9-26-2018

# Situating Feminist Standpoint Theory: Toward a Critical Ontology of Knowledge

Matthew Steckle
*University of Windsor*

# Situating Feminist Standpoint Theory

*Toward a Critical Ontology of Knowledge*

By

Matthew Steckle

A Thesis
Submitted to the Faculty of Graduate Studies
through the Department of Philosophy
in Partial Fulfillment of the Requirements
for the Degree of Master of Arts
at the University of Windsor

Windsor, Ontario, Canada

2018

**Situating Feminist Standpoint Theory:**
Toward a Critical Ontology of Knowledge

by

**Matthew Steckle**

APPROVED BY:

_____

**A.Fitzgerald**
Department of Sociology, Anthropology, and Criminology

_____

**R. Neculau**
Department of Philosophy

_____

**C.E. Hundleby,** Co-Advisor
Department of Philosophy

_____

**P.Rose,** Co-Advisor
Department of Philosophy

September 17, 2018

## Declaration of Originality

I hereby certify that I am the sole author of this thesis and that no part of this thesis has been published or submitted for publication.

I certify that, to the best of my knowledge, my thesis does not infringe upon anyone's copyright nor violate any proprietary rights and that any ideas, techniques, quotations, or any other material from the work of other people included in my thesis, published or otherwise, are fully acknowledged in accordance with the standard referencing practices. Furthermore, to the extent that I have included copyrighted material that surpasses the bounds of fair dealing within the meaning of the Canada Copyright Act, I certify that I have obtained a written permission from the copyright owner(s) to include such material(s) in my thesis and have included copies of such copyright clearances to my appendix.

I declare that this is a true copy of my thesis, including any final revisions, as approved by my thesis committee and the Graduate Studies office, and that this thesis has not been submitted for a higher degree to any other University or Institution.

## Abstract

Sandra Harding opposes her version of feminist standpoint theory to traditional 'representationalist' or 'copy theories' of truth. Yet her critics maintain that Harding's standpoint theory retains an implicit representational epistemological framework that leaves space for global skepticism and pernicious relativism. Sharyn Clough and Shannon Sullivan argue that it is inconsistent for Harding to claim that (1) feminist standpoints will produce 'less false' theories than traditional androcentric scientific communities, and (2) that all perspectives (including the most socially privileged ones) are 'enabled and limited' by the social position from which they arise. Holding these two claims in tension with each other produces a problematic objectivist-relativist binary that undermines the emancipatory potential of Harding's theory, they claim.

It will be argued in this paper that these critical evaluations of Harding's standpoint theory overlook the way in which Harding's 'less false' claim already rests on a firm commitment to situated knowledge rather than a representationalist theory of truth. Reading Harding's standpoint account through Bruno Latour's ontology of knowledge, I argue that the aim of a standpoint is not merely to produce 'alternative' representations alongside dominant ones; rather it is to create spaces of critical tension with dominant uncritically accepted scientific theory and practice. Standpoints provide critical accounts of how dominant forms of knowing have constructed and deployed knowledge spaces, and provide opportunities for reconfiguring those spaces in ways that are more democratic and less oppressive. Thus, such standpoint-based accounts are candidates for producing less false theories not because they represent a 'universal reality' more clearly but because they, unlike modern Western science, emerge from marginal social positions that are less likely to deny the situated and local nature of all knowledge claims.

# Acknowledgements

I would like to express my very great appreciation to Dr. Philip Rose and Dr. Catherine Hundleby, my research supervisors, for their guidance and expertise, and for the inspiration of their work. I am particularly grateful for Dr. Hundleby's advice and assistance in keeping my progress on schedule. Thanks also to Dr. Radu Neculau and Dr. Amy Fitzgerald for reviewing this paper.

Special thanks must go to my mother, father, and sister for supporting me throughout my study, and to Katherine Richard, Em Dobson, Danny Tarade, and Shaun Steven for their unwavering support and encouragement.

# Table of Contents

# Chapter 1: Introduction

> Vision is *always* a question of the power to see—and perhaps of the violence implicit in our visualizing practices. With whose blood were my eyes crafted?
>
> —Donna Haraway, "Situated Knowledges"

## The Need for Feminist Standpoint Theory

Sandra Harding argues that feminist standpoint theory provides a way in which to simultaneously advance the growth of knowledge and the promotion of social justice (2015 xii). In contrast with the modern progressivist attitude that tends to paint science as inherently value-neutral, objective, and utopian, standpoint theorists, inspired by and committed to promoting the goals of the social justice movements, approach science and the social order with a critical attitude. Instead of assuming that science simply holds a mirror up to the world in an attempt to represent its natural processes with objectivity and disinterest, as many philosophers and science popularizers have tended to do**,** feminist standpoint theorists begin their analyses of science by first asking whose interests and agendas are served by the construction and development of scientific knowledge. In developing answers to these questions, standpoint theorists discovered that the benefits of scientific knowledge are rarely distributed equally to all human beings in the social world, and that in many cases "…the successes of the sciences and their technologies frequently [have been] achieved only at great cost to the other races, classes, and genders whose labor and suffering have made possible these benefits for the few" (Harding 1991, 307).

For Harding, the inequalities generated by modern Western scientific knowledge call for a stronger commitment to accountability and responsibility from our scientific communities. In order to do more accurate, more objective, and more socially responsible science, she claims that

scientists cannot rely solely on existing community-standards of objectivity, since they have historically been unable to detect community-wide assumptions, such as prejudices and biases that unconsciously guide scientific inquiry. The problem, then, is that "objectivity has not [yet] been 'operationalized' in such a way that scientists can detect the variety of prejudices and assumptions that are 'the dominant beliefs of an age'—that is, that are collectively (versus only individually) held" (1992, 440). As traditional science continues to develop both theory and practice from the perspectives of dominant groups, it simultaneously fails to take into account the needs of groups who are marginalized and in this way misrepresents and immiserates the lives of those whom it systematically excludes from its analyses. That is because in our current society which is "stratified by race, ethnicity, gender, sexuality, or some other such politics...*the activities of those at the top both organize and set limits on what persons who perform such activities can understand about themselves and the world around them* [my emphasis]" (Harding 1992, 442).

To fix these problems of exclusion and misrepresentation, a more diverse range of human experiences first needs to be consulted and integrated into scientific practice. A diversified, democratic science would be inclusive of and responsive to a broader range of social needs and problems than have historically been included into modern Western scientific research.[1]

[1] It bears mentioning that the very notion that democratic political motivations should be present in the content of scientific knowledge constitutes a substantial departure from traditional, positivist philosophy of science, which, in the past, observed a strict separation between what it defined as the 'context of discovery' and the 'context of justification.' According to this distinction, the context of justification contains the pure, 'objective' 'content' of science, which is taken to be the logical product, or 'rational reconstruction,' of the scientific process. Any 'social' factors that include political interests, values, biases, or prejudices of scientists are not recognized as belonging within the normative and justificatory aspects of science, but belongs to the 'context of discovery,' which contains all the elements that are filtered from the objective rational scientific content. Harding points out that, within this framework, "socially situated beliefs only get to count as opinions. In order to achieve the status of knowledge, beliefs are supposed to break free of—to transcend—their original ties to local, historical interests, values, and agendas." (438).

Harding's feminist standpoint theory therefore calls for a stronger standard of objectivity for conventional scientific theory and practice that will enable contemporary science to better understand and respond to the interests, questions, and concerns of marginalized and neglected social groups. Thus, a standpoint is not a just a 'perspective' of science and the social order but an *achievement* that is "the result of an analysis by more than one person who, in the first instance, occupy particular location in a political order" (Potter 2006, 131). Standpoints create conditions for the articulation of systematically distorted or neglected understandings that cannot be recognized as legitimate within dominant knowledge systems. By changing the social and political conditions under which science is practiced (for instance, by changing the assumptions that frame scientific inquiries), they work toward reshaping knowledge spaces in ways that disseminate the fruits of scientific knowledge more universally. Thus, they do not abandon the goal of objective knowledge, but rather seek to operationalize the concept of objectivity in ways that conventional scientific knowledge systems have not yet been able to achieve (Harding 1992, 438).

To this end, Harding's project recognizes a reciprocal relationship between scientific objectivity and democratic politics.[2] Objectivity and diversity can and do, she argues, mutually support one another (Harding 2015, 5). Put differently, the 'weakly objective' science that emerged from, and continues to be developed in the tradition of the Enlightenment, can be made

[2] One of the strengths of this view of knowledge is its commitment to demonstrating how values and facts are always bound up with each other. Against the positivist spirit of modern Western science, Harding indicates how scientific knowledge is always already conditioned by community-wide beliefs, and that no part of science, no matter how abstract, is necessarily safe from the influence of the dominant values of the historical period in which the inquiry is conducted. Androcentric metaphors, for example, enter even the most formal and abstract domains of scientific knowledge and have thereby shaped the understandings of scientists who conceptualize the world on the basis of such metaphors. Not even physics, once taken to be the gold standard of rational and objective science, escapes the influence of social values and interests on this account. The very attempt to do science that escapes social and political relevance results in irresponsible science.

more objective if the subjects or agents of scientific knowledge can learn to become sensitive to, and start research from, the lives of people in the margins of society.

However, while many feminist philosophers of science agree with the spirit of Harding's feminist standpoint theory, some have criticized Harding's specific formulation. Two criticisms developed by feminist pragmatist philosophers Sharyn Clough and Shannon Sullivan have each maintained that Harding's version of feminist standpoint theory retains too much of the traditional elements of philosophy of science and epistemology that it originally sought to displace. Specifically, they charge Harding's theory with 'representationalism'—the idea that 'knowledge' is best understood when it is conceptualized as an 'internal,' 'subjective' copy of an 'external,' 'given' reality—because Harding claims that feminist standpoints will provide scientists with 'less false' descriptions of reality. To argue that feminist science will enable more accurate science that is the 'truest' version of the way things really are invokes the same representationalist framework that Harding's standpoint theory must reject if it is also to give credence to a multiplicity of articulated standpoints, they claim. Moreover, the critics also contend that the division Harding makes between socially or culturally relative 'perspectives' and the notion of a singular given 'reality' leads to skepticism about the validity of feminist knowledge claims and uncertainty as to how scientific communities should adjudicate between the competing claims of their constituent social groups. Consequently, if the empirical content of feminist standpoints is relative to social or political schemes, this leaves standpoints without the ability to empirically justify their political commitments and so results in relativism. Therefore, unless Harding can reconfigure the representationalist theory of knowledge at the heart of her standpoint theory, the critics claim she risks retaining an objectivist-relativist binary that would neutralize the emancipatory potential of her theory.

In this essay, I defend Harding's position from the charge that it is representationalist by making the case for why I believe that Harding's fully reflexive successor science is fundamentally opposed to the representationalist impulse that seeks to transcend socially situated positions to grasp the 'true' structure of reality. On the contrary, Harding's approach is shown to be well-positioned to remain critically conscious of the world-shaping transformations that pave the way for all processes of knowledge construction. Therefore, it is because Harding's 'less false' claim rests on a commitment to situated knowledge that she is able to deflect criticisms that her project is implicitly connected to representationalism. Compared to traditional, weakly objective science, Harding's more socially diverse successor science is less likely to deny or distort the fundamentally situated and contextual nature of knowledge. This is why knowledge generated from standpoints can be recognized as 'less false' without implying representationalism.

Moreover, by interpreting Harding to be aiming at a 'more situated' and contextual form of knowledge, rather than universal truth, I indicate how her project can be aligned with relational ontologies of knowledge construction that have been developed by science studies scholars and practice-based philosophies of science, such as those developed by Joseph Rouse and Bruno Latour. By making the resources of practice-based philosophy available for emancipatory and liberatory philosophies like standpoint theory, it is possible to develop a theory of science that can contribute to making science more democratic, responsible, and equitable for everyone—not just the privileged minority.

Scholars of science and technology hold that knowledge production is not reducible to the process by which different cultures impart meaning to a mute, 'given' 'nature' through discursive tools and metaphors. Knowledge, rather, involves the activity of both 'humans' and

the ‘world’ through the attunement of humans to their environments. Rather than separate knowledge from ‘bare nature,’ science and technology studies scholars maintain that scientific knowledge emerges from “the development of scientific-technical networks through the reordering of society and nature together” (Wynne 1996, 71). That is to say, knowledge, on this account, is construed within a *performative* or *situated* idiom as opposed to a *representational* idiom (Pickering 1995, 5-6); it cannot be separated from the practical, ontological reorganizations that are necessary to order and unify the environments and contexts of its production and dissemination (De Vries 2016, 11).

Scholars of science and technology, such as Bruno Latour, indicate that there is more going on in the construction of scientific knowledge than the imposition of cultural categories on natural realities. Such a view acts as if social power plays the exclusive role of censoring or providing access to pre-established knowledge (construed as a kind of direct, unmediated ‘access’ to a ‘given’) when for Latour, power can also be productive of knowledge. In order for humans to know something, they have to already be active in the world—in ‘nature.’ For example, they need to already be proficient in enrolling the agencies and enlisting the powers of their environment, such that they can align and transform the world into a territory that can be made more intelligible. Importantly, the construction of reliable knowledge that allows us to successfully navigate experience is the *result* of the material, social, and technological transformation of reality as much as it is the natural outcome of ‘social’ or political interpretation of ‘givens,’ and it is the contingent product of the investigator’s ability to harness the power and agency of the local aspects of reality that are constituted as ‘objects’ of investigation.

Thus, while Harding occasionally characterizes the knowledge-power relation as one in which power—usually embodied in political, social, or cultural biases and commitments—

'shapes' or 'constrains' the production of knowledge, the field of science and technology studies points out that power is not just a feature of whatever political interests we start out with when we embark on a new scientific investigation. Rather, power is inscribed into the very technoscientific systems that constitute the frame in which phenomena become significant as objects of investigation. Thus, the power to discipline the object of investigation by making it conform to the parameters of the laboratory context in order to render it intelligible to the inquirer is an implicit feature of any knowledge system.

This, I want to stress, is not to diminish Harding's point that modern Western science produces undemocratic knowledge that does, in fact, disproportionately serve the interests of a particular privileged class and at the expense of marginalized groups; it is rather to supplement her account by delineating the mechanism by which asymmetries in power and privilege are inscribed into the very real, embodied, technoscientific systems within which objects of scientific inquiry are framed. While it cannot be disouted that "the powerful have unfair influence in structuring our understandings of the social world," it would be wrong to exclude from our analysis the role that material environments and technological systems play in mediating our understandings of our more-than-human worlds.

Thus, by reading Harding through Latour I argue that there is room to develop a more practice-based or performatively oriented standpoint theory that is grounded in a relational and situated ontology of knowledge. This account argues that feminist standpoint theory, as a critical approach to modern Western science, need not imply representationalism or relativism, but can be recognized as committed to describing how the conditions under which modern Western scientific knowledge is deployed not only produces inequalities for marginalized and disenfranchised groups, but also reinscribes the social and material terms of its own validation.

The way in which modern Western science progressively "packs the world into words" (Latour 1999, 24) not only describes the further extension of technoscientific networks and thus the expansion of human-non-human collectives, but also create oversights and generates harmful assumptions about the activities of both humans and non-humans, whose activities create conditions and provide essential resources for the growth of modern Western knowledge. Such systematically distorting processes tend to be hidden from the view of the beneficiaries of modern Western scientific knowledge—including scientists themselves—but are part of the lived realities of those who are tasked with providing the material and care work that makes the extension of abstract scientific knowledge possible (Smith 1987, 83).

I contend that a more performative and ontologically oriented standpoint theory escapes the representational idiom that keeps worries about skepticism and relativism alive. If knowledge is not about uncovering the 'true' structure of reality, but about adapting humans and non-humans to each other through setting up more democratic technoscientific arrangements, then the question "which scientific system is the 'true' one?" is transformed into a concern for "which scientific systems foster the organization of natural and social realities in the most sustainable and life-supportive ways?" That is the kind of critical question with which feminist standpoint theorists are deeply concerned, yet, when understood within the context of situated knowledge, it allows standpoint theorists to interrogate the dominant knowledge system without being seen as presupposing an archimedean epistemic position from which to 'see' how reality 'really' works.

Latour's anthropological studies of laboratory life are helpful in unpacking this conception of situated knowledge because his analyses reveal that we do not simply find 'contexts' in which some ways of knowing are more valid than others; rather, in many cases we intervene in knowledge spaces in ways that construct the contexts in which knowledge is

deployed and extended into different localities. The way in which knowledge is mobilized is, in an important sense, what Harding is describing when she argues that standpoints are achievements, rather than assumable, ready-made positions from which to see reality. I suggest that when Harding talks about asking new questions or forming research problematics from the perspectives of disenfranchised groups, she is talking about how we should construct, rather than simply 'assume' new feminist contexts in which to evaluate old scientific systems and the knowledge that emanates from them.

Chapter 2 will provide a more thorough introduction to feminist standpoint theory and summarizes Harding's central claims by way of addressing case studies that involve suppressed, excluded, or distorted knowledge generated from within predominantly white, masculinist, eurocentric frameworks in various fields of scientific inquiry and so-called social development practices. These accounts show that science that is practiced under presumably 'ideal' conditions is never in fact 'value neutral' or detached from the object it studies. Yet this is precisely what the traditional paradigms of positivistic philosophy of science argued. Here we begin to see how the imposition of a social hierarchy produces patterns of ignorance while simultaneously enabling specific kinds of understandings that cater to the interests of privileged and powerful groups. Thus, the existence of a social hierarchy that produces asymmetrical power relations is a necessary condition for the emergence of feminist standpoints. Without it, feminists could not claim to be epistemically privileged about their lives and the lives of the dominant social group. Standpoint theory thus aligns with contemporary approaches in epistemologies of ignorance, since they articulate and give voice to the neglected things that are overlooked by the dominant knowledge systems and the forms of knowledge that are expressed by them.

Chapter 3 addresses the critical evaluations of Harding's feminist standpoint approach. Sharyn Clough claims that part of Harding's representationalism is tied to a scheme-content distinction that presents social standpoints as conceptual schemes that "filter the correspondence between any one representation and the world represented" (Clough 2003, 87). Similarly, Shannon Sullivan takes issue with Harding's claim that a feminist 'successor science' would be capable of providing more objective and 'less false' descriptions of natural and social realities than traditional androcentric science (2001, 134). Sullivan also claims that Harding's failure to reconstruct the foundationalist theory of truth underlying her account, coupled with her attempt to epistemologically privilege the perspectives of marginalized groups, serves only to replace the patriarchal foundationalist paradigm with a feminist one (139). Each of these arguments converge on what appears to be a central criticism that Harding's version of standpoint theory is internally inconsistent because it leaves intact, rather than fully dismantles, a binary between objectivism and relativism.

However, both critics problematically treat Harding's account as if it implies that standpoints are detached, observational lenses, or conceptual schemes that constitute alternative feminist 'perspectives' of the given aspects of natural or social realities. I argue, on the contrary, that it is not correct to interpret Harding's account of standpoints as abstract, interpretive frameworks, and that Harding's standpoint analysis is more charitably interpreted as a practice-based approach rather than from within a representationalist framework.

Chapter 4 expands on the foregoing discussion of situated knowledge with the intention of expressing further how Harding's standpoint theory has been approximating a more relational and practice-based ontology of knowledge. Something that might be called a 'logic' of

standpoint theory is expressed in the analyses of the performatively engaged practices of knowledge and world-making that Bruno Latour illustrates in his analyses of laboratory life.

