemologist has defined his subject into existence in much the same way as the proponent of the ontological argument is often accused of doing with respect to the existence of God.³⁰

Is there a kind of ontological argument for the existence of knowledge? Is knowledge the kind of thing that, if it existed, its very existence would impinge itself upon our awareness such that we could determine its existence from introspection and reflection upon mental states alone? The naturalist does not think so. He argues that one’s ontology ought to be built out of empirical interaction with the world. If knowledge exists, and skepticism is false, science should tell us; just as if God exists, and atheism is false, science should tell us so. Chasing concepts around will tell us nothing significant about the contingent features of the actual world. Because philosophical methods typically proceed in this fashion - from one’s armchair, so to speak, and involving the probing of one’s concepts - these methods are characterized as a priori. This then suggests another earmark of naturalized epistemology, a general distrust of a priori methods for serious inquiry.

²⁹ Hilary Kornblith, “Naturalistic Epistemology and its Critics,” 239.

³⁰ As anyone familiar with the ontological argument would know, to put the the traditional epistemologist and the natural theologian beside one another in this respect may lead to impressions of the ontological argument that are most unfair. Whatever else one thinks about this argument from natural theology, it is entirely idiosyncratic and does not, I think, merely define terms into existence. The parallels here are drawn to illicit a common critique of the ontological argument, whether or not the critique is effective, to characterize what I think to be the complaint naturalists have of conceptual analysis in general.

Disparaging of the A Priori

In a very important article, *Against Naturalized Epistemology*,³¹ Laurence Bonjour relentlessly pummels the naturalization project from the perspective of epistemic internalism and rationalism. In a section devoted to parrying naturalistic critiques against the prospect of a priori knowledge, Bonjour presents and dismisses as inadequate two arguments, one motivated by Quinian-Duhemian holism and its associated thesis that no statement is immune to revision, the other by the apparent disparity between the methods philosophers prescribe and those methods actually practiced by scientists. Besides these two arguments, Bonjour writes that “arguments [against the a priori] of the sort required are anything but thick on the ground,”³² and in fact limits his comments on the matter to responses to the two arguments mentioned above. He concludes by saying that “the main naturalist arguments against the possibility of a priori justification are rather spectacularly unsuccessful...” adding that, “it is possible, of course, that there are other, better arguments that the naturalist might invoke instead, but a consideration of whether this is so will have to await another occasion.”³³ But there is an important argument, it seems, which Bonjour failed to mention; an argument more powerful than the two he does address. Whether or not Bonjour would consider this argument ‘the right sort’ is another matter. In any case, the argument does not appear to be without considerable force.

Such an argument argues from the metaphysical picture painted by Darwinian evolution to the conclusion that human minds are not so impressive as the rationalist would believe. Given the picture of human cognitive development offered by biology and evolutionary science, there

³¹ Laurence Bonjour, “Against Naturalized Epistemology,” *Midwest Studies in Philosophy* 19 (1994).

³² *Ibid.*, 293.

³³ Laurence Bonjour, “Against Naturalized Epistemology,” *Midwest Studies in Philosophy* 19 (1994), 295.

seems little reason to think that nature via natural selection upon gene variation would result in a human cognitive endowment that included such powers as rational intuition. Phillip Kitcher captures this sentiment well; he writes,

“Drawing on the deliverances of the sciences, naturalists view members of our species as highly fallible cognitive systems, products of a lengthy evolutionary process...How could our scientific understanding of ourselves...support the notion that answers to skepticism and organons of methodology...could be generated *a priori*?”³⁴

If the rationalist (who believes some of our beliefs are justified a priori) is honest, he has to admit that this faculty of reason is quite an impressive thing indeed. Recall that the standard philosophical method is traditionally thought to be a priori in the sense that its findings are justified apart from any particular experience of the world. What this justification consists in is another story about the exchanges between of empiricists and rationalists; but, in any case, this a priori justification is by means of some cognitive faculty that delivers true beliefs about the world without needing to make recourse to empirical experience for justification.

In virtue of such a faculty, traditional epistemologists, ethicists, metaphysicians, philosophers of religion, and other philosophers, see themselves as working according to a method that would turn out beliefs about the world that could be known to be true whatever one’s empirical observations amounted to. Because such knowledge items are arrived at independent of the contingent features of experience, the thinking is that such beliefs, if true, must be necessarily true; that is to say, true no matter how else the world could have gone. In other words, no matter what the flux of empirical data throws against our theories, these a priori justified beliefs are, if true, the kinds of things you could build a contingent theory around. No matter how susceptible empirical theories are to redefinition and readjustment, these things known a priori, that is, before experience, would hold as stubborn as a knot; these beliefs would

³⁴ Phillip Kitcher, “The Naturalists Return,” *The Philosophical Review* 101.1 (1992): 58.

not be undone by science. I am essentially describing the thesis of epistemology as first philosophy.

But again, the picture painted of human beings by Darwinian evolution gives one little reason to think that human beings would be in such a position to know truths about the way the world *must* be. Man's cognitive equipment has developed in response to specific informational demands imposed on him by his environment. As is the case, those faculties are tuned for efficacy in those narrow environmental conditions in which man typically finds himself. Given such a metaphysical story, it seems sensible that humans could know when there is an apple on the table before them, and perhaps far less likely that human can know that, say, *every* event has a cause, or that actual infinities cannot exist, or that God is in Christ Jesus reconciling the world to himself. Such propositions, if true, lay far outside the realm of what one can expect his cognitive faculties to be tapped into; if in fact those faculties have only this evolutionary history.

So it seems that science supports its own empirical a posteriori methods over philosophical a priori methods. For humans to know something like there *must* exist a first temporal moment of our universe,³⁵ and this known apart from empirical experience, fits uncomfortably with the scientific anthropological picture. Not only is the traditional philosophical program in epistemology deficient for its relying on concepts of things rather than the things themselves, but the methods employed rely on a cognitive faculty the existence of which appears to be quite unlikely.

³⁵ A priori justified premise relied on for the Kalam cosmological argument for God's existence.

THE NATURALIST PROJECT ESTABLISHED:
REASONS TO THINK A NATURALIZED EPISTEMOLOGY A BONA FIDE
EPISTEMOLOGY

A good way to test whether or not a supposed epistemology is truly epistemological in character is to probe the questions the discipline asks itself. The purpose of this section will be to fairly characterize the animal that is naturalized epistemology with an eye toward illuminating just how the natural project may depart (if at all) from the traditional project in terms of the character of its questions. Generally speaking, epistemologists inquire of the nature of knowledge, explain its very possibility, and propose guidelines for acquiring true beliefs and avoiding false ones. This section seeks to demonstrate how a naturalized epistemology addresses each of these three concerns.

On the naturalist's conception, questions about the nature of knowledge itself will find for themselves answers as scientists study perceiving subjects in their environments. Whether or not knowledge requires justified true belief will be a matter of the goings on within the brain as it interprets information fed into it by the environment. Whether knowledge requires something like warrant, reliability, justification, truth-indicators, tracking relations, right logical relations, or whatever, will be a matter for scientists to discern through their empirical studies of the human brain in its environment. The determined extent or scope of knowledge will result from testing candidate knowledge items against these naturalistic criteria. Naturalists proceed much like non-naturalists in their inquiries into the nature of knowledge, as we will see.

Questions about skepticism become questions about the degree to which human cognitive faculties are well tuned to their environments, where well-tuned typically refers to the ability to produce true beliefs in one's environment about one's environment. In this scientific

epistemological context, one need not worry about providing some non-question beginning justification about such basic beliefs as that there is a jacket on the table, or that twice 2 is 4, or that one ate eggs and toast for breakfast that morning. Such justifications do not need to be cashed out in terms of internalist criteria. One already knows *that* these beliefs are justified whether or not he can tell himself *how* they are justified. Why think that such justifications must be made sense of in the way the internalist requires?

Lastly, normative questions concerning belief acquisition are simply reducible to descriptive questions about belief acquisition. If psychologism³⁶ is true, as the success of science seems to indicate, then there are good pre-epistemological reasons for thinking that at least the majority of one's beliefs are produced by cognitive processes well-tuned to their environments; in other words, one has good reasons to think that the majority of her beliefs have been produced by trustworthy or reliable cognitive processes, which is just to say that these beliefs have been produced just as they ought to be produced by such creatures as humans in their environments.

I want to develop these lines of naturalistic thinking. In so doing, we may better see just where in the naturalist's epistemological program the non-naturalist finds the problem.

The Way of Proceeding

In his popular *The Problem of the Criterion*,³⁷ Chisholm distinguishes two positions one of which the non-skeptic must endorse if he is not to endorse skepticism. These two positions represent a methodological strategy for determining the nature and extent of knowledge. One can either begin, as the *particularist* does, with some chosen set of knowledge items, and then

³⁶ The thesis that holds that human beings, for the most part, form beliefs just as they ought to. See Kornblith's development in Kornblith, "The Psychological Turn".

³⁷ Roderick Chisholm, "The Problem of the Criterion," *The Foundations of Knowing* (Minneapolis: University of Minnesota Press, 1982).

proceed to build some criterion or list of rules in virtue of which those knowledge items constitute knowledge. Or, alternatively, one can begin from the other end as the *methodist* and start from some chosen criterion or set of rules in virtue of which he can sort out genuine knowledge items from counterfeits. Chisholm himself is a particularist and he cites empiricism as a paradigm example of a methodist position, although perhaps this needs qualification.³⁸ It is not initially obvious which category the epistemological naturalist ought to assign himself. It is still less obvious whether he necessarily must belong to one camp rather than the other.

