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Epistemology for Naturalists and Non-Naturalists: What’s the Difference?

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**Abstract**

The current debates between Naturalists and Non-Naturalists about epistemology are difficult to navigate because there are so many forms of naturalism and non-naturalism and many different issues debated over. This paper will first attempt to explain and define what I think are the basic naturalist and non-naturalist positions on epistemology. Then it will compare the epistemology of three naturalists Quine, Hilary Kornblith, Jeagwon Kim with a non-naturalist/theist, Alvin Plantinga, to see if my formulation of the debate stands. I am making two separate claims: First, that one’s methodology will affect or determine one’s ontology. Second, that the main issue between naturalist and non-naturalist epistemologists is that naturalists are committed to the natural sciences as the only methodology for discovering what exists. On the other hand, most non-naturalists do not restrict their methodology to only the natural sciences, but allow for various methodologies applied to various modes of inquiry to investigate and discover different aspects of reality.

What lies at the heart of the debate between epistemological naturalists and non-naturalists is a disagreement about how we should go about discovering the nature of what exists. Naturalists and non-naturalist disagree about how to approach the world with different methodologies applied to different modes of enquiry. The epistemology of naturalists and non-naturalists is bound up in their metaphysical commitments and beliefs. Naturalists and non-naturalists disagree about epistemology because they have different metaphysical starting points. These metaphysical commitments are usually determined by their epistemological methods. That is, once someone chooses a method for how to discover things in the world their method will in turn determine the restrictions they place on what can be known about the world. These restrictions on what it is possible to know, are what influence one’s metaphysical beliefs about what exists. The central questions that naturalists and non-naturalists answer differently are; which methodology correctly determines what exists? Also, is there more than one methodology for discovering what exists?
This paper will first attempt to explain and define the naturalist and non-naturalist answer to these questions. Then it will compare the epistemology of three naturalists with a non-naturalist to see if my formulation of the debate stands. My argument makes two separate claims: First, that one’s methodology will affect or determine one’s ontology. Second, that the main issue between naturalist and non-naturalist epistemologists is that naturalists are committed to the natural sciences as the only methodology for discovering what exists. On the other hand, most non-naturalists do not restrict their methodology to only the natural sciences, but allow for different modes of inquiry (methodologies) to investigate and discover different aspects of reality.

One distinct characteristic of the epistemological naturalist is how they adopt the methodology of the sciences, namely, observation, hypothesis and prediction, as their method of discovering what exists. If one takes this method to be the only method of discovering that which can be discovered, one’s beliefs about what exists will be restricted by this methodology. This is what some epistemological naturalists hold; the only way of knowing about what exists is by using the natural sciences therefore everything that exists is natural. More specifically, they take the scientific methodology to be the all encompassing guide or authority on what actually exists, which leads to a naturalistic ontology. This ontology is defined in
terms such that, what ever exists must theoretically be able to be discovered by the methods of the natural sciences. Or in other words, there are no supernatural or spiritual entities, because they can not be discovered by the natural sciences. In this case, the naturalist’s ontology is determined by a scientific methodology. This ontology then feeds back into the epistemology and restricts knowledge to only “natural” things. The claim I am making here is that Metaphysical Naturalism is the product of Epistemological Naturalism.

Naturalist Epistemology schema:

![Naturalist Epistemology schema](image)

Figure 2.

