After the Neutrality Ideal: Science, Politics, and "Strong Objectivity"

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There are two kinds of politics with which the new social studies of science have been concerned. One is the older notion of politics as the overt actions and policies intended to advance the interests and agendas of "special interest groups." This kind of politics "intrudes" into "pure science" through consciously chosen and often clearly articulated actions and programs that shape what science gets done, how the results of research are interpreted, and, therefore, scientific and popular images of nature and social relations. This kind of politics is conceptualized as acting on the sciences from outside, as "politicizing" science. This is the kind of relationship between politics and science against which the idea of objectivity as neutrality works best.1

However, in a sometimes supportive and at other times antagonistic relation to it is a different politics of science. Here power is exercised less visibly, less consciously, and not on but through the dominant institutional structures, priorities, practices, and languages of the sciences.<sup>2</sup> Paradoxically, this kind of

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<sup>&</sup>lt;sup>1</sup> See Robert Proctor, Value-Free Science? Purity and Power in Modern Knowledge (Cambridge: Harvard University Press, 1991) for a history of the diverse origins and uses of the idea.

<sup>&</sup>lt;sup>2</sup> See the discussion of this second kind of power in, e.g., Joseph Rouse's *Knowledge and Power: Toward a Political Philosophy of Science* (Ithaca, N.Y.: Cornell University Press, 1987).

politics functions through the "depoliticization" of science—through the creation of authoritarian science. As historian Robert Proctor points out:

It is certainly true that, in one important sense, the Nazis sought to politicize the sciences . . . . Yet in an important sense the Nazis might indeed be said to have "depoliticized" science (and many other areas of culture). The Nazis depoliticized science by destroying the possibility of political debate and controversy. Authoritarian science based on the "Führer principle" replaced what had been, in the Weimar period, a vigorous spirit of politicized debate in and around the sciences. The Nazis "depoliticized" problems of vital human interest by reducing these to scientific or medical problems, conceived in the narrow, reductionist sense of these terms. The Nazis depoliticized questions of crime, poverty, and sexual or political deviance by casting them in surgical or otherwise medical (and seemingly apolitical) terms . . . . Politics pursued in the name of science or health provided a powerful weapon in the Nazi ideological arsenal.<sup>3</sup>

The institutionalized, normalized politics of male supremacy, class exploitation, racism, and imperialism, while only occasionally initiated through the kind of violent politics practiced by the Nazis, similarly "depoliticize" Western scientific institutions and practices, thereby shaping our images of the natural and social worlds and legitimating past and future exploitative public policies. In contrast to "intrusive politics," this kind of institutional politics does not force itself into a preexisting "pure" social order and its sciences; it already structures both.

In this second case, the neutrality ideal provides no resistance to the production of systematically distorted results of research. Even worse, it defends and legitimates the institutions and practices through which the distortions and their exploitative consequences are generated. It certifies as value-neutral, normal, natural, and therefore not political at all the existing scientific policies and practices through which

<sup>&</sup>lt;sup>3</sup> Robert Proctor, Racial Hygiene: Medicine Under the Nazis (Cambridge: Harvard University Press, 1988), pp. 290, 293.

powerful groups can gain the information and explanations that they need to advance their priorities. It functions more through what its normalizing procedures and concepts implicitly prioritize than through explicit directives. This kind of politics requires no "informed consent" by those who exercise it, but only that scientists be "company men," supporting and following the prevailing rules of scientific institutions and their intellectual traditions. This normalizing politics defines the objections of its victims and any criticisms of its institutions, practices, or conceptual world as agitation by special interests that threatens to damage the neutrality of science. Thus, when sciences are already in the service of the mighty, scientific neutrality ensures that "might makes right."

This essay pursues a project begun in other places: to strengthen the notion of objectivity for the natural and social sciences after the demise of the ideal of neutrality.<sup>4</sup> I turn first to the problem of thinking past the epistemological relativism that critics of the neutrality ideal either embrace or commit. Instead, we can begin to discern the possibility of and requirements for a "strong objectivity" by more careful analysis of what is wrong with the neutrality idea. Standpoint epistemologies provide resources for fulfilling these requirements. Finally, I suggest that the usefulness of the notion of truth, like that of epistemological relativism, should be historically relativized; the unnecessary trouble both make in the postneutrality debates originates in their intimate links to the rejected neutrality ideal.