Rather than view knowledge as the totality of theory, or even a coherent set of practices unified in a single scientific program, the idea of situated knowledge as developed by scholars like Latour and Rouse indicates how knowledge is a dynamic and evolving practice that emerges from particularity and heterogeneity rather than from the top-down 'application' of universal theory in concrete particulars. I conclude Chapter 4 by arguing that feminist standpoint theory is committed to this view of situated knowledge, and that this way of thinking about the growth and extension of knowledge is intrinsic to the formation of standpoints on natural or social realities. Once we read standpoints in this way we can see how standpoint theory should be adjusted to avoid the pitfalls of representationalism and its relativist double. It is not the case that research communities operate exclusively within separate linguistic or discursive environments that 'filter' our perceptions of a given reality, because, as the analyses of laboratory life show, the material and technological networks in which scientists conduct their experiments are always already arranged in ways that exhibit an integrity with certain social, discursive, or political commitments.[3]

The relational ontology of knowledge construction endorsed here describes a feminist standpoint theory that is more sensitive to how the formation of background conditions and contextual features of knowledge spaces enable research communities *not* to know things about the object of their investigation, and therefore imagine ways to transform current scientific

[3] It would be a mistake to interpret this claim as a species of 'social constructivism,' since Latour's argument is not that we 'make-up' or 'project' our political or social desires onto a mute, passive world, but that we quite literally construct knowledge systems in which 'facts' become stable nodes that can be reliably referenced and used as stepping stones for continued inquiry. Politics are, in this way, literally built into and are thus constitutive of our knowledge systems, for they are part of how we literally shape the contexts in which we produce nature as an object of knowledge.

inquiry through more extensive consultation with neglected humans and non-humans. This situated standpoint theory asks how these processes of knowledge construction articulate, distort and transform the entities we want to know things about, and how these various transformations play a role in establishing the legitimacy of knowledge spaces while simultaneously neglecting the every-day lived experiences of the oppressed by perpetuating epistemic and social forms of oppression.

Reading Harding through Latour therefore allows us to see the formation of feminist standpoints in a new light. The formation of a standpoint is a process by which the patterns of ignorance that are built into existing knowledge spaces come to be recognized as sources of radical and emancipatory possibility. Standpoints recognize that those forgotten features of reality that are excluded from being known in present knowledge systems constitute sites of potential social and scientific transformation. The very identities of oppressed groups have been constituted by forms of structural oppression, and through their struggles to reorganize scientific and social relations they aim to build a world that is 'for them.' These multiple and conflicted identities must be part of projects for rethinking the science from within the gaps that it leaves in its wake.

In this way, the relational ontology of knowledge provided by Latour not only benefits feminist standpoint theory, but also can in turn be enhanced by the 'critical edge' (Puig de la Bellacasa 2017, 89) provided by standpoint accounts. The inability of science and technology approaches (on their own) to detect or take into full consideration how Western "society orders the relations among people…through structures built around gender, race, economic status or class, national origin, religion, and around many other socio-political categories" (Potter 2006, 25-6) and how these categories are constitutive of knowledge spaces—what is included,

distorted, or otherwise excluded from them—can therefore be identified as a weakness of Latour's purely descriptive anthropological approach to scientific knowledge. Analyses generated by the sociology of scientific knowledge and science studies disciplines have tended only to describe the processes of scientific knowledge construction by articulating in sociological terms how knowledge in scientific laboratories and field sites come to be accepted in 'expert' scientific communities. Yet, because of the uniquely descriptive dimensions of these approaches, the ability to provide avenues for critical transformation of the sciences is left out of their research programs. Feminist standpoint theorists, however, do not simply describe how knowledge is constructed within laboratories and scientific communities, but critically interrogate and articulate the conditions under which such knowledge is produced. They question the assumptions that are packed into knowledge claims and highlight the tensions and oppositions that resist the universalizing tendencies of modern Western scientific theory. Viewed in this light, standpoint theory and science and technology studies can mutually support one another. Standpoint theory provides critical resources that are generally lacking in science and technology studies, whereas the ontology of knowledge laid out by Latour and Rouse provides a way to supplement Harding's articulation of situated knowledge and, consequently, address the lingering elements of representationalism and relativism that haunt her account.

# Chapter 2: What is Feminist Standpoint Theory?

> Decolonization struggles, movements of young people, women's movements, racial liberation movements—all these represent the diverse and disorderly Others beginning to speak and beginning to chip away at the social and political power of the Theorizer. These movements have two fundamental intellectual theoretical tasks—one of critique and one of construction. We who have not been allowed to be the subjects of history, who have not been allowed to make history, are beginning to reclaim our pasts and remake our futures on our own terms.
>
> —Nancy Hartsock, "Rethinking Modernism"

## Defining Feminist Standpoint Theory

Elizabeth Potter states that "a standpoint arises when people occupying a subordinate social location engage in political struggle to change the conditions of their lives and so engage in an analysis of these conditions in order to change them" (Potter 2006, 131-32). Those who share a standpoint are able to think and theorize about how the social world works from the perspectives of those groups who are systematically assigned socially subordinate locations—locations that regularly reproduce difficulties and struggles in the form of race, class, gender, and other oppressions that members of privileged groups are unlikely to experience and therefore unlikely to consider.

In this Chapter, we will explore how the knowledge generated by standpoint analyses arises from thinking through the social and material conditions of marginalized people's lives. These analyses clarify, for example, how, in a male-dominated society, women's everyday activities (the work they are expected to do in the form of emotional, material, and caring labour, etc.) have come to be organized in systematically different ways than men's activities, as well as how their experience and knowledge is regularly suppressed by androcentric policies and discourses embedded in the relations of ruling (Shiva 1997; Smith 1987). They point to the ways in which knowledge about women's bodies has been distorted through anatomical

representations that construct ignorance through the erasure of parts of women's bodies (Tuana 2004) or how women's health is adversely affected through scientific research that takes men's bodies to be the universal standard by which to measure the effectiveness of new drugs, treatments and procedures (Rosser 1994, 8). Standpoints have also brought to light how the contributions of women and minorities in the sciences are suppressed, excluded, or appropriated, thus leading to communities of researchers that are more likely to reproduce various forms of bias (racial, gender sexist, classist, etc) and thus more likely to neglect the understandings of marginalized groups. They have also, importantly, pointed out the diverse range of activities women are assigned based on intersectionality. For instance, Chela Sandoval states,

> U.S women of color have long understood...that especially race, but also one's culture, sex, or class, can deny comfortable or easy access to any legitimized gender category, that the interactions between such social classifications produce other, unnamed gender forms within the social hierarchy. (Sandoval 2000, 44-5)

In these ways and more, feminist standpoint theorists have been at the forefront of projects for social change. By identifying problems with the social order through developing their own critical theoretical analyses, they generate knowledge and provide insights that people occupying privileged social positions are unlikely to arrive at on their own.

But feminist standpoints are not just critical of the existing social order (of the way our hierarchically organized society tends to structure people's lives in different ways based on the social relations of class, race, gender, ethnicity, etc): they are also highly critical of the kind of *knowledge* the social order produces and legitimates throughout the social world. That is to say, they are critical of the kind of world modern Western scientific knowledge has helped to build and sustain. Sandra Harding argues that we need to look closely at the way in which what passes for the best scientific research also tends to reinforce the power and authority of privileged groups (most often white, bourgeois, heterosexual, able-bodied men) and simultaneously

contributes to the marginalization and disposition of oppressed groups. Our best scientific knowledge, she argues, bears the imprint of the interests, values, and preferred ways of thinking regarding both natural and social relations shared by those who occupy positions of social privilege: "the conceptual scheme of male scientists matches far too comfortably the dominant concepts of ruling; their sciences help to produce the conceptual forms for ruling in our kind of social order" (Harding 1991, 68).

Thus, as a critical approach to science and the social world, feminist standpoint theory is both a politically charged and epistemologically oriented form of philosophical analysis and inquiry. It seeks to reveal how scientific knowledge contributes to shaping the social order (how it reinforces and stabilizes hierarchical relations of power) and also how the social order shapes knowledge production. Yet it is not satisfied with describing the co-constitutive, mutually reinforcing relationship between knowledge and power. Most importantly, standpoints hope to *transform* the scientific and social order in ways that engender less oppressive and more equitable social relations for all. They attempt to do so through articulating new and less oppressive ways to conceptualize knowledge and power relations. Thus, those who occupy a standpoint struggle to bring about social change, but cannot do so successfully without also engaging in a critique of the way in which knowledge reinforces social structures that shape the conditions of their lives.

## A Feminist Theory of Science

A significant and perennial challenge to justifying the need for critical perspectives regarding both science and the social order arises from the fact that people who occupy positions of power and privilege—and thus, who have the greatest potential to enact the most radical forms

of social transformation—are also the ones most likely to believe that the social world functions fairly and equitably for all citizens. Criticism of the social order by marginalized and disenfranchised groups will inevitably appear to be misguided or confused from the perspective of the most privileged groups, because they live in social environments that are better adapted to their interests, values, and needs. The impulse will therefore not be strong to radically rethink our social and scientific practices or to re-evaluate science and technology policy when these decisions are made solely by privileged groups whose social position places limits on their capacity for generating critical questions about their own beliefs about how science and the social order work.

It follows that feminist criticism of specifically scientific institutions and their influence on social organization are likely to appear doubly irrational in the eyes of the privileged and powerful; an open assault on reason and truth itself. This is because it is still common to think of 'science' and 'society' as separate domains of human life. They are widely regarded as having little to do with each other except that scientists discover facts about how the natural and social orders work and politicians decide what to do about them—how to 'apply' scientific knowledge or technologies in the interest of improving human life. From the standpoint of a bifurcated social and natural world, scientists present as 'social beings,' yet the work they do is often described as exempt from the regularities and norms of social behaviour, including the ways in which race, class, and gender relations structure social behaviour and cognition. For many science lovers (who feminist standpoint theorists show are often the primary beneficiaries of modern Western scientific knowledge), scientific institutions appear to be completely rational, value-neutral, objective, and, most importantly, *apolitical.* In the next two sections of this chapter we will see how scientific knowledge is popularly (and problematically) considered

*universal*, promising an equal distribution of benefits to the whole of humanity regardless of race, class, gender, sexuality, and other forms of social and political inequality. Skeptics about feminist approaches to science and the social order will therefore feel justified in asking what feminist politics could possibly have to contribute to the scientific institutions which have so clearly advanced Western society.

However, most of the 'obvious' benefits of science and technology offered up to humanity are not always so apparent when viewed from the standpoints generated from subordinate social groups. Ecofeminist philosopher Vandana Shiva argues that the culture-wide faith in the universally inclusive and progressive nature of modern Western science belongs to a mode of thinking that emphasizes the benefits of science and technology while systematically excluding the costs and damages it produces (1989, 26)**.** In this way, a series of life-destructive and oppressive policies and practices become the natural extensions of modern Western science and technological development, because such relations of ruling are either justified or normalized—and thus reinforced—by dominant, socially-validated norms, practices, and concepts. These make the world-shaping effects of science appear both natural and intuitive from the perspective of the socially privileged and powerful.

Through the physical displacement of material labour and environmental damage to groups on the margins, as well as through cognitive distortions that render the negative consequences of scientific knowledge purely 'political' or 'technological' problems of knowledge application, scientific knowledge is purified of its world-shaping effects. The power to legitimate and stabilize the social order is not recognized as an internal element or feature of the processes that enable the genesis and development of modern Western scientific knowledge.

Here we see the triumphalist and exceptionalist spirit of modern Western science constructing an ideal image of scientific discovery which distinguishes the activity of 'pure' knowledge seeking from both the *conditions* of its production and the *consequences* of its application. If science is to be objective, according to this view, it must also be recognized as universal and transcendent, having no geographical, cultural, or historical position. Such a view makes it less intuitive to think of scientists as embodied human beings, embedded in relations of social power that constitute norms and structures that shape the content of their thought. Scientists, philosophers, and science popularizers continue to think and write about science as if it is ideally disconnected from social, cultural, and political influences. The 'scientific method,' they argue, follows a logic that is wholly rational and thus abstracted from historical contingency.[4] Scientific discovery proceeds according to a series of conjectures and refutations, and it is subjected to a system of peer review that keeps its claims in check. This 'internalist' history of science, writes Harding,

> assumes that histories of intellectual structures can be independent of the histories of the economic, political, and social environments in which the intellectual structures emerge, take shape, change, and die out or are transformed. It assumes that the activities of minds—at least certain kinds of minds—can achieve a significant degree of independence from the economic, political, and social activities of the bodies in which these minds have their historical location. Thus, this kind of history seeks simultaneously to reconstruct the logical development of science and also provide a historical explanation for it. The logical development *is* what should count as historical explanation...This is still the preferred form of the story for many philosophers of science and historians. (Harding 1991, 221-22)

Feminist standpoint theorists argue, on the contrary, that even the supposedly rational and logical distillate of scientific reasoning is shaped by such cultural forces. Science does not, and has

[4] Steven Pinker's (2013) essay "Why Science is Not Your Enemy" is guilty of conceptualizing science in this highly idealized fashion. Among the problematic assumptions made in this piece regarding the supposedly indisputably valuable achievements of scientific rationality (such as the Green Revolution), Pinker claims that it is misguided to consider the benefits of scientific knowledge in parallel with its many failings. He even suggests that "nuclear weapons, biological warfare agents, electronic eavesdropping, and damage to the environment" as well as the Tuskegee syphilis study (Pinker 2013, par 21and 22) are 'misapplications' of otherwise 'good' scientific knowledge rather than features of its problematic internal biases or prejudices.

never escaped social influences. Yet, feminist standpoint theorists are quick to point out that the dominant group is not the only one that will have gaps in its understanding of social and natural realities. Harding claims that *all* knowledge projects are socially situated activities that are responsive to and are conditioned by the discourses and cultural norms of the communities in which they are generated. Every social position thus *enables* and *limits* what inquiring subjects can know about the object of their investigation. Science always responds to the significant problems and anxieties of its cultural and historical epoch. Thus, feminist standpoint theorists look on such traditional projects of rational reconstruction with suspicion. They see the motivation to divorce science from any social and political involvement as being itself a political move that tries to escape responsibility for the world-making effects it regularly helps to generate.

The idea that all knowledge is enabled and limited by social location is one way of describing how knowledge, including the knowledge generated by standpoints, is *situated knowledge*—a term that was originally coined by feminist philosopher Donna Haraway (1988). However, Harding argues that although knowledge claims must be situated, this does not make feminist and androcentric approaches to science and the social order epistemologically equivalent. Following Haraway, Harding also claims that although all knowledge is fundamentally situated within a field of social meanings and practices, and thus partial, the knowledge produced from the perspective of the dominant social group is not only partial, but *distorted* in ways that extend beyond the partial and situated visions of subjects or agents of knowledge in general. The cause of this is due to the fact that, while all knowledge is situated, the position of the dominant social group nevertheless believes itself to have pure and undistorted access to reality in ways that other groups would not claim for themselves. In this

way, this transcendent and abstract form of knowledge can be said to be ignorant of the specific types of ignorance that are coupled with all forms of investigation. For example, the traditional epistemological view which reduces knowledge to a correspondence relation between a subject and an object and erases from view the world-shaping conditions under which a knowledge claim is made, is what Haraway refers to as the "God trick" (Haraway 1988). This epistemological paradigm is ignorant of the way in which all knowledge implies both the *selection* of certain features of the situation to be explained as well as the *exclusion* of others. It follows that those who are unaware or are conditioned to be unaware of the way in which their knowledge is limited are likely to produce both inaccurate and less objective knowledge (that is to say, knowledge that is less sensitive to the context in which it is produced as well as the consequences that follow from the results of research). Such knowledge is also politically dangerous insofar as it is not likely to be critical of the assumptions scientific projects make and the world shaping effects such knowledge projects will have for those who live outside the limit of what is taken into consideration in modern Western science.

In this way, both Harding and Haraway embark on a project of reconfiguring objectivity in a way that accounts for the historical contingency of knowledge claims, while simultaneously remaining committed to providing "accounts of a 'real' world" (1988, 579). "Objectivity," writes Haraway, "turns out to be about particular and specific embodiment and definitely not about the false vision promising transcendence of all limits and responsibility. The moral is simple: only partial perspective promises objective vision" (1988, 580).

We have seen how by virtue of occupying a dominant position in a social hierarchy, many scientists are likely to be less attentive to, and thus more ignorant of, the lives of people who live on the margins of society. Many of the standpoint analyses point out that science has

historically incorporated this ignorance into both scientific knowledge and practice, as will be explored in this chapter. What scientists do not know about the daily lives in socially marginalized groups will have consequences for what kinds of solutions they attempt to provide for their socially generated problems. If scientists' understandings are shaped by metaphors, discursive tools, or theoretical models that are specific to a particular social position, the kinds of solutions they provide for social problems will naturally be shaped by the particularities specific to the conditions of their production. For this reason, Harding states that

> …one can argue for the scientific and epistemological advantage of starting from the lives of those who have been devalued, neglected, excluded from the center of the social order; who generate less interest in ignorance about how the social order works; who provide perspectives from the other side of racial struggles; who enable a different perspective, one from everyday life; who in some cases provide "outsider within" perspectives; who mediate relations between nature and culture in ways different from those of European American women; and whose activities provide particularly illuminating understandings at this moment in history. (1991, 211)

Importantly, Harding is not saying that the standpoints of marginalized groups should be considered automatically epistemically privileged, or that women or other subordinate groups are *essentially* in a position to be better knowers than privileged groups. Rather, she claims that epistemic privilege arises from social positions that have been systematically "devalued, neglected, excluded from the center of the social order" (1991, 211). Standpoints, therefore, theorize from and derive their epistemic privilege from the gap that lies between the dominant androcentric knowledge and value system, and the everyday lives and experiences of subordinate groups. This is why

> women *do* or at least *could* provide special resources, as women, to science. This is not so because women have some inherent and universal ways of reasoning, attributable either to their different biology or to "women's intuition." Instead, it is so because of the gap between women's experiences and the dominant conceptual schemes, from which have emerged so many issues of the women's movement and the most important feminist research in social science and biology. All the issues about women's bodies arise from this gap: issues of reproduction, child care, the assignment to women of the care of everyone's bodies and of the local places where they exist, sexuality, rape, incest, wife-battering, the mutilation caused by standards of beauty. So too does the focus on gender itself: gender appears, emerges, as a phenomenon we can all see only from the perspective of women's lives. This

> gap is also the source of all the criticisms of the exclusion from and distortion of women and their lives in dominant patterns of Western thought—including scientific thought. (Harding 1991, 68)

## Standpoint Epistemology: The Collapse of the Fact-Value Dichotomy

It needs to be stressed at the outset that the relationship between the social order and the construction of scientific knowledge cannot be properly understood so long as science and politics are recognized as metaphysically extrinsic domains. Feminist standpoint theorists reject the idea that 'good science' must be value neutral—that is, free from politics and uninformed by current social issues and concerns. On the contrary, good science has been and will continue to be informed by social values and interests. Science and politics are linked together. Moreover, as we saw in the last section, the idea that 'good science' must be purified of values and interests, is itself a political and rhetorical move that serves the interests of the dominant groups who fund and profit from modern Western scientific and technological development.

Other feminist empiricist approaches to science and objectivity have attempted to criticise the legitimacy of knowledge claims by showing that they are guided by androcentric values. These approaches, which Harding labels 'spontaneous feminist empiricism,' try to undermine the authority of those studies which bear the imprint of scientists' prejudices, interests, or values by presenting them as *intrusions* into otherwise 'objective' and 'value-neutral' research. Because these types of analyses tend to present science and social factors as separate, they retain a value-free, 'weakly objective' epistemological framework. Harding, on the other hand, does not advocate for value-free science, but argues that only a science guided by democratic values, and which draws on the insights of marginalized groups can become a 'strongly objective' form of critical analysis and knowledge production (1991, 21).

