

Suggested Paper Topics for “The Philosophy of Howard Stein”

Erik Curiel[†]

1. Stein ([unpublished-c](#), [unpublished-a](#)) argues that several of Newton’s greatest contemporaries profoundly misunderstood his investigations on light and color ([Newton 1672](#)), both with regard to his method and his conclusions, and all that in different ways. Reconstruct Stein’s account of Newton’s method. According to Stein, what did Newton achieve? What were the misunderstandings of Hooke and Huygens, respectively?
2. As Stein ([unpublished-c](#), [unpublished-a](#)) discusses, some have argued that Newton’s method as exemplified in the investigations on light and color ([Newton 1672](#)) is essentially the same as the HD (hypothetico-deductive) method. First, explain your understanding of Newton’s method, using specific examples from his work on light and color, his correspondence with contemporaries, and Stein’s own account of it. Sketch the HD method. What does Stein think the similarities and the differences between the two are? Does he think Newton’s method is the same? If not, does he think Newton’s method is superior, and why or why not?
3. Explain Stein’s more detailed analyses in [Stein \(unpublished-a\)](#), both why he felt such lengthy and detailed addenda to his arguments in [Stein \(unpublished-c\)](#) were needed, and what the content of the addenda are. Focus especially on: §§1–2 on what Newton meant by claiming that the science of light and colors is “mathematical”; and §3 distinguishing Newton’s method from Huygens’; and the objection to his arguments he considers in §4.
4. Near the very end of [Stein \(1967\)](#), Stein says, “Newton’s analysis of the notions of space and time is... a classic case of the analysis of empirical content of a set of theoretical notions.” Explain what, on Stein’s view, the analysis consists of, and why in particular there is nothing methodologically or metaphysically special or privileged about the notions of “space” and “time” in Newton’s analysis (*i.e.*, they are methodologically and metaphysically on par with other theoretical concepts in Newton’s system, such as “force” and “mass”). Do you agree with Stein’s conclusions?
5. What, according to [Stein \(1994\)](#), *is* the structure of our knowledge in physics? How, as Stein sees it, do many philosophical accounts of scientific knowledge fail to do justice to the actual situation?

[†] **Author’s address:** Munich Center for Mathematical Philosophy, Ludwig-Maximilians-Universität; Black Hole Initiative, Harvard University; Smithsonian Astrophysical Observatory, Radio and Geoastronomy Division; **email:** erik@strangebeautiful.com

6. Explain what [Stein \(1992\)](#) sees as the fundamental differences between the projects of Carnap and Quine, both with regard to content and methodology. In what way does Stein think Carnap to be superior? Do you agree?
7. [Stein \(1992\)](#) suggests ways that Carnap's program is flawed. What are those flaws, and how does Stein think one might begin to emend and reconstruct Carnap's program so as to fix them?
8. What is the relevance of the distinction that Stein makes, in [Stein \(1994\)](#), between the different ways it seems possible to learn different fields of study? Why should that matter in a philosophical analysis of the structure of our knowledge in physics? Discuss the three different types, forms, or aspects of knowledge that Stein distinguishes on p. 3, and their relation to the different ways that different things can be learned.
9. What does Stein mean, in [Stein \(1994\)](#), by "schematizing the observer", and what role does it play in his philosophical analysis and arguments?
10. [Stein \(2004\)](#) explains in detail the complexities of the way that the electromagnetic field and material bodies interact to yield our sensations of color. Why is that relevant to philosophical projects such as that of McDowell (as discussed by Stein)? Is Stein right that such considerations depending on the details of complex physics show that a Lockean view of qualities cannot work?
11. Figure out exactly what [Friedman \(2018\)](#) means in the very long penultimate paragraph comparing Stein's account in [Stein \(1989\)](#) with Kuhn's (in Friedman's eyes) much shallower account of the realism/anti-realism issue as Kuhn lays it out in [Kuhn \(1990\)](#), especially the remarkable end of that paper where Kuhn embraces what he takes to be a version of Kant's phenomena/noumena distinction. This should be compared to what Stein says about Kantian "phenomena" in his paper.
12. Explain Stein's attitude to each of realism and instrumentalism as he expresses it in [Stein \(1989\)](#). Does he think either on its own is superior? Explain how he thinks they are compatible with each other. Do you agree?
13. Is Stein a structural realist, in the sense of [Worrall \(1989\)](#) or [Ladyman \(1998\)](#)? Besides his discussions in [Stein \(1989\)](#) and [Stein \(unpublished-b\)](#), you may also want to look at [Stein \(1977\)](#), especially the discussion around p. 395.
14. Across many of his papers, Stein sometimes explicitly and sometimes implicitly champions the idea that we can make real progress in philosophy. Explain what this claim means for him, and why he holds it. Do you agree?

References

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