

Epistemology or Politics?

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Naomi Scheman calls attention to a number of cases in which science, as it is currently institutionalized in wealthy capitalist societies, neglects human needs or thwarts human values, specifically by neglecting the perspectives of marginalized people, or by disparaging the knowledge they possess. I share Scheman's indignation about these cases, and about many other outrages perpetrated by the elite classes of the industrialized, capitalist West against subordinated people within and outside the societies they dominate. But I am not convinced by her analysis of the problem. Where Scheman sees a *cognitive* problem, I see a *political* one.

Scheman believes that the injustices she describes are due, at least in large part, to an inadequate conception of knowledge — one that prescribes and rationalizes epistemic norms that deny epistemic authority to marginalized people (Scheman 2012, 472). She thus sees a role for epistemology to play in redressing the injustices she describes. We need, she says, to develop a “sustainable” epistemology. We must look for “a concept of knowledge, and a set of epistemic norms that ‘work’” (473). “Norms that work” are norms that are, first of all “... appropriate given what we know about ourselves and the world” (473) but also, more importantly, ones that afford “... *sustainability*, meaning norms that underwrite practices of inquiry that make it more rather than less likely that others, especially those ... who are marginalized and subordinated ... will be able to acquire knowledge in the future (original emphasis, 473).

On Scheman's account, then, the individuals who are harmed by contemporary forms of inquiry are victims of what Miranda Fricker calls “epistemic injustice.” They have knowledge and methods of knowing that would, if properly respected, increase and enrich our stores of knowledge.

It is certainly true that marginalized people are frequently made victims of epistemic injustice — this is, indeed, part of what “marginalization” consists in. And it is also true that members of dominant groups have much to learn from those whom they subordinate. But whereas Scheman's analysis says that members of the dominant class fail to learn because they harbor defective concepts of knowledge and employ ineffective norms, I say that they fail to learn because *they don't care*. In indicting the *epistemology* of the dominant, Scheman seems to be saying that the methods of inquiry they adopt are inadequate to their epistemic goals. I, on the other hand, insist that their *methods* of inquiry are all too adequate, and that it is their epistemic *goals* that are wrong. The founding error is not cognitive; it is moral, and the corrective lies not in philosophy, but in politics.

Consider the case of the “pharmaceutical scientists” Scheman asks us to “think about” (474). These are scientists who “... upon learning of a plant used for healing, snip off a piece of it, collect some basic information about its uses from the people who live with it and take the specimen back to the laboratory in order to “isolate the active ingredient” (474).

Scheman offers this as an example of the sort of epistemic practice that arises out of the “paradigm of laboratory science” — a paradigm that — “carries with it an essentialized, idealized, and abstracted object of knowledge ...” (474). Perhaps Scheman is right about how these scientists think about their projects. But what does imply about the *adequacy* of their methods? We’re presumably imagining researchers who are looking for substances to commoditize. Is Scheman suggesting that they’d be more successful in *that* endeavor if they were attentive to folk practices, or more holistic in their experimental design? I see no reason to think that this is so. If the profitability of the pharmaceutical industry is any indication, the “paradigm of laboratory science” is working just fine, thank you very much.

Epistemic injustice certainly *can* be epistemically costly for its perpetrators. If the corporate treasure-hunters ransacking the rain forest are indifferent to the folkways of the people they encounter along the way, it’s *possible* that they miss, thereby, opportunities to learn things that would increase the profitability of their expeditions. But even if this is so, the epistemic loss they suffer is surely not the problem. The problem is not that profit-driven researchers neglect the *epistemic practices* of the people they plan to exploit; it’s that they neglect their *interests*. Were the researchers to adopt a less epistemically arrogant attitude without altering their objectives, they would simply become more effective exploiters.

The same point can be made about one of the real-world cases discussed by Scheman: the conflict between the University of Minnesota and the Anishinaabeg people.¹ The Anishinaabeg have objected to research conducted at the University on manoomin, the grain commonly known as “wild rice.” University scientists have developed hybrid strains of the grain that are easy to cultivate in artificial paddies. The resulting increase in production of “wild rice” has caused a drop in demand for genuine manoomin, and an economic loss for the Anishinaabeg. Also, the planting of the modified strains in Minnesota threatens the genetic integrity, and continued survival of the native strains, which play a central role in Anishinaabeg culture.