It seems naturalists approach epistemology just as a typical Chisholmian particularist would. At least Kornblith betrays this impression when he speaks of the epistemologist treating inquiries into the nature of knowledge as a geologist inquiring of the nature of particular stones.³⁹ The geologist begins his enquiry by gathering up together various rocks all of which he is suspects might possess some shared general feature or property. Through some naive pre-theoretical judgment or impression, the geologists hypothesizes that a certain collection of rocks is constitutive of some natural kind. Perhaps these rocks are all of a particular shape, or color, or texture, or flavor, or malleability. Whatever the case, the geologists supposes there to be some underlying causal feature of each of the rocks he chooses in virtue of which the entire collection may constitute a natural kind, or in virtue of which each member may be said to be an instance of a certain natural kind. Epistemology ought to be conducted similarly, thinks Kornblith.

Natural epistemologies begin with what they take to be clear instances of knowledge and then proceed to scrutinize each individually, according to the accepted canons of scientific inquiry, in search of general shared features in virtue of which each belief may be said to

³⁸ An empiricist need not be a methodist of necessity from his empiricism. Such an individual may have come upon his empiricism as an epistemological particularist; his empiricism being the resulting theory developed from an analysis of particular beliefs pre-theoretically taken to be cases of paradigmatic knowledge items.

³⁹ Kornblith, "Why Should We Care About The Concept of Knowledge?" 44.

instantiate some natural kind, namely: knowledge. Such clear instances of knowledge may include Fred's believing that he is outside, Ben's believing that he had oatmeal for breakfast that morning, Steve's believing he was born in 1969, Alfred's believing that if Fred is taller than Ben and Ben is taller than Steve, then Fred is taller than Steve, Sue's believing that two and two make five, and similar such beliefs. Natural epistemologists then get busy understanding and describing the neuro-physiological process causally responsible for producing or sustaining such beliefs and, to the extent that such processes are faithful or trustworthy or reliable or competent to deliver belief states whose propositional content is true, we may classify these beliefs as being instances of knowledge.

This all seems to fit the methodological mold described by Chisholm as particularism: "we start with particular cases of knowledge and then from those we generalize and formulate criteria of goodness - criteria telling us what it is for a belief to be epistemologically respectable."⁴⁰ A non-natural epistemologist such as Chisholm also begins with beliefs that are assumed to be cases of knowledge. Such a list of beliefs will not look all too different from that list just offered above by the naturalist. The non-natural epistemologist then asks himself the same question as the natural epistemologist, namely, what features in virtue of which are these diverse beliefs all instances of knowledge? Such features are then articulated out from the particular instances, and a set of rules or criteria are then formed on the basis of those features for future application in determining whether some new belief is an instance of knowledge. Where the naturalist and non-naturalist importantly differ here is in their view of what justification or warrant consists in. The naturalist then, will seek out scientifically respectable features such as scientifically discernible transitions across mental and other biological states. Such facts as these are rarely if ever open to the conscious awareness of the subject for whom

⁴⁰ Roderick Chisholm, "The Problem Of The Criterion," 597.

these features most matter, and hence the internalist looks for features of a different kind, features accessible to introspection.

On this score, then, there does not appear to be anything at all regrettable about the naturalists handling the question of the nature of knowledge. The naturalist and the traditional non-naturalist alike are choosing what are taken to be cases of knowledge right out of the gate for purposes of discovering those shared features in virtue of which those cases are knowledge. The two parties merely disagree on what features of those beliefs are relevant for knowing. So there should not be any complaint from the non-naturalist about the way in which the natural epistemologist proceeds in her doing epistemology.

Normative Concerns

In addition to concerning itself with the nature and extent of knowledge, epistemology is widely thought to be useful for guidance toward truth. Among the stories epistemologists share with other disciplines should be some story about how cognizers may best avoid erroneous beliefs while acquiring and retaining true beliefs. In so far as truth is considered valuable, then, epistemology has a normative dimension through which it prescribes certain strategies for belief acquisition.

There are those who fear that a naturalized epistemology ceases to become recognizably epistemological because it abandons normativity.⁴¹ It seems to me, however, that there is no good criticism of naturalized epistemology here. Naturalized epistemology can retain an important normative element so long as it assumes psychologism.

One can understand the reasons for this impression, though, that a naturalized epistemology must be non-normative. If questions about the psychology of belief acquisition

⁴¹ Jaegwon Kim, What is 'Naturalized Epistemology?'.

contain all the content left over after epistemology is naturalized then epistemology becomes merely descriptive in uncovering and stating the psychological facts associated with the causal history of particular beliefs. Of course every belief is the product of some cognitive process or other, but epistemologists are interested in which of those beliefs are the keepers, or in Chisholm's terms, which of the apples are the good ones.⁴² C.S. Lewis' man who believes himself to be a poached egg no doubt believes this as a result of some cognitive process that can be tracked by and described by scientists; but what is it about such a belief that makes it epistemically sub-par? It does not seem that scientists are in a position to judge between those beliefs one ought to retain and those beliefs one ought to discard. The fact that certain beliefs are produced in a certain way have nothing to do with the epistemic value of the content of that belief, or so it seems.

Consider the obvious analogy with ethics. It is said that anthropologists properly concern themselves with describing the actions of various people groups - how in fact they do behave; while ethicists properly concern themselves with the normative task of prescribing actions - determining how people ought to behave. This is reminiscent of the classic fact-value distinction of which will not be bothered with here. But naturalized epistemology has been criticized along these lines: descriptive concerns about how beliefs are produced cannot speak to the issue of how beliefs ought to be produced. If epistemology in this way rids itself of its normative responsibility to prescribe strategies for finding truth, then it is no longer recognizably epistemological.

However, the natural epistemologist means to do nothing of this sort and, in fact, agrees that epistemology must remain normative to be of any interest to human beings. While not all naturalists agree with him, Kornblith, interestingly enough, retains not only a strong normative

⁴² Chisholm, 592.

component in his naturalized epistemology, but he also maintains a certain epistemological deontology as well.⁴³ Just how is the natural epistemologist able to save normatively while remaining essentially descriptive? By assuming some degree of psychologism, the non-skeptical thesis that states that a great many of the ways humans come to believe the things they do are according to the ways in which they ought to form beliefs. If this thesis is in place, if it is assumed that humans generally and naturally come to believe things in the ways they ought to for acquiring true belief, then by answering questions about how beliefs are in fact formed in humans psychologists are ipso facto answering questions about how those beliefs ought to be formed in humans. If a tourist is wondering about the way to the Taj Mahal, and he knows that his acquaintance Sherrad knows the way through the city, a good means to determine the way the tourist *ought* to go would be to follow Sherrad as he goes there. If the tourist can describe for himself Sherrad's path through the city then he can know the way he ought to go through the city to arrive at the Taj Mahal. The same is true for inquiry into normative questions about belief acquisition. One knows it is the truth that he is after; and he also knows that his cognitive equipment is such that it is competent to get him there. So, to find the right way to the truth, one studies the behavior of the cognitive equipment itself as it naturally leads the way toward truth.

Richard Foley has an insightful discussion in this connection of specifically Quinian naturalized epistemology in his paper *Quine and Naturalized Epistemology*.⁴⁴ Drawing from other of Quine's writings outside those most closely associated with his views on epistemology, Foley presents a persuasive case that Quine never has any intentions to remove the normative dimension from epistemology. Foley writes, "although [Quine] prefers to talk not of the context

⁴³ See his Hilary Kornblith, "Justified Belief and Epistemically Responsible Action" *The Philosophical Review* 92.1 (1983): 33-48.

⁴⁴ Richard Foley, "Quine and Naturalized Epistemology," *Midwest Studies in Philosophy* 19 (1994): 243-259.

of justification and the context of discovery but rather the process of testing theories and the process of thinking them up...he does say that the former is not normative whereas the latter is.”⁴⁵ Kornblith is sympathetic to Quine’s feeling that epistemology becomes normative once some cognitive goal or objective is set. Epistemology then becomes a kind of technology of truth seeking as the discoveries in the various sciences are used to shape human cognition and psychology for optimal efficacy in truth seeking. Foley writes earlier,

“Quine thinks that the normative element in epistemology is ultimately a matter of identifying effective means to a valued end, where in epistemology the relevant valued end is truth...this means that the norms operative within the domain of epistemology are ones with which we can ‘engineer’ our way to accurate theories.”⁴⁶

There is no complaint here from the non-natural epistemologist that the natural epistemologist has no way of knowing a thing like the psychologistic thesis. For, the non-natural epistemologist, such as an internalist like Chisholm or Bonjour, must similarly assume a thing very much like psychologism do to his epistemological work. Remember the strategy of the Chisholmian particularist: he assumes that he knows such things as that 2 and 2 make 4, that it is raining outside, that she was born in Kanata, Ontario, and she then goes on to determine features of those beliefs accessible to introspection in virtue of which they can be said to fit the category of knowledge. The traditional or non-natural epistemologist therefor assumes a knowledge base as well, just as the natural epistemologist must, and then builds up a justificatory theory from an introspective analysis into the phenomenological traits associated with such beliefs. The naturalist does not appear to be doing anything severally anti-epistemological, at least so far as normative concerns are at issue.

