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THE PROBLEM OF INDUCTION RECONSIDERED: IN DEFENSE OF

REICHENBACH'S PRAGMATIC RESPONSE.

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ABSTRACT

Are we justified in believing that the future will be like the past? This is the problem of
induction that challenges the process of inferring future unobserved claims from past
observed claims as is the nature of scientific inquiry. This study sets out to revisit the
problem of induction by re-evaluating the main solutions offered since its inception by
David Hume in the 18th century. Several attempts have been made to give an epistemic
solution to the problem or in other terms to validate induction. Epistemic solutions seek to
show that the conclusions of inductive arguments will be true in the future. However, the
fact that induction, unlike deduction, is not necessarily truth preserving has proved that
validation of induction is not possible for this would amount to equating induction with
deduction. In this regard, epistemic solutions to the problem of induction have failed to meet
the sought objective. However, Hans Reichenbach has offered an alternative to epistemic
justification of induction: pragmatic justification or vindication of induction. Pragmatic
justification or vindication of induction seeks to show that induction is justified by virtue of
being directed towards achieving a desired aim. Reichenbach’s solution namely, that
induction is justified by the fact that it will eventually lead scientists to the true value of the
limit of relative frequency of repeatable events thus leading to predictive success, has been
criticized of not being an epistemic justification and hence is not in line with Humes
demand namely, that the justification of induction should seek to show that the conclusions
of inductive arguments will be true in the future. However, given the apparent impossibility
of validating induction, there is need to revisit the problem of induction with an aim of
defending the pragmatic solution. This study establishes that the three main epistemic
solutions to the problem of induction namely, probabilistic, reliabilistic and inductive
responses, are guilty of circular reasoning. As such, they fail to meet the standards of an
acceptable justification of induction. Moreover the study shows that the linguistic and
falsificationism attempts to show that the problem of induction is a pseudo problem do not
succeed in dissolving the problem. On the one hand, the linguist’s claim namely, that
induction is rational by definition and thus justified, does not entail an impossibility of
further justification of induction since vindication is a viable alternative. On the other hand,
falsificationism, the alternative to induction as the methodology of science, fails owing to
the indisputable fact that science makes use of induction. The study even shows that
falsificationism appeal to corroboration of theories, where the most corroborated theories
are preferred to the less corroborated ones, is a disguised concept of induction. In addition,
the study establishes that Nelson Goodman's attempt to introduce a new problem of
induction namely that of distinguishing valid from invalid inductive projections together
with his attempted epistemic solution to it is nothing but Hume's problem in disguise. Hence,
the study shows that Goodman does not advance the debate beyond Hume’s assumptions. It
is on these grounds that the study seeks to establish that Reichenbach’s solution is more
viable than any of the aforementioned solutions and from which philosophers can seek to
advance the debate. Further, Reichenbach’s solution is criticized on the grounds that this aim
may never be achieved either in the long or the short run. That even if the limit of relative frequency is achievable, there is no way that scientists could know they have arrived at it. To remedy this, the study has appealed to the immediate practical consequences of induction without seeking an aim that is to be achieved in the future as Reichenbach does. That is, induction sustains scientific predictions in their application to current policy formulation and technological advancement.