Scheman says that the university’s stance toward the Anishinaabeg is “problematic both ethically and epistemically” (484). The ethical problems are manifest: university researchers have appropriated and facilitated the commoditization of a substance belonging to another people, with disregard for both the cultural practices of and the economic consequences for those people. But what are the epistemic problems here? Scheman (following Jill Doerfler), points to the discourse of agricultural research, and the university’s claims to be engaged in the “improvement” of the native grain. The notion of “improvement,” Doerfler says, is highly relative. From the perspective of “non-

¹ *Editorial Note:* From Canada’s National Arts Centre: “According to Oral traditions, the Ojibwe (Ojibway/Ojibwa), Potawatomi, and Odawa (Ottawa) Nations were once a single People known as the Three Fires of the Anishinaabeg. The Ojibwe refer to themselves as the Anishinaabeg (Anishinabeg/Anishinabek) or, in the singular form, Anishinaabe (Anishinabe/ Anishinaubae /Anishnabai /Nishnawbe) meaning *First People* or *Original Peoples* (original emphasis).
<http://www3.nac-cna.ca/en/theatre/1011/agokwe/studyguide/background/>

indigenous farmers,” it might mean the development of a strain that permits intensive monocropping in a commercially hospitable environment. But:

For Anishinaabe, the value of manoomin is in its biodiversity; this diversity has allowed the Anishinaabe to be able to depend on it regardless of disease and weather, because even if one variety is attacked by disease or does not respond favourably to the environmental conditions the other varieties will survive ... (Scheman quoting Doerfler, 484).

I heartily agree that the notion of “improvement” is interest-relative. Indeed, I insist on it; the observation supports my point. The conflict between the University of Minnesota and the Anishinaabeg is a conflict of *interests*. The Anishinaabeg have both cultural and economic interests at stake in the preservation of the native strains; the University of Minnesota researchers have a stake in producing strains that are commercially viable, a stake they probably inherit from the agencies and firms that sponsor their research. But there’s nothing in this story to suggest that there’s anything defective about the epistemic *practice* of the scientists at the University of Minnesota. Presumably they have been successful in finding out what they wanted to find out. Had they not been, the Anishinaabeg would not have needed to complain.

Perhaps what Scheman is thinking is that the conception of knowledge inherent in the “paradigm of laboratory science” is one that encourages the idea that “improvement” can be understood apart from particular interests, perhaps by promoting a picture of the researcher as a featureless individual, devoid of both perspective and agenda. Someone in the grip of this picture might attempt to deflect interest-based criticism of a research program by appealing to the imperatives of “pure science” or by citing a researcher’s right, on intellectual grounds, to pursue any research he or she found interesting. But Scheman does not make this charge explicitly, and neither does Doerfler, as far as we know from Scheman’s citations. Of course, if university officials had offered such a defense, it would have been patently disingenuous. But even if such a defense had been offered sincerely, it would only have shown what someone *thought* was going on in the research plant, not what was actually happening.² And it’s the actual practices that must be implicated if Scheman is to show that the problem in this case is epistemic.

What about Scheman’s positive proposal? What would a sustainable epistemology look like? Scheman’s main theme is that when we theorize about knowledge, we ought to start with the experience of the “marginalized and subordinated.” Her argument for this is a kind of standpoint view: she thinks that marginalized social positions confer epistemic advantages on those who occupy them because such individuals are more epistemically

² I have elsewhere argued that what postmodernist theorists call the “modernist” conception of knowledge is actually a characterization of a certain ideology of knowledge — what I call “Draught Epistemology.” The utility of this ideological conception lies partly in the fact that science does not conform to it. See my papers, “Quine as Feminist: The Radical Import of Naturalized Epistemology” in *A Mind of One’s Own*, ed. by Louise Antony and Charlotte Witt (Boulder, Co.: Westview Press, 1993) 185-225, and “The Socialization of Epistemology,” in *Oxford Handbook of Contextual Political Studies*, ed. by Robert Goodin and Charles Tilley, (Oxford: Oxford University Press, 2006).

