REVIEWS

Ann Oakley. *Experiments in Knowing: Gender and Method in the Social Sciences*. 402 pp. Cambridge: Polity Press, 2000.

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There is much to like about Ann Oakley's latest book, *Experiments in Knowing*, which offers the dual delights of being both substantial and substantive. This tome ranges over a wide variety of the perennial problems of knowledge-making, while adopting a number of useful analytic standpoints. It offers a study of the "grand divides" (of health research), especially those concerned with method and gender. And it is the conceptual ambition of the book which stands as its most commendable feature, an ambition inadequately served by attenuation, as well as some partial selection, of supporting evidence. Whereas the title of this book promises much, its contents tantalise often and suffice less frequently.

Despite the fact that this book assailed many of my current ontic commitments, I felt profoundly rewarded by a detailed examination of this work. Such an important book by an influential scholar deserves a searching and critical review. Its principal arguments are generally coherent, if underdeveloped, and the text is written in a clear and accessible style. As would be expected of anything that Ann Oakley writes, this book is amply footnoted and referenced. It presents the most congenial face of scholarship, one that many don't often associate with feminist writing. As a primer for the sceptical scholar wanting to find out something about feminist thought, it is a good text. It works less well as a nuanced and developed digest of epistemology in the social sciences. Nonetheless, I would recommend this book to any serious scholar of the sciences of health, students of philosophy and the sociology of science, but more importantly, to those whose work draws from either of the qualitative or quantitative traditions. Yet I suspect that many feminists and true believers in the qualitative canon will be quite disappointed with what they find within its 400 pages.

One of the weaknesses of this book is the extent to which some rhetorically important scholars seem to have been ignored, or the significance of their work underestimated. Bruno Latour (who does rate a mention) would describe this as failing to observe the "obligatory points of passage," one of the surest and most efficient technologies to assure scientific credibility in one's rhetorical project. It is harder to explain the omission of so many feminist scholars who have notably raised many of the issues that Oakley discusses. Other important omissions, which come from the canon of science studies, would have strengthened her claims considerably. This is not to say that all the arguments in the book are

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poorly warranted; rather it is a scientometric surprise to discover that many of the texts that set so much of the agenda in this arena have found no place in her bibliography. Apart from the usual pleasure of the reviewer's role call of preferred providers, there is a more substantive reason for noting these omissions, as the book relies too heavily on the dominant, positivist evidentiary corpus and suffers accordingly. Such asymmetric epistemic positioning is curious and unhelpful, and her historical treatment of the origins of the "grand divide" is quite incomplete. For example, the failure to make any mention of the Adorno Frenkel-Brunswick/Popper debate, (let alone the Hobbes- Boyle contest), nor Feyerabend, in any scholarly discussion of the paradigm wars is inexplicable. This section is also unsatisfactory to me on account of the conflation of the ascendant critique of science in the twentieth century with the growing divide between the idiographic and the nomothetic traditions. It is difficult to understand how Oakley has failed to include any mention of the notable science wars which broke out around the time of the writing of the book.

Is not at all clear what Oakley means by the "democratisation of ways of knowing" (p. 21), one of the sub- projects of this work. She seems to be arguing that democratically- produced knowledge is the ideal type of knowledge production. While Latour would agree that this is the dominant mode of making knowledge, it is altogether another question about whether this is the best way of knowledge production. She fails to ask questions about who gets to vote. What counts as an electorate? What are the rules for winning? What counts as an unspoiled ballot? And who gets to declare the winner? Another important question is whether democratically-produced knowledge will be used democratically. All these questions are discussed to some degree by Latour in a number of places, yet she fails even to raise such questions, which is disappointing, especially given her professed aim to problematise common-sense understandings.

