



Quine's Physicalist Epistemology: A Contradictory Aesthetic Preference or Justified Bias?

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ABSTRACT: Quine, in his article "In Praise of the Observational Sentence," claims to establish naturalized epistemology and the work of science as a realist mapping of the world. Invoking Rorty's criticisms of foundationalism from *Philosophy and the Mirror of Nature*, this paper analyzes Quine's observational sentence by discussing the unresolved issue of justification. It discusses whether a causal explanation can be a justified true belief and adequate "grounding" of knowledge. I suggest that the criticisms of Quine bypass similarities between Rorty's position and Quine's. Such polemic positions - characteristic of the postmodern/modern debate - imply a false dichotomy. These criticisms of justification and grounding are best understood as a means to argue for eclectic viewpoints of human understanding. I conclude that Wittgenstein's idea of "human life form," or world-picture, provides further context for insisting upon interdisciplinary dialogue in lieu of an assumed hierarchy of specialized sciences.

Introduction

In his *Philosophy and the Mirror of Nature*, Richard Rorty argues that Quine's doctrines of indeterminacy of translation and ontological relativity call for the end of epistemology. Nonetheless, Rorty criticizes Quine's physicalist stance. According to Rorty, Quine's claim that observation sentences are a foundation for empiricism contains a contradictory ontological bias. In a more recent article "In Praise of the Observation Sentence" (1993), Quine allegedly clarifies his physicalist epistemology addressing criticisms analogous to Rorty's. Quine states that naturalized epistemology is not a theory about an "internal domain of qualia;" it is an "intermediate position" between what Quine calls "old phenomenism" and anti-epistemology. (1) He argues that observation sentences entail observations of the world itself that are not entirely subjective. Consequently, in comparison to "old," that is, analytical phenomenism, Quine claims that his use of language and logic is a "more realistic rational reconstruction" of knowledge. (2) In this paper, I examine Rorty's challenge that Quine's physicalist claims are contradictory and Quine's recent defense. I conclude that Quine's position is not inconsistent although his "intermediate position" within epistemology remains controversial.

Overview of Quine's Intermediate Position on Observation

For Quine, classical epistemology has its most recent roots in British Empiricism. Consequently, according to Quine, epistemology's primary concern has been to clarify how we derive natural knowledge from sense data. The link between observation and the natural world is allegedly a resource for privileged access to such natural knowledge. Quine in parallel to classical epistemology asserts that "perceptual similarity is the basis of all learning, all habit formation, and it is testable in people and other animals by the reinforcement and extinction of conditional response." (3) Therefore, Quine has attempted to capture perception via verbal reporting, that is, what he refers to as "observation sentences," within the context of behavioral analysis of language acquisition.

Quine describes the observation sentence as an occasion sentence such as "'It's cold,' 'It's raining,' 'That's a dog,' to which we have learned assent unreflectively on the spot if we are queried when certain associated sensory receptors are triggered." (4) Furthermore, quoting Quine, observation sentences are "the protocol sentences most closely linked causally to neural intake: most closely linked not in respect of subject matter, but physically, physiologically, neurally." (5) In short, an observation sentence is an utterance that is a conditioned response to particular stimuli; thus from the perspective of the learner/speaker it is subjective. Even so, as a conditioned response to particular stimuli that are witnessed by fluent speakers of the same language, an observation sentence is also intersubjective. Assent to the sentence such as 'It's raining' or dissent from it "must command agreement of all competent witnesses." In other words, the observation sentence is not entirely subjective. As a conditioned response to particular stimuli, it is keyed outward toward its subject matter as witnessed by other speakers, and it is keyed inward toward the range of neural intake that triggers a subjective response by the learner/speaker.

Consequently, the observation sentence has meaning from two perspectives. In one sense, from the perspective of the learner/speaker the observation sentence is a single utterance understood without having to understand its subject and predicate separately; and in this sense it is "holophrastic." As a holophrastic utterance, the observation sentence does not presume prior knowledge of physical objects in the world. Therefore, Quine asserts that observation sentences are in one sense theory-free. However, for fluent observers this same utterance is theory-laden. (6) The same holophrastic utterance that was theory-free is also analyzed into a grouping of individual terms that represent physical things and events in the world; hence it is theory-laden. Therefore, it may not have the fully analyzed meaning for the learner at the earliest stages of acquisition, but it does have such meaning for other fluent speakers of the same language. Taken together as two different understandings of the same sentence, Quine asserts that the observation sentence is "Janus-faced."