One finds a possible candidate for the spontaneous feminist empiricist approach in Emily Martin's paper "The Egg and The Sperm: How Science Has Constructed a Romance Based on Stereotypical Male-Female Roles." In this paper, Martin attempts to "shine a light on the gender stereotypes hidden within the scientific language of biology" (1991, 486) with the goal of "robbing them of their power to naturalize social conventions about gender" (501). Martin documents the many instances of gender stereotypes that are applied to the discussion of men's and women's biological processes in scientific textbooks. She notes that menstruation and ovulation that tend to be described through the use of metaphors that suggest both passivity and lack of productivity. Menstruation is represented as a 'waste,' while ovulation is viewed as the 'passive degeneration' of 'stockpiled' germ cells (487). These processes are contrasted with male physiological processes which are described as both active and productive as opposed to 'wasteful' (488).

Similarly gendered descriptions are found in the process of fertilization as described in multiple textbook accounts. Martin summarizes these accounts in the following passage.

> The egg is seen as large and passive. It does not *move* or *journey*, but passively 'is transported,' 'is swept,' or even 'drifts' along the fallopian tube. In utter contrast, sperm are small, 'streamlined,' and invariably active. They 'deliver' their genes to the egg, "activate the developmental program of the egg," and have a 'velocity' that is often remarked upon. Their tails are "strong" and efficiently powered. Together with the forces of ejaculation, they can "propel the semen into the deepest recesses of the vagina." For this they need "energy," "fuel," so that with a "whiplashlike motion and strong lurches" they can "burrow through the egg coat" and "penetrate" it. (1991, 489)

Martin points out that even when new studies emerged that confirmed that the mechanical force of the sperm's tail was weaker than anticipated, and that the egg also played an active role in guiding the sperm, the *activity* of the sperm and the *passivity* of the egg is still the focus of many of the textbook descriptions (1991, 493). Moreover, while some studies suggested the mutual partnership of sperm and egg in the process of fertilization, many accounts of the process still

tended to understate the active role played by the egg, and some which acknowledged the activity of the egg even switched to metaphors which described femininity "as a dangerous and aggressive threat," (498). Martin writes:

> In the Johns Hopkins lab's revised model, the egg ends up as the female aggressor who "captures and tethers" the sperm with her sticky zona, rather like a spider lying in wait in her web. The Schatten lab has the egg's nucleus "interrupt" the sperm's dive with a "sudden and swift" rush by which she "clasps the sperm and guides its nucleus to the center." Wassarman's description of the surface of the egg "covered with thousands of plasma membrane bound projections, called microvilli" that reach out and clasp the sperm adds to the spiderlike imagery. (1991, 498)

Here we see Martin criticize what she sees as a gendered filter or lens through which male scientists generate theories and interpret data. Androcentric metaphors lend intelligibility to the explanations of events taking place at a microscopic level. Yet as Harding notes, the male scientists are aware of only what their preferred metaphors allow them to bring into clearer focus—they ignore or are not sensitive to the fact that metaphors also contribute *distortions* or facilitate exclusions in the interpretation and evaluation of experimental results.

However, unlike Harding, Martin's description of the accounts provided by the male scientists would seem to imply a strict separation between fact and value, or between value-laden interpretation and value-neutral, and objective modes of investigation. Martin's conclusion—less radical than Harding's—is that scientists need to become more aware of their own androcentric biases so that we can learn to understand natural processes more clearly and accurately. Yet, without indicating how we should go about changing the conditions under which knowledge is produced—a commitment of feminist standpoint theory—we are left with a tacit acceptance of 'science as usual.' Martin writes that

> One clear feminist challenge is to wake up sleeping metaphors in science, particularly those involved in descriptions of the egg and the sperm...Waking up such metaphors, by becoming aware of when we are projecting cultural imagery onto what we study, will improve our ability to investigate and understand nature. (1991, 501)

Still, the underlying conditions of 'science as usual' do not emerge as a fundamental problem. The problem is rather with the individual scientists, or perhaps groups of male scientists who have failed to live up to the standards of value-neutrality and objectivity as established by traditional modern Western scientific practice. For such critics, the solutions to gender bias in the sciences are *reactive*, as opposed to the feminist standpoint approaches which are *proactive*. The former criticize bias after it appears, while the latter seek to create conditions in research communities in which biases and guiding values of a single group (in this case, those of privileged social groups) can be detected before they influence the outcomes of scientific investigations. Thus, the strictly empiricist view can only respond to the errors generated by communities of scientists that have not developed resources to be fully self-critical or reflexive. These 'weakly objective' standards of spontaneous feminist empiricism, promise that science can, in principle, be conducted outside the bounds of social and political interest, or that at least it would be desirable if science could do so.

Feminist standpoint theorists criticize spontaneous feminist empiricism for treating knowledge as if it were a product generated by individuals, since it involves *communities* of researchers who share conceptual and material resources and rely on each other in order to make decisions. Because trust is such an integral part of research, it is not possible to separate knowledge claims from every social conditioning factor that may be circulating within the community of researchers, nor would it necessarily be desirable to do so. Harding points out how the information generated by scientific communities is always constituted through a set of metaphors and discursive practices that render that information meaningful to the group doing the investigating. For instance, scientific culture during the Enlightenment was saturated with metaphors of a world of causally complete mechanisms similar to clockworks that could be

apprehended through an immutable mathematical language. These metaphors were undoubtedly useful for describing some of the regularities of nature, yet feminist scholars and philosophers of science have argued that they were also charged with sexist and androcentric metaphors of domination and control. For Harding, these

> ...metaphorical meanings accumulate social legitimacy—moral resources—for the theories they permeate. They constitute not merely rhetorical decorations or heuristic devices but serve to direct research processes in certain directions—as did the metaphor of nature as a machine—and help to select what will be counted as legitimate evidence for hypotheses (1991, 210).

These masculinist metaphors which guide preferences for certain theories, explanations, and methods of inquiry over others, are fundamentally built into the knowledge spaces of modern Western scientific communities. Unless the social and material conditions that give rise to the culture-wide metaphors, discursive tools, and methods that produce knowledge that favors the privileged few are changed or reconfigured, science will continue to produce knowledge that is less inclusive of the experiences of marginalized group—it will build a world that is out of step with both marginalized groups and natural ecological systems (Harding 1991, 46).

Thus, Harding argues that this is one way in which the metaphors or discursive tools of a given social group can constitute evidence for their theories. It is possible for androcentric language to penetrate to 'the core' of scientific practice at every level of inquiry. If one kind of scientific investigation is preferred over others because it reflects the metaphors that support it, then this is one way in which androcentric bias can function as evidence in inquiry.

On the other hand, for the standpoint theorist, 'good' science is not and has never been value-neutral. It does not escape its social and historical influence, and therefore, cannot cleanly separate the 'pure' or 'rational' content of science from the social conditions of its production. Importantly, this means that the achievement of a fully feminist science would not amount to a value-neutral form of knowledge. Feminist standpoint claims are *also* constructed. To claim

otherwise would be to appeal the same transcendental epistemological framework of modern Western science, which abstracts itself from social and material locality to perform the "God trick." As Harding notes, this conventional story of scientific progress "isolates the development of Western science's cognitive structures—the abstract laws of nature—from their material conditions and consequences" (1991, 220).

All knowledge, including empirically adequate and reliable knowledge, is socially and historically situated. Thus for Harding, values and interests do not pose insurmountable barriers to objectivity. Situated knowledge means that social positions have both *enabling and limiting* effects on the objectivity of scientists' descriptions of natural and social realities. Harding acknowledges, for example, that corporate or military interests and values guide many science research projects without denying the fact that these programs produce reliable knowledge and technologies. For instance, even the most androcentric, militaristic and value-laden sciences have enabled the production of "guns that shoot accurately and seeds that tend to produce the crops intended" (Harding 2015, 151).

The point is therefore not to demonize every scientific achievement, because in many cases conventional scientific knowledge has benefitted more than just the socially privileged and powerful. Thus, Harding writes that "it is not that Third World science and technology policy makers and intellectuals do not want access to greater scientific rationality and technical expertise. Rather, they want it on their own terms, which requires also preserving and developing significant aspects of their local knowledge systems" (Harding 2015, 91). The goal is not to reinvent every aspect of current science and technology, but to learn to develop knowledge in ways that can be better informed by the standpoints of marginalized and disenfranchised people so that the bad effects of science and technology can be mitigated.

In the next section, we will consider three examples that illustrate the influence of androcentric and patriarchal tendencies within modern Western science, as well as the effects such values and biases have had on the development of scientific theories, technologies, and economic development policies. While not all of these examples are explicitly feminist standpoint analyses (they do not all self-identify as standpoint approaches) they still provide opportunities to reconsider how taken for granted scientific theories and policies regarding women's lives, their activities, and their bodies, might be positively transformed if women and (and in some cases marginalized men) had democratic input into institutions that structure their lives. They therefore embody the central commitments of feminist standpoint theory. By thinking from women's lives it becomes possible to generate new questions and different answers than those put forward by the dominant groups, and in ways that do not 'naturalize' women's social positions, or further immiserate the lives of poor, and marginalised social groups.

**The Co-constitution of Science and Social Order**

We turn to Sue Rosser's account of the vast difference in medical and clinical research done on men's bodies compared to women in recent U.S medical history. By taking men's bodies as the universal standard by which to test the effectiveness of new drugs, medical procedures, and treatment methods, Rosser argues that women's bodies were assumed to be relevantly similar to men's such that the knowledge that applied to men's bodies could be easily transferred to their bodies. Yet such studies neglect the variability in the activities performed by women in different groups based on the types of social relations that structure their lives. These misapplications of medical knowledge have contributed to compromising women's health. "Not surprisingly," writes Rosser, the androcentric bias in research which has led to the exclusion of

women from the definitions of and approaches to research problems has resulted in differences in the management of disease and access to health care procedures based on gender" (1994, 11). Citing a study by Ayanian and Epstein (1991), Rosser argues that "gender bias in cardiac research has...been translated into bias in the management of disease, leading to inequitable treatment for life-threatening conditions in women. As a result,

> women were significantly less likely than men to undergo coronary angioplasty, angiography, or surgery when admitted to the hospital with the diagnosis of myocardial infarction, unstable angina, chronic ischemic heart disease, or chest pain. This significant difference remained even when variables such as race, age, economic status, and other chronic diseases such as diabetes and heart failure were controlled for… (1994, 11).

Rosser's account shows that when women fail to conform to or align with the expectations and conceptual molds of androcentric clinical research or medical procedures, the 'weakly objective,' ahistorical, and thus unreflexive research methods allow scientists to call upon different explanations rather than find fault research practices to explain women's health issues. For example, Rosser points out that "dysmenorrhea was attributed by most health care researchers and practitioners to psychological or social factors despite reports from an overwhelming number of women that these were monthly experiences in their lives" (7-8). In this way, the failure to recognize that there are relevant differences between men's and women's bodies (not just 'natural' biological differences, but also socially relevant differences involving the conditions of women's lives and their socially assigned activities) results in a medical science that is not properly responsive or accountable to over half of the human population's medical needs.

Yet many will still feel compelled to respond that medical science obviously cannot be all bad, given its sheer usefulness and reliability, its explanatory and predictive power. How could studies that provide such reliability and control of natural processes be subject to the values and prejudices of a single group? How does science of the natural world come to be directed by the

'perspectives' of the individuals conducting the investigation? Feminist standpoint analyses remind us, however, that we should be cautious of equating the reliability of knowledge in specific contexts with value-neutral, universal application of knowledge in all contexts. Rosser claims simply that even in cases where experimental results prove to be repeatable and reliable in the laboratory or clinical setting, they are not, for that reason, free from the biases and values of the group conducting and financing the investigation. In her view, there are always external social and political factors guiding the very formulation of the inquiry—shaping both the choice and definition of problems for study (1994, 5). For example, Rosser points out that "the choice of problems for study in medical research is substantially determined by a national agenda that defines what is worthy of study, i.e., funding…The research that is undertaken reflects [a] societal bias toward the privileged and powerful who are overwhelmingly white, middle- to upper class, and male…" (1994, 5). Here, it is important to note that the biases that operate in the development and design of experiments also contribute to the "exclusion of females as experimental subjects, a focus on problems of primary interest to males, faulty experimental designs, and interpretations of data based in language or ideas constricted by patriarchal parameters" (Rosser 1994, 128). The biases and interests of predominantly male scientists select from 'nature' the data which best conform to their theoretical expectations. These unrecognized interests and values which permeate the 'objective' approaches of androcentric science also work to suppress and distort women's experiences when they are not yet documented by scientific experiments (Rosser 1994, 7).

A similar relationship between the *conditions* under which knowledge claims are generated and the *content* of those claims can be found in traditional archaeological research. Alison Wylie draws attention to how "pervasively some of the best, most empirically

sophisticated archaeological practice has reproduced nationalist, racist, classist...and sexist and androcentric understandings of the cultural past" (1997, 80). Concerning the *content* of many archaeological knowledge claims, Wylie identifies problems of *erasure*, in which "the determination of significant sites or periods or cultural complexes leaves out of account women and gender even when they are a crucial part of the story to be told" (81). Yet Wylie also notes that even when women and gender roles are taken into consideration "archeological research problems and interpretations were routinely framed in gendered terms" (81). Wylie argues that contrary to a wealth of evidence provided by women archaeologists that suggested Paleo-Indian women foragers were both highly mobile and "responsible for most of the dietary intake of their families and communities," (82) dominant, presentist, ethnocentric, and androcentric assumptions about sexual divisions of labor were used to support hypotheses that represented women foragers as relatively stationary—"tied to 'home bases'"—while their male counterparts quite literally 'bring home the bacon'" (82). Wylie notes that the general effect of such studies is to reinforce traditional gender roles, and their hold upon contemporary ethnocentric and androcentric assumptions about sexual divisions of labor by inscribing them into our prehistoric past (82). It needs to be recognized that the ways in which archaeological evidence comes to reinforce the social order is possible only because of the gendered relations of ruling that structure and organize the conditions of knowledge production as well as the dissemination of information in the scientific community. 'Equity critiques,' that identify the marginalization and exclusion of women from positions of power and influence in archaeological research point to "persistent patterns of differential support, training, and advancement for women in archaeology, but also entrenched patterns of gender segregation in areas in which women typically work" (83). For example, Wylie states that women's research in archaeology "is reported in

publications that remain largely outside the citation circles that define the dominant focus of inquiry" (84).

The exclusion of women from the research field helped create an overwhelmingly male-focused discipline whose hypotheses emphasized men's prehistoric roles and distorted and diminished the contributions made by women in prehistoric social life. The organization of scientific research communities according to androcentric biases and gender prejudices that circulate within them serve to 'naturalize' and so explain women's subordinate social position. Here is one clear example of why it is important not only to involve women in science research, but to try to think from women's lives. As Wylie indicates, even in cases where women and men archaeologists offered competing hypotheses to explain the function of certain artifacts, the hypotheses that suggested prehistoric women's mobility and autonomy were relegated to the margins of contemporary research. The androcentric paradigm of archaeological research did not recognize the value of these hypotheses, but considered them to be 'supplementary' to the more foundational theories which placed men activities and roles at the center of social life. As Wylie notes, these exclusions not only reinforce gender stereotypes, but also diminish the accuracy of archaeological analysis. Drawing on the analysis of J.M. Gero, Wylie writes:

> The puzzles that dominate Paleo-Indian research are quite literally created by the preoccupation with male-associated (hunting) activities. They turn on questions about what happened to the mammoth hunters when the mammoths went extinct: Did they disappear, to be replaced by small game and plant foraging groups, or did they effect a miraculous transformation as the subsistence base changed? These questions can only arise, Gero argues, if researchers ignore the evidence from female-associated tools that Paleo-Indians depended on a much more diversified set of subsistence strategies than acknowledged by standard "man the (mammoth/bison) hunter" models. This is precisely the sort of evidence produced mainly by women working on microblades and edge-wear patterns; *it is reported in publications that remain largely outside the citation circles that define the dominant focus of inquiry in this area*. [my emphasis] (1997, 84)

In the same way the androcentric values in archaeological research allowed researchers to misinterpret, undervalue, or in some cases exclude entirely the perspectives of women also

working in the field, so too has the modern Western scientific and agricultural 'development' paradigm failed to think from the conditions of marginalized people's lives (especially those of women) in the construction and implementation of the so-called 'Green Revolution' policies in the Third World and Global South. We previously saw that one of the main consequences of androcentric research communities favoring men's theories, hypotheses, and discursive tools, was to reinforce and stabilize social relations of patriarchal power. These studies were criticized for 'naturalizing' the *already existing* social relations by tracing them back into our Paleolithic human ancestry (Wylie), or by making women's 'natural constitution' appear weaker in comparison to men's (Martin). However, in the case of economic and technological development, I would contend that the consequences of masculinist approaches in science and economic theory involve more active and explicit interventions in the lives of women in poor communities in the Third World and Global South than what we have examined thus far. In many cases, the neglect of women's daily lives and activities led to worsening the conditions in which both women and their dependents must live, yet the worsening of these conditions are not recognized as direct consequences of the modernization and development programs. Here, the patriarchal relations of ruling serve not only to naturalize (and thus justify) a pre-existing set of hierarchical social relations, but also *constitute* those very relations through the imposition of theories, technologies, and policies that have not been informed by—and thus are not well adapted to—the local contexts in which their developers expect them to be applied. As Shiva puts the point:

> Reflecting the priorities and perceptions of particular class, gender, or cultural interests, scientific thought organizes and transforms the natural and social order. However, since both nature and society have their own organization, the superimposition of a new order does not necessarily take place perfectly and smoothly. There is often resistance from people and nature, a resistance that is externalized as 'unanticipated side effects.' Science stays immune from social assessment, and insulated from its own impacts (11).

With this distorted perception of both natural and social reality built into the paradigm of western patriarchal science and development, modernization and economic development are free to proceed without regard for the destruction of the diversity of life. The clear cutting of forests, reduction of species diversity, desertification of arable land, and the imposition of exploitative and reductive agricultural practices have decreased diversity and weakened the integrity of living systems. They have also led to increasing the subordination of poor women (Shiva 1989, xiv). For instance, the logics of 'modern' scientific, technological, and economic development operate on the false assumption that the 'pre-modern' social world is a disorganized, unruly, and unproductive mess that needs to be rationally controlled in order to lift the Third World and Global South out of poverty. Similarly, Harding argues that "modernity has again and again positioned itself against the traditional, the private sphere, and the feminine (Harding 2015, 54). Women's activities and the natural living systems on which they subsist are viewed as 'inefficient' and 'unproductive,' requiring the intervention and imposition of Western economic rationality that diverts resources away from sustenance and survival needs towards commodity production (Shiva 1989, 10).

Such policies ignore the important function of women's work and knowledge in their local socio-economic contexts. Women's skilled activities such as "child-care, household, and agricultural contexts...have been excluded from what counts as real technical expertise" (Harding 2015, 54). This, for Harding, "renders impossible the achievement of the stated development goal of eradicating poverty" (2015, 56). As Shiva argues, assumptions made by western patriarchy—that western-style progress and economic prosperity would be possible for all—failed to acknowledge or take into full consideration the productive and reproductive labour of

women, and thus imported a distorted understanding of how the lives of rural women would be influenced by economic development. Stripping women of the resources needed for subsistence and survival "destroyed women's productivity by both removing the land, water, and forests from their management and control, as well as through ecological destruction of soil, water, and vegetation systems so that nature's productivity and renewability were impaired" (Shiva 1989, 3).