Her claim that she has reconstructed a "different way of seeing" (p. 22) for this book is unpersuasive, as is her argument that the project will be advanced by the conflation of the quantitative/qualitative divide. I suspect that the divide implies, at least, separable ontic commitments, and discernible epistemic politics. It seems to me that most social scientists do embody material practices of one kind or another. I would agree with her, however, that they are good grounds for questioning some of the ontological gerrymandering that often characterises post-positivist scholarship. Yet I take great exception to the often covert, and generally unrecognised, introduction of quantitative epistemics into a professedly anti-positivist research arena. What Oakley (along with countless other discussants of method) doesn't recognise is the primacy of the qualitative category in developing any quantitative measures at all, i.e. the foundational status of qualitative judgement in the quantitative edifice, rather than its desultory status as "underdog, the alternative" (p. 29). While there seems good reason to accept Oakley's claim about the existence of the invisible (quantitative and qualitative) colleges, there is no acknowledgement of Kuhn's paradigmatic

explanation of the genesis and functionality of such colleges. It is especially curious that Oakley fails to mention the divergent readings of Thomas Kuhn's work, in light of her discussion of the irritating characterisations of her as Oakley Mark 1 and 2. This is a topic which re-enlivened Thomas Kuhn's already weighty contribution to knowledge-making during the last period of his life. It is a shame that she could only afford two paragraphs to discuss his contribution to the paradigm debate.

Given that Oakley's work has embodied emblematically the strengths of qualitative methods, it is telling that this text suffers through historical poverty. Her exhumation of the history of social experimentation is both a welcome and well-executed project, as is her treatment of the centrality of the vivisectionist movement in modern Western medical science. But here again, her omission of Linda Birke's critical work, which links gender with such questionable scientific practice, is difficult to explain. Oakley's historic account of the scientific revolution (a topic now well-traversed by insightful scholars), could have been written thirty years ago and shows no evidence of any familiarity with recent scholarship. The received hagiography she reproduces here makes several unexpected and unacceptable errors. The characterisation (which is presumably based entirely on secondary sources) of Ptolemy and Aristotle as un-empirical epistemic dupes who were set right by the heroic Copernicus and Galileo is disingenuous and naïve.

In an auto-ethnographical turn she reveals that her housework research of 1974 was co-incidental with her becoming a feminist. Here she seems to be arguing for a reactive, reflexive relationship between researcher and the research, this time in the direction of re-activity of the scholarship upon the scholar: the nemesis of the well-recognised demand of experimental situation on the research outcome. Her account of posting at Oxford in 1979 also suggests a sensitivity to the influence of the social on the scientific. Here she gives the first explicit sign of ontic commitment to the "really important forms of truth" (p. 37). What are we to make of this remark, coming from a formidable feminist scholar? Is this simply an auto-ethnography of the emergence of a crypto-realist? For example we read that there are the "very real advantages for women in being protected from the adverse consequences of medical technology" (p. 19). More curious is her description of "the damage done to women by the largely unscientific character of modern medicine" (p. 17). Perhaps we should be reassured that much of this damage results from "uncontrolled experimentation".¹

If Germaine Greer (who rates only a journalistic citation) is right and we are still located firmly in a pre-feminist epoch, then I would imagine that Oakley's project is bound to feel very uphill indeed. So it is a shame that some of the

¹ It is worth noting here that Gad Freudenthal has shown that scientific progress depends very much on the kind of (noisy) uncontrolled experiment so disdained by Oakley.

more recent accounts of scientific knowledge-making which take gender seriously have not been included or acknowledged. Few of the usual feminist suspects² make an appearance in this text, but perhaps I am asking too much and the inclusion of such work would signify a very unhelpful reliance on the non-positivistic evidence that Oakley finds so limiting. Having benefited from the scholarship of some formidable feminist scholars of science (such as Donna Haraway, Helen Verran, and indeed Oakley herself), I have become quite disposed to recognise the profound and historic eccentricity which the genderisation of science has produced. But like Greer, I am unconvinced that much has changed, as I see overwhelming evidence of business as usual in the boys' scientific clubs like the professions and the academies. Ironically, I also notice an ascendant contempt for any critique describable as feminist, which just as often emanates from women scholars.

