



Theory of Knowledge

Normalizing Naturalized Epistemology

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ABSTRACT: The most trenchant criticism of naturalistic approaches to epistemology is that they are unable to successfully deal with norms and questions of justification. Epistemology without norms, it is alleged, is epistemology in name only, an endeavor not worth doing (Stroud, Kim, Almeder, Rorty). What one makes of this depends on whether one takes epistemology to be worth doing in the first place (cf. e.g., Kim and Rorty). However, I shall argue, it is possible to account for justification within a naturalistic framework broadly construed along Quinean lines. Along the way I shall offer a corrective to Quine's celebrated dictum that the Humean condition is the human condition.

The most trenchant criticism of naturalistic approaches to epistemology is that they are unable to successfully deal with norms and questions of justification. Epistemology without norms, it is alleged, is epistemology in name only, an endeavor not worth doing. (See e. g., Stroud 1984, Kim 1988, Rorty 1979) Furthermore, it is claimed, an epistemology without norms or with norms fashioned from scientific practice leaves science prey to skeptical doubts. What one makes of this depends on whether one takes epistemology to be worth doing in the first place. (cf. e.g., Kim and Rorty) However, I shall argue, it is possible to allow for justification within a broadly construed Quinean naturalistic framework. The skeptic can be disarmed as Quine has argued. Along the way I shall offer a corrective to Quine's celebrated dictum that the Humean condition is the human condition.

1. Descriptive versus Traditional Epistemologies — Three Views

Naturalized epistemologies challenge the tradition in arguing that the description of cognitive processes is a more central epistemological concern than the search for foundations and principles of justification. Traditionalists have responded by challenging the legitimacy of the descriptivist's claim to be epistemologists at all. (e.g., Dretske 1971, Dretske 1985, Kim 1988, Stroud 1981, Stroud 1984, Hull 1982, Hull 1988)

One way of sorting out the relationship between descriptive and traditional epistemology is to taxonomize their connections as follows:

(1) Descriptive epistemology is a competitor to traditional epistemology. On this view, both are trying to address the same concerns and offering competing solutions to similar problems. Insofar as the tradition has been concerned with normative and prescriptive claims, the traditionalists have argued that descriptive epistemology fails to address these

traditional questions and is epistemology in name only. Purely descriptive epistemologies, it is argued, cannot deal with problems of justification. But, as Kim puts it, "For epistemology to go out of the business of justification is for it to go out of business." (Kim 1988, 391)

(2) Descriptive epistemology might be seen as complementary to traditional epistemology. On this view, the focus of traditional epistemology remains the justificational questions of the tradition. Descriptive epistemology (either a narrowly construed evolutionary epistemology or a more broadly construed naturalized epistemology) supplements this account with a psychological account or a genetic account of the origin of human knowledge. This is Donald Campbell's view as expressed in a number of papers including Campbell (1974) and Campbell (1977).

(3) Descriptive epistemology might be seen as a successor discipline to traditional epistemology. On this reading, descriptive epistemology does not address the questions of traditional epistemology because it deems them irrelevant or unanswerable or uninteresting. Many defenders of naturalized epistemologies fall into this camp including the early Quine (Quine 1960)

Insofar as option (3) entails the rejection of all the traditional normative questions associated with epistemology it is open to the charge leveled against option (1). What remains when questions of justification are set aside, it has been charged, is epistemology in name only. For radicals like Rorty, who argue that much of the tradition in philosophy is wrongheaded, this suggests that there is no longer any point in doing epistemology under any name. For moderates like the more recent Quine, such an approach smacks of throwing the baby out with the bath water.

Over the years, Quine has retreated from his apparently more radical earlier view that naturalized epistemology must be purely descriptive to a more tempered view which endorses, in a transformed way, the justificational questions of traditional epistemology. This has led some critics to charge that, in effect, Quine wants to have his cake and eat it too. One criticism, to the effect that Quine's position does not answer the traditional skeptic (and, hence, is not justificatory enough) has been addressed by Quine in a debate with Stroud. A second criticism contends that Quine's view, in attempting to deal with prescriptive issues from a descriptive point of view, confuses causal with evidential considerations. Quine protests that it is his critics who are confused. A broadly pragmatic reconstruction of Quine's position shows that he is more in the right than they.