It needs to be recognized, therefore, how the logic of modernization and development represent the exact opposite of feminist standpoint methodology. Rather than learning to think from the perspectives of people whose daily lives involve navigating and adapting to material conditions that are organized by patriarchal relations of ruling, modernization demands that the local contexts involving human beings and the complex relationships they have with their surrounding environments be adapted to fit the organizational templates produced by overwhelmingly masculinist, Eurocentric perspectives. Yet the problem with the paternalistic attitude of development according to Vandana Shiva is that

> subsistence economies which satisfy basic needs through self provisioning *are not* poor in the sense of being deprived. Yet the ideology of development declares them so because they do not participate overwhelmingly in the market economy, and do not consume commodities produced for and distributed through the market…" [my emphasis] (1989, 10)

In fact, the outcomes of these development policies have in many cases only further worsened the conditions of people's lives. They have contributed to the deskilling of women's labor and increasing poor communities' dependency on foreign aid, technology and knowledge systems, while simultaneously appropriating both the knowledge and resources of the poorest and most vulnerable groups. These appropriations take place on the false assumption that 'pre-modern' communities do not have a right to their resources or knowledge because they do not know how to manage such resources 'efficiently' (that is, according to Western standards), nor do they have

a ‘rational’ claim to their knowledges, because such knowledges are often taken to be ‘value-laden’ and non-objective because they retain spiritual or religious elements**.**

Shiva also points out how reductionist attitudes which have governed the development of new medicines, drugs and agro-technologies, including genetically modified organisms, not only make it possible for western corporations to claim ownership over local indigenous knowledge which they transform into patentable technologies, but also to avoid any responsibility for the negative consequences that follow from the implementation of such technologies in local contexts. Shiva writes,

> when property rights to life-forms are claimed, it is on the basis of their being new, novel, not occuring in nature. But when it comes time for the “owners” to take responsibility for the consequences of releasing genetically modified organisms (GMOs) suddenly the life forms are not new. (1997, 22)

Thus, we find another instance of the relationship between the ‘weakly objective’ conditions under which knowledge is produced, and the problematic consequences that follow for people who must bear the costs of the policies and technologies that are developed on the basis of such unreflexive and unsustainable knowledge practices.

Yet the costs of development which are externalized from the ‘rational’ domain of modern science have traceable social and historical trajectories. For example, Harding argues that

> third World women regularly lose status and power when their societies are “developed” under Western direction (even when their brothers and father play significant roles in directing that so-called development). At least one group of critics, however, contends that Western policies—those of the World Bank in particular—systematically and intentionally reproduce Third World peasant populations, a decline in the quality of whose lives is perceived to be the affordable cost of increased profit and economic control in the First World. Women are a special target of such policies, though all Third World peasant populations are susceptible to them. That is, peasants are not an anachronistic remnant of earlier economies; instead, Western bankers are intentionally *increasing* the numbers of contemporary peasants in the world, turning their labor away from supplying themselves and their children with adequate food, shelter, and health care and toward the production of cash crops that produce profit for the west.” (1991 233)

The paradoxically uncritically held belief that western scientific methods are sufficiently critical, rational, and self-policing, are what justify the continued imposition of (de)development policies,

broken technologies, and unsustainable knowledges to only further immiserate the lives of the people they claim to serve. Shiva includes in her analysis not only the interpretive framework of androcentric science, but also the transformative capacity which androcentric scientific knowledge can have on natural and social reality. The problem with this picture of science for standpoint theorists, is that, far from preserving standards of true value-neutrality, it serves only to mask the interests of those who profit from androcentric scientific conceptual schemes and the technologies they help to produce. As long as science-as-usual understands itself as objective, value neutral, and thus sufficiently self-policing and critical, it will not be capable of taking responsibility for the myriad of inequalities it helps to perpetuate because of its failure to fit with the projects, commitments, and experiences of social groups whose lives and activities it unwittingly and systematically excludes from its research projects.

## Standpoints as Collective Achievements

The feminist literature detailing the many problematic and distorted knowledge claims in modern Western science is extensive, and the foregoing discussion has provided only a small snapshot of some of the surprising ways in which the values of the socially privileged and powerful can 'creep into' what is considered to be the most reliable and maximally objective research. After reviewing some of these analyses it would be easy to identify critical standpoints—those generated by socially subordinate and marginalized groups—as 'alternative perspectives' of science and the social order. However, this would be to distort the goal of feminist standpoint theory. By claiming that standpoints are achievements that are struggled for, Harding distinguishes a standpoint from the notion of a 'subjective experience,' 'world view,' or 'perspective' of a given state of affairs. Standpoints are therefore not to be understood as merely

different views of the 'same' object or entity. It would be more accurate to say that a standpoint *emerges* from, but is not reducible to, the specific experiences of the individual actors sharing a social position. Standpoints therefore do more than simply describe the 'given' conditions of the lives of people in marginalized or subordinate social groups, since in order to achieve such descriptions, standpoints also seek to create new conceptual and discursive tools, and thus new forms of expression and knowledge that allow for the articulation of those conditions in ways that are not distorted by the ruling androcentric conceptual systems. This is always a challenge because "…the relevant experiences cannot simply be reported, for it is understood that we lack the terms needed to report those experiences accurately" (Fricker 2010, 209). Thus, because standpoints struggle to make the nature of oppression clear, to articulate what cannot yet be expressed or understood in common or culturally validated ways of speaking, theoretically unmediated experience cannot be the unique 'essence' of feminist standpoint theory. Feminist standpoints have to point toward a new set of social and scientific possibilities through engaging the social and scientific order with political and scientific theory of their own.

In this way, standpoint theory offers an alternative between abstract representationalism on the one hand, and subjectivist (or solipsistic) appeals to private experience, on the other. Neither 'raw' unmediated experience, nor a delocalized or ahistorical (and thus irresponsible) account of the 'true' version of social and natural reality is an adequate theoretical foundation for feminist standpoint theory. This is because standpoint theorists argue that the view from every social position simultaneously *enables* and *limits* what people thinking from that position can understand about natural and social realities. There is no ultimate, universal, God's-eye-view from which to see the 'true' nature of reality. On the other hand, the problem with attempting to ground the veracity of standpoint analyses in the 'experiences' of the oppressed is that, according

to feminist standpoint theory, many of our experiences of natural and social reality—regardless of whether we are located in dominant or subordinate positions within the established social hierarchy—are already very likely to be conditioned, shaped, and organized by the dominant ways of thinking and forms of life. As Harding puts it, "our experience lies to us, and the experiences of the dominant gender, class, race, and sexuality produce more airtight, comprehensive, widely believed, and tenacious lies" (1991, 287). If standpoints are to be fundamentally oppositional and critical accounts of the ignorance generated by the dominant value system and relations of ruling, and thus to gesture towards salutary possibilities and an emancipatory social world, they must develop the tools and the means to think beyond the dominant system of thought.

It is also important to point out that in addition to refusing to ground standpoint theory on purely 'experiential' or 'subjective' foundations, standpoints also generate insights that are not limited to groups with marginalized or subordinated social identities. Since standpoints involve a critical engagement with a variety of dominant and oppressive forms of social life, they also serve to illuminate the nature of the historical, social, and cultural identities of people living in privileged social positions. Those who occupy positions of social privilege can learn a great deal about themselves by allowing their own thought to be informed by the accounts generated by standpoints. Indeed, Harding argues that at least in some situations, the participation of people from privileged social locations should be encouraged, since it is only through the kind of critical distance afforded by standpoints that they will be able to see their own beliefs and practices with new eyes.[5] "Starting thought from… (many different) daily activities…enables us to see things

[5] The notion of 'critical distance' is intended to describe the process by which thinking from the accounts provided by marginalized groups allows people occupying privileged social locations to step outside the contained bubble of

that might otherwise have been invisible to us." Therefore standpoints offer men, for example, the opportunity to "create for themselves a kind of experience of their own gender location which male supremacy has forbidden" (1991, 286). Standpoints enable privileged groups to critically evaluate the ignorance routinely generated by positions of social privilege.

However, examining one's own ignorance is not easy to do. It is a struggle to try to see 'from below.' Harding writes,

> …I cannot just repeat what people of color have said. I have to educate myself about people of color, their struggles, and their cultures. I have to study my own ignorance as well—the culturally rewarded white ignorance discussed by philosopher Marilyn Frye. I have to study white exploitation, domination, oppression, and privilege. I have to generate the kinds of explanations of these conditions that I expect men to generate of the conditions that give them privilege…If these processes are not painful, I am probably not doing them right. After all, it can't be entirely a pleasure to discover the unintentionally racist assumptions that have guided so many of my thoughts and practices—especially at those moments when I was exactly trying to enact a piece of antiracist business. So achieving a traitorous identity or social location requires the performance of difficult and painful tasks (Harding 1991, 293).

### Cultural Relativism or Judgemental (Pernicious) Relativism?

Before concluding this chapter it is important to prepare some of the groundwork that will allow us to understand the critical reception of the feminist standpoint position, particularly with respect to the way in which feminist standpoint theorists position themselves in between abstract universalism and experiential reductionism. We have seen that there are no universal subjects of knowledge in feminist standpoint theory. Standpoint theorists argue, rather, that if knowledge claims are to be responsible, and thus more accurate and objective, the subject or

---

experience that privileged ways of life produce. Standpoints remind the privileged and powerful that there is no single, uniform condition of human experience, thought, or action, and that if we are to develop solutions to scientific and social problems, we must learn to think in different streams to address these problems. As Harding argues, "Feminist research increases the objectivity of everyone's understandings by refusing loyalty to "the natives" view of Western life and thought, where "the natives" are men in the dominant groups whose perspectives and interests have structured all our lives" (1991, 264).

agent of knowledge must be recognized as partial, situated, and disunified.[6] This is one way in which feminist standpoint theory departs from the unitary and homogenous conception of the agent of knowledge found in classical Marxist social theory. "The Marxist theory of science," writes Harding, "argued that if its bourgeois shell could be stripped away, a purportedly pure science could emerge that would be useful to the working class. The feminist critics of science-as-usual borrow something of this notion" (Harding 1991, 68).

As we saw in the earlier discussion of the spontaneous feminist empiricist position, the ideal image of 'science as usual,' was characterized as the value-neutral, undistorted perception of a 'given.' It is not possible on this view to produce knowledge that was both value-laden and 'objective' at the same time. Yet, Harding argues that this theory of knowledge is, in fact, 'weakly objective,' in that it proves incapable of utilizing democratic values and historical and social conditions as resources for constructing objective knowledge claims. As a result, the knowledge, technologies, and policies generated from such a narrow field of vision are likely to fail in their application to local contexts—contexts that have not been understood or recognized as significant features of scientific investigation. As Harding argues, only a universal subject could presume to produce universal knowledge claims that overlook the situated and local conditions in which knowledge is produced.[7] Similarly, for Marx, a universal subject of history

[6] That Harding takes the subject or agent of knowledge to be 'partial' and 'disunified' does not imply that there is nothing 'unifying' about human experience or action. Rather, Harding is, I suggest, claiming that human identity, experience, and knowledge are processual, and intimately connected to the local aspects of an environment that call for calculated response. Human beings are not essentially unified and coherent, but rather work to establish the conditions (through science and politics) under which unified experience and action can be achieved.

[7] As will be made clear in Chapter 4, the presumed universality of science is not something which modern Western science can assume as intrinsic to its nature, but is rather a feature of the world-shaping, organizational capacities of scientific, technological, and social-political networks. Universality is never given, but achieved by extending the ordered conditions under which knowledge circulates into the world. This practical work of extending knowledge spaces creates the appearance of a 'given' universal mode of knowledge, but has proven to be, ultimately, an unsustainable way of knowing and interacting with our more-than-human-worlds.

was to be found in the achievement of class consciousness through the struggle of the proletariat who understood the true nature of social reality by seeing through the ideology constructed by the bourgeois class. Drawing a parallel between working class struggles and the struggles of women, early feminist standpoint analyses followed representations similar to that of Marxist social theory by representing women as a single, monolithic group, unified in struggle against patriarchal social forces and androcentric ways of thinking. However, this was quickly recognized to be a problematic way in which to represent women's struggles, since "women are part of every race, class, sexuality, and culture. Their experiences, activities, struggles, and perspectives are accordingly different from one another" (Harding 1991, 174). The rejection of universal 'woman' as a fundamental or essential category led to concerns about what could therefore constitute the epistemological grounds of feminist standpoints.

Deeper anxieties regarding the possibility that feminist standpoints *must* rely on "a homogenous women's experience or activity or struggle or perspective...to serve as the grounds for feminist claims," (174) also began to arise. Harding outlines this tension in the following passage:

> Critics [argue that] standpoint epistemology is regressive in assuming some sort of universal feminine condition that can serve as the grounds for feminist claims. And if it does not do so, then just what is feminist about standpoint theories? Don't their grounds deteriorate into views from each of the thousands (millions?) of distinctive kinds of social experiences or perspectives, or activities, or struggles characteristic of different cultural groups of women? In order to claim to be producing a distinctly *feminist* theory of knowledge, according to these critics, one must make faulty assumptions about universal woman, and so standpoint theory appears doomed either way: it faces the apparently impossible task of maneuvering between charges of Ethnocentric essentialism and the failure to provide any distinctively feminist analysis at all. (Harding 1991, 175)

Through deconstructing the concept of 'universal woman,' the worry becomes that feminist standpoint theory results in fracturing social positions with no coherent or unified focus for social analysis or criticism. All knowledge is bound by locality—that is why every social

location both enables and limits what the subjects of knowledge will understand. And yet, it was pointed out earlier that Harding claims for herself enough epistemic privilege to argue that the abstract, ahistorical 'God-trick'—the view that characterizes the understanding of the dominant social position—is not limited and enabled to the same degree as all the other social positions. The view from above is both partial and distorted. Unlike other social locations, Harding argues that the specific way in which the view from above is limited arises from its inability to grasp its own local and situated nature. At best, it is capable of achieving 'weakly objective' science since it cannot recognize the social and political conditions of its production as being scientifically or rationally significant, i.e., the role played by biases, discursive tools and metaphors in shaping the content of scientific knowledge.

Harding claims, on the other hand, that the strength of her feminist standpoint approach and its 'strong objectivity' standard is that it provides a mechanism for identifying the "cultural values and interests of the researchers, which form part of the evidence for the results of research in both natural and social sciences" (1991 162). This mechanism makes it possible to probe further into the social and scientific ensemble, in order to detect a more comprehensive scope of consequences of a knowledge claim by looking to how the conditions under which a claim is produced, will help shape the content of the claim. Thus, Harding argues that strong objectivity implies *historical and cultural* relativism, but not *judgmental* relativism. There are some social positions that will be better than others at generating maximally objective knowledge claims—yet these more responsible knowledges emerge from and reflect socially situated and reflexive positions rather than escapist attempts to leave behind history and culture to occupy the 'view-from-nowhere.' Harding therefore argues that

> The standpoint epistemologies call for a recognition of a historical or sociological or cultural relativism—but not for a judgemental or epistemological relativism. They call for the acknowledgement that all human beliefs—including our best scientific beliefs—are socially situated, but they also require a critical evaluation to determine which social situations tend to generate the most objective knowledge claims. They require, as judgemental relativism does not, a scientific account of the relationships between historically located belief and maximally objective belief. So they demand what I shall call *strong objectivity* in contrast to the weak objectivity of objectivism and its mirror-linked twin, judgmental relativism. (Harding 1991, 142)

Though Harding often argues in the style of postmodernist approaches to scientific knowledge, which reject the possibility of totalizing grand narratives or a 'theory of everything,' some of Harding's critics nevertheless identify such a universal standard as being implicit in her claim that feminist approaches to science will be 'less false' then androcentric ones. Thus, some of Harding's critics see Harding as trying to occupy a middle ground position that refuses both traditional epistemological foundationalism (objectivism) and the more radical postmodernist approaches to knowledge which eschew the very possibility of scientific objectivity. The next chapter will address criticisms by philosophers Sharyn Clough and Shannon Sullivan, who disagree that Harding has skirted the problem of judgmental relativism in the way I have outlined here. Social and political relativism, they argue, are the inevitable outcomes of her version of feminist standpoint theory. Whether or not these critics are right, I contend, depends upon the ontology of knowledge construction that is at work in Harding's version of feminist standpoint theory and the relationship between knowledge and power it implies.

# Chapter 3: Reconfiguring Objectivity: Some Criticisms of Feminist Standpoint Theory

> The dominant values, interests, and voices, are not among these 'different' ones; they are the powerful tide against which 'difference' must swim
>
> —Sandra Harding, *Whose Science, Whose Knowledge?*

## Standpoint Theory and the Objectivist-Relativist Binary

Not everyone is convinced that Harding's feminist standpoint theory has escaped judgemental relativism. Philosophers Sharyn Clough and Shannon Sullivan worry that Harding's claim that feminist standpoints can provide more objective and 'less false' knowledge claims leaves space for skepticism and pernicious relativism, which they argue has the effect of undermining the justification of feminist standpoints and the social justice movements. As we will explore in the first section of this chapter, this criticism is directed at Harding's (1991) supposed inability to fully reconfigure her concept of objectivity beyond the definition adopted by traditional epistemology and in much of modern Western science.

Though Clough and Sullivan each approach Harding's account from different philosophical frameworks (Clough follows Rorty and Davidson, while Sullivan draws on Dewey and Merleau-Ponty) both critics agree on two central points. This first is that it is inconsistent for Harding to claim that all knowledge is situated and partial, and yet also claim that feminist standpoints can provide a higher degree of objectivity than those claims produced by predominantly white, androcentric knowledge systems. Is not the arrogance of such a 'positionless position' outside history precisely the attitude feminists criticized when it was adopted by white, androcentric philosophy of science?[8] Moreover, why should feminist

[8] This inner tension is also often interpreted as the result of Harding's theory being caught in an intermediate position between Marxist and Post-modernist approaches to scientific knowledge. Simplifying things considerably,

standpoints be able to claim that they clarify aspects not just of women's lives, but also aspects of men's lives as well? This is having it both ways, the critics suggest.

The second point of agreement among the critics is that there are serious political consequences that follow from Harding's supposed retention of ahistorical and normative epistemological criteria for legitimating knowledge claims. The problem is that retaining the implicit *ideal* of a common set of standards or coordinates that could effectively sort through and legitimate knowledge claims is precisely what gives rise to skepticism and relativism about knowledge claims in a general sense. If we cannot find standards to help us decide what counts as knowledge and what does not, the worry becomes that scientific knowledge might be reducible to what we are culturally or politically predisposed to 'read into' natural or social realities. Consequently, if all knowledge is reducible to social or political commitments, feminist standpoints are left without any way to justify their projects for improving the conditions of marginalized peoples' lives.[9] Ultimately both critics identify the 'less false' claim to be the problem that links Harding's account to a representationalist/foundationalist framework, and Harding cannot abandon this claim without also abandoning the justification for feminist standpoints. On the other hand, by holding on to this claim, she situates her theory on a framework that produces the same skeptical and relativistic epistemological anxieties she wants to avoid.

---

while Marxists are certain that the view of the proletariat (or other oppressed groups) is 'true' in that it is able to discern the true nature of social reality, the Post-modernist approach to knowledge recognizes that there can be no grand or unifying narrative that represents the way the world really is. Harding wants to hold on to both of these influences, the critics claim, yet she cannot do so if her theory is to remain consistent.

[9] Harding, to be sure, is aware of the fact that objectivism and relativism imply each other—in fact, Clough acknowledges that Harding was one of the first feminist theorists to point out and criticise the objectivist-relativist binary. It is clear, then, that Harding does not *explicitly* endorse a value-neutral, representationalist conception of objectivity; however, her theory may *implicitly* lean on one.