# Are Objectivism and Relativism the Only Choices?

The ideal of objectivity as neutrality is widely regarded to have failed not only in history and the social sciences, but also

<sup>&</sup>lt;sup>4</sup> See The Science Question in Feminism (Ithaca, N.Y.: Cornell University Press, 1986); Whose Science? Whose Knowledge? (Ithaca, N.Y.: Cornell University Press, 1991), esp. chs. 5 and 6; my edited collection The Racial Economy of Science (Bloomington, Ind.: Indiana University Press, forthcoming 1993); and "Rethinking Standpoint Epistemology" in Linda Alcoff and Elizabeth Potter, eds., Feminist Epistemologies (Boston: Routledge, forthcoming).

in philosophy and related fields such as jurisprudence.<sup>5</sup> The notion contains a number of elements. In the following passage, Peter Novick describes how it appears in the thinking of historians; but with appropriate adjustments this passage expresses objectivist assumptions more generally:

The assumptions on which [the ideal of objectivity] rests include a commitment to the reality of the past, and to truth as correspondence to that reality; a sharp separation between knower and known, between fact and value, and, above all, between history and fiction. Historical facts are seen as prior to and independent of interpretation: the value of an interpretation is judged by how well it accounts for the facts; if contradicted by the facts, it must be abandoned. Truth is one, not perspectival. Whatever patterns exist in history are "found," not "made."

The objective historian's role is that of a neutral, or disinterested judge; it must never degenerate into that of advocate or, even worse, propagandist. The historian's conclusions are expected to display the standard judicial qualities of balance and evenhandedness. As with the judiciary, these qualities are guarded by the insulation of the historical profession from social pressure or political influence, and by the individual historian avoiding partisanship or bias—not having any investment in arriving at one conclusion rather than another.<sup>6</sup>

What is left of the objectivity ideal when neutrality is abandoned? Fairness, honesty, and an important kind of "detachment," to start. Thomas Haskell, for example, points out that it is absurd to assume—as Novick does—that in giving

<sup>&</sup>lt;sup>5</sup> The literature here is huge. For a few particularly striking examples, see Richard Bernstein, Beyond Objectivism and Relativism (Philadelphia: University of Pennsylvania Press, 1983); Peter Novick, That Noble Dream: The "Objectivity Question" and the American Historical Profession (Cambridge: Cambridge University Press, 1988); Patricia Williams, The Alchemy of Race and Rights (Cambridge: Harvard University Press, 1991); chs. 5 and 6 of Evelyn Fox Keller, Reflections on Gender and Science (New Haven: Yale University press, 1985); Donna J. Haraway, "Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective," in her Simians, Cyborgs and Women: The Reinvention of Nature (New York: Routledge, 1991).

<sup>&</sup>lt;sup>6</sup> Novick, That Noble Dream, pp. 1-2.

up the goal of neutrality one must give up the ideal of objectivity:

The very possibility of historical scholarship as an enterprise distinct from propaganda requires of its practitioners that vital minimum of ascetic self-discipline that enables a person to do such things as abandon wishful thinking, assimilate bad news, discard pleasing interpretations that cannot pass elementary tests of evidence and logic, and, most important of all, suspend or bracket one's own perceptions long enough to enter sympathetically into the alien and possibly repugnant perspectives of rival thinkers. All of these mental acts-especially coming to grips with a rival's perspective-require detachment, an undeniably ascetic capacity to achieve some distance from one's own spontaneous perceptions and convictions, to imagine how the world appears in another's eyes, to experimentally adopt perspectives that do not come naturally—in the last analysis, to develop, as Thomas Nagel would say, a view of the world in which one's own self stands not at the center, but appears merely as one object among many.7

Notice that the detachment called for here is not impersonality. The observer is not to act as if s/he were not a social person, or to separate even more from those s/he studies (when it is people or institutions that are the object of study), but, instead, critically to distance from the assumptions that shape his or her own "spontaneous perceptions and convictions." Haskell is concerned here with something different from the distorting effects of the intrusion of politics into neutral science. Instead, it is the distorting "politics of the obvious" to which he is drawing attention. Sometimes this can be a matter of idiosyncratic individual assumptions; but these are relatively easily identified by peers who check research designs, sources, and observations. More problematic are the spontaneous perceptions and convictions that are shared by a scientific community and, usually, by the dominant groups in the social

<sup>&</sup>lt;sup>7</sup> Thomas L. Haskell, "Objectivity Is Not Neutrality: Rhetoric vs. Practice in Peter Novick's *That Noble Dream,*" History and Theory 29 (1990): 132; citing Thomas Nagel, The View from Nowhere (New York: Oxford University Press, 1986), pp. 4-6, 68. See also the important criticisms of Novick's account by Linda Gordon, "AHR Forum: Comments on That Noble Dream," American Historical Review 96 (June 1991): 683-687.

order of which the scientists are members by birth and/or achievement. It is reflexivity that is the issue here: self-criticism in the sense of criticism of the widely shared values and interests that constitute one's own institutionally shaped research assumptions.

