

Science and Reason: Essay Two

Requirements

You are to submit one 6–8 page research paper on Monday 16 December, addressing one and only one of the questions listed below. An electronic copy of the paper must be submitted by email to bradley.weslake@rochester.edu.

Guidelines

Essay guidelines are available here: <http://goo.gl/jrx25>

Questions

- In *The Structure of Scientific Revolutions*, Kuhn developed a view of scientific change that his critics took as a challenge to the objectivity of theory choice. In his “Objectivity, Value Judgment, and Theory Choice”, Kuhn addressed these critics. Explain Kuhn’s view of scientific change, and evaluate Kuhn’s argument in this later essay. Address at least two of the following questions:
 - Kuhn makes a distinction between rules and values. What is the difference, and why is it important for the main thesis of his essay?
 - Kuhn thinks that his view better fits the history of science than the view he is opposing. Explain and evaluate his argument for this claim.
 - Kuhn claims that if his view were false, the development of alternative scientific theories would be mysterious. Explain and evaluate this claim.
- In “Theories, Theorists and Theoretical Change”, Kitcher argues against a thesis he calls “conceptual relativism” by (i) developing a theory of reference; and (ii) applying this theory to the case of the dispute over the phlogiston theory. Explain and evaluate Kitcher’s argument, addressing the following questions:
 - How does Kitcher define “conceptual relativism”?
 - Why does Kitcher call his theory of reference a “context sensitive theory”, and how does this contrast with a “context insensitive theory”?
 - How does Kitcher’s theory of reference apply to the phlogiston theory?
 - How does this application undermine the case for conceptual relativism?

- In “A Confutation of Convergent Realism”, Laudan argues that scientific realism is challenged by an inductive argument from the falsity of past scientific theories. Explain the thesis of scientific realism, and then explain and evaluate Laudan’s argument, addressing at least one of the following questions:
 - In “Why The Pessimistic Induction Is A Fallacy”, Lewis distinguishes between an argument he calls “Putnam’s argument” and an argument he attributes to Laudan. Explain how a realist should respond to “Putnam’s argument”, and why this response does not help with Laudan’s argument.
 - Lewis argues that Laudan’s argument is fallacious. Explain Lewis’ argument, and consider how Laudan’s argument could be reformulated to avoid this problem.
- You may address one of the questions from the first essay, *if* you have my permission to do so.