Sandra Harding *Objectivity and Diversity: Another Logic of Scientific Research* Chicago and London: University of Chicago Press, 2015 (ISBN 978-0-226-24136-4)

Ugo Edu (San Francisco State University)

Laura Mamo (San Francisco State University)

Ugo Edu is the Science, Justice, and Health Equity Post-Doctoral Fellow at the Health Equity Institute at San Francisco State University. She is a medical anthropologist using interdisciplinary approaches to reproductive and sexual health, gender, race, aesthetics, contraception, and social justice with an emphasis on women, gender, and sexuality and health inequities.

Laura Mamo is Health Equity Institute Professor of Health Education and the Associate Director of the Health Equity Institute at San Francisco State University. She is a sociologist of science, technology, and medicine who studies the social and cultural dimensions of gender, sexuality, and health inequalities. She is the author of *Queering Reproduction* (Duke University Press, 2007) and co-editor of *Biomedicalization* (Duke University Press, 2010).

In her latest book, *Objectivity and Diversity: Another Logic of Scientific Research*, feminist philosopher Sandra Harding continues to bring a feminist perspective to the question of knowledge-formation or, more precisely, to the scientific research process. Forging together feminist science and technology studies (STS), postcolonial studies, and feminist philosophies of science, Harding asserts that the political and social norms of diversity and the epistemic and scientific norm of objectivity are mutually supportive, contrary to how we usually understand their relationship. This is an important idea and one that is of particular interest to STS scholars interested in issues of values, justice, equity, and, ultimately, how to engage technosciences for a better world.

Harding is well known for her contribution to "standpoint" methodologies, making the case that things look different depending on where one stands in social structures of power. In this new book, she provides fresh answers to perennial questions facing standpoint theories, such as whose knowledge is better, which science is "objective," and how to settle on the "best" approach. Ultimately, she argues for the utility and alignment of objectivity with the tenets of diversity, asserting that "philosophies of science that provide resources for democratic social relations can flourish in the new social, political, and economic worlds in which we find ourselves . . ." (23). She thus takes a solution-oriented approach to answer the ongoing questions of knowledge, democracy, and participation.

Harding is committed to assisting the reader in determining how to construct what she calls "a new proper scientific self," a self that emerges from social-justice projects concerned with producing knowledge for and by politically vulnerable groups for their survival (158). She argues that the quality of a dynamic "knowing community" as engaged "in critical debate,

rethinking and revising scientific and technical agendas and their own roles in advancing them" is an aspect of the proper scientific self (173). That is, she argues, the agent or subject of knowledge projects is able to subvert the problems of objectivity. The proper scientific selves are those with multiple and conflicted subjectivities, which provide possibilities for progressive transformation through participatory research (PAR) and attention to intersectionality. This book is, then, a call for strategic researchers to engage in science from below, as she framed it in her earlier work.

Although objectivity is contested, the strength of this book is Harding's commitment to its tenets. Harding offers readers a map of methods for achieving the strong objectivity she insists on and uses case studies to guide her readers. Chapters 2-7 explore six major arguments for the claim that the "social norm of diversity and the epistemic norm of objectivity can provide mutual support for each other" (23). She begins, in chapter 2, with strong objectivity, which maintains that research that emerges from outside of the discipline helps to distill the dominant values, interests, and assumptions that serve primarily dominant groups (34). Harding argues that as opposed to introducing politics into assumed value-neutral sciences, strong objectivity points out the politics *already* present and the ways these show up in research results. Standpoint methodology and its strong objectivity program share alignments with the insights and strategies of the social studies of science and technology (SSST). Harding's articulation of these alignments reveals the inability of science studies to acknowledge the relevance of feminist and postcolonial work to their own.

Next, in chapter 3, Harding argues that the mutual support claim has far-reaching and global implications. The examination of the everyday lives of the poorest women in the Global South revealed errors and distortions in the assumptions about development that informed World Bank policies. The link between research and policy has to do with the fact that social policy has distinctive social effects, traceable to "the kinds of issues, concepts, and methodological procedures" guiding the feminist research that informed the policy (53). Feminist research that utilized standpoint methodology to start from the lives of poor women and men globally was able to provide insights about the failures of modernization theory in practice. Harding shows how this research methodology revealed that women and peasants were not left out of development policies but rather that the policies facilitated the appropriation of their labor and land rights (67). She argues that the strong objectivity approach allowed for better addressing poverty and other associated markers of development.

In a third claim, discussed in chapter 4, Harding argues that despite the cultural embeddedness of indigenous knowledge in local assumptions and interests, indigenous knowledge meets the core commitments of "objective research." The core commitments of "objective research" are producing reliable knowledge, being fair to the data, and being fair to critical responses. Colonialism and imperialism have fostered encounters that have facilitated a two-way process of appropriation between Western sciences and indigenous knowledge. Harding is not criticizing appropriation but rather the "intellectually, ethically, and politically unattractive aspects of this practice," historically and currently (88). Some aspects of this practice erase the collective nature of producing knowledge and have fostered an exploitative relationship, to the benefit of modern Western sciences, which hides behind a story of Eurocentric and colonialist exceptionalism and triumphalism (88). She draws on two examples--Micronesian navigators and Cree goose hunters-

-to demonstrate that similar to the development of modern Western science in co-production with its society, indigenous knowledge is also co-produced with its society. Her examples also point to the link between survival and interest in scientific research for all societies and the ubiquitous presence of myths, magic, superstition, and social metaphor in all systems of knowledge (86). Harding, always offering ways out, suggests possibilities for future relations between indigenous knowledge and modern Western science.

