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The field of Feminist Epistemology and Philosophy of Science (FEAPS) is now far too large to be plumbed in a single volume. With this in mind, editor Heidi Grasswick presents this cross section of state-of-the-art discussions designed to sample the depth and range of current work in FEAPS. Feminist philosophy thus finds itself in a strong position, and the general tone of the book is pleasingly optimistic. Grasswick's introductory survey is detailed and useful, accurately summarizing the contents of the anthology and situating them within the broader boundaries of the discipline. In addition to this everyday editorial work, Grasswick gets some of the volume's crucial claims on the table for extra emphasis. For example, as Helen Longino pointed out in the Monist twenty years ago, feminist epistemology is not "women's ways of knowing." Perhaps this reminder should no longer be necessary, but there are still critics who persistently lump the two together, betraying not only ignorance of the field, but disregard for scholarly standards. Grasswick also asserts, "situated knowing is the single most influential concept to come out of feminist epistemology" (v); these essays often deal with situatedness in one way or another. Whether Grasswick is right about this is an open question, but it's just the kind of provocative statement an anthology like this should make: it invites exploration and inquiry, it can be contested, and it is a good sign that the discipline is a healthy and vibrant one.

The book is divided into three parts, which can be loosely described as theoretical, practical, and applied approaches to FEAPS. As someone with an interest in theory I naturally found the first section to be the most engrossing, and I will restrict my detailed discussion to the first half of the book. (A FEAPS anthology is also too rich to be plumbed in a single review, even a long one. All of the essays do important work with clarity and care, and all of them provide scholars who work in FEAPS with valuable insight, information, and argument.) The way that Grasswick has chosen to group the essays amplifies the cross-connections between them, so that even if one has a particular interest in one aspect, it is worthwhile to find and follow the threads between these writers. And anyone currently working in a philosophy department or graduate program should add the essays by Rooney, Fehr, and Wylie to their required reading list, whether they have an interest in FEAPS or not.

Many works in feminist philosophy begin with a staking out of territory, a preemptive defense of the value of and need for feminist contributions to the discipline. As Grasswick points out, FEAPS has established its presence in philosophy for about thirty years now, so we should not have to endure this preemptive habit for much longer. Moreover, this collection demonstrates that the form of this defensiveness is changing in interesting and positive ways. The first essay in the theoretical section, by Phyllis Rooney, gives the anthology a bold start, not a diffident one. Rooney has already built a reputation for close scrutiny of meta-epistemological questions within FEAPS, querying, for example, the commitment of some feminist epistemologists to naturalism. Here, she examines the tension between the important insights of feminist epistemology and the indifference, and even contempt, with which it is treated by mainstream epistemologists. It is not just that critics of feminist epistemology dismiss the field without bothering to understand it, although as Rooney shows at length, they surely do that. Rooney draws our attention to a larger problem that should be embarrassing for mainstream epistemology and yet poses an opportunity for feminist theorists: our critics have constructed something called "epistemology proper," against which feminist insights are to be measured and then dismissed. It's bad enough when critics of feminist epistemology abandon the usual epistemic norms of respectful argument, as Rooney demonstrates they do. But their promotion of non- or even anti-feminist "pure" epistemology conceals a misguided belief in the unity or uniformity of the discipline. Such unity is simply not to be found, Rooney argues, because what has marked epistemology for at least the last generation (I'd say much longer) is proliferation. By attending to this remarkable proliferation, we can see that many meta-epistemological questions are not just up for grabs, but in desperate need of attention. What are the core concepts of epistemology now? Justification, understanding, warrant? How should we choose? To what standards do we appeal in order to adjudicate such questions, to determine the goals of epistemology, and to decide what counts as progress toward them? If these questions are to be explored, it is not just labor-saving to pay attention to the work that feminists have already done, it is epistemically virtuous to be open to feminist perspectives. Or to put it more bluntly, ignoring or willfully misrepresenting feminist epistemology is just bad philosophy.

