Essay One

Requirements

You are to submit one 5-7 page research paper on Monday 16 March, addressing one and only one of the questions listed below. A hard copy of the paper must be submitted in class.

Guidelines


Questions

• Explain and evaluate the Deductive-Nomological theory of scientific explanation, addressing at least one of the following problems with the theory:
  – Explanatory asymmetry.
  – Explanatory relevance.

• Scriven (Scriven, 1959; Scriven, 1962) argues that the symmetry thesis regarding explanation and prediction implied by the Deductive-Nomological theory of scientific explanation is false. Explain and evaluate his argument.

• Woodward (2003) argues that the Deductive-Nomological theory of scientific explanation is committed to an implausible thesis concerning the epistemology of explanation he calls “the hidden structure strategy”. Explain what this problem is, and explain and evaluate Woodward’s argument.
• Explain and evaluate the Inductive-Statistical theory of probabilistic explanation, addressing at least one of the following problems with the theory:
  
  – The requirement of maximal specificity.
  – Explanations that cannot be formulated as inductive arguments.

• Strevens (2000) argues against what he calls “egalitarian” accounts of probabilistic explanation on the grounds that they cannot justify explanations in statistical mechanics. Explain and evaluate his argument.

• Lewis (1986) gives an account of causal explanation according to which to explain is to provide information about causal history. Explain and evaluate the Lewis argument, considering the following questions:
  
  – Does more information always entail better explanation?
  – Are there non-causal explanations?

• Sober (1983) argues that equilibrium explanation provides a counterexample to causal theories of explanation. Explain and evaluate his argument.

• Woodward and Hitchcock (Woodward and Hitchcock, 2003a; Woodward and Hitchcock, 2003b) develop a counterfactual account of explanation that they claim improves upon the Deductive-Nomological account in several respects. Explain and evaluate their account, comparing it with the Deductive-Nomological account in at least one of the following respects:
  
  – Explanatory asymmetry.
  – Explanatory relevance.
  – Explanatory depth.

References