In chapter 5, Harding argues that modern Western science as well as other sciences are influenced by the cultural contexts in which they are embedded. Along these lines, particular historical, cultural, and political contexts produced the conditions that necessitated concerns about unifying sciences. She explains unity as a political and social ideal of the West and reminds us that the notions of unity and disunity serve to help us make sense of our everyday experiences. Harding's discussion about unity and disunity prepares the reader to understand the "allure" of a unified science--logical empiricism--over the more reasonable embrace of disunity and pluralism. She reveals that questions about value-freedom and political commitments of the sciences and philosophies were always in conversation with discourses about unity and disunity (114). This point is illustrated in Harding's discussion of a program in Vienna that coordinated scientific work with the aim of blocking fascism, which was transformed in the US into a claim about the very nature of science (118). The stakes of embracing a disunified idea and multiplicity of sciences differ for those from Western countries versus those from what are considered non-Western countries. The disunity of sciences enables historically and culturally shaped scientific practices to produce reliable research results (119).

Harding's fifth claim takes on the binary of secularism and religion in chapter 6. The questioning of objectivity of "other sciences" due to our understanding of them as systems of knowledge embedded in religious and spiritual beliefs and practices stands in contrast to modern Western science being understood as secular and against the "enchanted world." This argument is of great importance to epistemology. Secularisms are produced in conversation with the religions they oppose, she asserts. Since the binary of secularism versus religion supports other familiar binaries, secularism is a "moral and political project" rather than the absence of any such commitment (130). In the face of increasing Muslim populations in the Western world and the rising power of Islamist parties in Arab nations, Western secularism comes to symbolize religious intolerance, an inhibitor of democratic social relations, and a result of "the epistemological ignorance and backwardness of the modern West" (132) for the global community. She cites three sources for increased skepticism toward secularism. Harding concludes by arguing against "taking sides" regarding which faiths can be understood as reasonable in favor of "requiring certain kinds of scientific training for specified educational or other legitimate practices" (147).

Her final claim, which permeates and frames the previous five chapters, regards the mutual support claim and its alignments. The mutual support claim is the claim that the social-justice norms of diversity and the intellectual norms of objectivity can provide mutual support for each other. Harding's arguments throughout the book have been in the service of this mutual support claim. Her last claim is that these arguments align with the insights gained from the field of science studies (24). She points out the alignments in their context within the chapters. One such alignment is that sciences and societies are co-producing and co-constituting. Her point with this

claim is that social-justice work that supports the mutual-claim argument about objectivity and diversity can draw from work in the field of science studies that is not overtly advocating social-justice projects (24).

What these reviewers found most compelling is the way Harding continues to push us, STS scholars, in our thinking about "the world of sciences" we inhabit. Although the insights about science as co-constituted with society, or "science" as part of survival for all societies, are not necessarily new, the methods for epistemological practices of science and their alignment with social-justice norms of diversity are groundbreaking. Harding delivers. She does not shy away from revealing difficulties in relinquishing a worldview heavily shaped by the hold of modern Western science. This is useful for readers--and these reviewers--as it reveals the real difficulties that "we" as Westerners have in completely decentering and disrupting the privileges that we continue to bestow on modern Western science. Harding's work is helpful as a guide to imagining modern Western science as horizontally aligned with other sciences rather than vertically aligned above them. What would it look like if we could truly imagine sciences, plural, without any special designated science, and had a way for evaluating them that was not necessarily based in an Enlightenment-inspired approach to understanding the world? Harding's attention to the alignments among insights from science and technology studies and feminist and indigenous studies highlights the importance of a social-justice self and, most important, provides real tools for moving forward and engaging modern Western science differently. The beauty of this work is the prospect for rethinking how we can use sciences toward societal good-toward justice, while further supporting the pedagogical development of future scientists, philosophers, and researchers who engage with and have cultivated social-justice selves.

This book will be of great interest to both new students and those familiar with and engaged in earlier conversations around standpoint epistemologies (see work by Dorothy Smith, Donna Haraway, Patricia Hill Collins, and others) and the views that assumptions about male supremacy, white supremacy, and Western supremacy were institutional, group-based, and embedded in the very methods of Western science. While we continue to find Harding's arguments resonating with unidirectionality, wherein values distort the conduct of sciences, and are not as fully co-constituted as "natureculture," for example (see Haraway 2003), the project of Harding's commitment to a better and more just conduct of science is seductive and compelling and should be debated by all new and experienced scholars yearning to confront the inequities and injustices in our worlds, and especially to strive for and yearn toward better ways of knowing, being, and constructing the worlds in which we live.

REFERENCES

Haraway, Donna. 2003. *The Companion Species Manifesto: Dogs, People, and other Significant Otherness* (Vol 1). Chicago: Prickly Paradigm Press.