Haskell's kind of retrieval of the concept of objectivity from its "operationalization" as maximizing neutrality is extremely valuable. However, to become more than a mere moral and intellectual gesture—to become a competent program that can guide research practices-we need some procedures or strategies to pursue that could systematically lead away from wishful thinking, refusing to come to terms with bad news, refusing "to enter sympathetically into the alien and possibly repugnant perspectives of rival thinkers," etc. Otherwise, it is perfectly clear that only the already marginal groups will be regarded as engaging in these bad habits by those with the most authoritative voices in the social order and our research disciplines. The latter, with no conscious bad intent, will arrive at such judgments by simply following the normalizing procedures of institutions and conceptual schemes legitimated already as value-neutral. Without strategies to maximize this kind of objectivity, these moral exhortations remain only idle gestures.

These "minorities" have additional cause for alarm at the retreat to gestures. In some of the most influential criticisms of objectivism and its assumptions, the effects on historical, sociological, or scientific belief of such macro social structures as the racial order, the class system, imperialism, and the gender order are completely and sometimes even intentionally ignored.<sup>8</sup> In others, the contributions of research and

<sup>&</sup>lt;sup>8</sup> This is the case, for example, for the "strong programme" in the sociology of knowledge and related tendencies in the social studies of science. See, e.g., David Bloor, *Knowledge and Social Imagery* (London: Routledge & Kegan Paul, 1977); Bruno Latour and Steve Woolgar, *Laboratory Life: The Social Construction of Scientific Facts* (Beverly Hills, Calif.: Sage, 1979).

scholarship that begins from the lives of people of color and feminists are devalued and even attacked. Yet the articulation of the perspective from the lives of just such marginalized peoples as racial minorities in the first world, third-world people, women, and the poor has provided some of the most powerful challenges to the adequacy of objectivism. The gestures of mainstream writers to the value of good intentions coupled with their persistent failures to manage to "be fair" to the most "alien and possibly repugnant" competing claims cannot give much hope to those who have persistently lost the most from the conceptual practices of power. Described between the effect of defending the dominant views against their most telling critics. Does relativism itself need to be relativized?

The fall of objectivism and the failure to replace it with a viable alternative program has a double effect for the natural sciences. For one thing, it challenges the procedures in the social studies of science for maximizing the objectivity of the descriptive and prescriptive accounts of the natural sciences that are produced in history, sociology, anthropology, political economy, and philosophy. Have these fields really provided the maximally objective accounts—the least possible partial and distorted ones—of the past practices in the natural sciences?

<sup>10</sup> The phrase is Dorothy Smith's; see her *The Conceptual Practices of Power: A Feminist Sociology of Knowledge* (Boston: Northeastern University Press, 1990).

<sup>&</sup>lt;sup>9</sup> Consider, for example, the persistent failure of the social studies of science to come to grips with Joseph Needham's comparative studies of Chinese and Western sciences; see, e.g., The Grand Titration: Science and Society in East and West (Toronto: University of Toronto Press, 1970). Or consider Novick and Haskell's trivialization and even demonization of feminist approaches to history. In focusing their discussions of feminist history disproportionately on the Sears case, it is clear that both think it important to jump in and take one side in a discussion within feminist theory that is unfinished and necessarily contentious rather than to try to articulate for their audiences the large concerns that made the Sears case so agonizing for feminists. It is not that feminists should be immune to criticism—even by scholars who work in other fields such as Novick and Haskell—but that these historians continue gender politics when they assert their right to decide feminist issues rather than trying to understand and explain them.

Are the prescriptions for generating future maximally objective accounts likely to advance that goal if they are grounded in accounts of past practices that block our ability to describe, explain, or understand the causes of success and failure in the history of science?

