

Martyr Sadr On the Question of Induction

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Induction is problematic for philosophers of science. In his book *Logical Foundations of Indication*, Martyr Sadr tried to bring forth a theory of induction on the basis of which the logical process of induction is analyzed in terms of subjective production and essence production. In this article, I will discuss this analysis and set up its logical conditions to satisfy his argumentation.

Key Words: Induction, Certitude, Collective knowledge, Subjective production, essence production

Newton's Scientific Method in Principia

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It is commonly supposed that Isaac Newton had possessed and consistently followed a specific method of research in his scientific enquiries, and that his two classic and enormously influential *Principia Mathematica* and *Opticks* are the outcome of his strict adherence to that method. But Albert Einstein admonishes us that if you want to know anything about the methods used by physicists "do not listen to what they say, and instead pay attention to what they do".

Given this highly interesting remark, I have tried in this paper to, firstly, find out whatever that Newton has said about his scientific method, and methodological and epistemological rules and principles in his two major works. Secondly, I have attempted to retrieve whatever that Newton had actually done. What comes out of this extended attempt is that there are wide differences and sometimes manifest inconsistencies between what Newton has said about his method and what he has done in his scientific pursuits. What, also, becomes clear is that it has never been the case that Newton had, prior to embarking on his scientific endeavours, a specific method of enquiry at his disposal, and had conscientiously followed it.

Newton's reflections and pronouncements on methodological and epistemological issues came about only after he faced an overwhelming number of severe criticisms and objections after *Principia's* first appearance in 1687. Since then Newton's major preoccupation was to devise, announce, and make plausible new rules for the scientific game, so that his scientific theories become justified and, simultaneously, Cartesian theories become implausible and unjustifiable.

Key Words: scientific method, methodology, epistemology, Isaac Newton *Principia Mathematica*, hypothesis, hypothesization, mechanical philosophy, Newtonians, Cartesians.