⁴⁵ Foley, 251.

⁴⁶ Ibid., 249.

Possibility of Knowledge and Explanation of Anti-skepticism

Descartes

It is typically taken for granted by any non-skeptical epistemologist that humans do have a fair amount of knowledge. Just what those knowledge items consist of is investigated along those lines discussed above. But what about an explanation for the existence of this knowledge? We can imagine possible worlds of mass deception with brains in vats and tricky demons. In light of such reflections, it is incumbent upon the epistemologist to provide an account of how beings such as ourselves could come to know the things they do in a world such as the one they find themselves in. Accounts of the very possibility of knowledge must involve both an epistemological and metaphysical picture.

Descartes explained the possibility of knowledge by appeal to an all-powerful God who would ensure that those propositions which seemed to us to be clear and distinct and certain were in fact true. In other words, this God who was all good and so incapable of deception would ensure that propositions which were clear and distinct and incorrigible would be true. Regardless of the merits of the account, the *strategy* is the thing to notice. To parry the total skeptic who would even wonder about the justifications for such things as the belief that 2 and 2 are 4, or that there is a table before one, Descartes claimed to have deduced the existence of a God who would ensure that such mass deception did not go on.

Of course any thinking person would detect something sneaky going on here. It has been said and I am inclined to agree that this strategy assumes the reliability of a cognitive faculty to then establish the reliability of that cognitive faculty. It is as if Descartes briefly pokes his head out from under his blanket of doubt just far enough to provide an ontological argument for God's existence, then he ducks back beneath his blanket only to throw it off and declare that he

explained the possibility of knowledge without ever poking his head out. In other words, Descartes has clearly begged the question. Perhaps this is not as abominable, though, as first appears. We are, after all, at the bottom of the barrel here; perhaps it is that some questions need to be begged. What we have here, though, is an attempt to explain the possibility of knowledge by providing what Bonjour terms a meta-justification⁴⁷ using a standard internalist strategy.

Kornblith

Natural epistemologists are after the same goal. What they expect to find through the sciences is a theory of the world that explains how humans could be knowers in the world. What they are after is theory of human cognition that dovetails with a theory of the natural world in such a way that the fact of reliable belief producing mechanisms is explained by those features of our environment.

Kornblith echoes this aspiration when he writes that he is after an understanding of man that explains how he may know, and an understanding of the world that explains how it may be known. He has written a book on scientific advances into the nature of inductive reasoning and its grounding in nature.⁴⁸ The science shows, argues Kornblith, that human native inferential tendencies are well constituted to pick up on features of his environment. But then what explains this fantastic reciprocity? This phenomenon is further explained by appeal to some thread of evolutionary science. Naturally, those organisms that can register the features of a precipice of a cliff and the color of a poison-berry will be favored by the environment over those organisms that are less well cognitively adapted. It is in this way that man's cognitive faculties are well-

⁴⁷ See his discussion here in Laurence Bonjour. *The Structure of Empirical Knowledge*.

⁴⁸ Hilary Kornblith, *Inductive Inference and Its Natural Ground*.

tuned for knowledge.⁴⁹ It is in this way that a naturalized epistemology may explain the possibility of knowledge. Darwinian theory entails psychologism; evolutionary theory predicts that human persons would form true beliefs for the most part.

It is also clear in this case that a question is being begged. The naturalist supposes the canons of the scientific method reliable for producing true theories about the cognitive processes of man, and the nature of his world. But those cognitive processes that are being legitimated are the very ones being relied upon in the process of their legitimation. Once again, though, the theory building must begin somewhere. We are asking questions at the very bottom of the bucket, questions regarding starting points for investigation. The naturalist simply elects to begin inquiry according to those methods that put man on the moon, rather than other such methods as systematic doubt or testing of intuitions by conceptual analysis.

Replacement Thesis

These discussions of the character of naturalized epistemology lead naturally to considerations of the replacement thesis. A third distinctive earmark of naturalized epistemology is the replacement thesis. Purely unqualified, Kornblith takes the replacement thesis to stand for the idea that all the questions that are properly epistemological are questions to be answered, in the final analysis, by science (specifically through psychology and the various cognitive sciences). Kornblith writes, “I will speak of the view that epistemological questions may be replaced by psychological questions as the replacement thesis.”⁵⁰ If naturalized epistemology is really not so different from epistemology traditionally conceived, as the above discussion might suggest, then perhaps a full replacement is not so problematic. Perhaps its ‘departure’ from

⁴⁹ Whether to be effective for survival makes probable that a faculty is effective for truth is, to my mind, far from obvious.

⁵⁰ Kornblith, “Introduction: What is Naturalistic Epistemology?” 3.

philosophical epistemology is really not so damaging to the spirit of epistemological inquiry as the traditionalists insist. The replacement thesis would have epistemology entirely *replaced* by psychology and the cognitive and other sciences. After the full scientific story is told about the causal relations obtaining within the human brain and the causal relations obtaining between the brain and the outside world as the brain receives and interprets that world, there will be nothing left for more traditional philosophical epistemologists to do. There will be no more questions for theorists of knowledge to ask themselves once science has succeeded in charting the bio-physico map of the human knower in his environment. To what extent should epistemology be entirely supplanted or taken over by the sciences?

Allowing for a Minimal Place for Traditional Epistemological Work

Kornblith's position on this matter is a difficult one to decipher. In typical Quinian fashion, he sees philosophy as continuous with the sciences. Just what *continuous* means is surely highly contested ground with important consequences for both science and philosophy. First off, Kornblith does not wish to see the traditionally minded epistemologist go out of business, hang up his cleats, re-train, and join some lab team. For instance, at the tail end of his book *Knowledge and its Place in Nature* Kornblith writes, "a view of philosophy as empirically informed does not take philosophy away from philosophers, although it does suggest ways in which the training of philosophers may, at times, have been overly narrow."⁵¹ However, Kornblith clearly thinks the philosophical method wholly inadequate for getting at the answers to the questions epistemologists seek. He writes, "Naturalistic epistemologists do not claim merely to be addressing some of the legitimate questions in the field; rather, it is claimed that the

⁵¹ Kornblith, *Knowledge and Its Place in Nature*, 176-177.

naturalistic approach addresses all of the legitimate questions and that there is nothing left for more traditional approaches to deal with.”⁵²

In reading Kornblith, one wonders just what business a philosopher is about which makes him a philosopher and not a scientist. It appears that Kornblith’s only concession to philosophical epistemologists is to allow them to keep their title as philosophers. In reality though, it seems ‘philosophers’ are just theoretical scientists: working out the implications of the going theories as they are crafted by the scientific method.

Can There Be Anything But a Radical Replacement Thesis?

In Kornblith’s helpful discussion and overview of naturalized epistemology,⁵³ he draws a few very important distinctions. He speaks of the difference between a strong and weak replacement thesis, and also draws a distinction between psychologism and what he calls ballpark psychologism. In the order of their listing above, these terms represent weaker to stronger positions on the perceived autonomy of philosophical epistemology in light of what Kornblith calls elsewhere the psychological turn (the realization of epistemologists that belief appraisal must incorporate at some level a discussion about the causal psychological mental states responsible for a given belief).⁵⁴ Psychologism, to be addressed more fully below, is the thesis that epistemology should not be done divorced from psychological considerations about causal chains among neurological or similar events. The point to be made here, however, has to do with this distinction between the strong and weak replacement thesis. Kornblith does not make this point, most probably because it lies outside his purpose, but it will be important for purposes here in so far as a true characterization of naturalized epistemology is sought after. The

⁵² Kornblith, “Naturalistic Epistemology and its Critics,” 249.

⁵³ See Kornblith, “What is Naturalistic Epistemology”

⁵⁴ See Kornblith, “The Psychological Turn,”.

purpose of drawing such a distinction between the strong and weak replacement thesis was, for Kornblith, to provide some means for discussion of the autonomy of philosophically trained epistemologists in light of the impending naturalization of epistemology. But if epistemology is to be thoroughly naturalized, there is no distinctive weak replacement thesis for any epistemologist, naturalized or not, to stand for. In other words, if epistemology is to be conducted or practiced along the lines the naturalist thinks right, there is no real distinction between the strong and weak replacement thesis; rather, the strong replacement thesis is all there is to talk about.