Natural scientists might assume that this is an issue only for the social studies of science. After all, the study of institutions of science, their history and present practices, is not the same as the study of nature. However, the natural sciences can't escape the implications of objectivism's decline so easily. Their choice of procedures to use in identifying and eliminating distorting cultural assumptions from the results of their research are guided by assumptions about which have been the most successful such procedures in the past. The natural sciences do and must assume histories, sociologies, political economies, and philosophies of science whether or not they explicitly articulate such assumptions. Furthermore, this theoretical point is supported by historical evidence since the critics of objectivism also have focused directly on the natural sciences. Following the path of earlier accounts of how bourgeois assumptions have shaped Western sciences, feminist and postcolonial critics recently have pointed to the inadequacy of neutral objectivism to identify the androcentric, Eurocentric, and racist assumptions in many of the most widely accepted scientific claims. 11 The fact that physical nature does

<sup>11</sup> The feminist literature is huge. For good review essays and bibliographies, see Londa Schiebinger, "The History and Philosophy of Women in Science: A Review Essay," in Sandra Harding and Jean O'Barr, eds., Sex and Scientific Inquiry (Chicago: University of Chicago Press, 1987); A. Wylie, K. Okruhlik, S. Morton, and L. Thielen-Wilson, "Philosophical Feminism: A Bibliographic Guide to Critiques of Science," New Feminist Research/Nouvelles Recherches Feministes 18 (June 1990): 2–36. For samples of the postcolonial critiques, see Susantha Goonatilake, Aborted Discovery: Science and Creativity in the Third World (London: Zed Books, 1984); Patrick Petitjean, Catherine Jami, Anne Marie Moulin, eds., Science and Empires: Historical Studies about Scientific Development and European Expansion (Dordrecht, Holland: Kluwer Academic Publishers, 1992); Ziauddin Sardar, ed., The Revenge of Athena; Science, Exploitation and the Third World (London: Mansell Publishing Ltd., 1988).

not organize itself culturally does not give the natural sciences immunity to these criticisms of how social assumptions and projects inevitably shape the results of human research; what the sciences actually observe is not bare nature but always only nature-as-an-object-of-knowledge—which is always already fully encultured.<sup>12</sup> Thus the natural sciences, too, are confronted with the demise of objectivism and threat of relativism.

### Relativizing Relativism

The epistemological relativism that makes unnecessary trouble in the postneutrality discussions is sometimes conflated with sociological relativism. The latter simply describes the obvious fact that different people or cultures have different standards for determining what counts as knowledge; there is no one standard to which they all agree. Sociological relativism simply states a fact that is uncontested by either the epistemological absolutists or relativists, who go on to make further, conflicting, judgments about how to respond to this fact. The absolutists, such as objectivists, say that there is one and only one defensible standard for sorting belief to which—alas—some peoples and societies haven't caught on. The absolutists make a judgment, a prescription, about what standards we all should use in seeking knowledge. The

<sup>&</sup>lt;sup>12</sup> Most people think that the subject matter of the natural sciences is not cultural and therefore that methodological issues raised by the study of people and social institutions are irrelevant to the natural sciences. They disagree on whether, nevertheless, natural-science methods should be the model for the social sciences, but they agree that whatever issues arise for the social sciences because of their distinctive subject matter could not illuminate the natural sciences. In contrast to these disputants, I have argued that nature-as-an-object-of-knowledge is always already encultured for scientists by "conversations" they have with their disciplinary traditions and the surrounding culture, and by the methods they use to interact with nature. Consequently, the natural sciences are usefully conceptualized as a subfield of social research. See *The Science Question* and *Whose Science?* 

epistemological relativists make a different judgment: that each of these (often conflicting) standards that different groups use is equally valid, equally good. There are no defensible grounds for maintaining that any one is better than any other; there can be no one standard for sorting beliefs, they say. My point here is that it is only this epistemological (or judgmental, or cognitive) relativism that is problematic.<sup>13</sup>

It is important to note that relativism is objectivism's twin. While always a theoretical possibility, as a troubling concern it is an historical emergent. On the one hand, it is not a problem justifiable in terms of knowledge projects originating in the lives of marginalized groups. No critics of racism, imperialism, male supremacy, or the class system think that the evidence and arguments they present leave their claims valid only "from their perspective"; they argue for the validity of these claims on objective grounds, not on "perspectivalist" ones. Nor, on the other hand, is there any good reason for an absolutist to be worried about relativism if no one challenges the universal validity of his standards. Relativism appears to have emerged as a disturbing issue only in nineteenth-century Europe, as some anthropologists began to show that the apparently bizarre beliefs and behaviors of "savages" had a rationality of their own, and the rise of socialism and feminism suggested similar possibilities about the working class and women. Many Western anthropologists still defend a relativist stance that simultaneously respects the different rationality of non-