vulnerable than people in more privileged social positions. She seems to mean at least two different things by this. First, she seems to mean that the costs of mistaken policies and unsustainable practices fall most heavily on people in subordinated positions:

Global warming is real, really real, no matter whom you are, but we are not all equally vulnerable to it. For some of us, climate disruption means starvation, while others might not even notice the fresh vegetables in the supermarket have been flown in from somewhere new (473).

It's unclear how vulnerability of this sort bestows any systematic epistemic advantage to those living in a subordinated position. Simply bearing the brunt of a phenomenon does not give one the resources to understand it. A subsistence farmer with little or no formal education is unlikely to conceive the hypothesis that her crop failure is related to the burning of fossil fuels in technologically complex societies.

The actual distribution of opinion within the U.S. about the reality and danger of global warming shows patterns that defy analysis in terms of degree of marginalization. According to *Global Warming's Six Americas*, a major study by from the Yale Project on Climate Change and the George Mason University Center for Climate Change Communication,³ the group of people most likely to be "Dismissive" of warnings about global warming are "more likely than average to be high income, well-educated, white men." This supports Scheman's speculation. However, the demographic characteristics of the "Alarmed" group — the group who believe most strongly that global warming is real and a pressing threat — are not what Scheman's hypothesis predicts: they are "more likely to be women, older middle-aged (55-64 years old), college educated, and upper income..." And the group with the next highest degree of belief, those the report calls "Concerned," are "very representative of the full diversity of America in terms of gender, age, incomes, education, and ethnicities" (*Six Americas*, 27). The single best predictor of one's views on global warming is the degree to which one identifies as "'born-again' or evangelical:" the stronger such identification, the more skepticism (*Six Americas*, 27).

My point is that there can be a very long inferential chain between observable features of one's circumstances, and hypotheses about the causes of those features. Conceiving of, and sorting through the various possibilities may be impossible without long, systematic observation and careful experimentation — in other words, it may be impossible to figure certain things out without something like science. But more on this point below.

The second thing Scheman seems to have in mind when she talks about the epistemic advantages of vulnerability is that it is more costly for people in marginalized positions to *make mistakes* than it is for researchers working in labs or think tanks.

³ I quote from the May 2011 report, available here:
<http://environment.yale.edu/climate/publications/SixAmericasMay2011/> There have been updates to the report, but no pertinent changes in the demographic features of the categories I focus on. The updates can be found here: <http://environment.yale.edu/climate/publications/Six-Americas-March-2012/>

The controlled vulnerability of scientists contrasts with the vulnerability experienced outside the laboratory, where the world can kick back in wholly unexpected ways, at far-flung sites, unmeasurable by the designated apparatus, long after the experiment has ended and official observation has ceased (474).

Two ideas here — first, that with more at stake, individuals in marginalized positions have a stronger incentive to develop adequate epistemic practices than those for whom mistakes don't matter, and second, that with better and more frequent feedback from the environment, these individuals are more likely to converge onto true beliefs.

Although these are more persuasive considerations about the epistemic benefits of being in a marginalized position, I doubt that the factors cited here are strong enough or present often enough to make a reliably positive epistemic difference. I think that Scheman is romanticizing the condition of marginalization. Her examples of the kinds of things that can be learned by starting with the experience of the marginalized are mostly cases involving conflicts between people in the so-called developed world and people leading technologically simpler lives, following traditional patterns. Her examples focus on sustainable folk practices that are destroyed by the intrusion of “expertise” from the “developed world.” But this is a selective focus. Not all folkways are sustainable, and not all marginalized people practice folkways.