But, there are those who think “the way to be a naturalist in epistemology is to be a supernaturalist in ontology.”¹ Alvin Plantinga argues that to be a naturalist in epistemology one should be a supernaturalist or non-naturalist in ontology. His argument can be roughly summed up by saying that our study of what we can know depends on the proper functioning of our cognitive faculties. He argues that the notion of proper function requires the metaphysical belief in a designer who created our faculties to aim at truth. Plantinga is a supernaturalist in ontology but he believes that part of our knowledge of the world does come through our regular cognitive faculties plus a *sensus divinitatis*, a capacity that we have by which we come to belief in God.²
For Plantinga and other non-naturalists, scientific knowledge is only one kind of knowledge among many, we should not be restricted by the scientific method as the only method of discovering what exists. His *scientific* epistemology may be “naturalist” in the sense that he is looking to discover everything possible that our senses will allow us. But, the scientific methodology need not be *all encompassing*. Science may be one way of discovering truths about the observable natural world, but it need not be the case that everything that exists must be able to be discovered by the scientific method. Plantinga holds that there are other methods for knowing and therefore there are other types or aspects of existence that are not discovered by the scientific method. The question arises here as to what we mean by existence. Most objections to non-naturalist epistemology come in here. How can we say that there are things that exist that are not natural? What could you possibly discover in the natural world that is non-natural?

Non-Naturalist Epistemology schema:
Most naturalists adhere to a form of materialism or physicalism. These terms are sometimes used interchangeably and it is hard to pin down a definition. David Papeneau gives a rough definition that many others hold to; “all existing things are physical and anything with physical effects must in some sense be physical.” In other words this is the belief that everything that exists is material and in theory, things that can bump into each other, even if is at the quantum level. It is also a rejection of any notion of supernatural entities that can’t be empirically discovered. So the prima facie objection to non-naturalism could stem from a belief in physicalism.

A non-naturalist could respond that everything that exists is called “natural” simply because existence is “natural” without placing any restrictions on what can exist and how we must discover it. It could be true that there are different ways of accessing reality. Different aspects of reality may require different modes of inquiry. Different aspects are things like number, space, motion, organic life, emotions, logical distinction, historical development, symbols, social interaction, aesthetic harmony, law, moral valuation, and faith. Each aspect of reality should be studied according to its nature which determines how we know about it. There are various disciplines that seek to investigate each aspect; mathematics, physics, chemistry, biology, psychology, logic, history, linguistics, sociology, aesthetics, legal theory, ethics, and theology. So a non-naturalist epistemologist is simply someone who does not allow the scientific method to determine or restrict the ontology of everything that can be possibly known or discovered.

Now that we have some of the issues delineated, let us look closely at Quine’s essay ‘Epistemology Naturalized’ to find out what distinguishes him from a non-naturalist. He is trying to explain where we are headed now that we have rejected the idea of gaining certainty from our impressions. Quine relates the failure of translating math into logic, to the failure of epistemology of natural knowledge. The complete reduction of mathematics is impossible and does not reveal the ground of mathematical knowledge and therefore could not show us how mathematical certainty is possible. The epistemology of mathematical knowledge also failed because it could not find a solid ground that could be proven beyond doubt. Just as we have tried to reduce math to logic so we tried to reduce natural knowledge to sense experience, which also failed because sense data does not have an intrinsic principle for grouping or ordering into concepts. Hume realized that obtaining certainty about how impressions correlate with the real or external world was impossible. All we have are impressions, and this collection of impressions is all we know about the self. Quine argues that we have no more certainty today about the external world than we did when Hume declared certainty impossible.

Quine sees us in the same place where Hume left us. We can’t prove or perfectly justify our knowledge of the external world. Quine argues that once we realize this, we should be content to give up our epistemological goal of validating the grounds of empirical science and settle for explaining how we actually relate sense data to theory. To explain, the Cartesian epistemology has made us belief that we can find an inductible foundation for science, but this project failed. Instead we should analyze how human beings respond to stimuli or sense data because that would be more fruitful. He asks, “Why all this make-believe? The stimulation of his sensory receptors is all the evidence anybody has had to go on, ultimately, in arriving at his picture of the world.” If all we have is stimulation of sensory receptors we must give up hope of finding a certain foundation for knowledge and embrace the circularity of our predicament. This is where Hume brought us to and this is where we are stuck, in a circle of talking about our sensory impressions by referring to other sensory impressions.
So finally we get to the point that Quine is trying to make, the point about what makes “naturalized” epistemology different from the “traditional” or “old” epistemology.

