

Mid-term Examination

General Directions: This examination is divided into three sections of four questions each. You are to answer a total of four questions, choosing at least one from each section.

The Historical Background to Logical Empiricism

1. Sketch the developments in the foundations of geometry in the nineteenth century that had a bearing on the development of logical empiricism.
2. Sketch the kind of argument that Henri Poincaré employed to motivate his brand of conventionalism. What did Poincaré mean when he wrote that conventions are “disguised definitions”?
3. Sketch the kind of argument that Pierre Duhem employed to motivate his brand of conventionalism. In what sense is Duhem’s conventionalism a species of epistemological holism?
4. Recent scholarship emphasizes logical empiricism’s debt to the Marburg neo-Kantian tradition. After briefly outlining the development of that tradition, describe some of the specific neo-Kantian influences on the early development of logical empiricism.

The Vienna Circle and Its Friends

5. Moritz Schlick was well known in his pre-Vienna Circle days for advocating a “semiotic” theory of truth as “univocal” or “unambiguous” (“*eindeutige*”) coordination or correlation between proposition and fact. Explain what Schlick meant by the semiotic view of truth and contrast this view with both correspondence and coherence views of truth.
6. Hans Reichenbach’s first book, *Relativitätstheorie und Erkenntnis Apriori*, advanced a novel point of view about the a priori. What was that view? Is it a reasonable extrapolation from Kant? Is it a reasonable response to general relativity’s challenge to Kant?
7. In his essay, “The Lost Wanderers of Descartes and the Auxiliary Motive,” Neurath deliberately chooses the psychological language of “motives,” as opposed to talking about “reasons” or even just “assumptions” in characterizing those elements of theory that are not obviously either empirical or a priori. Why? What are the large, metaphilosophical issues on the table here?
8. In his 1924 book on the axiomatization of relativity theory, Reichenbach emphasizes the point that, if the only differences between empirically equivalent theories are localized to different choices of conventional coordinating definitions, then those differences are no more significant than the difference between using French or German or the difference between using English or metric units. Two such “different” theories are really just different ways of saying one and the same thing. Is this a good argument?.

Do Some Philosophy

9. The young Hans Reichenbach argued that a contingent a priori played a significant role in scientific cognition. More recently, Michael Friedman has made Reichenbach’s notion of the contingent a priori the starting point of his own attempted Kant revival. Assess the prospects for success of such a program.
10. Is scientific realism compatible with the view that theory choice is underdetermined by evidence?

11. Early logical empiricists and philosophers of science in the Marburg neo-Kantian tradition redirect epistemology to the analysis of scientific theories rather than – at least in the first instance – first-person, individual cognition. In your opinion, is this a sensible move? Is it true to Kant?

12. Neurath argued that there is a proper role for social and political values in theory choice. So, too, have some contemporary feminist philosophers of science, some of them, such as Helen Longino, adducing arguments strikingly like those of Neurath. Others worry that allowing a role for social and political values in theory choice necessarily compromises the objectivity of science. What is your view?