

Research Paper

Theory-ladenness of Observation Thesis and Religious Science

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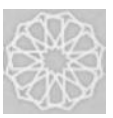
Abstract

In this article, I examine the role of non-epistemic values and presuppositions in scientific theories. One of the cases that can show this role-playing is the theory-ladenness of observations. Theory-ladenness of observation thesis expresses the idea that theoretical expectations (derived from non-empirical values and presuppositions) pervade the scientific process, especially that these theoretical expectations can play a role in determining scientific observations. Relying on this role-playing, some advocates of religious science defend the possibility of religious science. After investigating one of Dr. Bagheri's critiques of Dr. Golshani's theory of religious science, I focus on the effect on the Theory-ladenness of observation thesis in the middle stage of the construction of religious science. At least in the first sight, this effect can play a constructive role in defending religious science. But, paying attention to the (process of) scientific practice, especially according to Alan Chalmers' concept of objectified observation, I try to show that the theory-dependence of observation at the middle stage can't play a constructive role in defending religious science because experimental outputs, to a great extent, are determined by what the world (reality) does rather than by the theoretical views or mental content of experimenters. In the following, I explain the objectified observations can be generally accepted, and theories can be evaluated relatively impartially according to these observations. Most theories of religious science ignore what I explained because they place extreme stress on the theory-ladenness of observation thesis, and this extreme stress leads to the denial of the impartial judgment of scientific theories.

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Introduction

Theory-ladenness of observation proposes the claim that the mental contents or theoretical expectations play a role in determining scientific observations. This determination may happen in different ways, for example, by affecting scientists' perceptions, interpretations, attention, and presuppositions. Theory-ladenness has been a subject of much discussion because it can be seen as questioning the ability of scientific observations to provide an impartial or neutral ground for evaluating competing theories.

Therefore, the advocates of religious science (during the explanation of examples from the history of modern science) claim that science is influenced by naturalistic presuppositions. In some parts of their arguments, they rely on the theory-ladenness of observation thesis and argue that by changing presuppositions and mental content, one can make new observations and thus, new theories. This study will examine this issue.

1. Method

The present study was carried out through the library method. In this sense, the documentary method has been used to collect data and the data were analyzed through a descriptive-analytical approach.

2. Results

Dr. Bagheri criticizes Dr. Golshani's theory of religious science. In his theory of religious science, Golshani proposes this claim: "what the experimenter observes in the laboratory can be the same in the whole world" – independent of the experimenter's presuppositions. In one of his reviews, Bagheri claims that Golshani did not draw the role of presuppositions correctly and accurately, because presuppositions also play a role in this stage; that is, assumptions have an effect on laboratory observations.

By carefully focusing on Bagheri's criticism, it can be found that part of her criticism is directed at the theory-ladenness of observation thesis. Accepting the effects of presuppositions and mental content on observations, the current study tried to show that the theory-ladenness of observation should not be over-relied. The main concept to illustrate this paper's argument is Alen Chalmers' *objectified observation*. Chalmers talks about a specific procedure in the practice of science. According to this procedure, controlled experiment and observation have replaced mere observation. The design of the experiment should be such that important questions about the world are answered by the world *itself*. Since the conditions of reality or the response of the world do not change in the same laboratory conditions, anyone (with any presuppositions) can, by designing the same experiment, get the answer from the world that has already been obtained by other people (with different presuppositions).

In this way, it can be said that since the laboratory results are determined by the requirements of the world independent of our presuppositions, our presuppositions (religious or naturalistic) cannot have a serious role in determining these objectified results. The findings of this study reveal that objectified observations are generally accepted and these results should be considered as a basis for an almost impartial judgment of scientific results. It is not clear how different naturalistic or religious presuppositions can lead to different experimental results – in such a way that one of the parties wants to deny these objectified results due to the influence of naturalistic or religious presuppositions.

Of course, the theory-ladenness cannot be denied generally; because the interpretation of observational results is dependent on presuppositions and this dependence entails fallibility. Presuppositions



may be wrong and as a result, our interpretations may be wrong, too. In addition, it seems that when the content of the theory goes far beyond the empirical and observational content, the presuppositions (religious or naturalistic) can play a serious and intentional role; for example, when dealing with universal theories.

3. Conclusion

This article aimed to find out whether a theory-ladenness thesis can play a constructive role in defending the possibility of religious science (in the middle stage of scientific practice). The findings of this study revealed that this thesis cannot easily be taken to defend the possibility of religious science in general terms.

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Authors' contribution

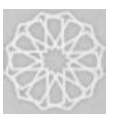
The article was written individually and the author is corresponding to the article

Conflict of interest

The author declared no conflict of interest in this paper

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