

# 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

An excellent resource to read before starting your essay is James Pryor's "Guidelines on Writing a Philosophy Paper" [<http://www.jimpryor.net/teaching/guidelines/writing.html>]. You might also find his "Philosophical Terms and Methods" [<http://www.jimpryor.net/teaching/vocab/index.html>] and "How To Read a Philosophy Paper" [<http://www.jimpryor.net/teaching/guidelines/reading.html>] useful.

## Questions

- Explain and evaluate Popper's solution to the demarcation problem, focussing on the problem of how to determine when a theory has been falsified. Address at least two of the following questions:
  - Why does Popper think that appealing to explanation or confirmation is not a good way to discriminate between science and pseudo-science? Is he right?
  - Popper claims that the introduction of *ad hoc* hypotheses in order to save a theory from falsification reduces the scientific credentials of the theory. What sorts of hypotheses does he have in mind? Is he right?

- Laudan claims that Popper’s demarcation criterion is inadequate because it provides a semantic rather than an epistemological distinction between theories. What does Laudan mean? Is this a problem for Popper?
- Explain, compare and evaluate Popper and Kuhn’s solutions to the demarcation problem, addressing at least one of the following questions:
  - Kuhn says that Popper has focussed on an atypical variety of scientific activity. What does he mean? Is he right?
  - Kuhn says that it is typically the scientist rather than the scientific theory that is tested. What does he mean? Is he right?
- Lakatos criticises both Popper and Kuhn, and attempts to combine their views into a unified solution to the demarcation problem. Evaluate Lakatos on the demarcation problem, addressing at least one of the following questions:
  - What is the difference between a Kuhnian paradigm and a Lakatosian research program, and how is it relevant to their views on demarcation?
  - What does Lakatos think is wrong with Popper’s solution? Is he right?
  - What does Lakatos think is wrong with Kuhn’s solution? Is he right?
- Evaluate whether astrology is a pseudoscience. Include in your discussion a detailed description and evaluation of how the view of either Popper, Kuhn, Lakatos, Thagard or Laudan applies in the astrological case.

*Note:* I will accept papers evaluating other alleged pseudosciences, including intelligent design, *provided you have sought and received permission to do so.*