Oakley appears to have anticipated the charge that she has sold her feminist principles out, yet makes little attempt to counter these charges directly. Embedded in her major defence is a convincing and important call for science to use the "right tools for the job." While a number of feminist theorists (most notably Audre Lorde) have warned us that positivist methodology primarily serves the ends of the patriarchal project, Oakley is calling on us to review the use of our "masters' tools," especially in so far as they may be used to advance the welfare of women. Her appeal for the use of randomised clinical trials (RCTs) is instructive, but she makes an even better case for the inclusion of the use of such "right tools" in the social sciences. While recognising that many of the faithful in the post-classical traditions may recoil in horror from such a suggestion, I want to stand clearly with Oakley on this claim, despite the fact that acceptance of this claim might still leave us at some epistemic distance.

She is quite right in reclaiming the "hardest" of methods for feminist scholars; she is challenging the relegation of qualitative method to the margins. As a marginalised boundary object in a sometimes very feminised field of qualitative researchers, I try to resist such enrolments, however provisional. While Oakley seems to accept Mary Douglas' admonition about studying down, her advocacy of RCTs and the usual modernist suspects seems to offer little to counterbalance this tendency. Her caricature of the standard feminist repudiation of the dominant scientific culture appears to (dis)miss many of the substantive objections, made by insiders of that culture, which appear to be coincident and aligned with such seemingly derisory feminist critical standpoints. I claim that feminist critique has significantly nourished the scholarly corpus of science studies, even though, in the view of some, I "would say that!" But is Oakley much cleverer than a first reading might reveal? Is she rehearsing an ironic critique of the feminist manifesto in a convoluted *reductio*?

My reading of her text suggests that Oakley breaches her own newly-

² While it's good to see Lorraine Code grace several pages, I would have expected to have seen some mention of any of Margaret Wertheim, Deborah Lupton or Lisa Appignanisi.

acquired research decorum. For example, when she claims that a study on women may have yielded different results if it were to “have studied men” (p. 50). Immanent in this remark is a belief that the controlled design always answers questions better than any other kind of study. This leaves aside entirely the very question as to whether women respond differently to men, depending on the scientific tool being used. While I’m not sure I could design a method which could demonstrate this claim convincingly, I do recognise the validity of the question that different methods in themselves may produce some systematic instrumental variance (often called noise) across the genders. Oakley now seems reluctant to recognise this core plank of feminist scholarship, which she herself raised in 1981. It seems that the control of social factors (which washes out any gender differences), is itself unproblematic. While I am as committed as Oakley to the centrality of comparison in the ideal type of controlled research, I am unconvinced about the equivalence of some comparisons, especially of the independent variables.

Oakley spends a considerable time in constructing what appears to be a spirited and clearly uncritical endorsement of the current evidenced-based methodology as the gold standard of scientific life. I am already too convinced by the empirically-warranted critiques of the experimental life (such as executed by Steven Shapin, Simon Schaffer, Harry Collins and David Gooding), that the grounds of RCTs and other modernist power-tools are much more contestable than Oakley might believe. It is disconcerting to read in a book dedicated to epistemic experiment the whiggish claim that RCTs are “medicine’s prime way of knowing” (p. 17). While she enthusiastically endorses both the principle of evidence-based practice, and its embodiment in the Cochrane centres, it is curious that she fails to consider any critique of the concomitant growth of the oxymoronic “quality improvement” project. Oakley’s dismay at the epistemic vacuum underlying many populist interventions (like the recently announced “patient panels”) is noteworthy, but she shows little interest in exploring how so many well-regarded interventions came to be instituted and maintained with such little empirical support.³

While her description of the Zelen prototype RCT design is instructive, this history is tantalisingly brief and unsatisfying. I would have welcomed Oakley’s astute gaze on the subtle elision from “randomised clinical trial” to “randomised control(led) trial,” but she provides no space for this kind of revelatory archaeology. She mentions the Gallic notion of “witness group” without explanation, yet makes no mention of newly-adopted convention of contrast groups (in lieu of traditional controls). Having skated over the issue of

³ Her targeting of health promotion’s critiques of positivism is well taken, especially in the light of its eponymously modern project, presumably accomplished and demonstrated without recourse to the power tools of modernism.

experimental blindness, she pays little attention to the companion concept of experimental deception, which is politically incorrect at present. It is disappointing to read nothing of the important “balanced-placebo” study design which has the potential to reveal much more about the interaction of mind and body, in the kind of controlled way that Oakley espouses. In discussing randomisation she seems not to understand that it is merely a quick and easy way of matching. It is worth adding here that randomisation aims at more than “generating socially comparable groups” (p. 19).

