

# Defense on Quine's Holism against Fundamentalism Suspicions

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## Abstract:

Holism is an important proposition of Quine's philosophy, a theory that reveals that human knowledge is structured as a web-like whole, with its edges coming into contact with experience and thus expanding the scope of knowledge, and that the body of knowledge can be modified from the outside in when mistakes are made. This structure reflects the relativity of human knowledge and rejects fundamentalism. However, Quine's concept of background theory describes a reliable relationship between a theory and another theory, which the former is explanatorily based on the later. Moreover, his concept of observation sentence is stated as the base of semantic. These terms seem to make his philosophy rely on some degree of fundamentalism again, which means that Quine's holism is self contradictory. This paper will start from the fundamentalist suspicions in Quine's holistic philosophy, then explain the tension between his holism and fundamentalism, and thus defend Quine's holism.

**Keywords:** Holism; Ontological Commitment; Fundamentalism

## 1. Introduction

J. C. Smuts coined the term holism, which he defined as "global dependence"[1]. Duhem introduces this concept into the field of philosophy in his discussion of the experience-proposition relation. In the field of philosophy of language, holism refers to the idea that it is through the understanding the language as a whole that the basic parts of the language can be understood, and that the meanings of words are not independent of each other, but exist in dependence on each other, constituting the meaning as a unit of the whole [2].

The opposite of the holistic view of language is the fundamentalism, which holds that language has

some level of foundational constitution. For example, Russell and Wittgenstein were characterized by fundamentalism: Russell took logical proper names as the foundational units of language, while Wittgenstein took states of affairs as the foundational units. Although the claims of the two are quite different, their recognition of the atomic unit of language is the same. This idea is also known as logical atomism.

In the philosophy of language, holism and fundamentalism seem to be incompatible. Many Quinean propositions stand precisely for the former against the latter. However, Quine seemed to tolerate fundamentalism in some sense, most notably his use of occasion sentences and contextual theory. Is there

any self-contradiction? This paper argues that the presence of foundational concepts in Quine's writing does not represent his fundamentalist tendencies; these charges of fundamentalism came from obvious misunderstanding.

The paper argues that the fundamentalism critique is primarily directed at two concepts: background theory and observation sentence. It has been argued that both concepts are described by Quine as "fundamental", thus representing a reductionist fundamentalism thesis. This thesis argues that this suspicion stems from a misunderstanding on the part of the critic. This misunderstanding is primarily a logical error: the conflation of the concepts of fundamentalism tendency. This paper will describe the suspected fundamentalist tendencies of Quine and defend Quine in terms of his ontology, referential theory, semantics and so on.

## 2. Potential Fundamentalism

### 2.1 The Paradox of Background Theory

In "Ontological Relativity", Quine stated that, within a theory, although it is not possible to qualify the universe in an ultimate sense, it is still possible to treat its objects by variables. In this context, predicates delimit the universe, and the laws of the theory delimit the predicates[3]. Ontological commitments hold relative to theories, and they are only valid within a particular theoretical domain, which is why Quine's view of ontology is said to be the result of the linguistic turn, which is not a metaphysical ontology, but an ontology concerned with linguistic communication. In this case, the ontology within certain taxonomy is relative because the theory itself is relative. Up to this point, Quine's claim remains self-consistent.

However, Quine went on to a notion of background theory when discussing the relationship between different theories: "Within this background theory we can show how some subordinate theory, whose universe is some portion of the background universe, can by a reinterpretation be reduced to another subordinate theory whose universe is some lesser portion [3]." In this way, Quine's discussion becomes weird: a theory needs to have its background theory as a foundation in order to be ontologically meaningful, i.e., the domain(universe) of ontological commitment should be outside the scope of what the theory itself addresses. One possible problem is the infinite regress of background theories [4], another, more seriously, is that if a theory is to make sense, its background theory must be specified such that the background theory is the foundation of the subordinate theory. This kind of fundamentalism clearly contradicts his holism.

We call this problem the paradox of background theory,

and we will go further on it later.

### 2.2 The Paradox of Observation Sentence

According to behaviourism, Quine believed that the experiential sources of meaning were primarily external stimuli: "a stimulus meaning is the stimulus meaning modulo  $n$  seconds of sentence  $S$  for speaker  $a$  at time  $t$  [5]." Sentences can be categorized into occasion sentences and standing sentences, where the truth value of the occasion sentence varies with the stimulus condition. Occasion sentences can be further classified into observation sentences and non-observation sentences. Observation sentences are occasion sentences in which the stimulus meaning is not affected by background information. Quine stated: "The observation sentence is the cornerstone of semantics. For it is, as we just saw, fundamental to the learning of meaning. Also, it is where meaning is firmest [6]." But this fundamental assertion is at odds with his holism: is the "firmest" meaning that the observation sentence has absolute, which makes "meaning" metaphysically definite? If the answer is yes, then Quine himself denied his own relativism, and further denied his own holism [7].