If valid, this criticism would appear to undermine both the coherence of Harding's epistemological position as well as the emancipatory political potential of her theory. It is therefore a potentially devastating criticism of feminist standpoint theory and needs to be addressed.

It also needs to be added that, although my intention is to defend Harding's position from these criticisms, I do acknowledge that the representationalist reading of her work contains some surface validity. Specifically, I suggest this reading is made more plausible due to the way Harding conceptualises the dynamics of knowledge and power in *Whose Science, Whose Knowledge?* Here, Harding writes as if knowledge construction as a process by which social or cultural categories are imposed on a 'given' natural set of conditions, which, in spite of her attempt to recognize the co-constitutive nature of science and social orders, and the interplay of fact and value, has the unfortunate effect of reinforcing the foundationalist and representationalist readings suggested by her critics.

In *Beyond Epistemology: A Pragmatist Approach to Feminist Science Studies*, Sharyn Clough criticizes a tendency in feminist science studies that has shifted away from local, case by case empirical research or methodological critiques of science, towards epistemological diagnoses of the of oppressive aspects of knowledge construction (2003, 2). Drawing on critiques of epistemology developed by Richard Rorty and Donald Davidson, Clough claims that epistemology "is not the most effective tool for feminists engaged in science criticism" (2) because of the way in which it leaves space for global skepticism and, by extension, relativism. Specifically, her argument is that traditional epistemological searches for criteria that detect normative properties such as 'truth,' 'least partiality,' or 'maximal objectivity,' are ultimately motivated by the threat of global skepticism: "the threat that our beliefs about the world may be

just as they are, and yet the world—and so the truth about the world—may be very different" (Clough 2003, 10). Importantly, the threat of global skepticism is a symptom of representationalist or correspondence theories of truth, in which our beliefs, mental states, or language, and the world are separated by a metaphysical dichotomy. The fear of losing touch with reality is what fuels the continuous search for normative criteria that could establish certainty that our beliefs or theories achieve correspondence with reality. This is a dangerous fear to retain for political projects that need to remain empirically grounded, she argues, for

> the skepticism invited by the representationalist model can never be answered from within. Once engaged in epistemology, one invites a never ending struggle with an omnipotent foe...the important goals of feminist science studies are best met not by addressing (unanswerable) epistemological problems, but by focusing back on local, empirical research. (2003, 5)

Clough places Harding's feminist standpoint theory within this epistemologically oriented approach to feminist science studies that appear to focus on the distorted nature of androcentric knowledge claims in a general sense. Specifically, the main problem with Harding's position is her claim that feminist standpoint analyses are capable of providing 'less false' or 'less partial' claims than androcentric alternatives. Recall that Harding argued that not every position in the social order will offer equivalent degrees of accuracy or objectivity for detecting and representing aspects of natural and social realities. Some social positions—in many cases the standpoints generated from marginalized groups' lives—will be better than others at detecting certain features of natural and social orders. The problem with this claim, for Clough, is that it appears to assume without evidence, that feminist standpoints are already in a position to see the true structure of reality.

Harding supposedly makes such a move when she suggests that marginalized groups are better able to identify normative criteria for evaluating knowledge claims. In this way her analysis separates such evidence from the social, political, and theoretical schemes that order and

render empirical evidence intelligible and coherent. Thus, by claiming that feminist standpoints have the potential to provide more accurate accounts than masculinist alternatives, Harding's approach remains preoccupied with bridging the gap between feminist knowledge claims and the world.

Clough argues that the feminist shift toward epistemology ultimately undermines its own justification for feminist political projects, by turning its attention away from local empirical investigations, which she argues offers better proof of injustice and inequality and thus better grounds for political action than does the epistemological assumption that feminist standpoints can achieve normative relational properties such as 'truth,' 'maximal objectivity,' or 'least partiality.' She writes:

> When we embark on the quest for normative ontological properties and the best epistemic methods for their detection, we open up issues of skepticism that can be used against our own well-justified claims about the harms caused by science. When we construe the adjudication of knowledge claims as an epistemic process prior to and independent from the local empirical justification of those claims, we unnecessarily invite the worry that our claims about the oppression of women, for example, while well supported by the empirical evidence, might not meet epistemic criteria conceived as independent of that evidence. (Clough 2003, 11)

Thus, Clough appears to be criticizing Harding for making an unsubstantiated claim about the superior knowledge of marginalized groups. Only if we ground these claims in local empirical investigations can we make such a claim. This is apparent to Clough because Harding is interested in justifying the feminist political commitment to changing science and the social order through a 'method' that is guided by 'strong objectivity' standards. For Harding, strong objectivity entails a more critical and reflexive scientific practice that not only uses history as a resource for generating knowledge claims, but also generates new research questions that arise from thinking from marginalized people's lives. However, Clough claims that Harding is simply giving us another method in which to have maximal certainty in our beliefs about the world. She

interprets Harding to be saying that, if we do science not from men's narrow perspectives but from women's less partial perspectives, our science will naturally be more objective than it has been historically. Strong objectivity standards are thus framed as 'filters' through which correspondence relations between beliefs and the world are secured. Clough interprets Harding's 'strong objectivity' position in the following passage:

> certain aspects of culture—namely, the social standpoint of the representer—filter the correspondence between any one representation and the world represented. As with Hartsock, this is Harding's version of the Marxist claim that one's lived reality, one's social standpoint, will "organize and set limits" on one's understanding of the world. (Clough 2003, 87)

Clough interprets Harding's position to be a form of a scheme-content dualism. Yet, I want to argue that this assessment of Harding's project contains only surface validity. Harding rarely (if ever?) speaks in terms of the 'filtering effects' of political schemes. To be sure, she does talk about the effects of social and cultural realities as constitutive of 'nature-as-an-object-of-knowledge,' (1991, 12) which would appear to make 'social' or 'cultural' forces ontologically prior to 'natural' forces, but I contend that these occasional articulations are not enough to package standpoints within the language of 'conceptual schemes' as Harding's critics suggest. It should be remembered that Harding claims that standpoints arise from within the life experience of oppressed groups; from situated locations and practices, and from within the gaps in knowledge that are packed into the dominant modes of scientific and social articulation.[10] They are not fundamentally theoretical frameworks with which to interpret 'given' data. However, Clough misses this point by claiming that Harding suggests that

> the empirical content of our theories is relative to the filtering effects of our political schemes and values, [such that] we lose our ability to empirically adjudicate between competing theories. I argue

[10] In Chapter 4 I contend that the analysis of scientific knowledge developed by Latour provides Harding space to articulate standpoints outside of the framework of a nature-culture, knowledge-power binaries. Here we see it is possible to make sense of the constructed nature of scientific knowledge claims and its appeals to 'nature' while simultaneously avoiding the claim that 'social' forces are responsible for those constructed knowledge claims.

> that such concessions to relativism are only necessary if one is insufficiently attentive to the role of representationalism in epistemology. (Clough 2003, 93)

In order for the standpoint project to succeed, Clough argues that Harding must abandon the representationalist metaphysics that bifurcates reality into subjective and objective domains that gives rise to global skepticism about knowledge claims. We do not need to accept the representationalist story about a bifurcated world, she claims. Instead, we might learn to see beliefs not merely as the subjective end product of a filtering process, but rather in Donald Davidson's terms as a "triangulation between language users and the shared features of their world about which they are communicating" (2003, 14). The upshot of this Davidsonian pragmatist alternative to epistemology is that any assessment of the truth or falsity of a belief must already rests on a background of true beliefs. In this way, global skepticism is not able to arise because it is not practical or feasible for us to doubt the whole web of beliefs at once. Thus, "by viewing global skepticism as a nonissue, Davidson's philosophy of language undercuts the epistemological debate about which criteria best answer the skeptic" (Clough 2003, 14).

With this Davidsonian approach inserted into the feminist political project, Clough argues we are in a better position to justify feminist science. Rather than metaphysically separate political values and conceptual schemes from empirical evidence, feminist politics can be shown to be holistically of a piece with them.

In a similar way, Shannon Sullivan criticizes what she takes to be the implicit epistemological framework at work in Harding's feminist standpoint theory, drawing similar inferences as those made by Clough regarding the conceptual space left open for judgmental relativism by the foundationalist theories of truth retained by Harding's analysis. She argues that Harding needs to do more than simply reject traditional androcentrically linked objectivist

theories of truth and should explicitly provide an alternative of her own. Without an alternative account of truth, Harding can only reinscribe the same epistemological position as the androcentric knowledge claims her feminist standpoint theory seeks to undermine. For example, Sullivan specifically targets the way in which Harding appears to assume that the feminist standpoint provides 'the' most privileged epistemic position from which to generate knowledge claims about natural and social realities.

> According to Harding, the particular perspectives of women constitute a starting point for objective research. By implicitly retaining a model of truth as achieved by those with the clearest vision of the world, however, Harding's theory assumes that some people can attain a measure of infallibility similar to that allegedly provided by a "God's eye" point of view. A pragmatist feminist account of truth as that which promotes the flourishing of transactional bodies can furnish Harding with an understanding of epistemology that is not cast in terms of objectivism. By doing so, pragmatist feminism can help feminist standpoint theory achieve its goal of reconstructing objectivity. (2001, 134)

In order to circumvent the lingering representationalism in Harding's approach, Sullivan argues that Harding's feminist standpoint theory must do more than simply reject traditional objectivist epistemology, but should offer an alternative in its place. She provides such an alternative account of truth defined as the flourishing of transactional bodies within their environments, rather than a correspondence relation between a belief and a pre-given independent state of affairs (Sullivan 2001, 134). As a result of this reconfiguration, Sullivan also proposes a way in which to circumvent the associated judgmental relativism that representationalist or foundationalist theories of truth imply. This is important, according to Sullivan, since leaving space for relativism undermines the justification for feminist political projects. With a new account of truth defined as a state of flourishing in the transactions between entities sharing environments, we can still retain epistemological standards for evaluating knowledge claims. Sullivan claims that,

> the activities of human life constantly require making distinctions and choices, and thus all humans operate with and require standards by which they can make such judgements and decisions. Liberatory

> projects, such as those pursued by feminists and pragmatists, are in particular need of such standards because they aim to change cultural and political structures so that the lives of the oppressed are improved. (Sullivan 2001, 133)

Liberatory projects need to retain at least some forms of epistemological criteria that enable feminists to make choices about better and worse knowledge claims, otherwise feminist political struggles will be left without the means to ground their politics in empirical facts, and will be simply 'preaching to the choir' (2001, 140)**.** Sullivan explains that retaining epistemological standards for evaluating and judging knowledge claims does not imply that we must also assume the God's-eye-view, or an a historical position that grasps the true nature of natural and social realities. On the contrary, Sullivan argues that the standards she proposes for her pragmatist, feminist standpoint theory

> are not of a sort that can be abstractly listed or itemized. In general, they share the common structure of being based on the needs of those in a particular situation, varying in their specifics based on the differences of each situation. In this way, they may not seem "iron-clad" enough to count as objective standards if one's ideal of an objective standard is that which exists apart from concrete situations to be applied in a "top-down" fashion. If, instead, one's notion of objective standards is based on recognition of the perspectival nature of corporeal existence, a notion of standards that are generated out of rather than apart from, situations is preferable (2001, 146).

This is a helpful way to describe the value and necessity of practical judgement within complicated situations. And yet I expect that there would be no disagreement between Harding and Sullivan on this point precisely because the use of such local standards are instrumental to the process of generating feminist standpoint claims that can become more objective and less false than existing alternatives. Harding's commitment to start thinking from the lives of marginalized groups does not preclude attentiveness to local standards; in fact, developing the sensitivity required to detect hitherto overlooked aspects of nature's order is implied by it. It is important to remember that it is precisely the *lack* of sensitivity to locality and situatedness that the transcendental, exceptionalist, and triumphalist discourse of much of modern Western science, technology, and politics had neglected to

promote in its investigations of natural and social reality. The illusion of pure, undistorted access to nature or culture, is one way in which science as a whole learned to misunderstand its own activity. Both Harding's and Sullivan's impulse to return to local and situated investigations are what counteract such triumphalist and exceptionalist tendencies.

The potential for standpoints to generate situated and reflexive knowledge claims is the reason that epistemic advantage is given to the members of marginalized groups who recognize that their experiences and understandings are not properly represented in conventional terms. Harding's account of feminist standpoints ends up working in just the way Sullivan suggests; by generating standards from within concrete and particular situations that test knowledge claims according to specificities that marginalized groups are better able to detect. Yet, this does not require that we relinquish the 'less false' claim, or the value of assuming that the best positions from which to begin to theorize about natural and social realities are those of marginalized and disenfranchised groups. Though Clough and Sullivan acknowledge and insist on locality and situatedness as necessary conditions for generating reliable and objective knowledge, they are unconvinced about these points.

In spite of Sullivan's valuable suggestion that standards for evaluating knowledge claims should be local, she fails to give enough credence to the idea that power relations can systematically exclude such standards from being brought to bear on knowledge claims. As Harding argues, we do not live in a world where the processes of constructing and deploying knowledge are neatly separated from power relations that transform social and natural orders. Thus, we do not live in world where the dominant and marginalized ways of knowing are in

equal competition. Yet, this level playing field is what Sullivan suggests with her critique of Harding's position, which, in her view, runs the risk of

> being "an inverted, matriarchal version of patriarchal objectivity" that merely replaces the "god-trick" with a "goddess-trick" of Harding's own design. Without an alternate account of what truth is, an appeal to women's perspectives as "less false" is just as arbitrary and problematic as a sexist culture's assumption that a masculine perspective should be privileged over a feminine one. (Sullivan 2001 139)

Here we see the core of Sullivan's worries regarding the 'less false' claim. She worries that because feminist standpoint theorists claim that knowledge has the potential to be more objective, or 'less false' when starting from women's lives, that men will be unfairly excluded from future conversations and political debates about how we should organize our societies and conduct scientific investigations.

Sullivan even goes as far as claiming that when knowledge claims are restricted to women's lives "such appeals do not eliminate the oppressive effects of the claim to have a truer account of reality than does another" (2001, 139). Such anxieties, however, can only arise on the false assumption that there is an equal playing field in both science and politics that allows all parties, whether they are privileged or disadvantaged, to have their interests equally represented in scientific and political conversations or deliberations.

It should be pointed out that Sullivan is careful to include that her account is not ignorant of power relations, and that she claims that her account remains sensitive to subordinate and marginalized people who, historically, have been left out of the conversation. She even claims that in many cases it is appropriate to defer to such groups in order to ensure that their voices are not lost and that their views are heard:

> The reconceptualization of truth as transactional flourishing must include not only the ideal of maximal inclusion of various organisms' needs, interests and desires, but also historical awareness of who is likely to be left out of the attempt to produce richer experiences...Awareness of exclusion should be funded with historically based guidelines that help one identify likely habits of exclusion and oppression. At the same time, it should gear those guidelines to specific situations because

> patterns of inclusion and exclusion can be particular to, and vary in, specific situations. (Sullivan 2001, 143-144)

That we should use history as a resource in generating knowledge claims was one of the central features of Harding's development of the 'strong objectivity' concept. We need to cultivate awareness among scientists and policy makers about the costs exacted by knowledge projects that are not informed by and thus not adapted to the local situations such projects seek to make intelligible. One therefore begins to wonder how Sullivan's claim that "awareness of exclusion should be funded with historically based guidelines" that help predict future exclusions and patterns of ignorance differs from Harding's version of feminist standpoint theory—for this is all the 'less false' claim hopes to secure. That standpoints could produce knowledge that is more accurate and less false than existing alternatives is not an argument about how feminist standpoints can generate universal knowledge, but about how the knowledge which feminist standpoints generate clarifies the assumptions and corrects the ways in which androcentric accounts overstep themselves when they encroach on and transform other local material-discursive practices. Moreover, in spite of the lip service that Sullivan pays to cultivating awareness of the historical tendency to suppress and exclude the voices of marginalized groups, her analysis continues to overlook the need for cultivating specifically marginalized understandings—for example, when she argues that 'everyone' should have a say in how we go about resolving conflicts and oppositions.

> Instead of declaring at the outset that some people have "less false" perspectives, all parties in a problematic situation should have a voice in the project of creating perhaps as-yet-unforeseen solutions that accomodate the needs and encourage the flourishing of the parties involved. The answer to who gets to resolve conflicting claims about what counts as flourishing and the conflicting answers to the question: "flourishing for whom?" is, in an important sense, everyone. Those in both the so-called "center" and "margins" need to be involved in the process of resolving opposition. This process must take into account the needs of all "locations," not just the needs of the marginalized groups at the expense of the dominating ones, or vice versa (Sullivan 2001, 147).

Yet the feminist standpoint theorists do not 'declare at the outset' that some people will have by virtue of being oppressed 'less false' perspectives, since as we saw in Chapter 2, Harding argues that standpoints are *achievements* that cannot be reduced to experience. The knowledge that standpoints struggle to construct is intertwined with scientific and political understandings, and it arises from interrogating natural and social realities from within the gaps that modern Western science builds into its knowledge and world-making systems. Standpoint theorists argue that the voices of marginalized groups are, in significant respects, already excluded from contributing to the prevailing understandings about how social life and scientific knowledge work—that is why they advocate for thinking from the lives of marginalized groups. This essential aspect of feminist standpoint theory, I want to suggest, has not been properly emphasized in the critical evaluations put forward by Clough and Sullivan. When we remember this point, we begin to see that the remedy for the exclusion of marginalized groups—their voices, their problems, needs, and ways of interrogating nature—cannot be satisfied by the pluralist invocation to bring together as many voices as possible (as Sullivan argues); since, lacking the radical interventions that would supply oppressed groups with new ways of speaking, metaphors, values, science, and, technologies, the dominant voices are likely to continue to dominate the discussion.

Thus, Sullivan misses how her pragmatist feminist approach is founded on an assumption of epistemological and political equivalences between disputing political groups. It is this equivalence which Harding and the traditional standpoint theorists call into question. Science and the social order grow together in ways that place limits on what it is possible to articulate within the dominant patriarchal value-system, as well as within the way the social world is arranged in general. Science and the social world in their current configurations are not universally well-adapted to human life and experience. Not everyone has been allowed to come

to the table, and even when they do come to the table, the table conversation is more likely to be dominated by the privileged groups.

Additionally, both Clough and Sullivan's accounts are not properly focused on how science and the social order systematically reinforce each other, through generating asymmetries in the free capacities and agencies of human beings. (As we will explore in the next chapter, the concept of agency that Harding is developing is one that cannot be understood as a property or essential attribute of human beings, and is rather a kind of activity.) These asymmetries are then naturalized and made to appear intuitive from the perspectives of the groups that benefit from the unequal distribution of knowledge, resources, and opportunities that emerge from the collective arrangement of scientific and social orders. And yet, to Sullivan, the argument that oppression and inequality provide preferable starting locations for knowledge projects still sounds like feminist standpoints are unjustifiably privileging the 'perspectives' of some people over others.