2. Epistemology Naturalized

What are the implications of "putting epistemology in a psychological setting?" (Quine, 1969, 84) One option, endorsed by Wittgenstein and Rorty, is to abandon it. The second option, endorsed by Quine in "Epistemology Naturalized" is to abandon the pretence of classical epistemology to be the foundation of knowledge and employ all available means to produce a construction of what we know, using psychology and whatever. The result, in Quine's view is a kind of "reciprocal containment" of science and epistemology within each other. The result is a non-vicious circularity. We employ the tools and results of science in general and psychology in particular to construct an epistemological apparatus which can then, in turn, be used to criticize and correct scientific practice. As epistemologists we become "busy sailors" on Neurath's raft. The problem of epistemological priority (conscious states versus physiological stimulations) gets resolved in favor of the latter. Finally, the Gestaltist problem of figure and ground gets resolved in an analogous manner. Whatever is causally closest to the sensory receptors is epistemologically prior. These latter conclusions led critics of Quine to charge that by naturalizing epistemology Quine had replaced epistemic connections with psychological and physiological relations and, in

effect, confused causal with evidential considerations. Evidential considerations are evaluated by means of methodological rules. The claim that naturalized epistemologies confuse causal with evidential considerations can be defused by showing that a naturalized epistemology can accommodate such rules. I return to this point in section 4.

3. Disarming the skeptic

Epistemology remains a going concern, but transformed. It becomes a part of science; the factual inquiry into the relationship between observation and theory. The key focus for epistemology now becomes how do human beings process observations to produce theories [including mental representations?]? The key question for Quine (1969, 74) becomes "how we human beings . . . have managed to arrive at science from such limited information [as the irritations of the surfaces of our sensory apparati]?"

As a part of natural science, epistemology is free to use the results of the natural sciences to answer its question[s]. This raises the question of circularity. How can epistemology use the results of science to justify science? Quine's response is twofold based upon his "unregenerate realism": First, the skeptical arguments presuppose science — illusions are parasitical upon viridical perceptions; second, science needs no justification beyond that provided by the hypothetico-deductive method. (Gibson, 1987, 63)

Stroud charges that Quine's project, insofar as it ignores the project of Kant and Carnap, evades a deep problem endemic to the human condition. (Stroud 1984, 216) Insofar as Quine restricts the epistemological enterprise to that which can be explored by science he has, in Stroud's view, changed the subject. The very posing of this alternative, however, suggests that somehow questions exist independently of the contexts in which they were asked. But the problem of traditional skepticism arises within the context of a particular way of conceptualizing the human condition. It is a product of a foundationalist, infallibilist conception of knowledge inherited from the Greeks. When we abandon that conception, we are changing the subject — but, not in any evasive sense, that is, not to avoid difficult questions, but rather because the question which had a dire sense to it from within a certain framework no longer appears pressing because the framework from which it arose appears to us to be problematic.

In response to Stroud's objections to attacking epistemological questions by "projecting ourselves into the other's place," Quine argues that "this projection must be seen no transcendently but as a routine matter of analogies and causal hypotheses within our scientific theories" (Quine 1981, 474; cf. Olding 1983, 2) In such a way, Quine thinks, we get from an epistemology of the other to traditional epistemology. Quine's move may appear to just beg the question against the skeptic again. But, one can defuse, in part, the sting of traditional skepticism by dividing skeptics into two groups: those who will not accept anything and those who argue for skepticism on the basis of arguments from illusion or the fallibility of science or the like. To the former, we can say nothing and must leave them at the crossroads. Life is too short to take such objections seriously. To the latter, Quine's point is more telling for it is, in effect, a rejection of the skeptic's move to "transcendentalize" objections which, after all, were derived from intersubjective comparisons and errors in the first place. On this reading, both the skeptic and the epistemologist of the other start from the same intersubjective considerations but the traditional skeptic is the one who gives the argument a transcendental turn and then complains that appeals to intersubjective experience are question-begging. The epistemologist of the other need only block the initial turn to thwart this line of argument. The wrong move would be to accept the problem as posed by the skeptic in its transcendental form and then try to argue back to intersubjectivity. This latter strategy runs afoul of all the 'veil of illusions' objections which have plagued post-Cartesian epistemology. The solution is to avoid being seduced behind the veil in the first place.

Nevertheless, in *The Roots of Reference*, Quine denies that he has changed the subject. (Stroud, 1984, 224) Quine sees naturalized epistemology as an "enlightened" approach to the traditional problems. It is enlightened insofar as it recognizes that "global" skepticism (the problem of the justification of science) is unwarranted; only "local" skepticism (the problem of justification in science) has any bite. Local skepticism is of a piece with normal scientific uncertainty. Skeptical doubts are really scientific doubts.

Stroud (1984, 228) argues that the skeptic, if he is producing a *reductio*, is unshaken by Quine's contention that skeptical doubts are scientific doubts. He suggests as one potential skeptical *reductio* the following: Either science is true and gives us knowledge or it does not. If it is not true, nothing we believe about the physical world amounts to knowledge. But if it does give us knowledge, we can see from what it tells us about the meager impacts at our sensory surfaces during perception that we can never tell whether the external world really is the way we perceive it to be. But of that is so, we can know nothing about the physical world. So once again nothing we believe about the physical world amounts to knowledge. On either possibility we know nothing about the physical world.