<sup>18</sup> It was Thomas Kuhn's *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1962) that made epistemological relativism a concern in the philosophy of science since, in effect, he showed that all of natural science was located inside social history. At the same time, W. V. O. Quine pointed out that it was always a matter of choice whether scientists should give up an observational or theoretical claim, or even a logical assumption, when a hypothesis was "falsified by experience": they formed an interconnected network of belief. See his *Word and Object* (Cambridge: MIT Press, 1960). This is not the place to review the subsequent huge literature on epistemological relativism ("relativism," henceforth), but for one interesting recent paper, see S. P. Mohanty, "Us and Them: On the Philosophical Bases of Political Criticism," *Yale Journal of Criticism* 2:2 (1989): 1–31.

Western ways of life, legitimates their own work as reporters of the exotic, and blocks recognition of the authoritarianism of Western standards for science and "progress." Today, disillusioned objectivists are often unable to distinguish between the ethnocentric and relativist stances that they take to be the only alternative to neutrality and that, they insist, are all that feminists, postcolonialists, and other such "special interest groups" can claim, and the systematic procedures for maximizing objectivity that such groups propose. Like its partner, absolutism, relativism can be "relativized." We are not forced to it in rejecting absolutism.<sup>14</sup>

If the demise of the neutrality ideal does not force us to epistemological relativism, perhaps the notion of objectivity can be strengthened as a resource to enable researchers to arrive at less partial and distorting claims.

# Objectivism vs. Strong Objectivity

An excessively restricted notion of research methods has ensured that only weak standards of objectivity will be required of research projects. Objectivist methods are designed to identify and eliminate those social and political values and interests that differ between the individuals who constitute a scientific community. However, several problems still remain. For one thing, scientific methods in the narrow sense in which research designs designate them—techniques—function only in the "context of justification." That is, they are brought into play only after the "context of discovery": after a problem is identified as a scientific one and a hypothesis and testing procedures are selected. However, it is in the context of

<sup>&</sup>lt;sup>14</sup> I have discussed this issue in other places; see, e.g., Whose Science?, pp. 153ff.

<sup>&</sup>lt;sup>15</sup> Some may think that discussing these issues in such "rational reconstruction of science" terms is irrelevant to describing, explaining, or understanding what

discovery that culture-wide assumptions which subsequently are among the most difficult to identify make their way into the research process and shape the claims that result. It is here that problems are identified and designated as scientific ones, concepts selected, and hypotheses formulated. Even the National Academy of Sciences now argues that the notion of scientific methods should be enlarged beyond its familiar meaning of techniques to "include the judgments scientists make about interpretation or reliability of data. They also include the decisions scientists make about which problems to pursue or when to conclude an investigation. Methods involve the ways scientists work with each other and exchange information."<sup>16</sup>

Of course, funding requests (as well as hiring, promotion, and publishing processes) require peer reviews, so one might think that distorting assumptions would tend to be identified here; that a kind of method of discovery—of detecting and eliminating distorting values and interests from the "bold conjectures" that will be tested—is already widely practiced. However, exactly because it is peers who make or contribute importantly to these decisions, it is exactly the assumptions peers share that escape detection here, too.

The same problem appears inside the "context of justification" where it is peers who certify research decisions, processes, and outcomes. Scientific communities that are designed (intentionally or not) to consist only of like-minded individuals lose exactly that economic, political, and cultural diversity that is necessary to enable those who count as peers to detect the dominant culture's values and interests. The main

researchers actually do or should be doing. However, since researchers themselves must make assumptions and decisions about how to do research, they, too, have an interest in such "rational reconstructions." It is only distorting and misleading rational reconstructions that should be avoided. The new social studies of science—intentionally or not—provide different rational reconstructions.

