

A Comparative and Contrastive Study between Hempel and Quine's Criticism of Empiricism

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Abstract: Meaning theory, as an important part of language philosophy, is a philosophical theory that determines the true or false of the sentences through the study of the sentence meanings. Logical empiricists will reject metaphysics as their philosophical mission and task, and have the opinion that metaphysical sentences are meaningless. The empiricists divide the meaning of the sentence into pure logical meaning and empirical meaning, and then form the empiricist dogma of sentence analysis and comprehensive analysis. Hempel and Quine are famous American philosophers and logicians, who are also typical representatives of logical empiricism. They used the method of logical analysis to criticize the empiricist dogma from the internal of logical empiricist theory. This paper attempts to compare the similarities and differences between Hempel and Quine's critique of logical empiricism and explains the theoretical significance of their criticism of empiricist dogma.

Keywords: Hempel; Quine; Empiricist Dogma; Criticism

1. Introduction

Meaning theory is the core of language philosophy, which determines the true or false of the sentences through the analysis of the sentence meanings and always maintains a close relationship with the true theory. Logical empiricists divide the meaning of sentences into pure logical meaning and empirical meaning. The sentence with pure logical meaning is the so-called analytic sentence by the empiricist, and the one with empirical sentence is their so-called comprehensive sentence. A sentence has pure logical meaning means that this sentence is analyzed or contradictory; a sentence has empirical meaning means that this sentence is at least potentially able to be tested with empirical evidence. Therefore, logical empiricists form an empiricist dogma of analytic sentence and factual sentence.

Hempel and Quine respectively put forward an in-depth study and fruitful theoretical criticism on the standard and analysis of cognitive significance - the dichotomy of comprehensive statement held by the logical empiricists from the empirical internal theory. In the process of theoretical criticism, it shows a certain degree of similarities and differences.

2. Similarity Analysis of the Criticism of Empiricist Dogma

2.1. The critical aim of empiricist dogma is the same

Although Hempel and Quine were deeply aware of the lack of logical empiricism theory, and gave intense criticism, their logical empiricist identity is not changed because of this criticism. Because their criticism of logical empiricism has the same theoretical purpose, the logical empiricism is better maintained and saved.

Logical empiricists divide the meaning of sentences into pure logical meaning and empirical meaning. Hempel re-examined the standard of cognitive division for meaning empiricists from the word that composed of the words, the relationship between the sentences and the system three dimensions, and pointed out that the narrowness and limitations described by meaning words, the dilemma of the empirical standard and other theoretical shortcomings. This shows that the division standard of logical empiricists into pure logical meaning and empirical meaning has a theoretical flaw. Similar to Hempel, Quine analyzed the analytical concept from definitions, substitutions and semantic rules, and pointed out that the analytical concept cannot be clarified. Whether it is to resort to synonymy, definition, or semantic rules to define the analyticity, it does not work, because they need to be clarified the same as analyticity. As for the substitutability of preserving truth values, the explanations for analyticity on extension context is not sufficient."[1]. In connotation context, it is difficult to succeed in explaining the concept of analyticity, because it involves the inevitability, which is essentially the same conception as the analytical concept. Analysis of analyticity conceptual composition - a theoretical basis of dichotomy. Failure to

successfully analyze analyticity results analysis - the synthesis of dichotomy lacks the necessary theoretical cornerstone.

It is precisely because of the recognition of cognitive standards and analysis of empiricists - theoretical defects of dichotomy, Hempel and Quine respectively criticized the empiricism. However, the purpose of their theoretical criticism is to better maintain empiricism to reject the theoretical doctrine of metaphysics, rather than to completely overthrow the empiricists embraced the theoretical doctrine of metaphysics. Hempel and Quine did not break away from logical empiricism because of the criticism of empiricist dogma. On the contrary, through the criticism of empiricist dogma, the clearer view of the theoretical trait of logical empiricism can be seen on them.

2.2. The Analysis Method of Theoretical Criticism is Basically the Same

By studying Hempel and Quine's classical literature on the criticism of empiricist theory, it can be found that the same theoretical analysis methods and tools are used when they criticize empiricist dogma. In the analysis of the narrowness and limitation of the interpretation of the words empirical meaning, Hempel criticized the words meaning division held by Carnap and others. Carnap held the opinion that, "Most of the scientific terms are determined the meaning by simplified method, that is, one word is simplified into several other words so as to explain the meaning of the word. [2]" And this simplified method is bound to require the interpretation of the word and the word are fully synonymous. If they do not have such a synonymy relationship, the simplifying of the word meaning is invalid. Hempel did see the limitations of simplifying words meaning of Carnap, and then put forward profound criticism. And Quine criticized the concept of analyticity through the analysis of the definition in "Two Dogmas of Empiricism", which is similar to Hempel. Quine defined the definition as an interpretative definition, a definitive definition, and analyzed the role of definition: "'definition' is the report that including dictionary editor's observation of the synonymy, of course, it cannot be used as a basis for synonymy.[3]" Quine argues that synonymy is as ambiguous as analyticity, and that explain analyticity with synonymy is not feasible. Hempel's critique of the word meaning simplify and Quine's suspicion of defining synonymy are synonymous between simplified words (defined words) and vocabularies (definitions). Therefore, the analysis of synonyms constitutes a common basis for their theoretical analysis.

