

**Phil 125: Midterm Assignment (Exam Version)**  
Winter, 2017

**Instructions**

Due, as an attachment, via the “Assignments” tool on eCommons, by 11:55pm Tuesday, February 21 (in PDF or any format easily converted to PDF, e.g. MSWord, L<sup>A</sup>T<sub>E</sub>X, RTF, plain text).

Answer any *three* of the following questions, 2–3 pages for each answer, for a total of 6–9 pages.

The questions are keyed to different reading assignments, with the idea that each question is raised most centrally in a certain part of the reading. However, you can and should use material from anywhere in the text where it’s relevant to the answer.

Your focus should be on answering the questions accurately, not on making an original point or argument (if you want to do that, you should choose the paper option). However, all the questions do require some thought; they can’t simply be read out of the texts. And, of course, as usual, your answer must be “original” in the sense that it is your own work. (If you use any outside source—which I *don’t* recommend—you must cite it.)<sup>1</sup>

You can find answers to some commonly asked questions about my assignments and grading in my FAQ (<http://people.ucsc.edu/~abestone/courses/faq.html>).

**Questions**

1. Carnap, *Aufbau*, first reading assignment: Explain both the similarities and the differences between the two aspects of an axiomatized theory, as discussed by Carnap in §2: the “deductive system” and the “constructional system.” Explain further what Carnap means by “reduction” and “construction,” in the context of a constructional system, and what the equivalents

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<sup>1</sup>If you have any questions about policies on plagiarism and related issues, please see [https://www.ue.ucsc.edu/academic\\_misconduct](https://www.ue.ucsc.edu/academic_misconduct).

would be in a deductive system. From the fact that Carnap is engaged in setting up a constructional system, rather than a deductive system, what can be ruled out as the purpose of the book?

2. Carnap, *Aufbau*, second reading assignment: According to Carnap, what is the connection between the following three ideas: (1) not every *name* makes sense as an argument to every propositional function (for example, “Julius Caesar is prime” is neither true nor false); (2) not every *object* is of the same “type”; (3) objects of higher type are “logical complexes” of objects of lower type? Why is he forced to claim that ordinary language is full of a special kind of ambiguity — type-ambiguity — to make this work?

3. Carnap, *Aufbau*, third reading assignment: In §102 (p. 160), Carnap says that the point of construction theory is “rational reconstruction of a process of cognition whose results are already known.” Explain what this means and why it is important that he says it. In what sense does construction theory serve to justify science, and in what sense does it not? Why is it important that rational reconstruction involves “fictions” (see §100)? (Can we use construction theory to check if scientific statements are true?)

4. Carnap, *Aufbau*, fourth reading assignment: What, according to Carnap, is the difference between a scientific question and a metaphysical question? (Discuss the example of the Trojan war, §175, p. 281.) What is wrong with a metaphysical question and why? Given that the constructional system is so incomplete, how can we spot metaphysical questions and metaphysical concepts? Explain both why this seems to be a problem for Carnap and why it actually isn’t. Give an example of a question we can be sure now is metaphysical (according to Carnap), and explain how we can tell.

5. Carnap/Neurath, protocol sentences debate: Explain what Carnap means by a “protocol sentence” in *The Unity of Science*. Why does Neurath think there cannot be “protocol sentences” in this sense? What does he propose instead? That is: what does he think the language of science should be like, and how does he think scientific testing can work, if there are no protocol sentences? (Again: explain both why this *looks* like a serious problem for Neurath and how he would respond.)

6. Carnap/Putnam, “Methodological Character” and “What Theories are Not”: Explain the role of the “Observation Language” in the “Methodological Character” paper and how Putnam’s attack on “observation terms” seems

to show that nothing could fulfill that role. Isn't Carnap free to propose whatever Observation Language he wants? Why won't Putnam allow that?

7. Goodman: Consider Goodman's discussion of the relationship between "flexible," "inflexible," "flexes," and "fails to flex" (around p. 44). What is the difference between saying that something "flexes" (as Goodman defines the term) and saying that it is "flexible"? In what sense does the dichotomy between "flexible" and "inflexible" amount to a "projection" of the dichotomy between "flexes" and "fails to flex"? Why does Goodman want to *eliminate* "flexible" in favor of "flexes" (that is, give a rule for translating all sentences including "flexible" into sentences containing "flex"), and what general strategy does he adopt for doing so? Why, according to him, is the problem of getting such a strategy right similar to the problem of saying which inductive inferences are valid?

8. Quine, "Epistemology Naturalized": Quine says (on p. 81) that we should not reject "the verification theory of meaning," even though the verificationist project of the *Aufbau* fails. Why does he say that the theory must be true in some form? Is this a reason that Carnap would give? Why or why not?