

## **Philosophy 20000: Introduction to Philosophy of Science**

### **First Paper**

#### **Instructions**

The paper (6–12 pages long) is due Thur., Nov. 6, in class.

The below topics are suggestions. If you want to write on another topic, feel free to do so. It might be a good idea, however, in that case, to check with me and/or Adam first.

The main focus of the paper should be, one way or another, on texts we've read for this class, though you're welcome to use other material also (including especially the recommended reading) if it seems useful/relevant. If you do use outside sources, it should go without saying that you must cite them, and provide enough bibliographical information that I can figure out what they are. (For sources from the required or recommended reading, title and page number should be sufficient.)

I recommend an attempt to understand/explain/make sense of the views of the authors we've read, rather than, say, an attempt to make an argument of your own against them. (I recommend this *particularly* if one or more of these authors rubs you the wrong way or seems obviously wrong or uninteresting.) All of the suggested topics below are along those lines. This is only a recommendation, however: I suspect that an effort in this direction is most likely to produce a good paper, but if you think you have a good idea along other lines, go ahead and try it.

#### **Suggested Topics**

1. In class I mentioned the following four popular philosophical doctrines: (1) naturalism—roughly, that science is the best or only source of knowledge, so that, if philosophers want to know something, they should ask science; (2) physicalism—roughly, that everything (every object, property, event, and/or law) is physical (is a physical object, physical property, physical event, physical law); (3) empiricism—roughly, that all our knowledge comes from experience; (4) scientific realism—roughly, the doctrine that the things science says exist are the things that really exist. Pick at least one of these and explain what it means (and doesn't mean) for one or more of the authors we've read.

(A few possible ways to make this interesting: show, for example, that the disagreement between two authors who disagree is really a disagreement

over the correct interpretation of one of these doctrines, or that one of them pulls a particular author in more than one direction (leading to tension or incoherence), or that two of these doctrines which seem to go together (and/or which do go together for some of the authors we've read) are really, according to some (other) author(s), diametrically opposed.)

2. Discuss the meaning of and/or relationship between some of the following things, according to authors we've read: (scientific) theory, observation(s), common or everyday knowledge, experience, sense data. How (if at all) do they define them? Which do they consider most certain/reliable, or more justified, or otherwise better, and why? How and on what grounds do they disagree with each other about these issues? (How, if at all, is it possible to disagree about the *definitions*? Can't everyone define the terms as he or she likes? What would our various authors say about that?)
3. What, according to the authors we have read, is the relationship between science and language, and/or between philosophical interest in science and in language? What, if anything, makes language into an object of special interest for philosophy and/or science? You may want to contrast different authors, or to trace changes in a single one (unless you've done additional reading, that would pretty much have to mean Carnap). (If you do contrast different authors, the contrast need not be simply between Carnap and one of his critics. Neurath, Putnam, and Quine all attack Carnap in different ways, though there are also similarities between all three. What role do views about or attitudes towards language play in this?)
4. A more general suggestion, which to some extent overlaps with some of the above: pick a difference or debate between two authors, or possibly between earlier and later Carnap, and explain what the *real* disagreement is (as opposed to what one might have thought it was). You can try to decide who "wins," if you want, but I don't particularly recommend this.
5. What was really important to Carnap, and what wasn't (in general and/or at the various stages we've seen)? How does this explain the adjustments in his project as time went on, and/or his response to (one or more of) his critics? To help with this, you may want to look at the Preface to the second edition of the *Aufbau* (which is in your book), also at his "Intellectual Autobiography" and possibly other items on the recommended reading list.
6. What, according to the authors we've read, is and/or should be the relationship between science and philosophy? Is philosophy part of science? If so, which part? (Is it one definite part, or is it somehow vague what scientific

results count as philosophical?) If not, what, if anything, do philosophers have to tell us that scientists can't? Or does philosophy differ from science in some other way (i.e., other than in subject matter)? Or is there no such thing as philosophy, only science? Or does it depend what you mean by "philosophy"? (One thing you might want to look at on this topic is Carnap's introduction to *The Unity of Science*, which was written especially for the English edition. I didn't copy that part for you, but the book is on reserve at Regenstein.)

7. Carnap was an Old Left democratic socialist, Neurath was a Marxist, Quine was an extreme right wing conservative, and Putnam was (in the period when he wrote "What Theories Are Not") a New Left activist. Discuss the relationship between the political views of these authors (i.e., one or more of them) and their views in philosophy of science. (I hinted at some things about this in class, but there's a lot more to be said.) (Note: to do this well you need to understand and deal carefully with the philosophy of science aspect, not just take off on the politics.)