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## **The Limits of Knowledge: Generating Pragmatist Feminist Cases for Situated Knowing**

NANCY ARDEN MCHUGH, 2015

Albany, NY, State University of New York Press.

xii + 189 pp, US\$ 75 (hb), US\$ 75 (e-book)

Part epistemological critique, part investigative reporting, and part manifesto for social change, McHugh's project is to tackle the question of how health science research can best contribute to the flourishing of marginalized communities. Each chapter is structured around a community case study, through which she introduces and synthesizes arguments from John Dewey and feminist philosophy to interrogate epistemological issues in health research, practice, and policy. The general theme is the tension between what scientists and laypeople want from science, and the consequent failure of science to improve the lives of marginalized groups. McHugh does not aim to provide a detailed *theoretical* treatment of her positions.

Instead, her aim is to show their *practical* value:

If these theories can help us restructure how we engage each other, then regardless whether each one presents a philosophically flawless argument, they present opportunities for restructuring the world and our transactions within it. This seems to me to be the heart of the philosophical enterprise and a way to make philosophy a socially relevant tool for change. (p.5)

The book is thus both a work of applied philosophy and a demonstration of the value of such projects.

From Dewey (drawing in particular on his 1929 book, *The Quest for Certainty*), McHugh takes the idea of 'transactional knowing'. Dewey claims that, traditionally, philosophers have conceived of knowledge as grasping universal, immutable, permanent truths that obtain independently of our interests. The resulting knowledge-generating methods emphasize distance, detachment, and abstraction from the object of inquiry as it features in our everyday lives, and passive perception rather than active engagement as the paradigmatic source of knowledge. Against this received view, Dewey claims that the insight of the

scientific revolution was that ‘the best way to *know* a material, temporal, and contingent world is to materially engage it with purpose; that is, get in and do things with it to see what happens’ (p. 19, my emphasis). Questing after abstract universal certainty for its own sake distracts from the practical ends scientific inquiry arose to address.

McHugh also uses the insights of feminist theories of situated knowing. According to this approach, ‘all knowledge is situated in the sense that all knowledge is generated from a knower’s particular location, which consists of the complex unfolding resulting from one’s social, material, epistemological, gendered, lived bodily experience’ (p. 44). The distinctive experiences and concerns that arise in one’s situation have epistemic import because these factors influence the kinds of questions that one asks and the methods one employs. The kinds of situated knowing in which feminists are most interested arise as practices of resistance by marginalized social groups, but knowledge produced by hegemonic groups is also situated (despite their typical pretensions to strong objectivity). Because differently situated inquirers bring different sets of concerns to the table, more comprehensive understanding requires engagement across multiple groups.

Combining Deweyan and feminist epistemology creates what McHugh calls a ‘transactionally situated approach’ (p. 62), which she uses to critique medical research and practice in a variety of contexts where marginalized groups are ill served by dominant epistemic practices. These studies are too detailed to summarize in turn, so I will focus on the case of chemical defoliants used by the United States during the Viet Nam war (Ch. 5, pp. 81–110). Decades after the war the Vietnamese are still suffering health effects, most notably a high incidence of birth defects, from toxic contaminants of those defoliants such as TCDD (tetrachlorodibenzoparadioxin). Although research has supported a correlation between TCDD and teratogenesis, the standard method of toxic risk assessment (TRA) has tended not to suggest such levels of toxicity because of assumptions that inquiry should proceed in a

detached and abstract way. TRA proceeds by isolating chemicals in the lab and projecting their effects using standard statistical models, rather than accounting for the complex environments in which exposure actually occurs. McHugh argues that assessment of TCDD requires engaging with the local community's interests and activities to learn how they are actually exposed to TCDD in their daily lives, which requires taking their own (situated) accounts of their experience seriously. Moreover, she argues that it is irresponsible to demand, as advocates of TRA have suggested, that certainty be reached before recommending action: 'the quest for certainty is preventing us from acting *now* on evidence that establishes a correlation' (p. 108, her emphasis). In situations like Viet Nam, inquiry must be directed by the concrete needs of the people concerned, rather than by the abstract demands of theory.

Some may worry that McHugh is taking a dangerously anti-scientific line in objecting to TRA and other standard research paradigms. However, her objection is not to science, or even to these methods *per se*. Rather, she urges that there is more to consider in doing science that stands to have a public impact than the methodology used to produce it. In particular, she claims that 'one of the jobs of science is to improve human living,' and that this function is often best served by letting the practical needs of communities dictate the methods to be used (p. 5). The health sciences and policies based upon them have failed the Vietnamese in part because of an entrenched preference for TRA, when different, but still scientific, methods would have produced better results for the people concerned.

It may be objected that McHugh's critiques ought already to have been taken into account by the scientists. Ideally, the objection goes, scientists should have considered all the complex factors of the Vietnamese situation. In ignoring those complexities in their experiments and predictions, the scientists were failing to live up to their own standards—so it looks like McHugh's criticism is misdirected. But even if the objection be conceded,

McHugh still has an important insight: namely, that the oversights made by the scientists she criticizes are rooted in an epistemology that her transactionally situated approach aims to unsettle. Her aim is not to invalidate established methods *in general*, but to call attention to the ways in which assumptions about those methods' objectivity can interfere with their ability to deliver useful knowledge.

Curiously absent is any discussion of the precautionary principle—that in situations where a particular action might cause public harm but scientific findings are inconclusive, the action should not be taken unless risk can be shown to be sufficiently low. There are surely cases of policy makers in such situations relying on evidence produced in ways McHugh would critique. Furthermore, it may be a corollary of McHugh's position that another principle is warranted: that in cases where a particular action might *alleviate* public harms but scientific findings are inconclusive, the action should be taken unless some risk can be shown to be sufficiently high. We might call this the 'proactivity principle'.

There is more to be said than is possible in a short review. More traditional philosophers may be left wanting more from her arguments, but McHugh's aims are perhaps nobler than meeting disciplinary norms. *The Limits of Knowledge* is a fine contribution to the growing body of socially relevant philosophy of science, and worth reading for those looking for ways in which theoretical philosophy can contribute to social good.

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