Kornblith identifies the strong replacement thesis, unsurprisingly, as Quinian in inspiration. This is to say that epistemology must be done solely in agreement with the methods of the natural sciences. This sentiment is right at home with typical naturalist views concerning the relationship between philosophy and science. Namely, that all philosophical questions are actually either scientific questions or pseudo-questions. This means they must be susceptible to the scientific method, and that such questions are properly philosophical only until science advances to a level at which those questions can be answered by science. Epistemological questions are philosophical questions no different than any other philosophical questions in this respect; in that they are equally reducible to scientific questions. Whatever there is in epistemology that is legitimate for human inquiry will be separated out on the threshing floor of scientific advance. Why not have this come quickly? Man is not around forever and it makes good sense for him to accomplish all his goals sooner rather than later. With the cognitive sciences being where they are in terms of their prowess and impressive prospects, why continue to waste time and effort hitting these epistemological questions sideways with dubious methods of reflection and conceptual analysis? Such methods may be of use when science is still infantile,

but at the present stage of things, these questions should be met straight on with all the powers and resources of the scientific community. This is essentially the Kornblithian position and these are the entailments of the strong replacement thesis, including a radical revision of the way epistemologists are trained; that they be trained as cognitive scientists and theoreticians because, as Kornblith notes, “psychological questions hold all the content there is in epistemological questions.”⁵⁵

The weak replacement thesis is meant to carve out of this rather extreme position a more conservative one, leaving more traditionally philosophically trained epistemologists with a purposeful career. This thesis is weaker than the strong version because it permits standard philosophical methods for finding answers to epistemological questions. As Kornblith presents it, the weak replacement thesis doesn't rely on critiques as that offered by Quine of the standard philosophical method for answering epistemological questions; it instead relies on typical Darwinian arguments that suppose truth-conducive cognitive mechanisms beneficial from an evolutionary standpoint. This is no argument against the standard philosophical practice, but it is an argument for psychologizing epistemology, in that it suggests a question about how humans in fact come upon believing as they do are essential to normative questions about how humans ought to arrive at their beliefs (more on naturalism and normatively later). Ignoring Quinian-style argument against the philosophical method, the proponent of the weak replacement thesis apparently need not disparage of the standard philosophical method for epistemological inquiry, therefor allowing for the use of both philosophical and scientific methods in epistemology. Both natural and non-natural epistemologists, on this view, busy themselves with the same questions, approached from different perspectives and with different but equally legitimate methods.

⁵⁵ Hilary Kornblith, “What is Naturalistic Epistemology,” 6.

Kornblith writes that “in this view, psychology and epistemology provide two different avenues for arriving at the same place,”⁵⁶ and a bit later he states that “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.”⁵⁷ These two disciplines may carry on independently of each other but will, at the completion of their tasks converge on the same findings - traditional epistemologists will end up prescribing what psychologists describe.

This thesis does not seem importantly relevant to discussions of naturalizing epistemology. It seems to me that no full naturalization of epistemology should hold to the weak version of the replacement thesis, he must adopt the stronger version. This point would be clear to Kornblith for, although he does not mention it explicitly, he does hint at it. For instance, according to Kornblith’s view of the weak replacement thesis: “if philosophers correctly identify some process as one by which we ought to arrive at our beliefs, psychologists will thereby know, even if they have not independently discovered it, that it occurs in us.”⁵⁸ This is clearly at odds with an honest naturalization of epistemology. If philosophers, via their own privileged methods, come to discover something, psychologists will then *know* such a thing to be the case? An honest naturalist will maintain that psychologists would know no such thing until they had established via the scientific method that such things are in fact the case, that such cognitive processes do in fact occur in human cognizers. To say otherwise would be to allow the non-naturalist higher ground, methodologically speaking, than the methodological naturalist would allow. Natural epistemologists would not allow any non-natural epistemologist to say that he *knows* anything

⁵⁶ Kornblith, “What is Naturalistic Epistemology,” 6.

⁵⁷ Ibid, 7.

⁵⁸ Ibid., 8.

about the proper principles of belief formation apart from discovering those principles via the scientific methods.

In neglecting to make this point concerning the incompatibility of epistemological naturalism and the weak replacement thesis, one might glean the impression from Kornblith that the project to naturalize epistemology is not so inimical to traditional epistemological practice as a Quinian would argue. In fact, I have argued, to call oneself a natural epistemologist is to commit oneself to the strong replacement thesis. Traditional epistemologists may go on as they please with their testing their intuitions about concept applications against contrived non-actual cases, but whatever they discover, these findings have no purchase on the hard scientific epistemological project.

NATURALIZED EPISTEMOLOGY AS REPLACEMENT:

EVALUATING AN EPISTEMOLOGY UNDER METHODOLOGICAL NATURALISM

The purpose of this section will be to cut through less important periphery issues to illuminate the principle point of disagreement between the epistemological naturalist and non-naturalist. This principle point of disagreement may also serve as a springboard to answering the question about how, if at all, the natural epistemologist changes the subject of epistemology. To spoil the show out front, the matter is going to turn on issues regarding the aforementioned classical landmark and issues regarding the problem of knowledge in general. My conclusion on the matter will indicate what I think to be an inescapable a priori component for a satisfying epistemological theory.

I will begin with remarks concerning the naturalist and non-naturalist attitude toward skeptical questions. These remarks will provide a backdrop for appreciating a brief commentary on a recent exchange between Bonjour and Kornblith. This commentary will intend to show that

this exchange must take place on a different level to be helpful for determining whether epistemology should be naturalized. This in mind, I will then bring a naturalized epistemology to bear on what a bona fide epistemology must be able to *say*. This idea of being able to *say* a particular kind of thing will be tied up with the need to answer a certain kind of deep skeptical threat that is essentially captured in what I am calling the classical landmark. Diffusing this threat will mean that epistemology retain an internalist dimension. In arguing that a naturalized epistemology fails in its being unable to say what we need an epistemology to say, I will conclude that a naturalized epistemology is insufficient as a replacement epistemology.

The Skeptical Thesis

Naturalized epistemology entails a modified understanding of the questions epistemologists ought to take seriously. Most noticeably is the question of knowledge in general; the questions about how anyone knows anything at all, anyway. Such a question finds its motivation in various species of skepticism that doubt the legitimacy of so called epistemic justifiers. These skeptical theses, broadly conceived, push the anti-skeptic to account for his having any true beliefs at all, or to account for the supposed truth-conduciveness of those features of a belief in virtue of which that belief is taken to at least approximate the truth.

Now the natural epistemologist does claim to address such a question, and to do so adequately. This was reviewed in an earlier section. Kornblith writes in the opening of his *Inductive Inference* that, “Precisely because the scientific enterprise has been so successful, it must be able to explain...how knowledge of such a world is possible.”⁵⁹ Kornblith is entirely optimistic that science is competent to explain or give an accounting of those features of human beliefs in virtue of which they are true, and thus offering an answer to the skeptic. At the end of

⁵⁹ Kornblith, *Inductive Inference and Its Natural Ground*, 2.

inquiry, science will have for itself a picture of the human cognizer together with an incredibly detailed description of his environment, such that, when presented together, will explain in entirely naturalistic terms how humans come to know a great deal about their world. The ontological furniture science licenses will dovetail with the structure of the human cognitive endowment such that it can be shown how the mechanisms of the latter are tuned to register features of the former. But while such an account is all that can be reasonably expected from the epistemological naturalist, and while it would be interesting in its own right, it does not go as far as needed to answer the general skeptical thesis. As will be shown, the epistemology offered by the naturalist comes nowhere near what is needed to meet distinctly human epistemological concerns. This epistemology can in principle say nothing to these deep concerns raised by the classical landmark.

The total skeptic builds his case from stories about mad scientists and evil demons. These scenarios describe possible worlds in which crazed scientists incubate people's brains while artificially imposing various neural stimuli, or worlds in which powerful but deceitful demons wire things such that whenever tree-like objects imposed themselves upon the perceptual faculties of humans their brains turn out representations like those that typically go along with being appeared to by a flag pole, and other such similarly bizarre possibilities as explored by Alvin Plantinga in his works.⁶⁰

What makes such scenarios interesting to epistemology is their modal status as being metaphysically possible states of affairs. That is to say, there exist possible worlds which include the states of affairs that are associated with the mad scientist and evil demon scenarios. These are full explanations of and perfectly consistent with the data of human experience. But if these are

⁶⁰ See Plantinga's discussion here in Alvin Plantinga, *Warrant: The Current Debate* (New York: Oxford, 1993).

among the possible ways the universe might have gone, and there are countless such possible worlds, it seems a rather interesting and important question whether or not the actual world might be any one of these mass deception worlds. Unfortunately, argues the typical Cartesian internalist, if the actual world was one of these mass deception worlds, such a world would be perfectly consistent with our having plenty of knowledge on the naturalist's conceptions of things; these methods in principle could never suggest a reason to think that such mass deception worlds are not the actual world.

The epistemological naturalist is not unaware that he views the skeptical challenge differently. Kornblith states explicitly that a naturalistic conception of epistemology treats those facets of skepticism that are legitimate, and that there is no good reason to appease the total skeptic. Kornblith writes that "the idea that skeptical questions arise from within science"⁶¹ is one of the two central features of Quine's naturalistic epistemology (a vision for epistemology with which Kornblith is largely in agreement). In a most illuminating passage, Kornblith also writes this: "Descartes wished to answer the total skeptic; the naturalistic account of how knowledge is possible does not even attempt to address that kind of challenge. As naturalists see it, however, what was legitimate in the skeptical challenge is, in fact, addressed by the naturalistic project."⁶² We have here a clear admission from a leading natural epistemologist that suggests that the skeptical threat to knowledge in general is not to be addressed by epistemology.

But, says the non-natural epistemologist, there is no justification, no reason, no warrant, no epistemic motivation, for thinking the deliverances of the sciences, upon which the skeptical question is thought to be reasonably dismissed, ought to be relied upon for tracking the truth. The reliability of the deliverances of the senses, the preservative power of memory to faithfully hold

⁶¹ Hilary Kornblith, "Naturalistic Epistemology and its Critics," *Philosophical Topics* 23.1 (1995): 240.

