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Uncertain but Reliable

Induction is the process of drawing inferences about a population from a sample (Sober 24). It allows for the finite information from that sample to be generalized to the whole population. The problem is that there is an argument against induction which states:

1. To rationally justify induction, you must show that induction will be reliable.
2. To show that induction will be reliable, you must construct an inductive argument or a deductively valid argument.
3. You can’t show that induction will be reliable by giving an inductive argument;

that would be question-begging.

1. You can’t validly deduce that induction will be reliable from premises describing

the past reliability of induction (or from definitions).

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Hence, induction cannot be rationally justified. (Sober 157)

However, induction does not seem very irrational. Everybody uses it all the time to make predictions and learn new patterns. This paper will introduce a theory of knowledge called the Reliability Theory of Knowledge, explore its applications in the Problem of Induction, and conclude whether or not it is a possible solution to the Problem of Induction.

First, what exactly does the Problem of Induction outline? The Problem of Induction is a deductive argument that attempts to prove that induction is not rationally justified. Premise one states that for induction to be rationally justified, the reliability of induction must be proven (Sober 157). Premise two states that its reliability must be proven formally through induction or deduction (Sober 157). Premise three states that the reliability of induction cannot be proven through induction itself, because the subject of proof cannot be used in the premises of the same proof to avoid circular reasoning (Sober 157). Premise four states that the reliability of induction cannot be proven deductively since it is impossible to deductively amplify finite information, by the definition of deduction (Sober 157). Since induction cannot be proven reliable formally, the argument concludes that induction is irrational (Sober 157). However, does the reliability of induction need to be proven for it to be reliable?

According to the Reliability Theory of Knowledge or the RTK, the answer is no. To solve the Problem of Induction, the RTK can be used to disprove premise two, which states that, “To show that induction will be reliable, you must construct an inductive argument or a deductively valid argument. (Sober 157)” Thus, to disprove premise two, it is sufficient to show that you don’t have to formally prove that induction is reliable for it to be reliable. So what does it mean to formally prove something is reliable? The act of proving P is not only showing that you *know* P; it is also showing that you *know* that you *know* P. For example, when a professor tests you on a proof of a math theorem, they are checking, one, if you know the theorem and, two, if you are certain that you know the theorem. This idea relates to a principle the RTK rejects.

The Reliability Theory of Knowledge characterizes knowledge as

S knows that P if and only if

(1) S believes that P.

(2) P is true.

(3) In the circumstances that S occupies, if S believes that P, then P must be true. (Sober 141)

This means that there is knowledge of P when it is circumstantially impossible for P to be wrong (Sober 141). That is, given a circumstance of P, relative to some context, the truth of P can be known. An important implication of the RTK is that the RTK rejects the KK Principle (Sober 143). The KK Principle states that if S knows P, then S knows that S knows P (Sober 142). So if the math theorem example followed the KK Principle, if you know the theorem, then you are also certain that you know the theorem. When the KK Principle is rejected, you can know the theorem without being certain that you know the theorem and thus, without being able to prove it.

By assuming that the RTK is true, the KK Principle can be rejected, which implies that you do not need to be *certain(*or prove) that you *know* induction is reliable for you to *know* that it is reliable; thus, disproving premise two and solving the Problem of Induction.

Even though it seems like the argument for the Problem of Induction has been disproven, there is a caveat to the RTK. The problem with the RTK, aside from the assumption that it is true, is that knowledge defined by the RTK is relative to some circumstance. By using the RTK to prove that induction is reliable, what really has been proven is that induction is reliable relative to some circumstance. Thus, there could exist a circumstance where induction is not reliable. There are two immediate questions:

1. If there exists a circumstance such that induction is not reliable, is it still rational to use induction?
2. What are the circumstances that induction will be reliable?

Question one can be answered by paraphrasing Sober, “Whether the thermometer is reliable here and now has nothing to do with what I can imagine (Sober 140).” The reliability of induction depends on induction, not on what can or cannot be imagined. This leads to question two, which can be expanded on by quoting Sober again, “A reliable thermometer is one for which there is a connection between readings and temperatures. If the thermometer reads n degrees Fahrenheit, then the temperature must be n degrees Fahrenheit (Sober 140).” Thus by paraphrasing, induction is reliable when there is a connection between the inference it makes and the population it was made on.

It seems that there needs to be a way to measure this connection to be able to determine what circumstance induction is currently in. The measure of correctness cannot be deductive since the inductive inference only holds a finite amount of information and cannot be generalized with respect to the population. However, induction seems like a possible way to measure the correctness; but how can induction be used to measure an inference that was made from induction. It seems to do so, is to be begging the question. Without the assumption of the RTK, if reliability must be measured with induction, the Problem of Induction undermines the RTK. It is possible that the RTK cannot disprove the Problem of Induction since it uses induction itself.

To conclude, the Reliability Theory of Knowledge is a theory of knowledge that states all knowledge is relative to a given circumstance. It was proven that by rejecting the KK Principle, the RTK could be a solution to the Problem of Induction, given that the RTK is true. Since measuring reliability seems to include induction, without the assumption of the RTK, it can be shown that the RTK itself is not rationally justified and thus, cannot solve the Problem of Induction. As a last grain of thought, maybe solving the problem of induction is not solving it at all. Does one have to know something is rational for it to be rational? (KK Principle)

Works Cited

“The Reliability Theory of Knowledge; Justified Belief and Hume’s Problem of Induction.” *CORE QUESTIONS IN PHILOSOPHY*, by ELLIOTT SOBER, 7th ed., ROUTLEDGE, 2021, pp. 138–153.