> There is no need to appeal to true(r) descriptions of reality to solve oppositions between conflicting claims. Indeed such an appeal tends to shut out of the conversations and communities needed to resolve conflict those people with perceived 'less true' perspectives. Instead of declaring at the outset that some people have 'less false' perspectives, all parties in a problematic situation should have a voice in the project of creating perhaps as-yet-unforeseen solutions that accommodate the needs and encourage the flourishing of the parties involved. Those in both the so-called 'center' and 'margins' need to be involved in the process of resolving opposition. This process must take into account the needs of all 'locations,' not just the needs of the marginalized groups at the expense of the dominating ones, or vice versa. (Sullivan 2001, 147)

Both Clough and Sullivan insert in their respective discussions what I contend is an uncharitable reading of Harding's 'less false' claim. But that is because Clough and Sullivan have a tendency to neglect both the inherently oppositional and reconstructive character of Harding's position. By neglecting these aspects of Harding's theory they decontextualize it from its commitment to criticizing the dynamic and mutually reinforcing relations of knowledge and power. In so doing, they present it as an attempt to discern the true nature of social reality through the filter of 'the

feminist perspective.' Standpoints are presented either as incommensurable conceptual schemes filtering and interpreting 'given' data (Clough), or as fragmentary political groups 'preaching to the choir' (Sullivan). Both critical approaches see Harding's version of feminist standpoint theory as being caught in an awkward middle-ground position between two fundamentally opposed philosophical positions: the Marxist dimension, which claims to be grounded in the truth of women's lives, and the Post-modernist dimension which denies that there is any one position that could illuminate the 'true' nature of social or natural reality. Yet, it is precisely for this reason that I think Harding is doing something more interesting than fence-sitting.

What Harding *does* say, is that her strong objectivity approach will use social and historical understandings as resources when generating knowledge claims. It makes use of information about the nature of marginalized groups' oppression throughout history to form a better understanding of the conditions of their lives, so that scientists can offer solutions to problems that do not further immiserate the lives of people who fall through the gaps of dominant knowledge systems. This is a very different type of critical position than the scheme-content dichotomy that Clough reads into Harding's position, or the uncritical and unreflective 'choir preaching' attitude of feminist politics that Sullivan attributes to her position. Harding is not interested primarily in identifying criteria that would enable a least distorted vision of 'the world' construed as an inert 'given' object, but rather is interested in interrogating the process by which science is engaged in the activity of world-making, how this process of making and remaking the world reinforces and directs certain ways of thinking, and who benefits and who bears the costs of the production of asymmetries in power and privilege.

I contend that Harding's standpoint approach is concerned ultimately with situated and local knowledge. The impulse to listen to and think along with marginalized groups, to ask

questions and find solutions that work for them rather than the dominant groups, does not come from a desire to secure a stable bridge between subjective beliefs and the real world. Rather, it comes from the impulse to care for and attend to neglected people and environments that have been systematically excluded from the analyses of those in positions of power.

## The Dynamics of Knowledge and Power

While I think it is clear that the core elements of Harding's version of feminist standpoint theory are not guilty of representationalism in the way her critics have suggested, Harding's (1991) early articulation of feminist standpoint theory often leans on what appears to be a sharp distinction between knowledge and power—specifically in those cases where the 'object' of knowledge is separated from the processes by which human beings render it intelligible through 'social' or 'cultural' categories. Importantly, I contend that the common reading of her position as implicitly representationalist is a symptom of this problematic way she tends to associate knowledge and power in her early account.[11] Unless we see knowledge and power as essentially interconnected and inseparable from each other, the 'less false' claim will be interpreted in a transcendental, or representationalist form, rather than understood as the achievement of 'strong objectivity' and situated knowledge. In a way that appears consonant with Clough's scheme-content interpretation, early Harding describes knowing in terms of the metaphor of 'seeing' through the lens of one's culture, or being 'held down' by 'historical gravity' (1991, 145) while simultaneously suggesting that the standpoints of the marginalized and oppressed are somehow

[11] It should be noted that the somewhat bifurcated description of knowledge and power to be outlined in this section is more an artifact of the rhetorical packaging of Harding's theory than part of the substance of her account. Her subsequent iterations of the dynamics of knowledge and power over the years approaches a position closer to the one developed by science and technology studies scholars such as Joseph Rouse and Bruno Latour. In certain respects, even aspects of her early (1991) account of feminist standpoint theory reveals a more nuanced account of the dynamics of knowledge and power is at work in Harding's reliance on situated knowledge and strong objectivity (specifically her strong objectivity claim) but this does not become explicit until her later work (1998; 2008).

'less false'—as if they alone could pierce the veil of socially and historically mediated relations and see reality clearly.

In *Whose Science Whose Knowledge?* Harding writes, "in an important sense, my eyes are not my own, nor even my most private thoughts entirely private; they belong to my historical period—and to the particular class, race, gender and cultural commitments that I do not question" (1991, 100). Here, we see Harding unfortunately blends visual metaphors with 'locations' of race, class, gender, and cultural categories. This static, spatially oriented way of describing standpoints has the potential effect of undermining some of her clarifications about standpoints as the *achievements* of social groups by representing them as fixed positions from which to make 'observations' about social relations. On the other hand, if we remain focused on the fact that standpoints are achievements of social groups whose understandings are generated through their transactions with entrenched discursive and material relations that they strive to reconfigure, we see that standpoints cannot have access to 'ready-made' knowledge of social or natural realities, because such knowledge is connected and inseparable from shared forms of life and to the subjects who live as 'outsiders within' (Hill Collins 1985)—that is to say, actors who are simultaneously participants in the existing economic, social and technoscientific ensemble, and resistors of it.

As we will see, the metaphor of knowledge as a kind of detached observation is starkly opposed to the theory of knowledge put forward in feminist standpoint theory. The language is problematic, and it leaves critics such as Clough and Sullivan primed to interpret feminist standpoint theory in traditional representationalist terms. The knowledge-as-observation metaphor makes it appear as though marginalized groups 'see' reality clearly, or are embedded in reality more fundamentally than other privileged groups (Smith, 1987). But this is opposed to

the core of Harding's feminist standpoint position. Standpoints are marginal spaces that open up possibilities for the transformation of knowledge and social relations. As such, standpoints are critical and (re)constructive scientific and political projects. 'Critical,' in the sense that they detect problems where conventional knowledge systems do not, and '(re)constructive' in the sense that they are future-oriented knowledge projects that provide essential resources for solving problems and establishing new ways of thinking and being in our more-than-human-worlds. Thus, they do not 'see' through the ideological veil of the dominant groups as much as they occupy positions from which to ask critical questions and generate new answers.

Harding's appeals to knowledge in terms of observation, or interpretation of givens, has the effect of decoupling the act of knowing from the interventions necessary to establish the kinds of equivalences and associations through which knowledge circulates. Yet, in many ways Harding's early articulation of the effect of power relations on knowledge is equally problematic. For instance, Harding (1991) makes things more difficult for herself in her criticism of the internal-external dichotomy in traditional epistemology and philosophy of science. Specifically I argue that opting not to replace this distinction suggests that a knowledge-power bifurcation still lingers in her account:

> In order to grasp the import of the Other story for assumptions about the 'purity' of the abstract sentences of science, we must create a kind of history and philosophy of science that cannot be accommodated by talking about relations between externalist and internalist or political and intellectual histories of science. The two kinds of science history are not so discreet. Instead, we need to ask how the funding patterns and political directions of science, as well as the general preoccupations of the age, get 'inside' the concepts and claims of the natural as well as the social sciences. How do external influences become internal thought patterns? We have yet to understand how the technological needs of imperialism left their marks within the thought structures of North Atlantic science (Harding 1991, 242).

Harding very clearly wants to counter the notion in traditional epistemology and philosophy of science that knowledge claims, if they are to be rational, cannot be directed or shaped by social or historical factors—and that science has its own internal logic that proceeds in a way

completely detached from such 'external' elements. Yet even as she criticizes this idea, she still frames the interaction between science and social order as "a question of how *external* influences become *internal* thought patterns" (1991, 242). The idea that the outside can 'become' the inside still appears to buy into the idea that there is an 'inside' and an 'outside' in matters related to scientific knowledge construction. Scientific knowledge is problematically represented as a container into which political motivations are placed, or, differently, as a malleable substance that can be molded and shaped by the external political and social commitments of a particular historical epoch.

Further evidence of the somewhat problematic way in which Harding articulates the relationship between knowledge and power can be found in her reference and subsequent analysis of arguments made by Joseph Rouse in his book *Knowledge and Power: Toward a Political Philosophy of Science*. Harding draws on the following passage from Rouse in her discussion:

> If we take the new empiricism seriously, it forces us to reappraise the relation between power and knowledge in a more radical way. The central issue is no longer how scientific claims can be distorted or suppressed by polemic, propaganda, or ideology. Rather, we must look at what was earlier described as the achievement of power through the application of knowledge. But the new empiricism also challenges the adequacy of description in terms of 'application.' The received view distinguishes the achievement of knowledge from its subsequent application, from which this kind of power is supposed to derive. New empiricist accounts of science make this distinction less tenable by shifting the locus of knowledge from accurate representation to successful manipulation and control of events. Power is no longer external to knowledge or opposed to it: power itself becomes the mark of knowledge (1986, 19).

This passage, which reflects so well the main thrust of Rouse's book, describes the problematic traditional conception of the relationship of knowledge and power. Rouse argues that the new empiricist studies of science and technology reveal how power cannot be understood solely as the achievement or the 'application' of knowledge, nor does it exist as a force 'outside' of science that suppresses or distorts the clarity of its representations. When we look to the actual

practices of knowledge-making, the achievement of knowledge becomes more fundamentally about successfully navigating and controlling events. This reveals how knowledge 'applications' in natural and social relations are misunderstood when they are taken as secondary events that follow from the achievement of pre-established theoretical knowledge—for those representations are already constituted through the interventions and articulations from which a stable 'object' of investigation emerges from the ensemble of laboratory practices and associations. The power to shape and order experimental systems and their linked environments *is* what it means to have knowledge of those systems. Moreover, to have knowledge of how aspects of natural and social relations come to be arranged opens up new possibilities for the continued exercise of power and control.

However, Harding's interpretation of this passage appears to draw out different themes more closely related to her arguments about the necessity of value-laden scientific practice. The dynamic and interconnected relationship between knowledge and power that Rouse emphasizes is not made the focus of her interpretation. Following her quotation of the previous passage by Rouse, she writes,

> The best as well as the worst of the history of the natural sciences has been shaped by—or, more accurately, constructed through and within—political desires, interests, and values. Consequently, there appear to be no grounds left from which to defend the claim that the objectivity of research is advanced by the elimination of all political values and interests from the research process. Instead, the sciences need to legitimate *within scientific research*, as part of practicing science, critical examination of historical values and interests that may be so shared within the scientific community, so invested in by the very constitution of this or that field of study, that they will not show up as cultural bias between experimenters or between research communities. What objectivism cannot conceptualize is the need for critical examination of the 'intentionality of nature'—meaning not that nature is no different from humans (in having intentions, desires, interests, or values or in constructing its own meaningful 'way of life,' and so on) but that nature as-the-object-of-knowledge never comes to us 'naked'; it comes only as already constituted in social thought. (1991 147)

While Rouse is trying to argue that the distinction between knowledge and power is a false one, since the power to rework natural and cultural relations is implicit in any investigation that seeks

to disclose aspects of natural or social relations, Harding's interpretation of this passage appears to be, once again, that knowledge and power are distinct, but inseparable from one another in practice. Rouse's position is that "power is neither external to knowledge nor opposed to it," because, on his account knowledge and power are fundamentally co-constitutive. Yet Harding's apparent reading of this notion is that all science, whether 'good or bad' is political, value laden, and influenced and constrained by the privileged and powerful groups whose interests almost always dictate the choice and formulation of research problematics. While Rouse would certainly not deny the value-laden and political components of scientific research, his argument here is not specifically about the fact that even good science is infused with political interests; rather, he is describing the dynamics of knowledge and power in ways that blur the very distinction between them. Harding's commitment to reveal the value-laden and political nature of all forms of scientific inquiry is an important element of her standpoint approach, but, if her account is to purify itself of its representationalist residues, it will also need to rethink the dynamics of knowledge and power. Doing so, I contend, will also allow her to better position her theory in ways that clarify and strengthen her account of the partial and disunified subject/agent of knowledge.

We see that Harding articulates the power-knowledge dynamic as one in which power—usually embodied in political, social, or cultural biases and commitments—'shapes' or 'constrains' the production of knowledge. This risks treating knowledge and power as extrinsic to each other, which, in turn, limits the emancipatory potential of Harding's version of feminist standpoint theory because of the space it leaves for the representationalist and relativist misreading. Moreover, I want to argue that this way of conceptualizing the knowledge-power dynamic is in tension with central features of Harding's version of feminist standpoint theory

which is committed to situated knowledge as a condition for strong objectivity. Rouse captures the problematic nature of this traditional way of conceiving the knowledge-power relationship:

> power and knowledge remain extrinsic to one another...Knowledge acquires its epistemological status independent of the operations of power. Power can influence what de facto is known, but its being known, and what it is for it to be known cannot be subject to the influence of power. That is, power can influence what we believe, but considerations of power are entirely irrelevant to which of our beliefs are true, which of these are known to be true, and what justifies their status as knowledge...In their constitution as power and as knowledge, power and knowledge are (in principle) free from one another's influence. (1987, 13)

The problem here is that the received view treats knowledge as a product that can be disconnected from the configuration of practices through which it is achieved. When this dichotomy is applied in the context of feminist standpoint theory, the many different knowledges that emerge from standpoints also come to be understood as 'ready-made,' delocalized, (and in Harding's case, privileged) 'perspectives' on science and the social order. However, this way of describing knowledge and power is in tension with Harding's commitment to situated knowledge and strong objectivity, which requires that science projects make use of historical specificities as resources for generating objective knowledge claims. Thus, by failing to properly frame the dynamics in which knowledge and power co-produce each other, Harding at times appears to conceive of knowledge as, in principle, separate from the activity that establishes its underlying conditions—that is to say, from the assembled network of relations through which it circulates.

This knowledge-power separation becomes problematic for standpoint theory for the reasons already addressed by Harding's critics. When knowledge is decontextualized as a product that can be separated from its world-shaping transformations, we open the door to misinterpretations of standpoint theory that reduce standpoints to merely different or alternative points of view of the 'same' reality, with no way to discriminate between them, and thus no way to decide which knowledge claims reflect the way things 'really' are. The very idea of a single,

'given,' 'independent,' natural or social state of affairs to be interpreted at a distance through the filter of cultural or political conceptual schemes primes the reader to ask the skeptical and relativist questions that Clough and Sullivan want to circumvent.

My argument is that this is not the right way to interpret Harding's work because it misses how her project is more fundamentally committed to situated knowledge. Put differently, it misses how the knowledge generated from standpoints is justified in accordance with standards that also emerge within the same local and specific contexts. These standards are utilized by actors who are intimately connected with contexts that, historically, have been overlooked in traditional philosophy, scientific practice, and policy making. Thus, the epistemological privilege of feminist standpoints is therefore the privilege of partial positioning, rather than an a priori or Archimedean position from which to validate knowledge. The impulse to think from women's lives as a normative guide for generating more accurate knowledge about their circumstances is, importantly, not an argument about how feminist standpoints transcend social, cultural, and historical specificities such that they reflect an abstract decontextualized 'reality' more clearly. Nor is it an argument that women's lives or the lives of oppressed groups more generally are embedded in a more metaphysically fundamental social or natural reality. Rather, it is a claim about how starting from the lives of neglected people provides resources for knowledge making and political projects that have hitherto not been thought possible or thought of at all.

Having the freedom to develop critical and evaluative tools to enable the detection of these oversights is an essential component of social justice projects, since these practical (and always revisable) standards of evaluation enable standpoints to make important judgements about what kinds of science and policy decisions are harmful to them and which ones are helpful.

Here is one way in which to more charitably interpret Harding's 'less false' claim that does not lead us back to representationalism and its relativist double. Standpoints are not candidates for generating 'less false' theories because they can simply assume for themselves greater representational clarity about the 'one world' we all inhabit. Rather, the potential to generate more accurate, objective, and less false knowledge claims arises from the potential to construct new possibilities for marginalized groups that are left unexplored through the conventional understandings generated by science and stabilized in the social world.

With this in mind, the 'less false' claim can be read as characterizing a set of critical commitments that involve resisting the dominant and culture-wide modes of thought and action, as well as rethinking and restructuring scientific and social orders. Reading the 'less false' claim this way requires that knowledge and power must be understood as reciprocal and dynamic. Knowledge generated from standpoints is inseparable from the power to mobilize and rework the de facto social and natural relations that give rise to inequalities. Likewise, the power to act or intervene is inseparable from knowing how the existing social and technoscientific systems have historically come to be organized. That means that resistance involves both learning how to position ourselves in ways that enable the detection of silences and oversights generated by the knowledge practices of privileged minority groups. The resistance of oppressed groups is committed to revealing the patterns of ignorance that are built into the uncritically accepted ways of thinking and relating that disproportionately benefit the privileged and powerful minority at the expense of less privileged groups.

The next chapter will address the account of knowledge and power put forward by the science and technology studies scholars. They show how the progressive working out of a system of knowledge necessarily involves generating exclusions and producing patterns of

ignorance. The practice of establishing a network through which knowledge begins to circulate requires that only certain features of a complex and disordered environment be included or selected for. Put differently, knowing is a practice that unifies through exclusion. The primary function of science, in this sense, is not to reflect an independently existing object, but to create spaces for new possibilities to emerge (while always necessarily foreclosing others) that cannot be deduced as possibilities from within the existing system of relations. That the progressive determination of a given knowledge system necessitates the production of exclusions should not be interpreted as a bleak conclusion for the feminist standpoint theorists. On the contrary, it is rather the illusion of complete undistorted, impartial, value neutral 'access' to an independent 'reality' that is the enemy of feminist standpoints and of situated knowledge. The true 'distortion' is the perspective of a kind of knowledge that purports to represent everything while excluding nothing.

By showing how this ontology of knowledge construction is part and parcel of the logic of feminist standpoint theory, we can begin to see how standpoints take control of and direct the kinds of exclusions and patterns of ignorance that have historically placed them at a disadvantage. The question then becomes not how we are to go about developing knowledge without exclusions, but rather, which exclusions are acceptable for us to enact in our shared world? That is a question that we cannot answer until we have established conditions under which our most vulnerable and disenfranchised groups have been given the resources to articulate their interests in the collective of human and non-humans. This, in turn, cannot be achieved until science learns to think from the lives of these groups, such that they can be given the space needed to understand their lives on their own terms.

# Chapter 4: Situating Standpoint Theory: Toward a Critical Ontology of Knowledge

> Particular possibilities for acting exist at every moment, and these changing possibilities entail a responsibility to intervene in the world's becoming, to contest and rework what matters and what is excluded from mattering
>
> —Karen Barad, "Posthumanist Performativity"

## On The Necessity of Giving Epistemic Priority to Subjugated Knowledges

The previous chapter attempted to shed additional light on Harding's version of feminist standpoint theory by addressing and responding to some elements of its critical reception. By way of defending Harding's account from criticisms, my hope was to convince the reader of the merit of the feminist standpoint approach and its value as both a critical and constructive intervention in science and the social order. Refuting criticisms that Harding's project implied representationalism or foundationalism required us to take a deeper look at some of the valuable motivations behind the 'less false' claim—namely, that situated, reflexive knowledge is more objective than pre-established unreflexive, androcentric alternatives, precisely because it is conscious of the exclusions it creates. However, cultivating this reflexive and more objective kind of knowledge requires an explicit interest in countering already established asymmetries in power and privilege generated by modern Western science. This point was overlooked by the critics' decontextualized and depoliticized interpretations of feminist standpoints, I argued. They problematically interpreted Harding's commitment to the strong objectivity and reflexivity through a pragmatist-empiricist lens, which did not properly account for Harding's concern with the influence of power dynamics on knowledge construction. As a result, these analyses did not offer productive or concrete strategies for responding to those scientific and socially reinforced networks of knowledge and power. In addition, Harding argues that "what these anti-

representationalist, post epistemological accounts do not do is identify just which scientific practices will in fact advance pro democratic social justice responsibility and accountability. They are completely silent on such matters" (2006, 96).

