

Feminism and science studies

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Thesis (Feminism on science)

Science is part of the structure that perpetuates inequalities between man and woman. This has political as well as epistemic consequences.

Remedies:

- inclusion of more women in science, affirmative action
- encouragement of female “voice” in science
- dethrone science from its preeminent position in Western culture

Note: political demands arising in feminism such as affirmative action, equal opportunities etc **have per se no implication for philosophy of science or epistemology**

Feminist *philosophical* ideas about science:

- (i) fem analysis of history of ideas/sci
- (ii) fem analysis of specific sci disciplines (mostly social and biomedical sci)
- (iii) fem epistemology: rationality/knowledge from fem point of view

Thesis (Lloyd)

Early ideas about reason and knowledge were greatly affected by views about relation bw genders.

- maleness: reasonableness, rationality
 - femaleness: intuition, empathy, emotion, but also irrationality
 - Francis Bacon: real knowledge manifested in control of nature (“Knowledge is power”)
- ⇒ knower (man) v. nature (woman)
- Question: phil consequences for contemporary science?
 - Evelyn Fox Keller: real effects for women now entering science
 - but: political rather than epistemological effects

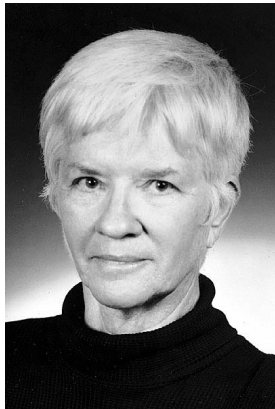
Thesis

There are cases in which science benefits from inclusion of women in field.

Observation in study of social behaviour in nonhuman primates:
coincidence bw significant influx of female scientists into
primatology with emergence of more sophisticated picture of
sexual behaviour of female primates
often interpreted as causal relationship

Kathleen Okruhlik, "Gender and the biological sciences," *Biology and Society*, Suppl. vol. 20 (1994): 21-42

- 1 Non-cognitive factors influence the generation of theories.
- 2 Theory choice in science, even if perfectly rational and uncontaminated by non-cognitive factors, is irreducibly comparative, i.e. only operative among extant rival theories.
- 3 The number of actually available contenders in each choice is finite. [Okruhlik: two]
- 4 By (2) and (3), theory choice only identifies the theory which is epistemically superior over a finite number of extant rivals.
- 5 By (1) and (4), nothing in the appraisal machinery will completely "purify" the victorious theory from non-cognitive elements.
- 6 In particular, if all of the contenders for a particular choice, or set of choices, suffer from an androcentric bias, then the content of science as a whole suffers from an androcentric bias even if the mechanisms of theory choice are fully rational.



- *The Science Question in Feminism* (1986)
- *Whose Science? Whose Knowledge?: Thinking from Women's Lives* (1991)
- contributions to standpoint theory
- notorious for quote that “Isaac Newton’s *Principia Mathematica* is a ‘rape manual’ because ‘science is a male rape of female nature’ ” (*Science Question*, 264)
- influential categorization of feminist epistemology

Characterization (Feminist epistemology)

Use feminist theory as basis for criticizing how science handles evidence and evaluates theory.

- 1 **Feminist empiricism**: espouses value-neutrality of sci, androcentric bias sign of “bad” science
 - but if non-cognitive factors cannot be eliminated, then value-neutrality not convincing

- ② **Standpoint epistemology**: stresses role of “situatedness” of epistemic agent; oppressed or marginalized standpoints are epistemically superior in their ability to criticize basics
- inspiration from Hegel, Marxism
 - What contextual beliefs might women have that gives them principled epistemic superiority?
 - there’s no unified standpoint shared by all women
- ③ **Feminist postmodernism**: embraces full-blown relativism and epistemological anarchism; idea of “true” neutral description of world is harmful illusion
- ⇒ impossible to criticize sci for androcentric bias on relativist basis since it eschews all normative judgments

Science studies and Science Wars

- science studies: history, sociology, philosophy, cultural anthropology, classics, economics, communication, semiotic theory, feminist theory, cultural studies, etc
- variegated community, multifaceted discipline
- notorious (and virulent?) strand: postmodernism, anti-representationalist view of language
- scientists irritated by how sci was presented in wider public
- ⇒ “Science Wars”: advocates of traditional education worried that transmission of treasures of Western civilization was being undermined by radical leftist faculty members mostly in the humanities
- backlash: Sokal hoax challenging the intellectual standards in science studies and literary theory

Thesis (Sokal)

It is sufficient to use appropriate jargon and propagate the right political agenda to get published in some postmodern journals, regardless of whether any intellectual standards are met.

- used jargon to discuss progressive political implications of quantum gravity: “Transgressing the boundaries: toward a transformative hermeneutics of quantum gravity”
- published in 1996 in journal *Social Text*
- let’s look at the section entitled “Hermeneutics of classical general relativity”...

“General relativity can arguably be read as corroborating the Nietzschean deconstruction of causality... although some relativists find this interpretation problematic. In quantum mechanics, by contrast, this phenomenon is rather firmly established... [Citing Derrida:] ‘The Einsteinian constant is not a constant, is not a center. It is the very concept of variability – it is, finally, the concept of the game. In other words, it is not the concept of something – of a center starting from which an observer could master the field – but the very concept of the game...’ [Footnote: Right-wing critics Gross and Levitt (1994, 79) have ridiculed this statement, willfully misinterpreting it as an assertion about special relativity, in which the Einsteinian constant c (the speed of light in vacuum) is of course constant. No reader conversant with modern physics – except an ideologically biased one – could fail to understand Derrida’s unequivocal reference to general relativity.]... the π of Euclid and the G of Newton, formerly thought to be constant and universal, are now perceived in their ineluctable historicity; and the putative observer becomes fatally de-centered, disconnected from any epistemic link to a space-time point that can no longer be defined by geometry alone...”

“But why did I do it? I confess that I’m an unabashed Old Leftist who never quite understood how deconstruction was supposed to help the working class. And I’m a stodgy old scientist who believes, naively, that there exists an external world, that there exist objective truths about that world, and that my job is to discover some of them.” (“Transgressing the Boundaries: An Afterword” (1996))