To the first point, that not all folkways are sustainable: as Jared Diamond shows in his book *Collapse*,⁴ human beings have been managing to despoil their environments ever since we emerged onto the planet. The fact that natural resources are finite, and the fact that apparently beneficial human interventions carry serious long-term costs, are things that are not immediately apparent, and they are often discovered by human communities only when it is too late. Furthermore, as many of Diamond's examples show, tradition can impede adaptation to local conditions. Migrating peoples often carried with them herding, farming, and cultural practices that proved disastrously unsustainable in the new land.⁵ In many cases, it was tradition itself that proved a barrier to the observations and innovations that would have been needed to adapt to the new ecology.⁶

To the second point, that not all marginalized peoples practice folkways: Scheman readily identifies the Anishinaabeg as “marginalized,” but does not wonder about the social position of the “non-indigenous farmers” who are the presumed beneficiaries of the University of Minnesota's research on wild rice. I do not know the pertinent demographic facts in this particular case. But it is likely that the farmers who constitute

⁴ *Collapse: How Societies Choose to Fail or Succeed*. (New York: Penguin Group USA, 2005). See “Part Two: Past Societies” for a discussion of the demise of human societies on Easter Island, in the American southwest, in the Yucatan peninsula, and in Greenland.

⁵ See, for example, Diamond's discussion of Vikings' importation of herding to Iceland, and its nearly disastrous effects on that island's soil structure, *Collapse*, 198-202.

⁶ Traditional food preferences have been a factor in the viability of many immigrant populations. The preservation of traditional class distinctions has been another. See Diamond's discussion of the Norse settlement of Greenland, Chapters 7 & 8 in *Collapse*.

the market for the hybridized grain are among the vast majority who have been “proletarianized” by the development of what Richard Lewontin calls the “agrifood” system. As he explains in his paper “The Maturing of Capitalist Agriculture: Farmer as Proletarian,”⁷ capitalists have not, in general, found it advantageous to try to transform agriculture along the lines of capitalist commodity production. What they’ve done instead is seize control of those aspects of farming where it is possible to reliably generate surplus value. This includes, prominently, the inputs to farming: machinery, fertilizer, animal feed, pesticides and herbicides. One of the most lucrative of these inputs is hybrid seed. The farmer must buy new seed every year, either because the hybrids are sterile, or because the farmer must sign a purchasing contract in order to get the seed at all. And precisely because monocropping with hybrids means losing the advantages inherent in locally adapted and genetically diverse plants, farmers working with engineered hybrids are highly dependent on crop supports like fertilizers, irrigation systems, pesticides and herbicides. The farmer who is caught in the economic logic of this process will appear, superficially, to be the source of demand for the kinds of research and development that Scheman decries, but a deeper understanding of the situation reveals that the modern farmer is as alienated and marginalized as an urban factory worker under capitalism.

Another point: while it is certainly true that subordination creates vulnerabilities, it is important to look at the domains in which these vulnerabilities occur, and thus where the disciplining effect of real-world consequences can be felt. A poor person cannot afford to make mistakes balancing her checkbook (if she even has one). I can — overdraft protection is part of economic privilege. But how does “reality bite back” if one believes, falsely, that Obama is not a US citizen? Propositions such as this — which concern historical facts, and which involve socially constructed kinds — carry few, if any, discernible experiential consequences. It’s the kind of proposition one can believe with impunity. But even when the truth or falsity of a proposition does bear directly on everyday experience, reality may have trouble teaching its lessons. Consider the question of whether cutting government spending will help or hurt the economy. I am convinced that spending cuts will slow growth, but I do not have the ability to set up a fair test of my belief. With respect to public affairs, there is very little that any individual can do to affect policy, unless he or she is in the top 5%. If one cannot test one’s beliefs by enacting the policies they warrant, there can be no “kickback” to provide epistemic discipline.

A final misgiving I have about the version of standpoint theory Scheman is advocating is that she does not adequately figure in the enormous epistemic costs of being in a subordinated position. Especially in a technocratic society such as our own, lack of access to information about computers, basic science, statistics, and history severely limits one’s ability to understand the forces that shape one’s life. But education takes resources: money, of course, but also *time*. Having the leisure time to read a newspaper every day, three or four journals a week, and a couple of books a month is an enormous

⁷ *In Hungry for Profit: the Agribusiness Threat to Farmers, Food, and the Environment*. Edited by Fred Magdoff, John Bellamy Foster, and Frederick H. Buttel. (New York, N.Y.: Monthly Review Press, 2000). Kindle Edition.

privilege not available to people working two jobs while caring for small children. The poor are very much more likely to be victims of deceptive marketing: sub-prime loans, rent-to-own contracts, and pyramid schemes.