By reviewing the shortcomings of the critic's interpretations, we saw that Harding's preoccupation with modern Western science does not concern knowledge in an abstract sense, but primarily the dynamics of knowledge and power—though these dynamics were problematically articulated in Harding's early account. Questions about whose interests science tends to serve, how and for whom scientific problematics are defined, which groups are left out or not considered when 'we' decide to implement solutions that supposedly work for the collective interest, are essential elements of her approach. They are questions about which groups historically have had more power and more say in how we should continue to articulate our shared world, and importantly, what kinds of gaps in understanding or patterns of ignorance are packed into those articulations. Failing to grasp the point that Harding's standpoint theory is simultaneously committed to the joint task of 'taking sides,' by favouring the positions of marginalized groups as productive starting points for inquiry, *and* ensuring that her analyses remain situated and accountable to critical scrutiny, led her critics to presume that standpoints were best understood as static conceptual frameworks or 'merely' different contexts in which to interpret 'given' realities—a position which, they claimed, led to a problematic binary between foundationalist objectivism, on one side, and skeptical relativism on the other.

I think we can find ways to defend Harding from these charges once we reflect on the fact that, for Harding, all knowledge systems—whether they are generated from within feminist standpoints or within dominant, culturally validated ways of thinking—are *achievements*, rather than ready-made forms of direct correspondence or fixed positions from which to passively

observe the world. In this way, my defense of Harding shares with Donna Haraway the interpretation of standpoints as situated forms of knowledge. “Feminist objectivity,” Haraway writes, “is about limited location and situated knowledge, not about transcendence and splitting of subject and object. It allows us to become answerable for what we learn how to see” (1988, 582-3). Without this situated account of standpoints that grasps the interconnections between knowledge and power, the situation becomes problematically one of competing representational accounts of an ‘independent’ reality. This in turn leads to skepticism about which representational system is ‘true’ one, and to relativistic worries that any and every system might be equally true.

However, the ‘core’ elements of feminist standpoints do not rest on this problematic objectivist-relativist binary. To demonstrate this, I argue that Bruno Latour’s anthropological study of the dynamics of laboratory life sheds light on what could be described as an ‘ontology of scientific knowledge construction’ and that this can further clarify the underlying ‘logic’ of feminist standpoint theory as articulated by Harding.

Latour, like Harding, is not offering us an abstract, rational reconstruction of the scientific ‘method,’ but a sociological or anthropological description of the various pathways, trials, and impasses through which scientific inquiry unfolds. We will follow Latour’s account of ‘science in action’ and see how facts are produced, how knowledge circulates within and impacts our more-than-human-worlds. Elucidating the situated, socially and technologically embedded character of scientific disciplines allows us to further demystify the work of ‘rational’ objective scientists, and in so doing place them on the same local, situated level as the feminist standpoint theorists. This, in turn, allows us to see the formation of critical feminist standpoints in a new light. Standpoints, too, are in the process of developing and deploying their knowledges,

constructing relationships and coalitions that produce understandings across different life experiences and activities. These gatherings create possibilities for action out of old scientific and social arrangements.

### Latour: Realism, Constructivism, and the Genesis of Scientific Facts

In a recent book on Latour's influential philosophic career (Latour 2016), Gerard De Vries engages in a critical analysis of traditional epistemology so as to bring Latour's practice-oriented and engaged form of inquiry into sharper relief. De Vries claims that mainstream epistemology tends to misunderstand the nature of scientific practice because it has historically taken for granted all of the practical, messy work that is involved in shaping and transforming the knowledge spaces in which knowledge claims can come to be made. De Vries writes:

> Epistemologists tend to think much too naively about 'reality'. They conceive it as something given, out there, as a territory waiting to be discovered and to be mapped… What we are primarily dealing with when trying to understand what scientists - or mapmakers for that matter are involved in, are first of all *ontological* questions, that is to say questions about what, and in what way, something has to *be* before it can be properly called 'objective', 'visible reality.' (De Vries 10)

Philosophers (epistemologists in particular) as well as many science popularizers often misdescribe science through metaphors that suggest a kind of 'direct' and 'unmediated access' between the human world, with its many scientific instruments and technological enhancements on one side, and the independently given 'reality,' 'waiting' to be represented or mapped on the other. Yet, when we follow Latour, we see that scientists never ask the anxious, epistemological question of whether or not they have constructed a stable bridge between the 'mind' and the 'world.' Rather, their interests are first and foremost with *ontological* considerations. Scientists are interested in how the observable features of the world in which they are situated need to be shaped or conditioned, such that they can become more intelligible, coherent, and reproducible features of experience. The achievement of scientific knowledge—that is to say, the ability to

reliably refer to and navigate some aspect of reality—is thus inseparable from the various mediations and translations that scientists construct in the laboratory. Such mediations are what pack the observable world into language (Latour 1999, 24), such that words become not just words, but ways of acting and making a difference.

This emphasis on the necessity of shaping the object of inquiry as a condition for knowing anything about it undermines the idea of any direct, unmediated representation of a 'given' by the mind. Rather, for Latour, a paradoxical event takes place when scientists study 'nature': the ordered environment in which laboratory science takes place is often extended or deployed into the natural conditions to be explored, or those 'natural' objects are brought into the laboratory context of equipment and practice. Thus, "to seriously work on what interests them, scientists have to translate their interests into a problem, or a set of problems, that literally fits on a lab-bench" (De Vries 2016, 47). In other words, scientists never really study 'nature,' but always 'nature' in the context of an assembled system of laboratory equipment. What is apprehended as a 'natural' occurrence is always mediated in advance by the technoscientific apparatuses that enframe the object of investigation. In a sense, scientists working on a problem constitute the very object of their analysis, since the supposedly 'natural' conditions they study in the laboratory are already purified, and stripped of a complex background context of relations. The object of scientific analysis is therefore *produced* rather than *found* as an object; it is rendered into an event that can be more easily and reliably navigated, manipulated, or controlled by human beings.

Recall that this process of constructing nature as a scientific object of analysis was interpreted by Harding in Chapter 3 as the failure of science to study 'bare nature.' Harding

argued that we do not study nature in itself, but 'nature-as-an-object-of-knowledge'(1991, 12). Yet, scientific knowledge is in this way grasped as a combination of natural and cultural forces or activities. This way of describing knowledge leads back to the representationalist interpretation of Harding's standpoint theory that I think she needs to avoid in order to stay clear of the associated charge of relativism. Just as scientific knowledge construction is not reducible to the process by which human beings transcend the gap between subject and object, so too is it improperly grasped when interpreted as a transcendence of the gap between nature and culture. Science studies scholars like Latour reveal that there is no such gap between two ontological domains, but rather systems of relations that entangle and problematize the distinction between nature and culture, subject, and object, knowledge and power.

David Turnbull articulates this point with great clarity in the following passage from *Masons, Tricksters, and Cartographers*:

> The actual materials worked on in the laboratory are seldom 'natural'; they are themselves artificial, being the product of prior processing. Consider for example the mice used as experimental subjects all over the world. These mice have been especially bred and are reared in isolation from the natural environment. Without such especially created materials, the kinds of fine distinctions made in scientific experiments are simply not possible. The laboratory itself has to be organised in a very tightly controlled way to prevent unwanted effects. Once the artificial materials are assembled in the especially contrived environment of the laboratory they are subjected to experimentation using highly sophisticated instruments and techniques. Experiments, precisely because they are highly contrived, are usually hard to do. Much of the scientists' time, energy and skills are devoted to 'tinkering', to getting the experiment to work….[T]he essential problem is no longer that which is central to much philosophy of science, i.e. theory change, but one of knowledge transmission: how to get a local exemplar, a particular solution worked out in one laboratory, to work in another laboratory, and then how to get it to work outside the laboratory. These vital secondary and tertiary stages usually require that knowledge is adapted to local needs or that the environment is adapted to the knowledge. (2000, 10)

For Latour, this means that data cannot be thought of as given in human observation, since data is itself a construction. Producing data that can inform us about some aspect of reality is the achievement of scientists intervening, shaping, excluding, and gathering together aspects of

reality—not the result of them simply finding what is already there. Thus, data is never a single point of reference, but rather a kind of connectivity between tools, measurements, recordings, and graphical representations. Similarly, a scientific 'fact' is the result of data that has been further articulated and stabilized through various modes of representation that come to proliferate within and take on different purposes for scientific research and social life. In other words, data become facts when they become reliable references or stable nodes within a scientific community. Latour argues that facts are always the constructed achievements of scientific practice—not in the sense that they are arbitrary or flimsy 'social constructions,' but in the sense that their relative stability or resilience is dependent upon them becoming a more ubiquitous and obligatory condition of human experience (Latour 2003, 8).

The outcome of a successful experiment is a fact that is both an assemblage of discontinuous elements, yet appears in the form of a stable and reliable unity; when everything is in place, it possesses enough autonomy to enter into the lives of researchers as a foothold or stepping stone for continued research. Facts are thus reinforced retroactively by the very possibilities that they open up for future inquiries. A fact is more factual when it engages with and helps to promote the composition of other facts. The stronger its web of relations, the more necessary and obligatory it becomes, and the more difficult it will be to doubt its veracity (Harman 2009, 15).

Along with the laboratory walls we also find the borders of constructivism and realism dissolving in Latour's analysis. Latour thus reinterprets constructivism in a way that associates *the reality of the fact with the quality of the construct* (2003, 2). The question of the truthfulness or reliability of a scientific fact is directly tied to how well the rest of the world, 'the surrounding

environment' has been adapted to ensure its continued existence—thus lending it the appearance of being 'substantial,' or having an essential or internal 'integrity.' Joseph Rouse highlights that this relational conception of scientific knowledge blurs the boundary between the 'inside' and 'outside' of the laboratory.

> Laboratories, then, do not need to be bounded by walls. They extend outward to incorporate features of the natural world within the artificial worlds they construct...the laboratory is not a physical space between four walls but a context of equipment functioning together, which even incorporates nature among that equipment. (Rouse 1987, 101)

The laboratory framework in which scientific investigation proceeds provides the right kind of environment in which facts can begin to emerge and subsist though time. Facts circulate through pathways of constructed equivalence that connect entities and allow a stable reference to be achieved. Without a laboratory to create ordered conditions in which to study complex features of reality, it would be impossible to discern the pathways that constitute causal interactions that take place 'in nature.' It is useful, then, to think of laboratories as highly ordered microcosms which are tuned to bracket out the background 'noise' of a highly complex world so that we may refer to a specific aspect or feature of a context of relations without excess interference or disturbance.

In *Pandora's Hope*, Latour illustrates the process by which chains of reference are established over time by following closely the work of soil scientists and botanists studying a patch of the Amazon rainforest in Brazil. The scientists are studying a transition zone between the grasslands and the rainforest and are trying to determine if the forest is advancing on the grasslands or receding. The question sounds simple enough, but it opens up an immensely complicated situation involving conflicting sources of evidence supplied by the different plant and soil experts. In order to discover an answer to the question, the scientists have to do more

than simply go out into nature and 'look'—the trees on the outskirts could be either part of the rear guard being overtaken by the savanna, or part of the advance guard of the encroaching forest. Similarly, the soil samples taken by the soil scientists do not provide easy answers, since the soil at the forest-savanna transition zone is relatively uniform and appears to favor neither the soil nor the forest. Thus, the question requires more fine-tuned investigation in the form of additional sampling. There is no way to tell if the forest advances or retreats without a more extreme intervention in the situation by the scientists.

By tracing their movements, recording the way in which they enter into and begin to orient themselves in an initially, messy, unintelligible landscape, Latour describes the process by which the ordered conditions of a laboratory environment come to be imposed on a particular patch of the Amazon rainforest. The scientists keep track of their environment through numbering trees, constructing maps of the local terrain, taking pictures, sampling plants and organizing them in leaflets, sampling (even tasting!) the earth, combining and organizing samples, and constructing graphical representations of the different samples taken. Through a series of transformations, the group of scientists who originally appeared to be in the middle of a 'terra incognita' successfully construct various points of reference in which they can make their experience of the forest trackable. They literally carve out pathways in which to think and work from within what was originally a highly muddled, complex, heterogeneous landscape. As Latour puts the point:

> Thanks to inscriptions, we are able to oversee and control a situation in which we are submerged, we become superior to that which is greater than us, and we are able to gather together synoptically all the actions that occurred over many days and that we have since forgotten. (1999, 65)

Thus, by actively investing time and care into a small space in the Amazon, the scientists enable the landscape to tell its story; they act as delegates for a piece of reality that cannot speak for itself because, prior to the intervention of scientists, its message was garbled by too much background noise.

Latour's analysis of science in practice therefore reveals that the given so-called 'universality' of modern Western science is not a complete illusion, but is rather a kind of 'fiction' in the sense that the universality of science is literally built into the world science tries to study. The appearance of the universality of science is established by scientific practitioners successfully shaping the surrounding environment—features of the 'outside' world—such that they conform to the original, local conditions under which the knowledge claim is made. Scientific knowledge never really leaves the laboratory conditions through which reference circulates—those ordered, highly standardized and predictable conditions are simply extended further into features of the world so as to make them easier to manipulate and control. In confirmation of this point, Brian Wynne writes:

> As in the artificial conditions of the laboratory, science controls only to the extent that it manages to achieve the exclusion of all the factors it does not control, including those of which it is ignorant. It is the achievement of credibility for this implicit promise—or hope—of control, rather than the belief in actual control, which grants whatever authority they have to scientific ways of knowing. (Wynne 1996, 70)

Thus, the apparent universality of modern Western scientific knowledge is recognized as a feature of its capacity to transform the world in such ways as to render facts, produced in a specific time, place, and under specific conditions, more mobile and transferable. Facts are, in this way, not transferable *across* contexts, but transferable insofar as different contexts can be made relevantly similar to each other.

## Facts as Actor Networks

The upshot of this fully relational conception of facts is that it allows us to understand facts as both sturdy, substantial entities—since once they are accepted and non-controversial they appear sturdy and resilient insofar as we choose not to reopen the assemblage of relations working together in harmony. Only once we probe into the web of relations that had to be assembled in order to construct a scientific fact do we see the fact not as a sturdy, independent 'substance,' but rather as a process, a web of relations, an 'actor-network' (Harman 2009, 14).

The theoretical resources provided by the concept of the actor-network, or 'actant,' grant us the capacity to recognize simultaneously the power of the technoscientific apparatus through which a specific type of knowledge circulates, and yet also the remarkable contingency and fragility of these networks. Facts are only as strong as the chains of reference that support them. The actant allows us to see science as context of equipment and practices designed to produce stable nodes or points of reference whose existence is not obvious or given in advance, but which must be carefully maintained via the construction of 'equivalences' with other actants.

Latour's ontology of actor-networks precludes that we make any assumption about the essential composition of an entity, arguing that we cannot deduce the nature of anything on the basis of what we take to be its original starting conditions. For instance, we cannot explain the nature of any entity through knowledge of its 'essence,' since this always begs the question. Graham Harman notes that essentialist explanations of events

> always veer toward so-called 'Whig history': the Allies defeated the Nazis *because* they were better and stronger; Pasteur defeated Pouchet *because* he saw more clearly; the fire burned the paper *because* it was endowed with burning force; the pill makes us sleep *because* it contains sleeping force. The word 'nature' should never be used to explain something that ought to be explained instead by the concrete drama of translations between specific actors." (Harman 2009, 46)

Viewed in this way, every actor-network is always a continuous process of movement or transition that seeks to continually reproduce the conditions of its subsistence. Its 'essence,' integrity, and resilience is not given in advance, but is constantly maintained in and through the alliances it establishes for itself with other actants. Existence is therefore always a kind of disequilibrium. Actants subsist through time and space because they pay for, and so are able to pass through, the possibility of their inexistence.

## Constructing Spaces of Knowledge and Ignorance

An important corollary to this ontology of knowledge is that both *ignorance* and *knowledge* are generated through the expansion of technoscientific networks. As Latour often argues, there can be no transports of information without the simultaneous extension of networks through which that information flows. Thus, every attempt to move knowledge from one location to another requires that knowledge become 'equipped and rectified' by being integrated in an existing network of equivalences, i.e., chains of devices, tools, methods, and graphs (Latour 2013, 448). Ignorance not only plays a role in the *movement* of local and situated knowledge toward more general (but never universal or totalizing) application, but is also constitutive of the development of new knowledge projects. The achievement of knowledge always produces ignorance about the aspects of a context that need to be changed in order to make knowledge mobile and transferable. It is from within these suppressed features of a context that I argue standpoints generate their critical evaluations of scientific knowledge. In this way, we see standpoints arise from the contradictions and tensions that are constructed and deployed into natural and social space by the universalizing tendencies of modern Western science.

## Critiquing Assumptions of Scientific Universality

After reviewing Latour's arguments about the nature of fact construction in the laboratory, it is possible to see this 'constructed' form of universality in a new light, for it is not that the conventional, unreflexive knowledge systems simply 'constructed' facts that were, arbitrary, flimsy, and simply 'false'—since many of these facts managed to proliferate and maintain the conditions of their reference—rather it is that many of them were constructions that could not sustain themselves over time in the variable environments in which they were assumed to circulate without resistance. For example, we explored a number of cases in Chapter 2 that illustrated how the knowledge systems of a privileged and powerful minority ignored aspects of women's bodies (Rosser), their research and insights (Wylie), and the necessary contributions of their reproductive labour (Shiva). These were not simple cases of inaccurate or distorted representations of given states of affairs; rather the *conditions* under which these representations were constructed were not sustainable across different localities from which standpoints arise as critical tools of evaluation and reconstruction. Rosser's analyses revealed that male doctors did not 'only' have the wrong idea about women's bodies, they also built entire medical systems that treated them according to methods and standards that failed to improve their health and in many cases worsened their conditions. Similarly, Shiva's investigations into the effects of green revolution development policies revealed that the economic assumptions made by Western powers were not simply incorrect ways of interpreting gendered divisions of labour, but were committed to economic policies that acted as if women's labour did not exist. Likewise, Wylie argued that the overtly androcentric culture of modern scientific communities led to the exclusion of women's research contributions from high profile recognition, and that this had the

added effect of reinforcing biased interpretations of archeological evidence. Women were not simply misrepresented in these cases; their very life activity was articulated in ways that reduced their flourishing, consequently resulting in pockets of organized resistance against the totalizing theory of modern Western science. Where there is no recognition of the multiplicity that is absorbed by the pretension of universality there will be violence that calls for organized response. As Turnbull states,

> At the heart of any such assemblage or association there needs to be an acknowledgement of multiplicity, because all attempts at universalization involve the denial, erasure or suppression of some form of being and knowing. Whenever transcendental values, logic, a common human nature or communicative capacity, are invoked in the name of commensurability, some kind of violence is committed to differing ways of understanding the world that are subtended by incommensurable spatial practices and narratives of identity. (Turnbull 2005, 28)

Once we understand standpoints in the context of the extension of knowledge through laboratory networks, it becomes much easier to defend Harding from the charges of representationalism and relativism. Standpoints are not criticizing androcentric science from an unlocatable or unaccountable position, but are pointing out the deeper complexities that are missing from those established networks. Moreover, it is important to point out that for this reason standpoints are not participants in the corrosively critical attitude so often attributed to feminist criticism and social justice movements. Standpoints are not pointing out that 'science,' construed as an abstract theoretical project, is shaped by predominantly white, masculinist 'projections' onto nature, nor claiming that science is thereby hermetically sealed within the conceptual schemes of the privileged and powerful groups. Additionally they are not arguing that the 'alternative' feminist interpretations of science and politics are superior to the traditional ones, since in many cases the views of marginalized groups are not given sufficient institutional power to be considered 'alternative' universal systems of knowledge. Rather, standpoints simply take issue

with the impulse to universalize a set of scientific and experiential conditions without also acknowledging the costs of establishing those conditions.