<sup>&</sup>lt;sup>16</sup> National Academy of Sciences, On Being a Scientist (Washington, D.C.: National Academy of Sciences Press, 1989), pp. 5-6.

problem here is not that individuals in the community are androcentric, Eurocentric, or economically overprivileged (though that certainly doesn't help), but, instead, that the normalizing, routine conceptual practices of power are exactly those that are least likely to be detected by individuals who are trained not to question the social location and priorities of the institutions and conceptual schemes within which their research occurs. Moreover, even when a conflicting value or interest is detected within such communities, there are no standards or procedures immune to these same criticisms for determining whether the minority or majority claim distorts less. For example, feminist and postcolonial accounts of the history of the natural sciences that are making their way into mainstream publishers' lists are at best regarded by the "natives" of Western science and the social studies of science to be expressing only "special interests" and proposing alternative "ethnosciences"; the dominant views remain the purportedly neutral standard. So objectivism "operationalizes" maximizing objectivity too weakly when its methods can identify only those values and interests that differ within a homogeneous scientific community, and when it has no strategies for gaining causal, critical accounts of the dominant cultural standards.

Furthermore, neutrality operationalizes maximizing objectivity too weakly in another way. Some social values and interests clearly maximize the objectivity of research. As Haskell points out, fairness, honesty, and detachment, which are moral and, indeed, political values and interests, must be activated in order to maximize objectivity. Moreover, in order to "assimilate bad news," or "to suspend or bracket one's own perceptions long enough to enter sympathetically into the alien and possibly repugnant perspectives of rival thinkers," the material and political conditions must be such that the bad news arrives and the rival thinkers' perspectives are accessible, and that these perspectives are taken seriously as real rivals to the dominant ones. But androcentric, bourgeois, and racist social orders insure that very little of these necessary material

and political conditions will occur. There is little of postcolonial or feminist approaches available in the leading science and social studies of science journals, conference programs, or graduate teaching. Thus, democratizing the social order contributes to maximizing the objectivity of a society's sciences. In short, the most critical—"alien and possibly repugnant"—perspectives, because they conflict with the values and interests that have been conceptualized as neutral, are exactly what get dismissed a priori by objectivists. Thus the sciences are left complicitous with the projects of the most powerful groups in society. The neutrality requirement in not just ineffective at maximizing objectivity; it is an obstacle to it.

These kinds of arguments enable us to begin to see the outlines of a stronger conception of objectivity. Strong objectivity would specify strategies to detect social assumptions that (a) enter research in the identification and conceptualization of scientific problems and the formation of hypotheses about them (the "context of discovery"), (b) tend to be shared by observers designated as legitimate ones, and thus are significantly collective, not individual, values and interests, and (c) tend to structure the institutions and conceptual schemes of disciplines. These systematic procedures would also be capable of (d) distinguishing between those values and interests that block the production of less partial and distorted accounts of nature and social relations ("less false" ones) and those-such as fairness, honesty, detachment, and, we should add, advancing democracy—that provide resources for it. This is the point where standpoint epistemologies can be useful.

# Standpoint Epistemologies

Standpoint theories argue that if one wants to detect the values and interests that structure scientific institutions, practices, and conceptual schemes, it is useless to frame one's research questions or to pursue them only within the priorities

of these institutions, practices, and conceptual schemes. One must start from *outside* them to gain a causal, critical view of them. One important way to do so is to start thought from marginal lives.

While standpoint theory has been most thoroughly articulated in almost two decades of feminist writings, similar arguments appear in the knowledge and policy claims of postcolonials, people of third-world descent in the first world, lesbians and gays, criticisms of the class system, etc.<sup>17</sup> The convergence of these largely independently developed epistemologies (with their accompanying sociologies, histories, and methodologies of scientific research) creates an additional kind of evidence for any one of them. Here, I can only outline some main tendencies in current thinking about them.

What does it mean to "start thought from marginal lives"? "Marginal lives" are determinate, objective locations in the social structure. Such locations are not just accidently outside the center of power and prestige, but necessarily so. It is the material and symbolic existence of such oppositional margins that keep the center in place: the rich can only be rich if there are others who are economically exploited; masculinity can only be an ideal if it is continuously contrasted with a devalued other: femininity. "Matrix theory," which focuses on the systematic social relations between such macrostructuring forces as the class, gender, and race systems, provides an empirically

<sup>17</sup> Central statements of this approach can be found in Smith's Conceptual Practices of Power and The Everyday World as Problematic (Boston: Northeastern University Press, 1987); Nancy Hartsock, "The Feminist Standpoint: Developing the Ground for a Specifically Feminist Historical Materialism," in S. Harding and M. Hintikka, eds., Discovering Reality: Feminist Perspectives on Epistemology, Metaphysics, Methodology and Philosophy of Science (Dordrecht: Reidel Publishing Co., 1983); Hilary Rose, "Hand Brain and Heart: A Feminist Epistemology for the Natural Sciences," Signs 9:1 (1983); Alison Jaggar, ch. 11 of Feminist Politics and Human Nature (Totowa, N.J.: Roman & Allenheld, 1983). An important recent development of this theory is in chs. 10 and 11 of Patricia Hill Collins, Black Feminist Thought: Knowledge, Consciousness and the Politics of Empowerment (New York: Routledge, 1991). Postcolonial standpoint arguments may be found, e.g., in the works cited in note 11.

