

Economics 201 Popper on Science

This reading is the first chapter of Popper's book, *The Logic of Scientific Discovery*. It is short but contains a lot of ideas, some of which presuppose familiarity with earlier philosophical writings. One of the key references made by Popper is to David Hume on the "problem of induction." To help bring you up to speed on this we have added a short reading from Hume's *Enquiry Concerning Human Understanding* of 1777. You should probably read Hume first (find the text as `hume.pdf` in the "Other documents" folder on the class home page).

In the Popper text, the most important sections for our purposes are 1, 3, 4, 5 and 6, plus the concluding remarks on pp. 47–48. Here are some questions to help focus your reading. We will discuss some of them in class; you may also be quizzed on some of them.

1. What is an "inductive inference"? (p. 27)
2. What, according to Hume and Popper, is the problem with such inferences? (pp. 28–29)
3. In your own words, what are the four aspects of the "testing" of scientific theories identified by Popper? (pp. 32–33)
4. Popper proposes a "demarcation criterion" for distinguishing between what is empirical science and what is not. Briefly, what is his criterion? Also, what is the *status* of this criterion, according to Popper? (pp. 34, 37–38, 40–41)
5. "Not for nothing do we call the laws of nature 'laws': the more they prohibit the more they say" (page 41). What does Popper mean by this? As an example, consider the "law of gravity": what sort of thing does this law prohibit? What does the "law of diminishing returns" prohibit?