⁶² Kornblith, "Naturalistic Epistemology and its Critics," 248.

formally justified beliefs, the justification transferring abilities of deduction, induction, and abduction as rules for correct thinking are among the items all assumed by the naturalist to motivate the rejection of the skeptical thesis. The skeptical thesis must be dealt with *first* before science can even begin to serve as a motivation to reject the significance of such skeptical theses.

The natural epistemologist will likely respond by conceding that there is no reason, no warrant, no epistemic motivation for thinking the deliverances of the sciences reliable *in so far* as the notions of good reason and justification are to be conceived as the non-naturalist would like, namely, conceived as features of beliefs that are internally palatable. Such features, although real, do not constitute good reasons or epistemic justifiers on naturalist accounts. No individual needs such a reason for trusting that say, an inductive inference, is a reliable means for acquiring knowledge. For, such an inference pattern is in fact reliable as a matter of the fortunate wiring of the human brain for information processing in its environment; whether the subject himself is in the know about this it is beside the point of justification or warrant. It is reason enough that science indicates that we can trust our inductive reasoning.

This seems to be the essence of Kornblith's strategy for undercutting Bonjour's most ardent and potentially devastating criticism. Bonjour's criticism is of a type of the non-naturalist position hinted at above. I will now proceed to briefly present the Bonjour-Kornblith dispute for the purpose of showing why I believe Bonjour's criticism to be ineffective for convincing the naturalist. This exchange is important to take note of for it situates our topic squarely within the contemporary discussion. Bonjour, it seems to me, makes a fair point so long as his conception of a *good reason* is agreed upon. But this is precisely what is not agreed upon between the Kornblithian naturalist and the Bonjourian non-naturalist, and thus Bonjour's criticism merely

talks past the critical issue. I will then suggest the line on which a more substantive back and forth should take place by highlighting what I believe to be the principle watershed.

Bonjour vs. Kornblith

The epistemological naturalist contends that epistemology is better served by the methods of science than by those methods associated with standard philosophical practice. There are those in strong disagreement with such initiatives, notably Laurence Bonjour who thinks a “thoroughgoing naturalization of epistemology...wrongheaded and ultimately self-destructive.”⁶³ As the rationale behind the motivation to naturalize epistemology is here considered and evaluated, special attention will be paid to this notion of wrongheadedness. What will be revealed are the attitudes upon which this accusation of wrongheadedness rests. In highlighting these attitudes, the question will be asked just how essential these attitudes are to the general epistemological project. If they are inessential, if they may be jettisoned without issue, then perhaps the move to naturalize epistemology, while seemingly radical in character, is really not so wrong headed after all. I think that Bonjour’s sentiments of wrong-headedness towards naturalized epistemology are directly tied up with this notion of the classical epistemological landmark or boundary-stone. The naturalist wants to ignore this question of knowledge in general while Bonjour and his likes take the question to be indispensable for shaping a relevant theory of human knowledge.

It is no secret to those familiar with the literature that Bonjour thinks the natural epistemological program dangerous and unhelpful to traditional epistemological concerns. His sentiments are expressed most clearly on this issue in his *Against Naturalized Epistemology*.⁶⁴

⁶³ Bonjour, “Against Naturalized Epistemology,” 283.

⁶⁴ Bonjour, “Against Naturalized Epistemology,” 283.

While anyone can agree that the ameliorative aspect of cognitive psychology is of great practical help - in so far as such studies reveal the various ways in which our cognitive faculties function well or poorly in our natural environments - Bonjour is convinced that a full replacement of traditional epistemological practice with such scientific practices a very bad idea. Bonjour writes that “if, as the naturalist claims, there are no *a priori* reasons for thinking anything to be true, the inevitable result is that we have no reason for thinking that any of our beliefs whose content transcends direct observation are true [and that] this is epistemological disaster in itself...”⁶⁵

Bonjour argues that, for any inference that takes one from some proposition about a direct observation to a proposition that goes beyond that direct observation, some reason or justification must be given to think this latter belief true in virtue of its logical relation to the former belief. Such a needed justification may be seen as a request for a reason to think true the corresponding conditional of the inference in question; namely, that if the premises recording the direct observations are true, then the conclusion whose content goes beyond the material in the premises is true. Such a justification is needed if we are to be serious about undergirding knowledge that goes beyond our immediate experience. Such a justification cannot be derived from further experience (such a justification would require legitimation of the same type of inference whose justifications is now in question). Therefore, such a justification must be characterized as *a priori*. The naturalist has no answer to the person who requests such a justification, and so, thinks Bonjour, he is plunged into a thoroughgoing skepticism. Bonjour writes,

“a further consequence [of the naturalist’s position] is that the vast majority of the claims about the nature of the world, the nature and reliability of human psychological processes, etc., upon which naturalized epistemology so lovingly focuses, are things that we have no reason at all for thinking to be true...In this way, naturalized epistemology is *self-referentially inconsistent*.”⁶⁶

⁶⁵ Ibid., 296.

⁶⁶ Bonjour, “Against Naturalized Epistemology,” 296.

Self-referential inconsistency is a devastating blow indeed, if true. To Bonjour it seems that the natural epistemologist suggests a perspective on doing epistemology that entails that epistemology is impossible.

While this is a pristine critique of the epistemological naturalists' position from the non-naturalist internalist view of things, such an account merely presupposes an understanding of justification and proper reasoning which the naturalist rejects. Kornblith replies to Bonjour: "Bonjour explicitly assumes that if an observation statement *O* is to provide a good reason for believing some further claim *T*, then the conditional 'If *O* then *T*' must itself be a claim which the agent has good reason to believe. But naturalists would deny this premise."⁶⁷ Bonjour maintains a theory of justification that is internalist, entailing that justifiers must be readily recognized via introspection by the subject whose inference is in question. If knowledge demands such an internalist prescription then of course a naturalistic account will imply that there are no inferentially justified beliefs. But this is the very issue in question. Kornblith writes elsewhere, "naturalists do not see the following of rules and procedures, in particular, the role of rules of inference, in the way in which Bonjour [does]."⁶⁸ He goes on to say, "reliability is the naturalist's standard here. Meeting a priori standards is simply irrelevant...justified belief, on at least one widely held naturalistic account, is a matter of reliable belief production and does not itself require recognition of that ability."⁶⁹ So it seems the naturalist should find Bonjour's 'critique' a mere obvious restatement of the two contending positions, and therefore of no concern.

⁶⁷ Kornblith, "Naturalistic Epistemology and its Critics," 252.

⁶⁸ Kornblith, *Knowledge and Its Place in Nature*, 21.

⁶⁹ *Ibid.*, 22.

Bonjour is persistent, though, in this regard. Well aware of the typical naturalist response described above, in a 2006 paper he writes,

but reliability as such...does not yield good reasons for thinking that the inferences in question are cogent nor that the claims inferred are, if the premises are themselves acceptable, genuinely likely to be true. *If the inferences are in fact reliable, then the conclusions are in fact likely to be true if the premises are true, but this is again quite compatible with no one having any reason for thinking that this is so* (emphasis mine).⁷⁰

Barry Stroud in *The Significance of Naturalized Epistemology*⁷¹ appears to offer the very same criticism in a different packaging. Stroud is responding to Quine's insistence that one do epistemology by studying human subjects in their environments as they receive and interpret information and make statements about their environment which some third party member could verify (a strategy of doing epistemology with which Kornblith is in agreement). All the while this is going on, thinks Quine, the third party is to appreciate or consider himself as being in the same position as the subject under study. In other words, one generalizes from the particular case in question to other such similar cases, including one's own; if the subject in question can be said to have knowledge about *X* in this circumstance, then surely I can have knowledge about *X* in sufficiently similar circumstances. Stroud argues that to rightly appreciate oneself as being in the same position is hopeless for answering the questions concerning the possibility of *knowledge in general*. For, all the subject under examination has access to from his perspective is the contents of his beliefs. Given naturalist/externalist notions, the subject has no access outside his mind to the world we are verifying for him, much less access to the reasons why his beliefs are likely to be true. So if we are to appreciate our position as being alike to the subject in question, we are left with no good reasons for thinking that our assessment of the subject and his environment are true.

⁷⁰ Bonjour, "Kornblith on Knowledge and Epistemology," 331.

⁷¹ Barry Stroud. "The Significance of Naturalized Epistemology," Edited by Hilary Kornblith, *Naturalizing Epistemology*, (London: The MIT press, 1985), 71-87.

It seems to me that this is essentially Bonjour's criticism as well: he said that "if the inferences are in fact reliable, then the conclusions are in fact likely to be true if the premises are true."⁷² But these are all hypotheticals. Perhaps justification internalistically construed is not necessary for knowledge, and a subject's knowing some proposition is solely a matter of certain facts obtaining that are not necessarily open to the purview of the subject's conscious awareness; fine. But such an account cannot be the end of the story, for no one has been given any reason to think such a state of affairs ever obtains. Perhaps we know that such states of affairs obtain *provided that* we do not inhabit some mass deception world. But surely this cannot be assumed; on the contrary, it is the very business of epistemology to determine.

