

Mid-term Examination

Answer two questions in each of the following two sections.

Newton to Reid

1. Newton's third "Rule of Reasoning" spells out the range of properties over which one may generalize when rendering general by induction laws deduced from the phenomena. What distinguishes those properties, and how should this rule be situated in Newton's own more general metaphysical commitments? What inferences might we draw from Rule 3 with regard to Newton's place in the mechanistic tradition descending from Descartes?
2. Karl Popper argues that Berkeley can be understood as a precursor of Mach. With appropriate attention to the views of both Berkeley and Mach, critically evaluate Popper's argument.
3. Causality for Hume equals contiguity in space, succession in time, and constant conjunction. What more needs to be said? (NB: Tempted though I might be, I won't accept a one-word answer.)
4. Hume and Reid are both students of Newton, in the broadest sense of the word. Thus, they might agree when it comes to skepticism about a role for hypotheses in science and, yet, they disagree with regard to the more thoroughgoing skepticism that some associate with Hume. Give a sketch of the views of both Hume and Reid as they concern these two points of sameness and difference with an eye toward identifying the root difference in their positions.

Kant and Comte

5. Though recognizing that they deal with an empirical concept of matter, Kant still asserts that the principles of mechanics have an a priori status. How, on Kant's view, is this possible?
6. Explain what Kant meant when he wrote, in the *Metaphysische Anfangsgründe*, "I assert, however, that in any special doctrine of nature there can be only as much *proper* science as there is *mathematics* therein." In your answer, be sure to pay attention to the role of "construction" at this point in Kant's thinking.
7. More surprising than Kant's claim about the principles of mechanics is his claim that the law of universal gravitation can come to be regarded as an a priori law. What is required to make this possible? Why, by contrast, does he think that chemistry is probably not capable of being given an a priori foundation?
8. Comte regards the positive philosophy as a new science of science. Explain what he envisions for this new science.