The old epistemology tried to “contain” or enclose natural science, by starting from sense data. Naturalized epistemology links science to experience by studying a “natural phenomenon;” the human as a subject and describing how the subject takes input, sensory stimulus, and produces output; scientific theories and descriptions of the world. He argues that we are still doing epistemology because we are still looking for how scientific evidence relates to our theory of nature. Psychology then, is our only option; we should study how the human being constructs and projects his theories onto the world from certain stimulations of his sensory receptors. The “natural” for Quine is the empirical meaning of a sentence. Psychology studies the empirical meaning of sentences that a certain community with uniform stimulation agrees upon after examining what input of stimuli is causing a human subject to produce the output of theory. Psychology is supposed to be more natural because it is non-normative, that is, it does not tell us how to go about discovering the causes, makes no claims to certainty, nor does it begin with first principles. The summary of this is that psychology is the true natural science because it makes no claims about absolute truth; instead it defines truth about the world by acceptance within a community.

My interpretation of Quine is this: Human beings are not free or conscious beings who choose what to believe based on evidence or reasons, nor are they rational beings who can choose to follow a certain standard of rationality. There is no right way that we are supposed to think; we have no choice in the matter. Humans are complex turing machines with a hard wired material system in our brain. Stimuli produce certain effects and these effects must be causally related to the output: our theories of science and the world. Therefore, we need to study human beings the same way we study the natural world; observe, hypothesize, observe again, test our hypothesis, and adjust accordingly. For Quine, to “naturalize” means to treat as objects, to get rid of this Cartesian idea that human knowledge is special or non-natural. The scientific method determines Quine’s ontology. To him humans have become material subjects of inquiry and analysis. Given this interpretation, what part of Quine’s version of naturalized epistemology is still held by more modern epistemological naturalists?

Let us take a quick look at Jaegwon Kim and Hilary Kornblith to find out what they hold in common with Quine. Kim rejects Quine’s version of epistemology that studies causal relations between input and output because he argues that real epistemology is in the business of justification. Justification is about normativity, that is, it looks for how we should, or ought to justify our beliefs and beliefs are normative concepts. Kim calls Quine’s approach a descriptive empirical theory of human cognition entirely devoid of the notion of justification or any other evaluative concept. But Kim is still interested in naturalistic epistemology. Hilary Kornblith is also interested in defending naturalistic epistemology, but he also rejects Quine’s formulation. He argues the knowledge is about justification but it is a natural kind, part of the natural world. So is there anything that binds Kim, Kornblith, and Quine together? I believe there is. What binds them together is their use of the natural sciences in determining what exists (ontology) and how we should go about investigating it (methodology). Let me give examples from each to show what I mean.

Quine notes at the end of his paper how getting rid of boundaries between epistemology, psychology, and linguistics will bring progress to philosophically interesting inquiries of scientific nature, things like perceptual norms or evolutionary epistemology can be explored more freely “now that we are allowing epistemology the resources of natural science.” “Epistemology …is contained in natural science.”
“Epistemology becomes semantics…epistemology remains centered as always on evidence, and meaning remains centered as always on verification, and evidence is verification.”\textsuperscript{15} The first of these statements shows us that Quine thinks the natural sciences should be in the driver’s seat of epistemology. Empirical, observational inquiry of the natural world determines what we know about existence, and how we know. Everything rests on verification, which for Quine is agreement among a community sharing the same language. His version of verification may be different than Kim or Kornblith but it makes the natural sciences the authority on all other forms of inquiry.

Jaegwon Kim notes that what Kitcher thinks binds epistemological naturalists together is that “justification is to be characterized in terms of causal or nomological connections involving beliefs as psychological states or processes, and not in terms of the logical properties or relations pertaining to the contents of these beliefs.” In other words, one is justified in believing something when the belief was caused by a certain event in the right way. The key notion is that the belief process is causal, or mechanical, rather than a free rational choice where an agent weighs the evidence and chooses what to believe. Kim argues that this distinction distances modern epistemological naturalism from Quine’s conception of naturalized epistemology.\textsuperscript{16} But I think otherwise. Kim argues that because he is keeping the notion of justification as central to epistemology he is distancing himself from Quine. But the way he characterizes justification, seems to push him closer to Quine rather than further away. I want to argue that Kim is using the word justification but that his formulation of it does not have normative force, because the facts he grounds justification on do not have normative value.

