Lecture: φ Stein – Intro

16 Oct 2018

- I'm teaching, designing course, grading, not Stephan
- spiel on what I expect from students, my approach to teaching & learning φ (care in reading esp'y important w/ Stein)
- intro to Stein

- his background (Comp, computer chip designer, re-entry into academic)
- my personal ties
  - one of only 3 people I've ever met who deserved honorific of φr in Platonic sense
  - Malament's remarks: 1) "light of life"; 2) "record all conversations"
  - took every course, sat in on repetitions (never got an A!)
  - his harsh commentary, but always constructively meant (story about other grad students and "abuse" of me)
  - his wit, warmth, good heart, and intellectual and cultural omnivory
  - I'm still trying to prove him wrong about something (cf. Nietzsche's maxim); one of greatest days of my life – I corrected his grammar

Scope, breadth, depth of topics, subjects, issues treated

- history of physics, conceptual development of phys, in its own right (ancient Greek, Renaissance, early modern, 17-19th cents, early 20th)
  - esp'y Newton
- history of φ (some periods), and its conceptual development
- the deep inter-relation between those two
- classical & relativist spacetime
- qm
- field theories
- conceptual struc of phys as whole
- fndns and history of math (anc. Greek, 19th cent.)
- rel'n of phys to metaphysics, epist, φ of perception
- scientific methodology, epist, struc of knowledge
- general metaphys, epist, φ perception
- methodology of φ

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his influence

- Einstein's remark on Mach: φrs today do not realize how profoundly they have been influenced because they took him in w/ their mother's milk; only cognoscenti are aware
- summary: more widely admired than read; will return to this below in 'style method'
- influence too vast & deep to recount in detail
- no exaggeration to say that modern φ of phys began with "Newtonian Space-time" (1967)
- so much of what he did and how he did it (as pioneer) (cf. breadth and inter-relatedness of work) is too deeply engrained today for us even to notice that we might have been doing things differently (cf. remarks below on his style), but is essential to how we approach probs in φ sci/phys
  ⇒ particularly: today, φrs of phys look to phys not as source of potential answers to traditional questions, but rather as a place where novel & important questions appear, and so as a source for possibly fruitful ways to begin to address them

his style & method

- 1st, remarkable that a course on a φr should need to address & study this issue; but Stein's idiosyncrasy is what makes his work so powerful
- 3 primary traits
  i) deep sensitivity to and knowledge of hist of probs, both in context and as developed over time, both in sci and in φ
  ii) technical & formal mastery, deep knowledge & understanding, of math & physics
  iii) sensitivity to & understanding of 'φ probs' and sci probs in their own right, and espy how they relate to and bear on each other; ability to reconceive and reformulate probs to capture and elucidate their essence, the important core
⇒ -11 inextricable from each other

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⇒ inextricability: careful and thorough historical (study) analysis and reconstruction reveals scientific projects as engaged with goal probs of reconceiving our understanding of the world and our understanding of the way we have knowledge of the world and the structure of that knowledge, and how Q in turn shaped those scientific projects, all linked on subtle and informed analysis of probs in context and in modern reconstructions

- increase capacity for careful reading & writing (cf. his remark on Newton, that he was better / more careful writer than we are readers: this applies to Stein)
- more concerned w/ understanding than flesh & form of a 'program'

⇒ mitigated, unremitting skepticism of LU dogma and unexamined norms & princs, leads to essaying non-programmatic but illuminating discussion over building a monolithic, formal prgm

⇒ Shinoy's remark, "more widely admired than read" - because he makes such strenuous demands on readers, with regard to breadth of knowledge across disciplines needed, and care and attention to subtlety of writing and thought