Quine clearly heralds the degree of objectivity that is achieved with this "Janus-faced" understanding of observation sentences. Whether an observation sentence is 'true' in its analyzed reading is a matter of three conditions: (1) The learner/speaker must use the appropriate language to denote the particular range of sensory stimulation. (2) The learner/speaker must be in a position to experience that particular range of stimulation; that is, the experience must be veridical and not the product of hallucinations or dreams. (3) Present observers must agree about the match between the learner/speaker's words and the concurrent neural stimulation. Hence, Quine emphasizes the role of other observers who use empathy to determine whether the learner/speaker is meeting conditions (1) and (2). The observers of the learner/speaker must be fluent speakers of the same language and able to empathize or put themselves in the position of the learner/speaker. However, their role does not determine the actual truth of the sentence but rather guarantees scientific objectivity.

Quine also argues that his theory of the "observation sentence" is a viable foundation (of sorts) for natural knowledge. It is not in all respects theory-laden and therefore in some

respect provides the means to test whether other non-observational beliefs about the world are warranted. Groups of non-observational sentences entail observation sentences. Therefore, our 'web of beliefs' about the world is not just a coherent whole; to some extent it is "hooked" into the world via the possibility of its falsification by the observation sentence. Since the observation sentence is in one sense theory-free, Quine claims it is *the link* between evidence and theory, that is, facts and knowledge. The "truth of the matter" is that the world is the way that the sentence says it is. Quine claims that observation sentences function "as vehicles of evidence for our knowledge of the external world and without the benefit of bridge laws." (7)

Rorty's criticisms

In the *Mirror of Nature*, Rorty argues that Quine's theory of the observation sentence has a physicalist and, therefore, contradictory bias. Rorty interprets Quine's apparent vacillations between extreme holism and analytical phenomenalism as a failed attempt to ground science and preserve empiricism. He quotes Quine:

It makes no sense to say what the objects of a theory are beyond saying how to interpret or reinterpret that theory in another. Talk of subordinate theories and their ontologies is meaningful but only relative to the background theory with its own primitively adopted and ultimately inscrutable ontology. (*Ontological Relativity*, p.196)

Rorty claims that a "primitively adopted" ontology is motivated by Quine's concern with the role of empiricism, that is, the clarification of the conceptual scheme of science. Quine attempts to use the empirical psychology of perception as part of his physicalist epistemology. Rorty argues that the vagueness of words such as "evidence," "testimony," and "information" vitiates the attempt. Quine argues, however, that if the talk of first philosophy and justification from certitudes is dropped, then physical stimuli as an experimental criterion for information are acceptable and not problematic. (8) For Quine, physical stimuli are the touchstones for inquiry. According to Rorty, Quine can assert this as an aesthetic preference and nothing more. Rorty argues that if we forget about justification, we'd never substitute an analysis of nerve endings and stimuli for the cognitive and conceptual use of language itself. (9) The study of causal mechanisms isn't awareness of true "information" or valid "processing of information." Besides, Rorty claims this is looking at physiology and not psychology. Consequently, Quine is not doing epistemology as soon as he drops the problematic concept of cognitive "awareness." (10) Rorty states that:

If there are indeed no experimental criteria from where the real data come, then Quine's suggestion that we give up the notion of "sense data" and speak causally of nerve endings and epistemologically of observation sentences does not resolve a dilemma which has plagued epistemology. Rather it lets epistemology wither away. For if we have psychophysiology to cover causal mechanisms, and the sociology and history of science to note the occasions on which observation sentences are invoked or dodged in constructing and dismantling theories, then epistemology has nothing to do. (*Mirror of Nature*, p. 225)

Rorty argues that sense data or an individual awareness of one's perceptual experience is not equivalent to cognitive reasons to believe that one's statements about the world are likely to be true. For example, an individual may be able to reduce awareness of perception to "red, rectangular," etc. Quoting Rorty, "To speak of our acquaintance with redness or with an instantiation of redness as 'grounding' our knowledge that 'this is a red object' or that 'redness is a color' is always a mistake." (11) To be aware of raw sense data in perception must entail at least conceptual awareness of objects and properties of objects if such awareness is to constitute justification of one's belief. According to Rorty, quoting Sellars, "The essential point is that in characterizing an episode or a state as that of knowing, we are not given an empirical description of that episode or state; we are placing

it in the logical space of reasons, of justifying and being able to justify what one says." (12) Rorty concludes that empirical explanations of precognitive awareness can neither justify what they explain nor provide any foundation for inference.