My evidence for this is found in how normative properties are said to supervene on naturalistic conditions. He states “We believe in the supervenience of epistemic properties on naturalistic ones.”\textsuperscript{17} Supervenience is roughly the idea that there are properties that exist which correlate and are grounded in “naturalistic or descriptive details” of the world but they resist being defined by scientific terms.\textsuperscript{18}

I want to argue that the theory of supervenience does not solve the problem of normativity in justification within naturalistic epistemology. The fact still remains, these mysterious properties exist because they are grounded in a certain factual non-epistemic non-normative property. Justification must be “grounded in factual descriptive properties of that particular belief.”\textsuperscript{19} If the ground is in naturalistic conditions and properties, the ontology is naturalistic, that is, what can be discovered by empirical inquiry. Hence, I do not see the difference between supervenience and reduction. Supervenience seems like a smoke screen for naturalist metaphysics. In some sense it is simply saying that certain properties exist and they are grounded in the material world but science could theoretically discover them if given enough time and resources. For Kim, the natural sciences are what govern the method and the ontology. One can see this when he says, “any valutational concept, to be significant, must be governed by a set of criteria, and these criteria must ultimately rest on factual characteristics and relationships of objects and events being evaluated.”\textsuperscript{20} If all value must be governed by factual characteristics, how is this any different than Quine saying that epistemology is centered on evidence and evidence is verification? The factual characteristics are discovered by empirical inquiry, therefore all notions of justification also rest on empirical inquiry, but descriptive properties are not evaluative, they are by nature, non-evaluative. If the ground of justification is descriptive, how can values arise from it? How can an “is” give rise to an “ought?” We may try to prescribe certain norms or rules ourselves but these will have no real sense of objective normativity. Supervenience may resist trying to give an explanation for this but if we follow the logic of Kim’s argument normativity seems to drop out of justification and supervenience becomes a moot point.
Kim tries to avoid this conclusion by saying that the values must or ought to be “consistent” with the facts, and there must be non-valuational reasons for the attribution of values, which must be “generalizable, that is, they are covered by rules or norms.” But we are back to the same dilemma, as soon as he introduces the notion of how values must be consistent with the facts, he is using an evaluative term but this time it can’t be grounded in the facts, because he is talking about a rule about the facts, that must be followed in attributing values to beliefs. To say that values must be consistent with the facts because values are grounded in facts is like saying “you should not lie, and you should not lie because lying is wrong” and then pretending like you have simply stated a descriptive fact about lying. Either Kim has to admit that the rules for the attribution of values are non-natural, or he must abandon the notion of rules for value attribution in order to remain naturalistic. If Kim is so convinced that epistemic properties exist why doesn’t he abandon the naturalist metaphysics and give these non-natural properties their own ontology? Either Kim is not really a naturalist in metaphysics, or he is much closer to Quine’s Psychologistic approach than he thinks; the natural sciences govern his methodology, which determines his ontology.

Philip Kitcher is even closer to Quine when he says that the naturalistic approach to justification is characterized in terms of causal connections. If justification is a causal relation between the facts and the psychological states, how is this any different than Quine arguing that epistemology is about describing how input causes output? I don’t see any real difference.

