

Inference to the Best Explanation and Dembski-Significance Testing Model for the Intelligent Design Argument

(An abstract)

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In the debate regarding the Design Inference (DI), Sober, a philosopher of biology, frames the issue in terms of the Inference to the Best Explanation (IBE), and he develops his counterarguments against DI by applying the Fisherian Likelihood Principle. Dembski, a mathematician/philosopher who is also influenced by Fisher, constructs his pro-DI arguments by employing Fisherian significance testing and rejection region. In addition, basing his point on the bad lot argument, Dembski asserts that it is unacceptable to have to choose among competing explanations, as is suggested by IBE.

This article is a brief evaluation of the debate between Sober and Dembski. It is suggested that Dembski's application of rejection region may not be appropriate for DI when the cut-off level for the specification of the rejection region is controversial and the chance hypothesis gets eliminated without taking other probability distributions into consideration. Moreover, the bad lot argument does not negate the value of abduction/IBE, since abduction operates only in an exploratory but not a confirmatory mode, and IBE proposes competing rather than alternative explanations.

It is recommended that the statistical and probabilistic approach for investigating Intelligent Design should first be framed in the abductive mode, which places the emphasis on hypothesis generation, instead of elimination which is based upon a pre-determined distribution and on rejection region. Further, it is argued that the Fisherian and the Bayesian approaches are not necessarily mutually exclusive. To take the Bayesian approach into account could strengthen, not weaken, the Intelligent Design argument. In this fashion, the criticism of invoking natural theology, in which science is used to prove a pre-determined hypothesis derived from theology, can be answered.