What the above demonstrates is a sense of unease that arises from the incongruity between two theoretical features: the justification demanded by empiricism and the relativity dictated by holism, the former of which compels Quine to concede groundedness to fundamentalism through concepts like the observation sentence. But in any case, such theoretical tension does hurt the harmony between the theories.

We call this tension the paradox of observation sentence. Of course, this will also be solved in the next chapter.

## 3. Defense on Quine

This chapter will defend against the two paradoxes mentioned above. When the issues are illustrated, Quine's skeptics are of course not obliged to look at the holistic issues from Quine's point of view (the holistic point of view). However, as a defender (supporter), a natural response is: why not try to revisit these issues from Quine's perspective? Perhaps the underlying reason for Quine's inability to respond to (or ignore) these queries is simply that, in Quine's view, they are utterly pseudo issues.

### 3.1 Defense against the Paradox of Background Theory

The term background theory appears in the context of the indeterminacy of reference. In the second section of the essay "Ontological Relativity," Quine pointed out the inscrutability of reference: When one points to a rabbit,

we cannot be sure whether he is pointing to a rabbit, “un-detached rabbit part”, or “rabbit stage”. Not only does this result in an indeterminate translation between the two languages, but more dangerously, this indeterminacy even occurs in the same language, in Quine’s words, “at home”. Our language resolves those problems by itself -with all its predicates and auxiliary devices ..... The result of this is that the function of reference relies on other linguistic components: “ This network of terms and predicates and auxiliary devices is, in relativity jargon, our frame of reference, or coordinate system ..... Fair enough; reference is nonsense except relative to a coordinate system [3].”

Next, Quine referred to background language: we cannot speak of denotation and reference in an absolute sense, such terms can only be talked about in the sense of background language. In Quine’s example, “Does “rabbit” really refer to rabbits” does not become a question; only when a background language can logically precede the question, “Refer to rabbits in what sense of ‘rabbits?’”, the previous question can be meaningful.

Is there a problem of infinite regress here? Quine himself has given the answer: like the doctrines of position and velocity, if the mathematician insists on representing the origin of one coordinate axis by a position on the other, then the question of the position of this origin must give rise to infinite recursion. In practice, just by a referential behavior (pointing), the regress of background languages can be ended because the mother tongue is always accepted [3]. Theoretically, it is important to note the purpose of introducing the concept of background language: to complement the theory of reference. Because of the relativity of reference, reference needs to be explained through the terminology of another science. In this way, the theory of reference is complemented by such explanation. Since all this takes place in language, a distinction must be made between the theory of reference to be completed and the theory of reference that has already been completed. The latter, because of its explanatory character, is defined as a background language. The notion of background language merely describes the means necessary for the elaboration of a theory of reference, and does not describe a relationship such as “a particular language A is the background language of a particular language B”.

In terms of Quine’s theoretical purpose, background language seems to clarify the very confusing idea that denotation is the point at which language meets experience, and so referential theory is in some ways foundational. And the fact that referential theory is the foundation of ontology solidifies its foundational status. Quine rejected this view through the structural features of reference, which in turn rejected fundamentalism and firmly established relativism and holism.

Starting from a background language, the question of background theory can be answered: background language is not descriptive of specific linguistic relations, and the problem of infinite recursion is a pseudo-problem. Quine did not take the native language as the ultimate background language, and thus there is no such problem: “On the one hand, physicalist ontology is related to the ontological commitments of physicalist theories, and thus relative; on the other hand, the infinite regress implied by the relativity of physicalist ontology ends up with natural language as its background language, i.e., with the help of the pragmatics of natural language to end that infinite regress. Quine’s physicalism, however, takes physical theory as its ultimate background language, to the point where it is ontologically coloured by physical absolutism [4].” Similarly, background theory are precisely anti-fundamentalism propositions, thus ruling out fundamentalism. When Quine unexpectedly introduced the term “background theory”, he was simply trying to emphasize the relative relation of theories. More precisely, Quine used this term negatively, in the sense of denying an “absolute theory” as opposed to a background theory: every theory (including theories that are treated as background theories in certain contexts) has a background theory, and every theory’s domain is open; there is no such thing as an absolute theory whose domain is closed. The key word here is “domain”. The domain determines what a theory is committed to (ontological commitment), and an open domain implies an open ontological commitment. Starting from background theory, Quine obtained an open domain and thus an open ontological commitment. In other words, the end point of the discourse on background theory points to the title of his paper: “Ontological Relativity”. Here, the issue of ontology reaches a balance: ontology is relative, but ontology is also graspable. Because of its relativity, ontology can only be grasped when its background theory is taken into account. Therefore, the grasp of ontology is holistic.