2.3. The consequences of theoretical criticism are basically the same

Hempel carried out in-depth analysis of the words that constitute sentences, the interrelationships and the sen-

tence systems, and sharply criticized the empiricism and cognitive meaning standard of the division of pure logical meaning and empirical meaning. Finally, it is known that the cognitive meaning has the overall characteristics. System constituted by formal sentences does not have any empirical meaning. Only by giving the formal system a certain interpretation can this form a scientific theory. Which requires the use of some observation sentences reflected empiricism to give the words and sentences in formal system a certain interpretation of empirical meaning. In the case of empirical interpretation of formal systems, one or some of the sentences in the system can be individually explained by empirical meaning, because each sentence in the whole formalization system is tightly combined with other sentence or sentence sequence by a certain logical rule. Therefore, the interpretation of the sentence must be in accordance with the language frame that formal language exists, that is, the context. In the theory of this interpretation, it is not correct to talk about the empirical meaning of an item or a sentence in isolation.

Quine analyzed the analyticity from the definition, mutual substitution, semantic rules the three aspects, and thought that the analyticity concept is not clear. And thus it is found that the analysis held by empiricists - the dichotomy is invalid, and then come to the concept of holism, that is, there is no dogmatic empiricism. Quine expresses the totality of empiricism in the "Two Dogmas of Empiricism" that "The whole of our so-called knowledge or belief is an artificial weaving from the most occasional events of geography and history to atomic physics and even pure mathematics and the most profound law of logic. It is only close contact along the edge. [4]" Thus, in a scientific theory system, the meaning of words cannot be talked about in isolation, and neither the meaning of sentences. The words can only be put into the sentence to talk about its empirical meaning. Correspondingly, only the sentence is put into the concrete theoretical system can people talk about its meaning, which is the contextual principle or the holistic principle in the philosophy of language. The cognitive meaning can be only talked about in the whole system of a sentence system, and the cognitive meaning has the integral characteristics at the level of the sentence system.

3. Differences Analysis of the Criticism of Empiricist Dogma

In Hempel and Quine's critical process of logical empiricist dogma, it shows the similarity of the purpose, method and theoretical consequence of theoretical criticism, and also shows a certain degree of differences. This kind of differences is mainly reflected in the theoretical perspective of the criticism of empiricist dogma.

Hempel's theoretical criticism is mainly based on the empiricism and evidence theory of reductionism. Logical

empiricists convinced that "there is no meaning to determine whether a question is true or false, in principle, whether it can explain its proven method as a criterion [5]". This theory is actually that people think any statement can be reduced to the report on the direct experience to examine its empirical significance. Hempel analyzed empiricism significance standard by empiricist evidence and evidence theory. And the analysis of the empiricist significance standard mainly focuses on the analysis of the meaning of the sentence. The authenticity and falsification requirements that reveal the empiricist significance standard in empirical meaning exist a great deal of limitations, and then the meaning division of the sentence meaning into pure logical meaning and empirical meaning is doubted and criticized.

Quine chose the different analytical concept from Hempel as a critical theoretical perspective. Through the definition, preservation of true value substitution, semantic rules and other aspects of the analysis, he assumed that the analyticity concept is vague. Through the analysis and critique of analytical concept, the empiricists were doubted for their dividing the sentences into analytic sentence and synthetic sentence, and ultimately lead to the criticism of empiricists' analysis - the dichotomy theory.

4. The Theoretical Influence on the Criticism of Empiricist Dogma

Hempel's criticism of the pure logical meaning and empirical meaning of the sentence seem literally different in essential from Quine's criticism of analytical statements and comprehensive statements, but in fact the pure logical sentence and empirical sentence of Hempel are consistent with the analytical sentence and comprehensive sentence of Quine. Hempel's critique of the pure logical meaning-empirical sentence prompted the formation of a holistic cognitive standard. Quine's critique of the analysis-synthesis statement also produced holistic epistemology. That is, boundaries between analyticity and consoli-

dated statements cannot and are impossible to be divided. Because the empirical content is shared by a whole theory that is large enough and cannot be directly assigned to a single proposition; what has empirical evidence or falsification can only be the entire theoretical system, rather than isolated proposition.

5. Conclusions

Hempel and Quine are the representatives of logical empiricism, who saw the shortcomings of the logical empiricism theory, and respectively, put forward profound criticism for empiricist cognitive standards and two dogmas of empiricism. There is a great resemblance in the theoretical purpose of criticism, the method of criticism, and the theoretical results of criticism. At the same time, their theoretical emphasis on empiricist critics has obvious difference that empirical analysis of empiricism or falsification theory and analysis based on analytical concepts - a comprehensive statement of dichotomy. The criticism of empiricism by Hempel and Quine did not change the identity of their logical empiricists because of theoretical criticism. On the contrary, this theoretical criticism is to defend the basic tenets of logical empiricism, that is, metaphysical proposition is meaningless, and then abandon metaphysics.

References

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