So both Stroud and Bonjour share a common complaint of naturalized epistemology. Namely, the naturalistic project is not sufficiently epistemological in the sense that it becomes entirely metaphysical. It seems the naturalist has collapsed epistemology into metaphysics, disguising his move by retaining epistemological language. But of course there is a *reason* why these are two separate disciplines, for they assume two types of questions both of great interest to the human experience. The classical epistemological landmark I have in mind is responsible principally for keeping epistemology sufficiently epistemological such that it contends with these general questions of knowledge that total skepticism generates. This will demand, it seems to me, that epistemology retain some internalist element and appeal to the a priori.

Neither Bonjour nor Stroud explicitly make this point but their arguments suggest it. Recall Bonjour's complaint: "If the inference are *in fact* reliable then the conclusions are *in fact* likely to be true..."⁷³ This is great as a metaphysical story of what must transpire outside one's conscious awareness if reliability is going to obtain, leading to knowledge. But if this is what an

⁷² Bonjour, "Kornblith on Knowledge and Epistemology," 331.

⁷³ Bonjour, "Kornblith on Knowledge and Epistemology," 331.

epistemology is aimed at, then, at the end of the day, still no one is ever in a position to know that such facts obtain. The best overall scientific theory may include statements to the effect that such a thing does obtain, but no reason has been given for why one should trust the canons of science. The naturalist inappropriately applies the category of knowledge to these natural kinds for he hasn't a reason to believe that he is even getting at these natural kinds to begin with. The epistemological naturalist has drawn up for himself a criterion for knowledge containing a list of facts that must obtain in relation to a belief, but offers no way of understanding how one might come to know that such a list of facts ever obtains at all.

The natural epistemologist, to my mind, has abandoned the classical boundary stone of epistemological inquiry. This boundary-stone or landmark is the fundamental notion that appearances need not be indicative of reality, and this sentiment in turn arises from facts about the internal subjective epistemic experience of free management and control over one's beliefs. Ironically, this is the very sentiment that propels man to do science in the first place. Perhaps reality is not so laid bare to the untutored judgment as we think. Perhaps our ideas of the world imperfectly capture the world as it is. It is this boundary-stone or epistemological landmark that inspired the magnifying glass and telescope. These were human responses to the question, 'how are things actually, though?'. The natural epistemologist has effectively banished this question from their consciousness as it pertains to the most fundamental level of human experience or they have reinterpreted it such that the 'answer' fails to meet what is called for out of the human condition. This is the line on which this discussion needs to be had. How are we to consider the character of philosophical questions as science progresses? Should types of questions dissolve or evaporate as science marches on, or are certain questions more permanent? It seems to me that our questions should inform our methods, rather than the other way around.

An important symptom of this ignoring of the classical epistemological landmark is our dissatisfaction with the naturalist's 'accounting' for the truth conduciveness of our reasoning processes. It is these types of symptoms that I believe Bonjour to be highlighting in his works. Remember how the classical epistemological theory went. According to such theories, a belief was considered knowledge if it was true and justified in virtue of its meeting some standard of proper basically or else it could be inferred from such basic beliefs according to some set of right rules for inference. These rules of reasoning were known a priori to be true and truth-conducive such that, in relation to some body of evidence, claims that went beyond the content contained in the evidence could be known to be true. In other words, relative to some evidence base, people could think themselves at least approximating the world with their theories. This is because the various data were treated through a *way of treating data* that was known to be reliable or trustworthy. In so far as the various evidences were glimpses into the true structure of reality, rational men could filter such evidences through his methods to come up with approximately true theories. Most importantly, aspects of these filters or methods were known to be truth-conducive in every possible world in which they turned up with rational creatures like ourselves. In other words, no matter how our experience of the world should go, these rules of rationality persist in their truth-value. Sure, reality does not readily reveal all her contingent features all at once; scientists must work hard to uncover and understand all her hidden causal bells and whistles. But as these empirical data come in, philosophers *and scientists* and all reflective people wish to know whether or not these theories are at least approximately true, that in our investigations we are indeed nearing the sober truth of the matter. But if the whole story to be told about our visual beliefs, memorial beliefs, and beliefs about the functionality of reasoning processes (including the laws of logic), is ultimately a contingent one, the foundation of which involves the full

reliance upon each of these beliefs in question, then our epistemology is going to leave one feeling cheated and entirely unsatisfied. This is because our theories about how to treat the data of science for theory building are no surer than those theories themselves.

Ethology and Human Reflection

Descartes' project may have failed, as seems to be the general consensus, but his aim was to develop a theory of knowledge that said what was needed to be said of a theory of *human* knowledge. As made clear in an earlier section, Kornblith sees knowledge as a natural kind because it serves so wonderfully as an explanatory category in nature. As cognitive ethologists study the behavior of animals, they find that the category of reliably produced true belief serves effectively as a concept for unifying animal behavioral patterns.⁷⁴ I don't see any problems with this natural category out front, as far as the goals of cognitive ethologists are concerned. It is not outlandish to think that animals have certain cognitive faculties that interpret external information as accurate representations, and do this regularly and consistently. Where the problems surface, it seems, are where these theories of animal cognitive activity are substituted for models of *human* knowledge. Protesting that such a substitution or replacement is called for is, to my mind, to step over the classical boundary stone.

I take it as obvious that, while it may be possible for animals to hold beliefs, they do not *reflect* on the fact that they have such beliefs, at least on nothing like the level that human persons do. I am quite comfortable that the sciences currently suggest something of a reliably produced true belief *ethological* epistemology, because I am not the animal the theory is about! If the theory were about how it is that *I am* able to know, naturally, I am compelled to ask 'is there any reason to think that the theory is true? Can I know that I have any knowledge?' These questions naturally issue from our being reflective beings. We wonder if any of our theories of

⁷⁴ Kornblith, *Knowledge and Its Place in Nature*.

the world are true, including our epistemological theories. The scientific method assumes the general reliability of cognitive faculties that we as reflective and imaginative human beings just cannot allow to go unquestioned. Human creatures find themselves wondering if appearances are any indication of the reality they seem to be indicative of. They wonder about the trustworthiness of testimony and memory to transmit and preserve previously legitimated propositions. They ponder whether inductive methods and the general canons of logic are reliable guides for tracking the truth. All these the naturalist assumes with the scientific method before doing epistemology. He is fine to assume these things for purposes of building a theory of non-human knowledge, in so far as the purposes of ethologists are concerned. But the moment he wonders whether this theory is likely true, he will have to revert to a scheme that legitimizes, not assumes, his scientific tools (his perception, inferences, etc.) The naturalized epistemologist essentially relays a series of facts that must obtain for knowledge to obtain, but offers no reason to think that such facts ever do obtain. ‘But science *tells* us that these facts obtain,’ the naturalist replies. I am afraid it is just not that obvious that science should lead to the truth. This is a question around which careers can be built. This is the question inspired by the classic landmark.

To be told what must occur, as a matter of fact, for a human person to know any propositions whatsoever, does not satisfy what a person needs to be told out of an epistemology. He needs to be told, in addition, how he can ever know that such conditions ever obtain at all. He needs to be told how he may know that he knows anything at all. I suggest, but will not develop in detail, that such accounts must be fundamentally internalistic, explaining how a person might come out of his reflection with good reason to believe himself a knower. I will just say that the question of knowledge in general is a question of the individual for the individual as a potential

knower. As such, it needs an answer that assumes the subject in question is an island unto himself, the only knower that exists. Such an answer will be inescapably internalistic.

This problem with replacing a human epistemology with a non-human epistemology would not be an issue if human persons were not so darned reflective. But this is a feature of the inherited nature we all share, and one we cannot merely ignore in doing epistemology because the questions are hard. Perhaps the questions at this level will escape our understanding indefinitely. The prescription then is to embrace the tension, whittling down the nuance as sharply as possible. Science may go on advancing our knowledge and demonstrating its great success in technological application, but it cannot shake me free from my sentiments about what I need out of an epistemology. To accept such a surface epistemology as the one the naturalist would have us accept seems to betray the very impetus that inspired scientific investigation in the first place; that of the appreciation of the appearance vs. reality distinction, the classical epistemological boundary-stone.

I will now proceed to explicate the features needed within a human epistemology which seem to be implicitly motivating Bonjour and Stroud's critiques. The unpersuaded naturalist will respond that Bonjour's and Stroud's views of epistemological strategy run counter to the science. I would respond that such accounts are crucial for *human appreciation* of the science in the first place. That science indicates that such epistemological theories are not to be had or cannot be had suggests to me a solid argument against methodological naturalism, against the idea that all inquiry ought to be done along the lines of empirical scientific investigation. If methodological naturalism entails the movement of the classical landmark, then this seems to me ample reason to think methodological naturalism false.

Reckoning with a priority

I want to defend here the thesis that, for any acceptable epistemological theory, that theory must delineate conditions for knowledge that hold in any possible world, or, at least one must be able to *say* that such conditions hold in any possible world in which creatures sufficiently like us exist. More specifically, that theory must be able to *say* that if its epistemology is correct then its prescribed criterion for knowledge hold no matter how the contingent features of the world might go. Notice then this claim is not that an epistemology must claim for itself a case-closed completion, but that those ascribing to its dictates must be able to tell themselves that if their theory correctly captures what it is to possess knowledge of something, than that theory must include features that intrude into every possible world in which creatures sufficiently akin to us exist. In other words, such a theory needs to be sufficiently modally general. When doing epistemology we must be surveying the total modal landscape in which creatures like us exist. My claim is that an acceptable epistemology must drive its theoretical stake down into every possible world.