To conclude, I want to discuss Scheman's view of standard — mainstream — scientific methodology. In her discussion of epistemic vulnerability, she allows that establishment science also generates vulnerabilities, pointing to the fact that the scientific method does — and is in fact designed to — connect scientific hypotheses to reality in a way that allows reality to “kick back” if the hypothesis is false. But she seems to be saying that this type of vulnerability is less valuable than the uncontrived vulnerability that attends ordinary life for the marginalized. She writes:

The norms of scientific practice strictly limit the scope of allowable — or observable — kicking back. Laboratory conditions scrupulously determine which aspects of reality get to exercise an effect and which are ruled out by, for example, the purification of samples, procedures of isolation, limitations of the apparatus of measurement and constraints of time. (474)

She decries the fact that “randomized, controlled clinical trials” have “become the ‘gold standard’ for medical knowledge” (474). Citing Kristen Borgerson, Scheman alleges that it was allegiance to a false ideal of “epistemic rigor” associated with this methodology that led to the exclusion of women from much medical research. This exclusion, in turn, led to “lessened applicability of the results to actual, non-ideal patients” (474).

I agree that it has been a serious problem in medical research that women have not been included in important studies, particularly studies of heart disease. Once again, however, I see a political problem rather than an epistemological one. There is no methodological ideal or practice that makes it impossible to include women — or members of any other group — in randomized, controlled clinical trials. It is the case, however, that as variables are added, sample sizes must be enlarged. Because women of childbearing age undergo cyclical hormonal changes, studies that involve women must have a large enough population to allow researchers to control for this variation. Larger studies, of course, are more expensive than smaller studies, and a society that subordinates women may be unwilling to pay the price. But this is a matter of justice.

Scheman apparently believes that there are methodological alternatives to standard experimental practice. She asks rhetorically: “just how are we understanding bodies and medical interventions when we think they are best understood in abstraction from messy contingencies” (474)? But I'd like to know, specifically, what she has in mind. If we are not to run controlled experiments, how should we differentiate accidental correlations from causal ones? If we are not ever supposed to look for the “active ingredient” in a healing substance, how could we ever develop effective medications? Scheman excoriates the dismissal of anecdotal evidence (and doesn't say exactly who is doing the dismissing). But is she suggesting that the collection of clinical reports would suffice as a database for clinical research? As I pointed out above, hypotheses are generally linked only very indirectly to observation, and the world as we find it does not afford very many

natural experiments. The notion of an experimental control is simply a recognition that we must be active in our observations if we are to begin to understand the causal structure of the world. How would Scheman have us investigate the question whether vaccinations cause autism? Or the question whether estrogens in the water supply are responsible for the epidemic of early menarche among girls in the US?

The question I think we need to ask is, what would a genuine “Science for the People” look like? Would it abandon double-blind trials, and careful controls? Scheman has given us no reason to think that it should. In general, I think that her focus on theorizing about knowledge is misplaced. Our aim ought to be the democratization of science. The challenges here — bringing public interests onto the academic research agenda, properly constraining US corporations in their dealings with people outside our borders — are political in nature. The stance of researchers at University of Minnesota that Scheman rightly decries is itself (no doubt) an artifact of the rapidly increasing privatization of our public institutions of higher learning. Because state funding for public higher education is drying up, scientists are finding it increasingly difficult to fund research that is not profitable, in the narrow sense. Grant-getting is now just as important to an academic science career as publication, if not more so. But the work we need to do to reverse this trend is, as I keep saying, political. So I agree wholeheartedly that we need to attend most closely to those whose needs are being neglected and those whose voices are not being heard. But this is a demand made by *justice*, not by epistemology.

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