Nancy McHugh The Limits of Knowledge: Generating Pragmatist Feminist Cases for Situated Knowing Albany: SUNY Press, 2015 ISBN: 978-1-4384-5781-9

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Nancy McHugh's book *The Limits of Knowledge* is an exemplary model of situated, engaged philosophy, both as a set of arguments compiled in a book, and as a reflection of the *practices* of situated, engaged philosophical research used to support the arguments. The book has seven chapters, organized around a number of biomedical case studies, framed in terms of John Dewey's pragmatist approach, and informed by feminist epistemic work in situated knowing. Her arguments for the relevance of Dewey to contemporary biomedicine are strong. Her case studies are impeccably researched and documented without being too technical. Her appeals to feminist philosophy of science and epistemology are well articulated, building on the work of key figures such as Sandra Harding, Donna Haraway, Lorraine Code, and Patricia Hill Collins.

McHugh reminds us that Dewey used scientific inquiry--curiosity, experimenting, manipulating, testing--as a model for philosophy, to bring philosophy back to its engaged, problem-solving roots, and away from the intellectually sterile legacy of Cartesian epistemology and the pretense of isolation from social and political engagement. McHugh then uses Dewey to bring contemporary biomedicine back to its roots in scientific inquiry, and away from its intellectually sterile, methodological commitment to artificial lab settings and the pretense of isolation from social and political engagement. As McHugh argues, both philosophy of biomedicine and biomedicine itself benefit from this Deweyan treatment, and the benefits are cashed out in terms that scientists and philosophers understand: evidence-based solutions to problems that matter. (And she does this without question-begging: she recognizes the need for and makes compelling arguments for the privileging of certain kinds of evidence and certain kinds of problems. More on this shortly.) In the second chapter, "The Career Woman's Disease: Endometriosis and Experimental Inquiry," she makes use of this Deweyan approach to diagnose the sexist and racist biases of biomedical research on endometriosis.

In chapter 3, "Grounding Knowledge through the Mothers Committee of Bayview Hunter's Point," she further develops her pragmatist approach in terms of feminist work in epistemology, especially the theory of situated knowledge. Here she examines the work of a group of women living in what the federal government recognizes as "one of the most chemically-contaminated" communities in the entire US (43). Through their own painstaking and decades-long research on the environmental causes of breast cancer and the myriad other health concerns affecting them and their families, these women achieved a political standpoint from which their epistemic claims to know, *and know better*, were justified to the governing bodies involved, resulting in sweeping changes to the environmental regulations affecting their lives.

In chapters 4 and 5, McHugh identifies and takes on two practices of contemporary biomedicine that are in need of feminist pragmatist interventions: Evidence-Based Medicine (EBM); and Toxic Risk Assessment (TRA). TRA is "a standardized set of methods" used by national and international agencies "to gather and quantify [fatal and nonfatal] risks from toxic substances" (83); EBM is a more recent, but now widely adopted, set of methodological prescriptions for the design and funding of clinical research that sets randomized, controlled trials and meta-analyses of these trials as the most valuable kind of evidence, to the exclusion of almost all other kinds of evidence (65). Both practices idealize idealizations, artificial lab settings, and controlled experimental trials; both make a show of eschewing political commitments in ways that firmly entrench the political status quo. The evidence in support of both practices is clear in particular contexts, and both practices have produced results of a particular kind. But both continue to come up short when applied to real-world problems, especially the realworld problems of the marginalized and impoverished. We are left then with a metaproblem about the ways that evidence is gathered, about which kinds of evidence count and which do not, and about which problems are considered worth solving. This is a problem, to be sure, but not an insurmountable one. As McHugh argues: "Toxic-risk assessment and [randomized, controlled] clinical trials have been designed to limit the number of 'inputs' in order to understand the effect of a particular chemical or a particular drug. Yet people who are socially and materially disadvantaged tend to live in environments with lots of 'inputs'" (7). The implication is that these kinds of clinical trials are not designed for the problems that need solving. Indeed, in chapter 5, "The Needs of Living: Agent Orange in the Central Highlands of Viet Nam," McHugh marshals considerable meta-evidence to the effect that, if, for example, dioxin behaves one way in a controlled lab in the US, and another way in the bodies of generations of impoverished women half a world away in Viet Nam, then so much the worse for the evidence produced in the lab.

McHugh argues for biomedical methodologies that acknowledge the fluidity of ontological boundaries around communities, bodies, organs, tissue; that recognize the messiness of genetic mutations, intergenerational toxicity, bodies as environments, environments as bodies. From Dewey, and inspired by contemporary feminist pragmatists Shannon Sullivan and Charlene Haddock Seigfried, she advocates a "transactional" approach to science and feminist philosophy of science. Dewey argued that using the term *interactions* to describe relationships between bodies presumed too fixed a boundary between the bodies so related, and so he coined *transactions*--a word meant to disturb us from our complacent acceptance of rigid ontological designators, our forgetting of the contingencies that led us to bound some bodies here rather than there, contingencies invariably shot through with politically valenced commitments. As McHugh shows, feminist pragmatism is an ideal tool for teasing apart biomedical phenomena, showing what is presented as neutral and necessary to be instead politically valenced and contingent.

McHugh prescribes a pragmatist, situated research methodology for biomedicine, and she reflexively mirrors that prescription for the *philosophy* of biomedicine. For biomedical researchers: if you want to accurately diagnose and treat the complex phenomenon of endometriosis, then you're going to have to get out in the (social/political) world where women with endometriosis live. For philosophers: if you want to offer a set of philosophical tools that better diagnose and treat the failures of contemporary biomedicine, then you're going to have to get out in the world where those failures affect lives. McHugh's philosophical research for her case studies is a pragmatically informed model of situated knowing. Her concerns about the effects of dioxins in Agent Orange came out of her own conversations with patients at the Tu Du hospital in Viet Nam, conversations that crossed generations of women and their children. Her concerns about toxins and breast cancer came out of her investigation of overlooked and underfunded research on the health of marginalized women living in poisoned communities. She documents and champions these women's own organized response to their health problems and the toxicity of their environments. Through her own methodological choices, McHugh reminds us that for philosophy of biomedicine, just as much as for biomedicine itself, "there is agency and [should be more] accountability in how researchers frame their questions, who and how they research, and how outcomes are interpreted" (10).

Reading her book, I was tempted to imagine McHugh at some earlier point in her career, sitting in her office working at her computer, researching failures of contemporary biomedicine, and coming to the realization that her academically trained philosophical shoes were pinching her (to use the Deweyan metaphor). I wonder if, like many of us, she tried initially to confine herself to movements that kept her toes from hurting (maybe if I just take small steps, or walk on the edges of my feet just like this, then it won't hurt as much). But eventually, and as the research for her book makes clear, she did what many of us (for a variety of reasons) fail to do. She took off her damned shoes and got new ones. Or she went barefoot. I'm not sure where I want this metaphor to go. But the point remains. If you think, as McHugh does, that one of the best ways for philosophers to make change in the world is to connect knowing and doing--to rethink knowledge as a practice that is engaged and situated--then you're going to have to do philosophy in a way that is self-consciously engaged and situated. There are lots of ways to do this. McHugh's concluding chapter provides numerous examples of philosophically robust engagement. So what are you waiting for?