

PHL 311 Second report

Over view

The Nature Of Scientific Explanation And The Philosophical Problems It Raises

How can scientific explanations be defined or characterized? Is explanation an epistemological, metaphysical, psychological or social notion? What are the roles of laws and causes in explanation? What is the relation between explanation and prediction? What are the counter examples to proposed models? What is the pragmatics of explanation? What is the distinction between explaining why and explaining how? Does science need explanation? Do scientific explanations change over time? Is there a difference between explanations given in terms of laws, causes and reasons?

The format for this report is similar to the first report. The report will be in four sections.

Section 1: Introduction

The introduction shall include the reference to the item being reviewed and a brief presentation of the general topic being examined.

Section 2: Presentation

This section shall present a brief summary of the content of the reading.

Section 3: Discussion

This section shall include your appraisal of the position or argument that you identified as being important in section 2.

Section 4: Conclusion and future directions

This section shall include your ideas about further research on the topic.

For the second report you may select from the following

Two Models of Scientific Explanation, Carl Hempel

The Pragmatics of Explanation, van Fraassen

Explanatory Unification and the Causal Structure of the World, Philip Kitcher

Scientific Explanation: Causation *and* Unification, Wesley C. Salmon

The Logic of Conditionals, J.L. Mackie

Laws of Nature, John Earman

Both are in *Philosophy of Science: Contemporary Readings* (Yuri Balashov, Alexander Rosenberg, Alex Rosenberg). You may use the material in Chapter 2 of *The Philosophy of Science: A Contemporary Introduction* (Alexander Rosenberg) to aid in the development of your ideas. Cite your references in an appropriate form. If you select either of these pieces for a report, the report will be due February 9, 2006.