and theoretically more adequate account of these social structures than do the earlier class theories, gender theories, and race theories that did not prioritize the way class, gender, and race construct and maintain each other. The thought that develops from such a starting point emerges from democratic dialogue—the sort characteristic of coalitions—between various marginal communities and, also, the dominant ones. 18 So the standpoint project is, first, to generate scientific problems not from within the debates and puzzles of the research traditions, not from the priorities of funders or dominant policy groups, but from outside these conceptual frameworks, namely, from the lives of marginalized peoples; and to develop this thought through democratic dialogues between knowledge-producing groups.

These accounts are not fundamentally about marginal lives; instead they start off research from them; they are about the rest of the local and international social order. The point of identifying these problems is not to generate ethnosciences, but sciences-systematic causal accounts of how the natural and social orders are organized such that the everyday lives of marginalized peoples end up in the conditions they do. (From the perspective of standpoint theories, the term "ethnoscience" is more appropriately applied to the dominant sciences that fail to gain the detachment from the conceptual priorities and assumptions of dominant groups that is supposed to be required of sciences.) Moreover, to start from marginal lives is not necessarily to take one's problems in the terms in which they are expressed by marginalized people-and this is as true for researchers who come from such groups as for those who do not. Listening attentively to what bothers them is a crucial assistance in standpoint projects. But the dominant ideology restricts what everyone, including marginalized people, are

<sup>&</sup>lt;sup>18</sup> It is women of color who have developed matrix theory and arguments about the importance of gaining knowledge through dialogue between coalition members. See, e.g., Collins, *Black Feminist Thought*.

permitted to see and shapes everyone's consciousnesses. African Americans, too, have argued that African Americans should be satisfied with their lesser places in the social order. Women, like men, have had to learn to think of sexual harassment, not as a matter of "boys will be boys," but as a violation of women's civil rights. Marital rape was a legal and, for most people, conceptual impossibility until recently. Western feminists, like the rest of Westerners, are only beginning to learn how to conceptualize many of our "problems" in anti-Eurocentric terms.

Thus standpoint approaches differ from interpretive ones. Because standpoint theory is persistently misread as a kind of "perspectivalism" that generates relativistic interpretations of nature and social relations, I shall risk repetition here. To start thought from marginal lives is not to take as incorrigible—as the irrefutable grounds for knowledge—what marginal people say or interpretations of their experiences. Listening carefully to what marginalized people say-with fairness, honesty, and detachment-and trying to understand their life worlds are crucial first steps in gaining less partial and distorted accounts of the entire social order; but these could not be the last step. Starting thought from marginal lives is not intended to provide an interpretation of those lives, but instead a causal, critical account of the regularities of the natural and social worlds and their underlying causal tendencies. Thus standpoint theory demands acknowledgment of the sociological relativism that is the fate of all human enterprises including knowledge claims, but rejects epistemological relativism.

To start thought from marginal lives is scientifically and epistemologically preferable for all the reasons historians and social scientists value "stranger," "underclass," and "loser" perspectives on history and social life. 19 What we do enables and limits the kinds of things we can know about ourselves and

<sup>19</sup> I review many of these in ch. 5 of Whose Science?

the world, and if one starts from the activities of those who are necessarily disadvantaged in a particular kind of social order one can come to understand objectively existing features of it that are much harder to detect when one starts thought from the activities of those who benefit most. The "natures" and social conditions of women, the poor, lesbians and gays, and people of color have consistently been regarded as natural and necessary for "human progress" by the dominant groups. Starting thought from these disadvantaged lives enables one to detect the social mechanisms through which power relations are made to appear obviously natural and necessary. The natural sciences have participated in creating and legitimating these distorted accounts, and their institutions and practitioners have benefited from them. Western sciences have played an important role in advancing Western imperialism, and have gained increased prestige from the destruction of non-Western cultures and their scientific traditions. To examine critically Western sciences from the perspective of this kind of history enables us to detect distorting assumptions structuring it that are shared by most Westerners.

