

Philosophy 3330: Philosophy of Science
Spring 2014, Final Paper Assignment – Due Sunday, May 11th

Instructions: Write a paper of approximately 1,500-2000 words. The general guidelines are as follows. First, your paper must critically engage one or more of the topics we have discussed in the first nine weeks of class. Second, your paper should not *merely* summarize the position(s) of some of the authors you discuss; it should in some way locate them relative to each other, synthesize those ideas, criticize them, defend them against important objections, or develop them in your own way. Third, the topic of your paper should be of an appropriate scope given the length constraints. Some students will have strong backgrounds in some area of science that they may wish to bring to bear in their papers. This is fully encouraged, so long as: (i) all of the technical ideas are explained as clearly as possible within the constraints of the length limits of the paper; and (ii) your paper grapples directly with the philosophical issues raised in this course, and is not merely an exposition of the relevant science. However, careful engagement with the details of some science or other is not required for a good paper.

Due Date: You must submit your paper to me by email by noon on Sunday, May 11th. Thursday the 8th is the scheduled time for our final exam – however, we will have no final exam for this class. Any easily readable format such as .pdf or .doc is okay.

Grading: This paper is worth roughly 25% of your final grade.

References: All sources used in the writing of your paper must be properly referenced. This applies to material in the course readings, other published material, lecture notes from this class and other classes, material 'published' on the internet, and ideas contributed verbally by other students. Information about proper procedures and formats for references can be found on the course website. Failure to follow these guidelines may result in a lowered grade or even an automatic F in the course; it may also lead to charges being brought before the university. If you have any questions about these issues, please do not hesitate to contact me.

Advice on Writing a Philosophy Paper: The course website contains several handouts on writing a philosophy paper, as well as links to websites on the topic.

Reading Drafts: I am happy to talk about your papers during office hours or if you make an appointment to meet me in my office. I am also happy to read drafts of papers, on a time-permitting, first-come, first-served basis. For example, if you get a draft to me on Monday the 5th, it is likely that I can get it back to you within 24 hours. Monday is the latest day I can be sure that I can get a draft back to you.

Topics: You may write on any topic that we discussed during the class. However, you may not write on a topic that is too close to the topic of your first paper. For example, if your first paper was about the relationship between science and religion, feel free to write a paper about Kuhn. But if your first paper was on Kuhn's view of scientific revolutions, you cannot write your second paper on Kuhn vs. Popper on normal science.

The topics offered below are given as suggestions: you may address one of them as is, you may modify one of these topics, or you may create your own topic. If you create a question very different from one of the ones below, you should check with me first about whether this would be okay. Whatever topic you may choose, your essay should have a title that clearly and accurately reflects what the essay is about. If you would like further readings that may be helpful in addressing some of these topics; I recommend starting with the Stanford Encyclopedia of Philosophy. Asking me for advice for what to look at is also a very good idea.

Sample topics:

1-17: Any of questions 1-17 on the first paper assignment.

18. How should the study of science as a social phenomenon (science as studied through history and sociology) affect the philosophy of science? For example, what is the relationship between the actual practices of science and normative theories of how science should work?

19. Longino argues that values are importantly related to scientific objectivity. How? What does she mean by objectivity? Is she right objectivity can be achieved in this way?

20. Can facts be separated from values? What is the relationship between facts and values in good scientific reasoning?

21. Is the ideal science 'value-free'? In what sense? Are there particular aspects of science that are value-free in the ideal? Such as scientific inference?

22. What does Godfrey-Smith mean by a 'naturalistic' theory of the philosophy of science? Is this a good view of the proper relationship between science and philosophy?

23. Can a principled distinction be drawn between what's observable and what's not? If so, does the distinction have any methodological significance? (You could write your whole paper on the first part of the question. Or you could treat it fairly quickly and devote almost all of the paper to the second part of the question. Or you could give equal time to each.)

24. What is constructive empiricism? Are there any reasons that constructive empiricism is preferable (or worse) than scientific realism?

25. What is the pessimistic meta-induction? To what extent does it militate against our believing our best scientific theories? Is there a compromise position a realist can take, acknowledging that some things our theories say about the unobservable world shouldn't be taken too seriously, while maintaining that others should?

26. Should we be scientific realists? In what sense? Are there other sense of 'scientific realism' that we should not accept?