

Abstract

We have studied that Popper's philosophy of science starts with philosophical and epistemological problems like the problem of Induction and the problem of Demarcation, these two problems are considered the core of his epistemology of science. These epistemological problems coincided with each other, the solution of one is the solution of the other, for instance, when he talks about Induction and solved the problem with the help of Kant's solution, in fact, he solved the problem of demarcation logically. No doubt that induction is considered the only way to improve scientific knowledge and it is also considered the source to know the validity of scientific knowledge. But, Popper criticized it and acclaimed that induction is not a reliable method to obtain scientific knowledge. He rejected it and proposed the deductive testing method for the methodology of science. The one thing which we have observed is that Popper did not believe in inductive knowledge. Because, he thinks that it has many systematical and procedural flaws. For this reason, he gave the example of Hume's problem of induction and Kant's problem of induction to prove his stance. He proposed that there are two fundamental reasons to reject it; the first is that it does not provide the sufficient reason to reach scientific conclusion and the second is that it does not provide the criterion of demarcation. In this way, we can infer that Popper rejected Induction because of irrationality, insufficient reason and invalid criterion of demarcation. So, his epistemology of science is based on maximum empirical data or deductive testing method as opposite to Induction. Popper's epistemology of science, no doubt, is a multilayered epistemology. The criticism on induction, the concept of falsifiability, the concept of demarcation and verisimilitude are the crucial examples of it. His criticism on induction provides the deductive testing methodology for science. Falsifiability provides the demarcation between science and pseudo-science which has a great significance in philosophy of science. On the other hand, the works of Thomas Kuhn, Imre Lakatos and Paul Feyerabend changed the direction of philosophy of science. They hit on the methodology of science. The modern sciences developed their own relative methodology for the further advancement of scientific knowledge.