Consequently, since causal explanations of sense data are inappropriately taken as justification, Rorty concludes that Quine must be at cross-purposes. More specifically, Rorty argues that Quine's attempt to establish both epistemology and empiricism together as one respectable science is indicative of a deeper "ontological teetering." He accuses Quine of a 'first philosophy.' Despite Quine's claim that empiricism as the only norm doesn't need justification, Quine's theory of the observation sentence is itself a foundation (of sorts) for empiricism. In his indictment, Rorty quotes Quine regarding Quine's use of logical notation:

If we are limning the true and ultimate structure of reality, the canonical scheme for us is the austere scheme that knows no quotation but direct quotation and no propositional attitudes but only the physical constitutions and behavior of organisms. (*Word and Object*, p.221)

The quest of a simplest, clearest overall pattern of canonical notation is not to be distinguished from a quest of ultimate categories, a limning of the most general traits of reality. Nor let it be retorted that such constructions are conventional affairs not dictated by reality. (*Word and Object*, p.161)

Rorty argues that Quine's use of logic and canonical language for science contradicts the doctrines of indeterminacy of translation and ontological relativity. Consequently, Quine's "intermediate position" between anti-epistemology, that is, Rorty's own extreme coherentism, and analytical phenomenalism is more than an aesthetic preference. According to Rorty it is asserting a foundation (of sorts) that is impossible. Rorty questions whether Quine makes a distinction that involves some fact of the matter when he has previously denied this distinction. Furthermore, Rorty also questions why physical science is preferred and extensional statements have privileged epistemic status. Rorty argues, "If the permanence of logical truth is merely a practical rule, rather than an insight into the nature of reality, then if physical theory is such an insight, it cannot also be a practical rule." (13) He concludes that there is an inherent contradiction in Quine's view:

- 1.) So there is no such thing as direct acquaintance with sense data or meanings that would give inviolability to reports by virtue of their correspondence to reality, apart from their role in the general scheme of belief.
- 2.) So epistemology and ontology never meet, since our scruples about what objects to assume are not dictated by our acquaintance.
- 3.) But there is nevertheless a distinction to be made between those parts of the web of belief which express matters of fact and those that do not, and ontology insures that we can detect this difference. (14) (*Mirror of Nature*, p. 202)

A Quinean Response to Rorty

Rorty's charge that Quine has contradicted himself stems from a misunderstanding of Quine's holism. Ontological relativity is a practical matter: "Objects figure only as neutral nodes in the logical structure of our total theory of the world." (15) The nature of language and logic in Quine's 'web of belief' does not require that we know the essences of things. We cannot know with certainty what kind of things objects are, but all the same we have a record of our interaction with the world by way of language. And for Quine language is not just a matter of social convention as Rorty claims. For Quine there is one definite fact of the matter that does not need special validation through privileged access: "Neural intake is physical and indisputable." (16) Which objects we posit as a result of this intake is irrelevant as long as the verbal response does not predict an assent or dissent to another observation

sentence that fails to occur. (In short, as long as falsification doesn't occur.) For example, for all English speakers "cat" is commonly the verbal response keyed to a particular perceptual field that might include such experiences as hearing "meow" and seeing, touching, holding an object with a weight of several pounds, fur, whiskers, small pointed ears, four legs, four paws, and a long narrow tail. But another word other than 'cat' would function just as well as long as all English speakers were in agreement that 'x' rather than 'cat' is keyed to the relevant stimuli. In other words, the 'appropriate' verbal response to a particular stimulus is only appropriate because all fluent speakers recognize it as a common response to that particular stimulus. It isn't 'appropriate' because it denotes an object we know in fact to be a cat. What is at stake is simply the correspondence between relevant words and a particular range of perception, not objects themselves. At this entry-level analysis of language acquisition, neither the learner nor the observers need to assert ontology.