The remaining four essays in this first section exemplify the breadth, vibrancy, and metaepistemic virtue for which the collection aims. Kristina Rolin's work on Helen Longino's contextual empiricism brings Longino into dialogue with several of her feminist critics, and allies her work with a mainstream contextualist, Michael Williams. (Williams is an interesting choice. Longino's contextual empiricism is designed to accommodate feminist concerns, but is not a specifically feminist philosophy of science. Williams is no particular friend of feminist epistemology, so those critics who are concerned that Longino's approach also accommodates non- or anti-feminist projects, including Kristen Intemann in part II of the book, may wish to counsel caution.) Part of what's important about Rolin's project is her insistence that we examine FEAPS critically and fairly, using clear and appropriate standards for what counts as meaningful analysis. She borrows these standards from Elizabeth Anderson: accurately representing the position to be criticized and making the critic's own perspective explicit. As a result, she is able to make substantive progress in responding to and trying to ameliorate perceived weaknesses in Longino's position. This is accomplishment enough for one essay. The alliance with Williams's contextualism, which differs in important ways from Longino's, may bring new problems along with it, but Rolin defends the idea that engaging with skepticism in the way Williams does can be valuable for feminists. Seeing justification as reliant on default entitlement, as Williams

proposes, allows Rolin to argue for a particular view of epistemic responsibility in Longino's project. What is required as sufficient evidence to justify a scientific claim depends (in part) on the challenges faced from one's scientific community, and this includes the value judgments that inform that community and its work.

In a quite different vein, Nancy Daukas defends a feminist virtue epistemology. At least it starts out as a different vein. Daukas points out that a virtue approach, in addition to the strengths she defends for it, can lend support to both contextual empiricism and feminist standpoint epistemology, positions normally seen as distinct, or even conflicting. Virtue epistemology is a relatively recent contribution to that epistemic proliferation pointed out by Rooney, but feminist versions of it have grown up very quickly, and the central idea behind it will be easily grasped based on familiarity with the ancient tradition of virtue ethics. Just as moral virtues are those habits that incline the agent to moral goodness, epistemic virtues are those "enduring dispositional character states or 'habits of mind' required for responsible epistemic agency" (47). Daukas defends epistemic trustworthiness as the primary epistemic virtue, but she recognizes that virtue epistemology isn't "automatically" feminist-friendly; feminists have already scrutinized for ample traces of androcentrism and patriarchal values the model of agency and flourishing on which Aristotle relies in his ethics. The trick to revising this model is to replace the traditional individualistic conception of the self with a relational one, a hallmark of feminist work, and to borrow an element common in ecofeminist writers like Karen Warren, rejection of hierarchy. In this case the nonhierarchical element is taken to stretch over individual and communal well-being, so that dispositions that lead to domination are understood as morally and epistemically vicious. Daukas goes on to develop this stance in thorough detail, and brings her approach into dialogue with Longino's contextualism and with standpoint theory, including problems with these latter, more established positions. This is thus an ambitious project. The results are pretty intriguing, suggesting as they do a practical division of labor. Contextual empiricism allows us to analyze the structure of epistemic practices, including their social and political background commitments; feminist standpoint follows up on these to discover consequent differences in epistemic perspective and credibility; and feminist virtue epistemology looks at how all of this is borne out in the actual behavior of epistemic agents as they interact with one another. The results are not always going to be "feminist certified." As Daukas points out, we may discover that our testimonial practices make us agents of oppressive social hierarchies. So it is not just that these three approaches are mutually reinforcing. It may be that by placing the older views into dialogue with feminist virtue epistemology, important weaknesses are revealed and can perhaps be redressed.

Samantha Frost invites us to examine the implications of the new materialism for feminist thinking. Materialism is part of a conceptual constellation that some feminists have regarded very critically, including certain views about essentialism and causation, as Frost discusses at length, but probably also concerns about realism, reductionism, and the nature of experience. I think it's fair to say that there's a division within feminist theory between those who have, at least historically, defended a solely cultural-discursive approach to social and political difference (and our knowledge of it), and those who have left room for the natural, material world to play an irreducible role in our theorizing. Frost's essay mainly addresses the former group, gently characterized as "non-scientific feminists" (75), but her discussion is valuable to scholars of FEAPS as well. Rejection of the material has in the past been conditioned by the threat of