This does not seem fair. The first horn appears to amount to the dubious claim that "If science does not give us knowledge about the physical world then nothing does." Unless the term "science" is a blanket term for any procedure which yields knowledge about the world, it is not clear that the claim is true. The other horn is not convincing either. If science does give us knowledge, then the theory that tells us that our sensory inputs are meager is embedded in other theories which tell us about the nature of our bodies and the objects which produce the signals that impinge upon our sensory organs to produce the meager impacts which are the foundation of our construction of models about ourselves and the world. So we do know much more about the world than the claim suggests. Of course, we cannot be sure about any of the particular claims about any aspect of ourselves and the world, but this just is the scientific predicament. In any case, it just does not follow from these considerations that "nothing we believe about the physical world amounts to knowledge." Unless, that is, the skeptic is smuggling in a model of the nature of knowledge which is immune to revision in the light of subsequent investigation. But, if this is the skeptic game, then we are warranted in rejecting the conditions of the engagement. The shift to fallibilism in the 17th century was implicitly such a rejection.

Stroud concludes that "the fact that 'skeptical doubts are scientific doubts' does not put the epistemologist who raises such doubts in the stronger position of being free to use scientific knowledge of the world in his effort to answer those doubts and explain how knowledge is possible." (Stroud, 1984, 229) Well, yes and no. It all depends on how one construes the phrase "explain how knowledge is possible." If the call is to give an global explanation of how knowledge is possible, Stroud is right, but such a question assumes a discarded model of knowing. No such global explanations are forthcoming, but none are called for. To insist on such is to side with those who insist that in addition to providing causal explanations of all causal processes of the universe, one is called upon to provide a causal explanation of the universe as such. If instead the call is to provide a local explanation of how it is possible for human beings, constructed as they are, to know, then such accounts (fallible though they may be) are readily forthcoming and they are the kind of explanations that Quine seems to call for. The problem, in principle, is no different from providing an explanation of how migratory birds orient themselves in the absence of visual cues, or, for that matter, how they process visual cues at all.

The skeptical problem (in its classical radical form) is an artefact of a particular model of human knowledge. Quine's naturalization of epistemology is at one with a rejection of that model. The "deep problem" of skepticism is just endemic to one model of the human

condition. Quine's dictum that the Humean condition is the Human condition must be understood in a transformed manner.

4. The place of justification in a naturalized framework

This early formulation of Quine's position has struck many as being excessively descriptivist. There appears to be no place for the epistemology of validation for Quine in this view. The theory of confirmation appears to be reduced to or replaced by the psychology of theory testing, appraisal and evaluation. But, it is alleged descriptions of how theories are tested, appraised and evaluated are no substitutes for a prescriptive analysis of these procedures. A purely descriptivist reconstruction of epistemology strikes many as an impoverished epistemology at best.

The question of the justificatory function of epistemology arises at two very distinct levels of inquiry. On the one hand, there is the problem of the global justification of the scientific enterprise as such. When Quine rejects the call for putting science on a foundation he is denying the legitimacy of this function. On the other hand, there are the problems of what we may call the "local" justification of the particular probative methods employed by science — the statistical tests, the appeals to simplicity, confirmation, evidential adequacy, and the like. The rejection of the skeptic's attack on the foundations does not address these issues. The Humean condition, construed as the global question of the justification of science, is not the human condition.

Reflection on Neurath's raft and the Duhem-Quine thesis leads us to realize that the empirical results of science (data or theories) combine with the methodological rules of scientific method to form a seamless web. The principle of justification that form the norms of science are encoded in the methodological rules. Although they are not reducible to empirical regularities, they are nonetheless inseparable from them. The Duhem-Quine thesis shows that the locus of predictive failure is not determined by the logic of the test situation. But, accepting or rejecting hypotheses, theories or test results requires appeals to methodological rules as well. As "busy sailors" on Neurath's raft, we must fashion the methodological tools which we employ to rebuild our scientific corpus from the same experiences which we use to construct the corpus itself. We are just as free to reject or reshape the methodological rules as we are to challenge any of the components of the Duhem-Quine conditional $[(H + AA + IC) \rightarrow p]$ in the light of failures to observe the expected p . This pragmatic interplay between methods and results transforms epistemology. Norms still matter but they arise out of scientific practice as Quine contends. That practice is fallible and the results and norms which it gives rise to are fallible as well. In this (limited) sense, the Humean condition is still the human condition (as naturalists construe it).

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