As the history of thought shows, thinkers who are not themselves members of marginalized groups can generate these accounts that maximize strong objectivity. John Stuart Mill was not a woman, though he produced one of the most powerful feminist analyses that begins thinking about social relations between the genders from the perspective of women's lives. Marx and Engels were not members of the proletariat from the perspective of whose lives they began thinking about the class system. Many recent illuminating analyses of the social order have begun from the lives of marginalized people that were very different from the authors' lives. Starting thought from lives other than one's own should not be a controversial idea since it is presumably the goal of a good part of the educational process. Students are expected to be able to understand how the world looked by starting their thought from the objective historical conditions in which lived Aristotle,

Galileo, Shakespeare, and other thinkers whose ideas are often "alien and possibly repugnant" to many of these students. What's different here is to expect members of dominant groups to think they can learn anything objectively less false about themselves and their conceptual and material universe by thinking about their own, dominant world from the perspective of the objective social conditions of the "have nots" from which (intentionally or not) they benefit. But this is just what is required for the kind of detachment central to maximizing objectivity.

#### Who Needs Truth?

Finally, we can ask how we should think about the relationship between our best knowledge claims and the nature and social relations that they are intended to describe/interpret. For objectivism, with its ideal of results of research that were socially neutral, truth could appear to be a reasonable way to conceptualize the relationship. The best knowledge claims should be true of the world in the sense of reflecting without distortion the way the world is, of corresponding to a reality that is "out there" and unchanged by human study of it. Claims that satisfied the requirements of knowledge (that constitute "justified true belief") would bear a unique relationship to the world.

Of course there were always obvious contradictions in imagining that the goal of sciences could be to generate true statements since what makes a claim scientific is that it must always be held open to revision on the basis of future possibly disconfirming empirical observations or of revisions in the conceptual frameworks of the sciences. The abandonment in scientific circles of the concept of the crucial experiment in the late nineteenth century reflected that recognition that no empirical observations could "prove" a hypothesis true; (at most) it could only prove it false. However, the last thirty years

of the philosophy and history of science have succeeded in undermining dreams of absolute falsification, too. As noted earlier, scientific claims and assumptions form a network, and scientists must choose whether to regard a belief at the analytic center or observational periphery of the network as the one to be revised when refutation of a hypothesis threatens.<sup>20</sup> Historians have pointed out how these choices have been made at different stages in research traditions and for "extrascientific" reasons: young theories must be retained in the face of occasional or even frequent falsifying observations; favored older theories are usually retained until they are forced into retirement by the scientific community's shift in allegiance to an alternative; any theory can always be retained as long as its defenders hold enough institutional power to explain away potential threats to it.21 Even if the concept of absolute truth could not be used to characterize the results of scientific research, it still could function as an ideal toward which science was moving as long as absolute falsity could characterize "bold hypotheses" the sciences tested. But once the idea of absolute falsity also becomes indefensible, what could be the use of the concept of truth?

The notion is inextricably linked to objectivism and its absolutist standards.<sup>22</sup> "Less false" claims are all the procedures of the sciences (at best) can generate: the hypothesis passing empirical and theoretical tests is less false than all the alternatives considered. This gap between the best procedures humans have come up with for weighing evidence and the unachievable procedures that a truth standard requires (e.g., testing all possible alternative hypotheses) gives more reason for thinking past objectivism and relativism. Nostalgia for the

<sup>&</sup>lt;sup>20</sup> See references in note 13.

<sup>&</sup>lt;sup>21</sup> See my edited collection, Can Theories Be Refuted? Essays on the Duhem-Quine Thesis (Dordrecht: Reidel, 1976).

<sup>&</sup>lt;sup>22</sup> The postcolonial science critics are continually amazed at the inability of Westerners to understand that Western sciences, too, are fully housed within distinctively Western religious and cultural meanings. See the earlier citations.

possibility of certain foundations for our knowledge claims can more easily be left behind us as part of the safety net we no longer need in order to make the best judgments we can about nature and social relations. Who needs truth in science? Only those who are still wedded to the neutrality ideal.

In conclusion, the postneutrality discussions need to turn their backs on epistemological relativism. When they do so they can begin to explore strategies for maximizing objectivity by adopting those methods for detecting systematically distorting assumptions that have proved most powerful in the projects of marginalized groups. This turn to strong objectivity will have benefits for both the natural sciences and the social studies of science. Copyright of Social Research is the property of New School for Social Research and its content may not be copied or emailed to multiple sites or posted to a listsery without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.