## Why Ontologies of Knowledge Construction Matter for Standpoints

We have seen how Latour's ontology of scientific fact construction reveals a mechanism by which knowledge becomes 'equipped and rectified,' by transforming and adapting the local environments to become more suitable for its application. I argue that this analysis of knowledge constitutes an essential resource for feminist standpoints. For it shows on the one hand how the deck has been stacked against marginalized and subjugated forms of knowledge, yet also indicates how there are possibilities for transforming our current knowledge systems into spaces that are more democratic and representative of the life-activity of marginalized and disenfranchised groups. The fact that modern Western science does not simply work within 'given' contexts, but actively assimilates surrounding contexts in ways that make them more adaptable to a specific kind of circulating reference, shows that it is also possible for standpoints to generate their own contexts and knowledge spaces in which their forms of knowledge may circulate in and among their own constructed chains of reference.

From the vantage point of these science studies analyses, 'bad science' is not simply the projection of androcentric, masculinist, racist biases onto a 'given' natural or social state of affairs, nor is 'good science' an alternative feminist projection onto the same blank slate. Bad science is, on Latour's terms, a poorly constructed, irresponsible, or unsustainable way of articulating the world. It is science of the unreflexive, 'weakly objective' kind, that cannot account for all of the work that must go into establishing the conditions under which it is able to reliably refer to some aspect of reality. In the context of the feminist analyses just discussed, the

conditions that would sustain more reliable and resilient facts include those 'hidden' or 'suppressed' elements of the lives of marginalized groups that in many cases have not yet found conventional modes of articulation. Bad science suppresses any acknowledgment of the network of pathways through which one kind of knowledge, produced in a particular place and time, and under specific conditions, comes to be extended or deployed across contexts, thereby enabling it to 'apply' to events taking place in different places and at different times. Bad science is not a projection; it is a habit or practice of knowing that is not aware of the way in which human and non-human activities are implicated in the processes by which science co-shapes the world.

It is from within the verifiable asymmetries in power and privilege that feminist standpoints emerge as critical tools that point the way towards reconstructing scientific knowledge and, by extension, its reverberations in the social world. Therefore, to return to the problem taken up in Chapter 3, it is within this historically sensitive context that I suggest the 'less false' claim should be interpreted. Without this context, the claim that standpoints provide spaces in which to generate more objective and less false knowledge than existing alternative knowledge systems will appear within the standard, ahistorical, representationalist framework. On the contrary, it is clear that Harding is suggesting that standpoints are candidates for generating more accurate and objective knowledge because their knowledge is situated, contextual, and not prone to the same universalizing tendencies as modern Western science. When she claims that knowledge generated by standpoints can be less false, she means that it is possible to develop new forms of knowing that are not yet capable of being recognized as legitimate within the standards of our current knowledge systems. Thus, the problem for newly emerging feminist standpoints appears to be that

> existing research is so deeply complicitous with the conceptual practices of power that only conceptual practices overtly opposed to the currently reigning forms of power stand a chance of producing those accounts of reality that remain unintelligible or illegitimate for the prevailing ways of thinking. (Harding 87, 2006)

Inequalities in existing relations of knowledge and power are therefore one reason why we cannot rely on strictly empiricist arguments to provide the emancipatory support that is needed by the social justice movements. We cannot expect that we already have at our disposal all the empirical resources needed to justify the feminist standpoints, for standpoints exist precisely because those resources have not been equitably distributed. Therefore, we need to

> justify feminist empirical work in ways that go beyond the evidence such work itself provides. This work is consistently ignored or disputed, as observers have again and again pointed out. The "facts" do not announce their own legitimacy, evidently, when they challenge the favoured assumptions of dominant institutions. "The truth" does not "set us free" all by itself. (Harding 2006, 96)

Developing this knowledge requires an active and disproportionate interest in safeguarding, maintaining, and developing the understandings of marginalised social and cultural groups--understandings that have been suppressed or co-opted by interests, values, and universalizing tendencies in modern Western science.

The conflict or tension between privileged and marginalized groups is thus no longer understood in terms of competing theoretical representations or universal forms of knowledge, but is grasped rather as a tension between incompatible local knowledge systems. Modern Western science, which generates research questions and develops solutions to problems that overwhelmingly benefit a small minority is simply local knowledge that has tried (and failed) to universalize the conditions of its application. When we look at standpoints in the light of Latour's analysis of knowledge construction, knowledge and power are seen as co-emergent and co-productive of each other. They work together not only because privileged individuals in positions of authority have all the power to impose their knowledge on the world and 'suppress'

the knowledges of others, but also because the achievement of knowledge presupposes that the world has been conditioned—both ontologically and, by extension, perceptually—to their interests at the expense of the interests of others. In this way, the various asymmetries in power relations between privileged and disenfranchised groups is understood not simply as the imposition of one knowledge system on another, but rather as the capacity of a knowledge system to articulate the world in ways that harness the agencies of some groups humans and non-humans, while simultaneously eliminating conditions for the equal flourishing of those groups.

One of the strengths of this analysis is that it does not leave marginalized groups appearing exhausted and consumed by oppression. According to this view, knowledge generated from the margins can be understood as the power to navigate and mediate oppressive or harmful environments. Thus, the knowledge of marginalized groups becomes a form of resistance built into the very universalizing structure of modern Western science. Yet, because we saw through Latour's analysis that scientific knowledge is always an achievement that unifies a set of heterogeneous elements, there is conceptual space for imagining new ways in which to rework old scientific 'truths.' Hence "all knowledge spaces are potential sites of resistance" (Turnbull 2000, 19).

As fully embodied and situated forms of research and political struggle, standpoints constitute critical responses to the dominant knowledge and power systems that have justified and perpetuated their marginalized condition. In a sense, standpoints can be said to emerge from the dominant knowledge systems, since they represent the necessary correlate, or 'other side' of science: the forgotten, silenced, and distorted aspects of human and non-human existence that science leaves in its wake. For this reason, standpoints will always be locked in a troubled dialogue with the highly abstract, and uncriticized systems of knowledge and belief. Yet, because

standpoints articulate a side of science which its beneficiaries have been conditioned not to see, standpoints will often struggle, and fail, to persuasively articulate those forgotten, distorted, or suppressed aspects of experience within the accepted ways of thinking and acting that characterize the scientific and social status quo. And yet Harding argues that

> both the perpetrators and their victims must be conceptualized as capable of choosing to associate with others and to deliberate and organize, in order to engage in resisting oppression and to transform those social structures. This can be done through creating and/or joining oppositional networks, coalitions, and communities in daily interactions and critical reflection. (Harding 2015, 162)

Thus, there is still room for productive interactions between privileged and marginalized groups. However, the terms of those interactions cannot be formulated in frameworks of 'value-neutral' objectivity and impartiality, for that kind of objectivity is all too often a disguise to avoid and ignore those problematic aspects of science and social life that require new and more productive solutions—the kind that arise from learning the humility required to think from the lives of marginalized and disenfranchised groups. Marginalized groups must lead the way through setting the terms of future discussions and deliberations about issues of structural oppression and inequality.

## Conclusion: The Disunified Subject of Knowledge

Throughout this essay we have encountered numerous examples of the critical capacities that emerge from socially subordinated and marginalized positions. Yet these were, from the very beginning, thought to be in danger of being essentialized and exalted to the ideal status of the transcendent 'view-from-nowhere' against which feminist critics originally rebelled. By way of combating this reading, Harding, along with other feminists in the standpoint tradition as well as in feminist science studies, argue that new models of the subject or agent of knowledge are needed to replace the conventional conception of knowers as interchangeable, internally unified

subjects of knowledge. Helpfully, new models of subjectivity that emphasised internal disunity and situatedness were being developed by many of the influential feminist thinkers and standpoint theorists. 'Indeed,' writes Harding, "feminist and antiracist work more generally has been full of metaphors of split consciousness, from W.E.B Dubois's 'double vision' to bell hooks's *Feminist Theory from Margin to Centre* (1983) and Patricia Hill Collins's 'Outsider Within' (1986) (Harding 2015, 163).

I want to conclude by suggesting another parallel between Latour's ontology of knowledge and the new conceptions of situated subjectivity which Harding refers to as the 'partial and disunified subject/agent of knowledge.' Taken together, these indicate the multiple creative possibilities that arise from marginalized and subordinated social circumstances. Like the actor-network, whose essence is not given in advance, marginality appears also as a kind of disunified identity, one that is in the process of making and remaking itself through its interactions with other disunified subjects. That is to say, it is because of the nature of the subject, constituted in response to scientific and social systems of order and control, that marginalized groups are positioned in ways that allowed them to generate new questions and propose new solutions to problems that had been traditionally overlooked, suppressed, or explained away. Patricia Hill Collins writes that in this way, "marginality has been an excitement to creativity" (1985 513).

Importantly, these models of disunified subjectivity also help indicate how the agency of marginalized groups is not thereby diminished by the oppressive circumstances which many groups learn to skillfully navigate. On the contrary, agency, in this view, is not something that can be possessed by any single internally unified, static, 'subject,' but is a way of becoming

active in the world—within a complex set of conditions in order to rectify those problematic elements of system that disproportionately immiserate the lives of certain groups and not others.

Additionally, metaphors of disunity suggest a way for different subjects or agents to enter into productive relations with each other and to generate coalitions. Quoting a passage from the work of Ann Ferguson, Harding writes:

> The self is not a fixed unity, but an ongoing disunified subjective process with many levels and aspects. Each of these levels and aspects has associated ethico-political norms and self understandings that may be different—indeed, may conflict with each other. That this subjectivity is so multiply determined explains how we can be constrained and oppressed by given social structures and internalized psychological constraints yet can bypass them by self-conscious self-reconstitutive processes...we will require many networks and coalitions, membership in many oppositional communities, and what I call "bridge affinities." A bridge affinity is a sense of subjective connection or bonding to others based on activist coalitions, friendships, and similarities rather than fixed social identities or locations. (Cited in Harding 2015, 162)

In this way, we uncover another parallel between the feminist standpoint theorists' understanding of the disunified subject of knowledge and of Latour's analysis of the ontological conditions by which an actant *subsists*. Recall that there is no room for essentialism in Latour's ontology, because everything that possesses integrity, stability or resilience must *earn* its resilience through constructing the conditions by which it continues to endure. Put differently, any entity that possesses an integrity of its own does so through neutralizing or eliminating the conditions of its *inexistence*. Such an ontology can be profitably applied to the issue of identity or subject formation as well. A sense of 'inner' unity or identity is effectively what standpoints struggle to achieve, since they also involve situated, and evolving subjects or *actants* who need to establish socio-political and scientific coalitions in order to flourish as subjects.

Nancy Hartsock has also similarly characterized how standpoints create conditions for the formation of the identities of marginalized groups, which are forged through interconnections, coalitions and through calculated exclusions which those groups determine together. She writes that "one of our first tasks is the construction of the subjectivities of the

Other, subjectivities which will be both multiple and specific. Nationalism and separatism are important features of this phase of construction" (1987, 195). Bernice Reagon further illustrates this point in the following passage:

> Sometimes it gets too hard to stay out in that society all the time. And that's when you find a place, and you try to bar the door and check all the people who come in. You come together to see what you can do about shouldering up all your energies so that you and your kind can survive...That space should be a nurturing space where you sift out what people are saying about you and decide who you really are. And you take the time to try to construct within yourself and within your community who you would be if you were running society...This is nurturing, but it is also nationalism. (cited in Hartsock 1987, 196)

Marginalized groups that form standpoints are in the process of creating new possibilities for action that would allow them to enjoy similar degrees of freedom and privilege as those who can casually assume that privilege for themselves. Such groups do not simply will themselves as subjects, but go to work in science and politics, organizing and bringing together coalitions of people who also desire to remake the world in ways that are less oppressive. This can only be done by developing new ways in which to read and understand the experience of oppression.

I hope it has become more clear why Harding's version of feminist standpoint theory is not guilty of representationalism or relativism, but is firmly committed to situated knowledge and to seeking out those suppressed aspects of marginalized experience that have not yet found clear modes of articulation. To demonstrate this fact I argued in support of the central concept of feminist standpoint theory: that scientific, political, and epistemological projects that are not accountable to their world-shaping effects will inevitably contribute to the production of various forms of inequality—in the form of racial, gender, or class relations, and as forces that destabilize the integrity of our ecological systems. For Harding, resisting these unreflexive and weakly objective forms of knowledge required that we learn how stand in solidarity with those groups who struggle to remake their social and scientific environments so that they can generate

results that are ‘for them’ rather than simply ‘about them.’ None of this, however, implied that standpoints were fixed frames of reference or conceptual schemes in which to see the ‘true’ nature of reality. Rather, the point was that knowledge is simultaneously more democratic and accurate when we understand that our values and interests are fully extended into those features of reality which we try to understand. Modern Western science demonstrably does not understand this fundamental component in the construction of knowledge.

Yet, part of the difficulty of this dual task of critique and construction was revealed by Latour’s anthropological investigations of scientific knowledge construction. These investigations showed that knowledge and power work together in intimate ways, and that the semblance of the universality of modern Western science—and thus its claims to exceptional, unquestioned epistemological status—is a feature of its capacity to rework and restructure the complex and diverse features of the world it studies. Thus, while it is true that what counts as evidence for a theory depends on the context in which that evidence is generated, it also needs to be understood that science constructs the contexts in which its preferred theories are validated. It is not enough, then, to claim that our feminist values are always already empirically grounded and therefore justified (as Clough and Sullivan argued), unless we can also work to establish the networks or pathways through which the experiences of oppression can be articulated and extended into a broader range of contexts and walks of life. We need to continue to develop the scientific and discursive tools to disseminate and deploy the understandings of oppression such that they can be operationalized in our scientific and political systems. As Harding notes, we do not yet live in a world where evidence of oppression is sufficient to justify the feminist commitment to social justice. Rather, like the scientists who intervene and shape the landscape they wish to make intelligible, standpoints are working to create favourable conditions for the

insights and struggles of marginalized groups to become articulated in broader communities. This, I argue, is what feminist standpoints, as illustrated by Harding, are in the business of doing. They understand that we do not live in a unified, common world, where all knowers are superimposable with each other, but that it is yet possible to work toward building bridges between gaps in understanding that will improve the lives of everyone.

# References


Barad, Karen. “Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter” *Signs* 28, no 3 (Spring 2003): 801-830.

Clough, Sharyn. *Beyond Epistemology: A Pragmatist Approach to Feminist Science Studies*. Lanham (MD): Rowman & Littlefield, 2003.

Haraway, Donna. “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective” *Feminist Studies* 14, no 3 (Autumn, 1988): 575-599.

Harding, Sandra G. *Whose Science, Whose Knowledge?: Thinking from Women’s Lives*. New York: Cornell University Press, 1991.

——. 2001. “Rethinking Standpoint Epistemology: What Is “Strong Objectivity”? *The Centennial Review* 36, no 3: 437-470. https://www.jstor.org/stable/23739232

——. 2006. *Science and Social Inequality: Feminist and Postcolonial Issues*. Urbana and Chicago: University of Illinois Press.

——. 2015. *Objectivity and Diversity: Another Logic of Scientific Research*. Chicago: University of Chicago Press.

Harman, Graham. *Prince of Networks: Bruno Latour and Metaphysics*. Melbourne: P.N. Ashton and C.U. Rafferty, 2009.

Hartsock, Nancy. “Rethinking Modernism: Minority vs Majority Theories” *Cultural Critique*. No 7 (Fall, 1987): 187-206. https://www.jstor.org/stable/1354155

Hubbard, Ruth. “Science, Facts and Feminism” *Hypatia* 3. No 1 (Spring: 1987): 5-17. https://www.jstore.org/stable/3810048

Hooks, Bell. “Choosing the Margin as a Space of Radical Openness” The Journal of Cinema and Media, No 36 (1989): 15-23. https://www.jstore.org/stable/44111660

Latour, Bruno. *Pandora’s Hope: Essays on the Reality of Science Studies*. Cambridge MN: Harvard University Press. 1999.

——.2003. “The Promises of Constructivism – Bruno Latour” Bruno Latour. Accessed September 1, 2018. http://www.bruno-latour.fr/sites/default/files/87-CONSTRUCTIVISM-GB.pdf.

——.2013. *An Inquiry Into Modes of Existence: An Anthropology of the Moderns*. Cambridge MA: Harvard University Press.

Martin, Emily. “The Egg and the Sperm: How Science has Constructed a Romance Based on Stereotypical Male-Female Roles” *Signs* 16. No 3 (Spring, 1991): 485-501. https://www.jstor.org/stable/3174586

Pinker, Steven. "Science Is Not Your Enemy." The New Republic. August 07, 2013. Accessed September 19, 2018. https://newrepublic.com/article/114127/science-not-enemy-humanities.

Potter, Elizabeth. *Feminism and Philosophy of Science: An Introduction*. New York: Routledge. 2006

Puig de la Bellacasa, Maria. *Matters of Care: Speculative Ethics in More Than Human Worlds*: Minneapolis: University of Minnesota Press. 2017.

Rheinberger, Hans-Jorg. “Experiment, Difference, and Writing: I. Tracing Protein Synthesis” *Studies in History and Philosophy of Science Part A* 23. No 2 (June, 1992): 305-331.

Rosser, Sue. *Women’s Health--Missing from U.S Medicine: Race, Gender, and Science*. Bloomington: Indiana University Press. 1994.

Rouse, Joseph. *Knowledge and Power: Toward a Political Philosophy of Science*. Ithaca: Cornell University Press. 1990

Shiva, Vandana. *Staying Alive: Women, Ecology, and Development*. London: Zed Books. 1989

Smith, Dorothy. *The Everyday World as Problematic: A Feminist Sociology.* Athens, Georgia: Northeastern University Press. 1987

Sullivan, Shannon. *Living Across and Through Skins: Transactional Bodies, Pragmatism and Feminism*. Bloomington and Indianapolis: Indiana University Press. 2001

Sandoval, Chela. *Methodology of the Oppressed.* Minneapolis: University of Minnesota Press. 2000.

Tuana, Nancy. “Coming to Understand: Orgasm and the Epistemology of Ignorance” *Hypatia*. 19 no 1 (2004): 194-232.

Turnbull, David. *Masons, Tricksters, and Cartographers: Comparative Studies in the Sociology of Scientific and Indigenous Knowledge*. London and New York: Routledge. 2000

——. 2005. “Multiplicity, Criticism and Knowing What to Do Next: Way-finding in a Transmodern World. Response to Meera Nanda’s Prophets Facing Backwards” *Social Epistemology.* 19 no 1: 19-32.

Wylie, Alison. “The Engendering of Archaeology: Reconfiguring Feminist Science Studies” *Osiris*. 16 no 12 (1997): 80-99.

Wynne, Brian. “May the Sheep Safely Graze?” In *Risk, Environment, and Modernity: Towards a New Ecology*, 44-83. Edited by Scott Lash, Bronislaw Szerszynaski, and Brian Wynne. London: Sage Publications, 2000.

# Vita Auctoris

| | |
|---|---|
| Name: | Matthew Steckle |
| Place of Birth: | Windsor, ON |
| Year of Birth: | 1993 |
| Education: | University of Windsor, B. Inter. Arts. Sc., Windsor ON, 2016 |
| | University of Windsor, M.A., Windsor, ON, 2018 |