SOCI 325: Sociology of science

Oct 6

1. Notes on discussion prompts
2. David Bloor and the strong programme
3. Reading discussion

Notes on discussion prompts

Notes

Notes on previous discussions

- **Kuhn**: arguing *against* the idea of scientific ‘progress’
- **Merton**: agnostic toward ‘progress’—only interested in social *function* of science

Discussion questions

- *Very* good work overall!
- Please only submit ***one prompt (‘question’)***. For future submissions, only the first question will be considered.
- Provide a ***motivation*** for your question. Submission is considered incomplete without it.
  (I’ve clarified language on the syllabus describing this)

Discussion questions

Two-part submissions:

1. Question/prompt

- One (broad) idea, described in a few sentences
- Can contain multiple “questions”
- Can contain quotes from text
- Should use in-text (parenthetical) citations

2. Motivation

- A few sentences describing where the question is coming from and where I hope it may lead
- Counts toward score, but will *not* be published if your question is chosen for inclusion

Example submission

Question:
Merton wrote *The normative structure of science* early in his career in 1942 (during World War II) and included it in a collection of his work on the sociology of science in 1973 (during the Cold War). How might the political climate of this time span in America have influenced his work? Do his theories cast science in a particular light? How does this work look through the lens of Wolfe's (2018) depiction of science during the Cold War?

Motivation:
I was thinking about the age of Merton’s piece, (published almost 80 years ago!) in the context of the course theme “history of science is a social history.” Rather than just understanding the reading as an *example* of the sociology of science, I thought it would be interesting to treat it as the *object* of our inquiry. In addition to helping us understand Merton’s arguments in context, I hope this will raise the larger issue of whether we can apply the tools of the sociology of science to the sociology of science itself.

David Bloor & the strong programme

Strong programme

Structure of the chapter

Define the ‘strong programme’ in the sociology of knowledge:

- Motivation & Central tenets

Anticipate and refute arguments *against* the strong programme:

- The ***autonomy of knowledge*** counter-argument
  Certain knowledge does not need explanation to be considered true
- The ***empiricism*** counter-argument
  Certain knowledge-producing processes tend to generate true knowledge
- The ***self-refutation*** counter-argument
  How can we reject judgements of truth or falsehood without considering the truth or falsehood of our own theories?
- The ***future knowledge*** counter-argument
  A causal model of knowledge would allow us to ‘pre-discover’ future discoveries, which is inconsistent with our ideas of what knowledge is

Sociology of knowledge should be:

(Bloor 1976, 7)

1 Causal

It would be causal, that is, concerned with the conditions which bring about belief or states of knowledge. Naturally there will be other types of causes apart from social ones which will cooperate in bringing about belief.

2 Impartial

It would be impartial with respect to truth and falsity, rationality or irrationality, success or failure. Both sides of these dichotomies will require explanation.

3 Symmetrical

It would be symmetrical in its style of explanation. The same types of cause would explain, say, true and false beliefs.

4 Reflexive

It would be reflexive. In principle its patterns of explanation would have to be applicable to sociology itself. Like the requirement of symmetry this is a response to the need to seek for general explanations. It is an obvious requirement of principle because otherwise sociology would be a standing refutation of its own theories.

Strong programme

Non-symmetrical sociology of science

Functionalism

- Functionalist accounts explain scientific processes in terms of the kind of knowledge they produce.
- Merton looked for the kinds of structures that produce true scientific knowledge, ***differentiated from false***.

“Sociology of error” (Bloor 1976, 12)

- History of science as the triumph of correct knowledge over incorrect (***Whig history***).
- Aims to explain incidence of ***incorrect*** knowledge.
- E.g. Goodyear (2016), Gould (1981), …

Bloor: non-symmetric approaches rely on ‘*internal*’ explanations for things deemed true and ‘*external*’ explanations for those deemed false.

Strong programme

Symmetry and the strong programme

Knowledge as *object* of study

- Bloor and the other strong-programmers say that the sociology of science should incorporate a sociology of scientific ***knowledge*** itself.
- They promote a search for ***general, causal explanations*** for emergence, maintenance, and demise of knowledge.

Impartial and symmetrical

- If explanations are ***general***, then they should be ***agnostic*** to judgements of truth or falsehood..
  Historically, such judgements are malleable.
- We should aim to explain all types of knowledge (***impartiality***), and explain them using the same theories and mechanisms (***symmetry***).

Strong programme

Knowledge versus *belief*

- Without recourse to internal determinations of rationality or truth, strong programmers need a more general way to identify *knowledge*.
  Rationality and truth should themselves be objects of study.
- ***Social criterion*** for knowledge allows sociologists of scientific knowledge to define the scope of what needs to be explained.

> "Of course knowledge must be distinguished from mere belief. This can be done by reserving the word 'knowledge' for what is collectively endorsed, leaving the individual and idiosyncratic to count as mere belief." (Bloor 1976, 5)

Next class

Feminist epistemologies

Required reading:

- **Haraway (1988)**
  Situated Knowledges
- **Martin (1991)**
  The Egg and the Sperm

Discussion