essentialism, which seems to permit oppressive social norms to masquerade as forces of nature or biological imperatives. Frost argues that this misdiagnoses the problem. It's not essentialism that's the threat; it's an impoverished set of choices for thinking about the material coupled with an overly simplistic, unidirectional, linear model of causation. Whether we think of matter as the inert stuff of Cartesian theory or historical materialism's equally inert substrate transformed by human labor and culture, matter still has no agency of its own. The social/cultural can act on it, but it's a one-way relationship, not a complex, recursive one. This is obviously problematic on scientific grounds, and she reviews these grounds in some detail. But Frost points out that the political and theoretical consequences for feminism are even graver. As she puts it, the muting of the material and commitment to a simplistic, unidirectional model of causation puts (or keeps) the human subject at the center of things, "recapitulating the modern fantasy of freedom, autonomy, and self-determination" against which feminists have argued for so long (76). In addition to this hard-hitting plea for a more sensible approach to the active, agential role of the material/biological world, Frost urges us to adopt a more humble stance to that world and to the limits of our abilities to understand it. It's a passionate and compelling argument, and one that even "old" materialists will do well to heed.

Sandra Harding rounds out the first section of the book by looking at the contrast between modernity and tradition from a perspective that is predictable coming from a founder of feminist standpoint theory---start thinking from the lives of women---but with a new inflection: the lives of women in households in particular. Feminist theorists have long challenged modernity's split between the realms of public and private, and the myriad ways in which this split confines women, literally and symbolically, are well known. Harding brings fresh eyes to this division, showing that it's not just men's supposedly individual achievements that rely on the activities of women in households, but that the contrast between tradition and modernity itself relies on this split. It very much needs to be re-examined. The allegedly neutral standards of rationality, objectivity, autonomy, and freedom that are modernity's great triumphs are of course covered with androcentric and Eurocentric fingerprints, but modernity is always what Harding calls only half of a relationship (89). The other half is always the feminized, colonialized, primitive world of traditional knowledge. The social and political ramifications are enormous. Harding offers a detailed description of the ways in which every facet of the modern narrative reinforces gender stereotypes in a way that systematically oppresses women and their dependents, and erects barriers to resistance and change.

And it never stops. As Harding puts it, modernity is obsessed with recuperating the feminized version of tradition that it has constructed in order to continually make itself look desirable. Economic growth and the spread of technocratic democracy can be regarded as unquestioned goods, so long as we are willing to overlook "externalities"---the realm of women and their dependents in households---as the power of the market requires us to do. These forces are also entirely promiscuous, as Harding repeatedly reminds us that modernization is not coextensive with Westernization; modernity is happy to scavenge any and all local conditions in order to bolster its contrast with tradition. One way to expose and potentially disrupt the power of these structures is to recognize that scientific research, when done, for example, for military or corporate interests, virtually always has an impact on the lives of women in households (101), even if that impact is indirect and takes some effort to uncover. If one of our goals is to advance social justice, then one of our strategies should always be to ask about the consequences of

research for the lives of women in households. Harding makes some big claims for this strategy, and deftly anticipates a range of objections. She also admits that she has departed from the concerns that normally occupy scholars in FEAPS---but this departure is quite deliberate. The flourishing of women and their dependents in households has, Harding points out, been seen as irrelevant to both the pursuit of objective, reliable knowledge and to the pursuit of social justice. It is not the only relevant thing, but it is surely one of them, and as such merits much more attention.

The second section of the book begins with an essay by Kristen Intemann that works as an effective bridge between what I've called the theoretical and practical portions of the anthology. Intemann's essay looks back to theory, and forward to raise questions about the best way to structure democratic science in order to help meet feminist goals. She focuses on the work of empiricists Helen Longino and Miriam Solomon, forging links to virtually all of the essays in part I, and uses this examination to uncover a better conception of feminist democracy than either Longino's or Solomon's projects can sustain. Intemann categorizes Longino's and Solomon's approaches as Millian, following John Stuart Mill's idea that democratic science requires participants with diverse values in a free marketplace of ideas (112). Her synopses of the two positions are outstanding---this essay would be especially useful in the classroom---and although she concedes that Longino's work also contains a non-Millian approach to feminist values, the characterization of both writers as mainly Millian is fair and well-defended. Intemann demonstrates that the demand for diverse value perspectives in both writers grants only an instrumental role to values, so that Millian approaches are neutral with respect to the specific content of values. Both Longino and to a lesser extent Solomon provide some resources to mitigate the impact of this value-neutrality, but ultimately both writers cede too much to those who hold scientifically and socially problematic values. The tempered equality of cognitive authority that Longino requires in an objective scientific community is of limited use without actual social and political equality. Feminists want to be able to say, for example, that the Bible is not evidence and that sexist and racist value judgments are unjustified and have no place in democratic science. This means that we need scientific communities whose members have not just diverse values and interests, but diverse experiences and social positions. We must still recognize, with Mill, that humans are fallible, and values must always be open to scrutiny, but there is a conflict between the goals of FEAPS and any empiricism that allows values to have at most indirect influence on research.