The notion of causal processes does not seem to match up with standards of rationality that Kim argues for. Rationality seems to be something involving freedom, choice, and potentiality; those who hold to some version of this usually don’t assume that our reason is like a Turing machine, where certain input will always produce the same output. What Kim and Quine seem to hold in common is their view of human beings, although Kim argues that Quine has rejected standards of rationality, he ends up losing any real notion of rationality by grounding everything in descriptive facts. Reason can not be explained by or grounded in causal processes and descriptive facts, unless we get rid of the notion of rationality as a unique mental human capacity altogether. Let me explain this. Reason or ratio means to calculate or relate two or more things together that are not already related. A calculator is programmed by a human being to produce output within a formal system given a certain input. So when I punch in “1” and “+” and “2” and “=” I will always get 3 because the calculator has been programed to respond to stimuli which are electrical impulses (the buttons being pushed) and produce another electrical impulse causally connected by wires and circuits. When a human being receives input of sensory stimulation, there are certain electrical impulses that respond, such as blinking, coughing, breathing, and physical reactions to pain but, when someone asks them “what does one plus two equal?” A human mind does not simply react immediately by uttering the word “three.” A process goes on that requires an act of the will to use ones brain, to access memory, to relate what “two” and “one” mean to what they signify and then it requires the ability to connect them to form a new relation called “three.” But it is by no meaning automatic or mechanistic, it requires an awareness of stimuli as information and not just meaningless sounds that cause a reaction, it also requires an awareness and understanding of mathematical rules and axioms. I could answer the question any way that I want. I can employ my reason in a way that a calculator can not, a calculator has not choice but to respond to electrical impulses, it does not recognize the impulses as information.

A few short quotes from Kornblith will wrap up my argument for what binds them all together. “Because epistemology thus conceived (naturalistically) is a wholly empirical investigation, naturalists have nothing to apologize for.” “Epistemology according to naturalism, investigates a certain natural phenomenon,
namely, knowledge.” Elsewhere in his essay ‘Investigating Knowledge Itself,’ he makes it clear that philosophy should welcome the constraints that science puts on it because “theorizing that is unconstrained by empirical fact loses its connection with the very phenomena which we as philosophers seek to understand.” It is clear that Kornblith sees epistemology as governed by the sciences or “empirical investigations of external phenomena.” In this sense everything that exists is natural and can only be discovered by empirical investigation. Once again his method determines his ontology, and restricts what exists to one mode of inquiry, empirical science.

When we take all three naturalists and compare them with Plantinga we see the striking difference between them is their answer to the two questions: which methodology correctly determines what exists? Also, is there more than one methodology for discovering what exists? Plantinga answers the both questions by arguing that the method of the natural sciences, which employs our cognitive capacities, is the mode of inquiry that we discover the natural world, but there are other modes of knowing such as the sensus divinitatis that, activated under certain circumstances, gives us knowledge of God and other supernatural entities. Quine, Kim, and Kornblith answer both questions by arguing that the methods of the natural sciences, the empirical mode of inquiry, are the only ways of discovering what exists. As a result, their methodology leads them to a naturalistic ontology which in turn characterizes their naturalistic epistemology. One can conclude that the main disagreement between epistemological naturalists and non-naturalists is a metaphysical commitment which is distinguished by the scope of their methodology.

What I have shown is how Quine, Kim, and Kornblith, all take the same naturalistic position that the empirical sciences are the governing or authoritative mode of inquiry that determines what exists. This is where the definition of natural in naturalistic epistemology becomes clear. Knowledge of the natural world is found using the method of the empirical sciences, and nature’s ontology is restricted by the empirical sciences. As I said in the beginning non-naturalists do not restrict how things can be known to the method of the empirical sciences, and neither do they restrict knowledge of what exists (ontology) to what the empirical sciences do discover. Rather they see reality as having more than one aspect each of which requires its own mode of inquiry. This is what I think is at the heart of the debate between epistemological naturalists and non-naturalists.

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4 Herman Dooyeweerd, *Roots of Western Culture*, (Lewiston, New York: The Edwin Mellen Press, 2003), 41-42. This is a rough formulation Dooyeweerd’s theory of “sphere sovereignty.”


6 Quine, *Epistemology An Anthology*, 530-531.

7 Ibid., 533.

8 Ibid., 533.

9 Ibid., 536.


11 Ibid., 546.


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24 Ibid., 656.

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