Rorty may disapprove of Quine's physicalist and scientific use of sentences, but the fact of the matter remains: at the entry-level of language acquisition, language is more closely linked to neural intake than at other times. To reflect, as Rorty does, on the nature and use of language and to determine that the only sense or meaning of language is what we give it, is to exclude the important and obvious point that language has a physical context. The 'physical context' is a shared perceptual experience. For the learner/speaker the observation sentence is a conditioned holophrastic response to a stimulus, and for the observers it is a response analyzed into terms to a similar stimulus. Note that the essence or exact nature of that experience is not asserted.

Therefore, the truth of the matter, for Quine, is not a claim about the essence of objects. Quine's claim regarding the truth of the matter is that the vehicles of the "true nature of reality" are sentences. For Quine, it is a claim of how we justifiedly assert a coherent worldview. Some observation sentences may be controversial, but enough are noncontroversial and, therefore, import some fact of the matter. The fact of the matter, according to Quine's theory of Janus-faced observation sentences, stems from a limited degree of intersubjectivity given a shared perceptual experience. This modest grounding is not only dependent upon language and social convention, but it is also dependent on the distinction that some sentences are tied closely to neural intake. We cannot, however, determine on the basis of language, observation, and behavior the actual essence of objects. But we can claim that our assertions about the world are caused by versus grounded by particular interactions with this world. Therefore, Rorty is mistaken. He equivocates on the factual distinction in Quine's position. Epistemology and ontology do meet but only within a holistic and theoretical context. Quine does not assume an ontology prior to this context.

Even so, Quine's assertion that his intermediate position, that is, his physicalist epistemology, is a theory of justification is questionable. Quine's causal explanation of Janus-faced observation sentences does not constitute a normative account of knowledge without begging the question about empiricism. First, it is difficult to believe that language learning does not presuppose the use of 'concepts' as well as neural intake. Secondly, even if this were an acceptable premise, it only demonstrates that language is a conditioned response to 'something' and not a justified assertion about objects or events in the world. In other words, Quine does not explain how the observation sentence justifiedly imports any conceptual meaning other than logically equivalent sentences that represent a shared stimulus. Therefore, as an account of justification, Quine's position is nonetheless controversial.

Notes

(1) Quine, "In Praise of the Observation Sentence" (1993), p.108.

(2) *ibid*, p.111.

(3) *ibid*, p.116.

(4) Quine (1993), p.108.

(5) *ibid*.

(6) *ibid*, p.110.

(7) *ibid*, p.110.

(8) Quine, "Grades of Theoreticity," in *Experience and Theory*, ed. L. Foster and J.W. Swanson (Amherst, Mass, 1970), pp. 2-3.

(9) Rorty, *Mirror of Nature*, p. 225. For Rorty cognitive content (concepts) are about classification and not justification. "Justification is a matter of social practice, and that everything which is not a matter of social practice is no help in understanding the justification of human knowledge, no matter how helpful it may in understanding its acquisition." (p. 186)

(10) Also in regards to intersubjectivity Quine is bringing up the problem of consciousness again. Furthermore, he hasn't demonstrated how psychology can make more of the notion of observation sentence; Quine's theory of the observation sentence can and should be explained in terms of mere conversation and not neurology. For example, his claim about the holophrastic quality of an observation sentence is basically an assertion that those sentences are noncontroversial.

(11) Rorty, *Mirror of Nature*, p.183.

(12) Sellars, *Science, Perception, and Reality*, p.169.

(13) Rorty, *Mirror of Nature*, p.202.

(14) For Rorty, pragmatism has only one criterion of knowledge, that is, coherence. "To say that truth and knowledge can only be judged by the standards of the inquirers of our own day is not to say that human knowledge is less noble or important, or more "cut off from the world," than we had thought. It is merely to say that nothing counts as justification unless by reference to what we already accept, and that there is no way to get outside our beliefs and our language so as to find some test other than coherence." (*Mirror of Nature*,

p.178) Rorty claims that Quine's holism entails only practical rules that are not guided by any ontological commitment.

(15) Quine (1993), p.112.

(16) Quine (1993), p. 116. Quine does not claim to be deducing the way the world really is from neural intake. He does not assert that these physical things are real and that we can know them directly. Rather, Quine insists that "*neural intake* is physical and indisputable." Hence, neural intake is the proper way to describe the causal prompts for assent and dissent to observation sentences.

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