The remainder of the book delves into a range of practical and applied issues. The essays in part II by Fehr and Wiley share with Intemann an interest in investigating the best democratic structures for women, but both focus on science as a workplace where gender equity has yet to be secured. Like Intemann, Fehr finds Longino's contextual empiricism lacking in crucial profeminist resources, and Wylie uses feminist standpoint to describe attitudinal changes toward gender equity, and then uses gender equity to identify areas where standpoint theories are in need of revision. The final section of the book includes Nancy Arden McHugh's examination of the impact of Agent Orange exposure in the Aluoi valley of Vietnam. This discussion is a good example of the approach advocated earlier by Harding. McHugh starts with the lives of those Vietnamese women who, because of their domestic and agricultural labor, bear the greatest burden of exposure to Agent Orange. In this age of evidence-based medicine, moreover, McHugh raises significant questions about the limits of laboratory work and randomized,

controlled trials in identifying consequences of exposure to the potent herbicide. She argues that communities, not just individuals, should be recognized as situated epistemic agents, and although this may seem like an overabundance of situatedness, there is much power in this approach to disrupt the impoverished model of causality criticized by Samantha Frost.

Lorraine Code puts fact and fiction into dialogue, using Nadine Gordimer's novel of South African apartheid, July's People. Her scavenger's approach ties her reading of the novel to several of the anthology's earlier threads in an illuminating way, showing the range of application of insights from Daukas's feminist virtue epistemology, Harding's interrogation of the ideals of modernity, and even Frost's insistence on the agency of the material. Fiction is no substitute for epistemically and morally virtuous interactions with real persons and their material circumstances, but careful reading can help to reveal barriers to such interactions and show the extent to which liberal notions of freedom are utterly inadequate in the face of violent repression. Gaile Pohlhaus, Jr. uses the work of María Lugones to construct and apply a moral and social epistemology based on the epistemic interdependence of agency. Rather than taking an abstract, feel-good approach, however, Pohlhaus shows that even well-intentioned attempts at understanding across social categories can do harm, individually, communally, and epistemically. Not every request for understanding across intersecting oppressions is equally valuable, and some simply inflict more pain on the marginalized. She also draws attention to refusals of understanding, highlighting the ways in which the privileged can easily rely on the institutions and practices of the dominant classes to reinforce their own ignorance and lack of action. Finally, Grasswick weighs in with her own contribution, showing that any truly liberatory feminist epistemology worth its salt cannot restrict its efforts to understanding the connections between knowledge and the oppression of women alone. But a universal approach to knowledgesharing, assuming that more knowledge for more people always promotes more liberation, is not necessarily one that feminists should adopt. Grasswick spells out some standards for what the norms of knowledge-sharing ought to be, the role they should play in practice, and the thorny problem of hidden knowledge and the impact that the absence of disclosure can have on liberatory goals. Pohlhaus's and Grasswick's essays are especially important for critically evaluating the ways that knowledge is made and shared in the digital age, where the demand to check one's privilege can quickly become a fallback riposte rather than a clear, substantive objection that demands action.

This anthology shows that FEAPS has made progress when it comes to reflecting the diversity of women's lives. There is still a gap between more academic, theoretical approaches to FEAPS and women's lived realities; for example, barriers faced by women in the academic workplace are not just a smaller, more specialized version of the problems women confront in the global labor market, and these latter problems must also be addressed. It is primarily in the range of contributions offered here that awareness of and sensitivity to this gap is most evident. Feminists want to and should live up to the norms that our discipline defends, and this collection offers a variety of directions from which this goal can be pursued.