

A Little Survey of Induction

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Abstract

My purpose in this chapter is to survey some of the principal approaches to inductive inference in the philosophy of science literature. My first concern will be the general principles that underlie the many accounts of induction in this literature. When these accounts are considered in isolation, as is more commonly the case, it is easy to overlook that virtually all accounts depend on one of very few basic principles and that the proliferation of accounts can be understood as efforts to ameliorate the weaknesses of those few principles. In the earlier sections, I will lay out three inductive principles and the families of accounts of induction they engender. In later sections I will review standard problems in the philosophical literature that have supported some pessimism about induction and suggest that their import has been greatly overrated. In the final sections I will return to the proliferation of accounts of induction that frustrates efforts at a final codification. I will suggest that this proliferation appears troublesome only as long as we expect inductive inference to be subsumed under a single formal theory. If we adopt a material theory of induction in which individual inductions are licensed by particular facts that prevail only in local domains, then the proliferation is expected and not problematic.

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