Notice at the start that no naturalist, at least no epistemological naturalist, would agree that such a claim must be made for a legitimate epistemology. Indeed, naturalists think it impossible that such a claim be made. Such claims would have to be justified or known a priori through some mysterious and unidentified cognitive faculty that no one has any good reason to think exists; science certainly doesn't reveal the human mind as so equipped (I'll argue that such a faculty must exist, or else we either have to adopt skepticism or redefine our notions of truth). Moreover, says the naturalist, given that the target of epistemology is a natural kind, no investigation of the thing can, in principle, ever reveal that we know things a priori. This is because investigation into natural kinds proceeds via empirical methods, so that even if science

discovers a priori functions in human beings, this species of a priority will look nothing like the thing traditional rationalists countenanced.⁷⁵ Obviously, then, my position is in strong contrast to naturalist sentiments. If an epistemology is possible at all, thinks the naturalist, and typical rationalist a priori justificational categories do not exist, then surely a legitimate epistemology is not going to need to speak into every possible world, it positively cannot.

As I say, it seems to me that an epistemology must contain features the truth value of which is driven through the full realm of possible human empirical experiences because, as discussed above, the philosophical skeptic must be reckoned with. The classical landmark must be respected. If the totality of one's beliefs, including one's beliefs about the features in virtue of which his beliefs are justified, are all believed on empirical grounds from the way the world presents itself to us, then not a one of them should be thought to be true.

From a quick glance at the history of science, we know an empirical theory to be quite a frail and fragile thing. In his critique of creation-science as a bona fide science, Michael Ruse states that "Creation science is not a science because there is absolutely no way in which creationists will budge from their position...Science must be open to change, however confident one may feel at present."⁷⁶ If one's theory explaining the verisimilitudeousness of theories in general is in no deeper soil than those very theories the verisimilitudeousness the theory in question purports to explain, than what grounds has one to believe in the truth of theories in general? The theory of truth-conduciveness is on just as flimsy an empirical reed as the rest of science, therefore being just as susceptible to change and readjustment. Whatever theory of justified belief is given from the natural epistemologist, this theory must be approached with an

⁷⁵ Both Phillip Kitcher and Alvin Goldman think such modified notions of the a priori can be made scientifically respectable.

⁷⁶ Michael Ruse, "Creation-Science Is Not Science" in Curd & Cover, *Philosophy of Science* (New York: Norton, 1998), 44.

attitude that “must be open to change,” and, moreover, given the history of science, one should even expect it. This, to my view, plunges one into a deep form of skepticism in the sense that he hasn’t for himself solid reasons to think his scientific theories, or other theories, true. My thinking this is a direct result of my appreciating the classical epistemological landmark and the question of knowledge in general.

Descartes, in appreciating the classical landmark, provides a paradigmatic example of what such a landmark respecting epistemology ought to aim to say. Notice what he was able to say, provided his epistemological account was successful. He advances his theory from a proposition that, under his view of things, could be known to be true necessarily, or could be known to be true in every possible world in which he existed. In other words, his epistemology was founded in a knowledge claim that no amount of experience could even in principle undermine. This proposition, was, of course, his *cogito ergo sum*; no matter the contingent features of reality, Descartes’s knew he must, in some way or other, exist, in so far as he was a conscious, pondering, reflective entity. Whatever else might be true about the world, this statement that he at least existed would remain epistemically unscathed. From such a beginning position, a position from which he stood in every relevant possible world, he began to weave together a theory of justification and knowledge that could be applicable to persons in the actual world (for such a theory if true would hold in every possible world). If such a theory were successful, upon questioning whether he knew such things as 1 and 1 are 2, that he ate eggs for breakfast, or that there was a table before him, his reasonings were traceable back to a foundation that was concrete and stable over every possible world (including such mass deception worlds). Without such a foundation, without the ability to make claims about rationality that hold, if true, in every possible world, the epistemologist cannot tell himself what he needs to be told about his

knowing very basic rudimentary propositions, namely, that he is justified or rational in holding such beliefs, even in light of possible demon or evil genius scenarios. An epistemology must be able to say something about knowledge in general that respects the classical landmark.

Now Descartes may be judged as less than successful in following the prescriptions of his own system. Nevertheless, he gives us a picture of what is needed within an epistemology in terms of what is needed to be said of knowledge items. Namely, that they can be justified or accounted for through some reason-giving conception that is in some way tied down to an idea of the way things *must* be. This demand that an epistemology be able to say such things about human knowledge is a direct consequence of the classical epistemological landmark that demands a respect for the appearance vs. reality distinction.

Contra Descartes, justification may not be necessary for knowledge, but an epistemology is still obliged to formulate a theory of justification nonetheless. Such a theory delineates rules for belief acceptance, even though an accounting of how this belief one is entitled to accept is an item of knowledge involves facts having nothing to do with those facts in virtue of which the belief is justified. When asked when anyone may be said to know that all crows are black based on some given sample of black crows, Kornblith notes that such inferential beliefs are items of knowledge when they are true and formed by such and such a reliable process in such and such an environment. A much different question asks for *reasons* anyone has to think that such a group of conditions or facts ever obtains. This is a question of justification, and for the naturalist to respond that such conditions *do obtain* is to miss the question entirely; for, we asked, *why think* these conditions obtain. Such an answer by the naturalist either misunderstands the question or sees such a thing as a pseudo-question. If the scenario is a matter of the first case, the questions just needs to be looked at again; if the second case, then I argue that this response

clearly betrays the fact that humans are introspective, reflective and inquisitive beings who demand that an epistemology respect the classical landmark. The a priori is, in my opinion, a human faculty that must be posited to ground the kinds of justificatory features needed from an epistemology.

What is the position that a finished naturalized project in epistemology leaves us in? It seems to me that it is not unlike the foreigner who asks a street vendor whether or not some particular food item is good for eating and from which he is answered ‘Well, if your body is in such and such a state and the food item contains such and such ingredients, then it’s good for your eating.’ This may have been an interesting response if the foreigner had asked for some possible scenario detailing conditions under which some food item is beneficial for some human body, but this was not his question. His question was about whether or not he himself would be harmed by eating the specific food item in question. The vendor’s response is perfectly compatible with the foreigner eating the food to his demise. In such a case, the conclusion would be, ‘Well, the details given in the vendor’s hypothetical scenario must have not obtained in the actual scenario.’ The foreigner is not interested in the facts that must obtain for him to enjoy the food item without perishing, although these are interesting to know in their own right. He is interested whether or not these facts obtain in his situation. A similar analogy may refer to a man dangling out the window from the 17th floor of an apartment building, being blinded and choked from the smoke chasing him from the floors below. He calls down through the smoke to ask whether or not it is safe to jump. The fire squad replies that ‘well, if we have here a some safety net in place, and you jump, then you would be safely caught.’ This is perfectly consistent with the statement, ‘if you were to jump here in this actual scenario, you would meet the pavement.’ This first statement is not at all what concerns the endangered man. Such statements are good for

chalkboard discussions about possible ways in which a man may be saved from a fire by jumping out the 17th floor. What we want is a statement about the actual arrangement of things.

I can't see how the response from the naturalized epistemologist is any different from the vendor or fireman in the above scenarios. The truth seeker wonders whether he is ever in a position to know something as simple as that material objects exist. The natural epistemologist is claiming to have answered the question by describing some way things would have to go if the person in question were to know. Again, this is consistent with the subject knowing nothing, for the necessary and sufficient conditions described by the natural epistemologist may not obtain in the scenario in question. So if the honest truth seeker is anything like our foreigner or endangered man, the reply is 'eat it or don't, jump or don't, you cannot know whether you will be safe.' To the reflective truth seeker it is - believe it or don't, you cannot know whether it's true.

Putting the A priori to Epistemological Use

Notice the function of the a priori in standard philosophical reasoning. The a priori is a predicate used usually to denote a way of knowing or coming to know, or ways in which a belief is justified. The standard way of thinking about beliefs that were arrived at through a priori means is that such beliefs, if true, are necessarily true. A true belief that is justified apart from one's empirical experience of the world is thought not merely to be true as are the contingent features of the actual world of trees and DNA and of water molecules, but to hold true in the actual world as well as in all other possible worlds. Such paradigmatic beliefs as these include such beliefs as if A is taller than B, and B is taller than C, then A is taller than C; nothing is both red all over and green all over, and that no prime ministers are prime numbers.⁷⁷ If beliefs

⁷⁷ My favorite example of Alvin Plantinga.

justified a priori were true, such beliefs are expected to weather the total accumulation of empirical experience. No pressure from empirical data would call these beliefs into question. Whatever doubts we may have about the accuracy of our scientific theories in capturing the truth of the contingent features of the actual world, our theories about how to treat the data are necessarily true. Hence the motivation for a first philosophy, an inquiry that is conducted first or before empirical inquiries to set these progressive investigations on a sure foundation, ensuring that they progress towards truth.