In summary, the background theory paradox is a pseudo issue for two reasons: first, in terms of the connotations of the term itself, it denotes a relationship between theories rather than a property of some particular theories. Second, in terms of the theoretical role played by the term, it serves to illustrate an intermediate aspect of ontological relativity, rather than a reductionist conclusion. Therefore, the background theory paradox does not substantially harm Quine’s holism.

### 3.2 Defense against the Paradox of Observation Sentence

The observation sentence paradox has an obvious logical

fallacy: not all theories with basic concepts can be classified as fundamentalism.

In Quine's discussion, his theoretical critique is always against reductionism with regard to fundamentalism. What he opposed is a philosophical attempt, derived from Russell and Carnap, to reduce all science to logic. Opposed to reductionism is what Quine calls the "contextual definition" approach, where "definire est eliminare". Elimination does not reduce the terms of science A to the terms of science B, thus making science B a (in the absolute sense of the word) contextual theory of science A. Rather, it reveals a structural relationship consisting of a variety of scientific terms together, in which there is a degree of reciprocal translatability between sciences A and B. Of course, this translation still follows the indeterminacy of translation, and Quine claimed that the contextual definition was "a true reduction by translation"[6]. It was out of distrust of reductionism that philosophers began to regard metaphysics as pejorative, and this in turn spilled over into epistemology. Quine was concerned that "The dislodging of epistemology from its old status of first philosophy loose a wave of epistemological nihilism [6]." Quine wanted to reconstruct epistemology. Epistemology requires a theory of what is true and a theory of how truth is known, a theory of meaning. The sentence of observation is the junction between the theory of truth and the theory of meaning; it touches truth by engaging with experience at one end and "afford an only entry to a language [6]" at the other, so Quine said that the observation sentence is "fundamental in two connections"[6].

Returning to the assertion at the very beginning of this section. Claiming that something is "fundamental" does not imply support for fundamentalism, let alone reductionism. In the context of Quine's discussion, the reason for claiming that the observation sentences is "fundamental" is that in the epistemological problem, the theory of truth and the theory of meaning need a bridge between them to explain the coherence of the two theories, and that bridge happens to be the observation sentence, which has both empirical and semantic properties. Observation sentences are the starting point for the study of epistemic problems, not the foundation, let alone the final attribution. The "fundamentality" of the observation sentence for epistemology is similar to what Hegel calls philosophy without presuppositions. It is in the sense of a point of departure that Quine used the term "fundamental".

Thus, when Quine claimed in the next paragraph that "The observation sentence is the cornerstone of semantics. .... Also, it is where meaning is firmest [6]", there was no reductionist, or fundamentalism, residue; on the contrary, it is only from a holistic (relativist) standpoint that Quine's intentions are truly revealed: when non-metaphysical, em-

pirical claims are made, the epistemological problem can only be clarified by linking semantics to a theory of truth.

It seems easier to resolve the ambiguity by considering the adjective "fundamental" from a behaviorist standpoint. In "Epistemology Naturalized", Quine makes his behaviorist position quite clear: "Its (observation sentence) relation to meaning is fundamental too, since observation sentences are the one we are in position to learn to understand first, both as children or as field linguistics[6]." According to the norms of behaviorist theories of meaning, meaning is derived from behaviour and the process of learning meaning is the mechanism of learning to translate behaviour. To say that a behaviour is "fundamental" to a learning process is to say that a behaviour is "prioritized"—such a view is clearly expressed in the above quotation. Therefore, the adjective "fundamental" should not be given too much philosophical interpretation; it is simply an everyday term that indicates priority.

In summary, the observation sentence paradox is a pseudo issue because: first, the observation sentence paradox actually derives from a logical fallacy. Secondly, the observation sentence paradox is presented as a semantic misunderstanding rooted in ignoring the behaviorist background of Quine's theory of meaning. Therefore, the paradox can be completely eliminated by logical reductio ad absurdum and semantic interpretation.

#### 4. Conclusion

Quine's wavering between fundamentalism and holism is an illusion. Quine did not show the lack of confidence that he displayed in his writing. In fact, his adherence to holism and relativism is consistent throughout. This firmness can be seen in his philosophical constructions: from the inscrutability of reference to the holism of reference; from the indeterminacy of translation to the holism of meaning; the web of beliefs represents the holism of knowledge; and the characterisation of bound variables represents the holism of ontology. Holism is not only a style but also a paradigm of thinking. It is out of the paradigmatic character that we are able to identify Quine's conviction of holism. It is also out of this paradigmatic character that we can take holism as the methodology of Quine's philosophy and recognise the priority of this methodology (the methodology cannot fall into infinite regress) and thus understand Quine's account from the standpoint of its proponents.

This is not to say that we need to accept holism unconditionally as truth, but merely to show that the contradictions mentioned above do not exist in Quine's account, and that Quine's holism is at least self-consistent. It would seem that a better way to critique an opponent of holism would be to construct a more self-consistent foundationalist philosophical system. From the author's point of

view—as a Quine’s supporter, this seems to be the only possible approach.

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