This book, however, does a nice job of raising the uncomfortable, if necessary, questions about the validity of qualitative methods, which have enjoyed such an examined trajectory in some quarters, but it fails to maintain the required symmetry in examining quantitative methods. Her conflation of the problem of power with the problems of member-checking is one good example of a major flaw with this book. Whereas she takes considerable time to show the valid objections to the validation process of member-checking, she only hints at the role of authority in adjudicating epistemic claims. Again, in her discussion of triangulation, she misses the opportunity to discuss the most fundamental, if most misunderstood, problem in science, that of validation. Her incipient discussion on validity and reliability is encouraging but again she fails to develop some interesting notions about the role of social context in the credibility of scientific findings. In discussing the reliability of self-report she brings in the Mead/Freeman controversy. While this story is a particularly good exemplar of the problematics of self-report (and the consequent problem of epistemic runaway), she discusses it merely as an example of sloppy, unskilled or uncontrolled findings. Again and again, Oakley raises the most tantalising examples of troubling epistemics, each redolent with interesting questions and problems. Yet her preferred approach to many of these problems takes the well-travelled modernist route of privileging latest or derivative accounts, a move which appears remarkably Whiggish.

It is worth remarking that one key project of the (modern) experimental life was precisely to provide dialectic closure, in order to authorise the silencing of dissent. Steve Shapin has convincingly argued that the companion (if apparently paradoxical) objective was to enhance general civility through the pursuit and maintenance of conversation. Hence the use of the power to silence (e.g. through RCTs) may be problematic from a feminist standpoint. But Oakley appears oblivious to this politic, and wants instead to examine and reveal the wonders of the modern cathedral now from the inside. While only a certain amount of consonant polyphony will be tolerable inside the cathedral, the canon will always be shaped around the dominant (generally male) voices. Dissonant voices, or those unable to join the counterpoint lawfully, will be asked to leave quietly. Of course modernist tolerance for such primitive chanting and off-key singing is much greater outside the walls of the hallowed auditorium. It is the very question of how cultural authority is naturalised that Oakley fails to address here.

As the trickle of post-modern critique turns to a gush, some of the most credentialed and respected proponents of pomo are now turning their backs on this standpoint as they acquire recognition and status within the dominant scientific culture. A less generous reading of Oakley may suggest that, having crossed into the epistemic holy land, she is now directing her critical gaze outward and backward towards those infidel and undisciplined spaces where she formerly exercised so much critical influence. While some may wish to read her book in this light, I prefer to consider such problematic positioning as yet another marker of Oakley's courage, embodied in a remarkable career which has been distinguished by fearless analysis informed by exemplary scholarship.

Though we live in non-canonical times, this book would make a fine prescribed textbook for many of the plethora of applied disciplines on offer in modern academy. It would also deserve a place in the remanent remaining philosophical interstices currently facing extinction. Oakley has a good sense of where the epistemic action is, but when she gets there, she fails to look around for other well-travelled companions or useful signposts. Like a prototypical modernist, she seems to believe (and hope) that we will get there in the end, if only we take the right route. Yet as all good travel guides know, there is no ultimate destination, nor single best route, only interesting places on the way, and further travel plans to be made on reaching our destination. She has pointed out some further exotic epistemic terrains worth exploring, telling us how to travel securely and which destinations will be safest. But I'm much less interested in the comforts of the scientific package tour. I yearn for the adventure of new knowledge frontiers, but sadly, her company appears not to operate these routes any longer.

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