

**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. There are at least two ways of interpreting Ernst Mach’s philosophical program, one that emphasizes the phenomenalist moment in his thinking and one that emphasizes the historical-critical and biological-economic moment. Describe these two readings of Mach and the evidence supporting each.
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. Otto Neurath and the other members of the “left wing” of the Vienna Circle disagreed with the “right wing” about both the structure and empirical interpretation of scientific theories and about the place of social and political values in theory choice. What were these differences and how were the two debates connected with one another?
7. Schlick criticized Reichenbach’s assertion that contingent a priori coordinating principles play an essential role in empirical science, suggesting that those elements of theory are more helpfully described as, in effect, conventional coordinating definitions. What might be the important philosophical issues at stake in a debate over these two different(?) ways of regarding the basic links between theory and world?
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?

12. It is often alleged against Neurath, Quine, and other holists in epistemology that, because it is committed to a coherence theory of truth, epistemological holism devolves into an anything-goes relativism. Is this a fair and accurate criticism?