A central naturalist dogma is a rejection of such a priori methods and hence a priori knowledge. As a consequence our theories about the proper handling of our scientific and other beliefs - our epistemologies - are themselves built out of science and thus susceptible to revision with the rest of science. Kitcher asks the rhetorical question, do we want “[a]dvice for any reasoning being - for ‘reason itself’ - that would be good no matter what the world is like? Or advice for limited creatures like ourselves that would be effective in the actual world?”⁷⁸

Kornblith reflects a similar sentiment when he writes,

just as our perceptual mechanisms tend to provide us with a rich and accurate understanding of the many features of the world around us, without being well-adapted to every possible environment, the appropriate approach to understanding human inference would have us examine the kinds of inferences which would allow for an accurate understanding of our world, not those inferences which could not help but provide an accurate understanding of any possible world.”⁷⁹

In other words, those principles that ought to guide belief formation are empirically motivated principles about how human organisms may best apply their native cognitive capacities for effective use in the world they inhabit, not for use in just *any* metaphysically possible world. Are there good reasons, though, to think that we know those features of our beliefs in virtue of which those beliefs count as knowledge? No such non-question begging answer exists for the

⁷⁸ Kitcher, 63.

⁷⁹ Kornblith, “Naturalistic Epistemology and its Critics,” 242.

naturalist here. These faculties are assumed to be truth-conducive at the start to then determine those features in virtue of which they are truth-conducive.

Listen to a hypothetical discussion, typical of those who argue over these issues. If, when asked to offer reasons for the legitimacy of sense perception the naturalist replies that science tells him so, all one can do is kindly repeat the question. Why think that visual judgments are likely to be true? Because, the naturalist replies, it is likely true that they are reliable. Yes, but this is believed through use of the vision. Why think that visual judgments are likely to be true? Because scientists have looked on them, looked out into the world, and found that these faculties are well-wired to pick up on truths about the world. Yes, the reply comes, but this requires looking, and we are back to the question? Sure, if in fact these faculties are reliable and they have produced a true belief that p , you may know that p , but no reason has been given to think that any visual judgments at all are true, that when I am seeing before me those empirical features of your brain that explain the production of your belief that there is a tree before you I am not seeing something very different.

The naturalist is likely to say that here is where he bottoms out. Sure these probing questions of the non-naturalist are meaningful, but they ought not be of any serious concern, for they call for an answers that are in principle impossible to give. For knowledge is a natural kind, and there is only one way of getting at natural kinds, through empirical methods. In all inquiry, certain things must be taken for granted, the naturalist elects to take for granted his sight. These kinds of responses from the naturalist just fail to take seriously the fact that human beings reflect on their beliefs and are concerned for their epistemic legitimacy in light of other possible explanatory hypothesis for those beliefs, such as mass deception worlds. These natural human sentiments demand that knowledge not be investigated exclusively via empirical methods.

Naturalists who are realists with respect to their theories obviously think the entities in their theories refer to some degree or another. From the theory of the existing tree to the theory of the existing quark, these scientists consider themselves operating according to a procedure that is effective for determining the true structure of reality. But when the person wonders about his epistemic right to posit a tree and the scientist wonders about his epistemic right to posit the quark, both are presented with an epistemology from the naturalist that tells a story about how those very same faculties and procedures were used to determine that such posits were legitimate, rational, and likely to be true. Such a theory effectively says that, assuming that our world is not some mass deception world, you can be assured that your tree and your quark exist. But this possibility of a world of mass deception was precisely the impetus for the question in the first place. The person who wonders whether his posit is true is not appeased here because such an account demands that he accept a theory of epistemology that is no better founded than the theory he was originally in question about. His intuitions scream at him that his science might be wrong, that his visual beliefs and inferential beliefs and other beliefs may be inaccurate, and so he needs to be told a story at a different level. He needs to be told a story about certain of his beliefs that he may be able to know hold true no matter the contingent features of his world and the discordant streams of his experience. There is going to be some needed appeal here to a priori knowledge.

These beliefs about which there is needed some internalist a priori account include beliefs about standard reasoning processes: That if either A or B, then, if not-A, then B; that if Socrates is a man, and if all men are mortal, then Socrates is a mortal; That if all observed crows have been black, then probably, the next observed crow will be black; that one ought to do as little damage to a theory as he can when making revisions; that a simpler theory is closer the sober

truth than a more complex theory where both are equal in explanatory power; that if one is appeared to treely, then probably he is seeing a tree before him. An epistemology must offer an account of the legitimacy or justifiedness of such beliefs that ground their epistemic worth in model categories of necessity.

Such beliefs as these must be licensed in a way that the reflective person understands that such beliefs are not merely licensed by the current scientific understanding of things. If such beliefs do ultimately rest on the going empirical theory, as the naturalist would argue, then such beliefs are just as susceptible to revision as the rest of those in one's total science. My belief that I am taking myself toward the truth by doing such and such with my theory in light of incoming observational data is itself a belief that may have to be revised at some point in the future. So take Kornblith's naturalistic meta-justification for thinking that the scientific method points one towards the truth. He argues that only a science whose entities in some sense referred would be as explanatorily successful and effective for technological application as our science appears to be. But this is an abductive inference that is legitimated by the very science the abduction is supposed to legitimate. The naturalist's meta-justificational argument relies on a belief that for all he knows may be jettisoned at any point in the future by the pressure of new data on his theory. But the meta-justificational argument was supposed to establish that any scientifically based belief was to approximate the sober truth of things, including those beliefs about the proper way to pursue truth. So in this way, there is no security that anyone at the present has a justified belief.

SUMMARY AND CONCLUSION

It is my view that a naturalistic epistemology is not all that different from a more traditionalized epistemology, in the sense that the two approaches share the same general goals.

Both appreciate that epistemology is after a characterization or explication of the nature of knowledge, that it seeks a set of guidelines for human beings for seeking and retaining truths and avoiding falsehoods, and that it attempts to provide an explanatory account of just how knowledge is possible. But, as I have argued above, although both approaches claim to tackle the same questions-on-paper, they differ on their understanding of those questions with respect to the intended character of the answers. The naturalist is forced by his methods to treat the question of the possibility of knowledge in general in a fashion that regrettably steps over the classical landmark or boundary-stone for epistemological investigation. Such a naturalizing move results in a disappointing epistemology that cannot hope to speak to the most fundamental epistemological concerns that confront the individual human experience. It was noted that this is quite ironic, as science arguably begins off of something very close to the appearance vs. reality tension captured in this notion of the classical epistemological landmark

My argument has been that a naturalized epistemology is a mistake in so far as it expects the sciences to treat the full spectrum of epistemologically significant questions. Such a naturalization cannot hope to build a theory of knowledge that can alleviate the deep skeptical concerns for which the discipline was designed to address in the first place. I argued further that the nature of the appearance vs. reality tension bound up with the human condition produces important skeptical concerns whose solution requires exercising a priori methods and appeals to a priori knowledge for development of a crucially internalist theory of knowledge. Only in this way can the human community hope to develop a theory of human knowledge that rises to the challenge of what is needed out of the human condition.

Suppose, though, the natural project aims for the best we can do in formulating a theory of human knowledge. Be that as it may, I cannot shut off the faucet of these questions. They

persist in throwing themselves upon me in virtue of my being a reflective being. I might as well be asked to stop being human. Perhaps the naturalist would prescribe for me a strategy for ‘numbing’ my sensitivity to such tensions as those exemplified in what I have been calling the classical epistemological landmark. Perhaps he could explain the psychological persistence of these questions as merely neuro-biological throw-offs of the human psyche, the answering of which reality has no obligation to disclose. After all, there seem to be any number of possible meaningful questions that humans could ask themselves for which reality hasn’t any answers. What are we to say to the naturalist who tries to dissolve the import of the classical landmark in this way? Are our deep questions about knowledge in general mere subjective psychological consequences of a misdirected enthusiasm, having no objective grounding at all?

It seems to me that something can be said to the naturalist on this charge. There do seem to be obvious objective features of the human epistemic experience that motivate these questions about knowledge in general and about which a naturalized epistemology cannot explain or make sense of. The concerns born out of the classical landmark do have objective underpinnings that legitimize their import for human beings, naturalist or non-naturalist. It seems to me that these fundamental questions that arise from the appearance/reality distinction are symptoms of our need for an explanation of these objective features of our subjective mental/epistemic experience. More specifically, these data are our individuated internal experiences of our having direct control over which of our beliefs to reflect upon and of our finding ourselves attitudinally moved with respect to assenting to those beliefs in virtue of perceiving distinct logical and evidential relations. These phenomenological data are of an ontological ilk that, it seems to me, the naturalist cannot reduce to scientifically respectable material properties and substances. These bits of data of the human experience need to be understood and raise concerns with respect

to explanation that science, in principle, is not methodologically designed to handle. Thomas Nagel⁸⁰ in a recent important work has written that “if we hope to include the human mind in the natural order, we have to explain...the conscious control of belief and conduct in response to the awareness of reasons.” It is Nagel’s opinion that a thoroughly materialistic conception of things cannot account for or lend understanding of these data, and I happen to agree with him. In so far as the naturalized epistemological program altogether ignores or suggests that we radically reinterpret these data as something other than what they clearly are, there remains room for more classical epistemological approaches to do good epistemological work. If the naturalist’s program is the whole of what an epistemology can deliver, then I surrender the name to the naturalist and propose a new discipline for these still probing concerns that flow from the nature of our rich internal epistemic experience. But of course this discipline will be all too familiar for it will merely reassume the purpose of investigating and taking seriously those questions of knowledge that clearly emerge from the human condition, the kinds of questions philosophy begins with.

⁸⁰ Thomas Nagel, *Mind and Cosmos* (New York: Oxford, 2012), 84.

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