

The Work of Donna Haraway

Its Contribution to Social Theory

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Epistemological Revisions from Primatology to Cybertechnologies

LIKE A NUMBER of cultural critics of the late twentieth century, Donna Haraway focuses her early criticism on the epistemological assumptions of various disciplinary discourses established at the end of the nineteenth century. She aims to rethink disciplinarity by showing how certain rhetorics function to create boundaries, making an inside and outside of the discipline and only authorizing what is inside. Haraway is especially concerned to treat the deployment of the rhetorics of race, class, gender, sexuality, and nation in establishing disciplinarity. She aims to show how these rhetorics are entangled with the opposition of culture and nature, nature and technology.

In her essay "Teddy Bear Patriarchy," Haraway subjects the discipline of primatology to cultural criticism. While her intention is to raise the larger question of what counts as "nature" in primate studies, she does this through particular strategies of cultural criticism that

have come to characterize her work: they are feminist, anti-racist, and multicultural, all moving together in a Marxism revised for the new millennium. In that essay she examines the work of Carl Akeley, the man who designed the dioramas of African Hall in the Museum of Natural History in New York City. She retraces Akeley's career from big game hunting in Africa to photographing the animals of Africa, to developing the craft of taxidermy in order that he might turn into scientific method what he had learned from stuffing Jumbo for P.T. Barnum. Haraway points to the ways the methods of gun, camera, and taxidermy became interimplicated technologies of realist narrativity. Realist narrativity, Haraway suggests, is a formula for authorizing empirical data in that it grounds scientific authority in immediate vision as observation, a requirement of what Haraway calls "naked-eye" science. The realist narrative does this by dramatizing scientists' efforts to obtain data—that is, traveling to the field or natural habitat, suffering the trials of staging first-hand vision and obtaining observations, and finally returning home with tales about what was seen and experienced.

In the case of the diorama, the realist narrative is deployed especially to materialize or embody a primate vision. Presented through the eye of the hunter/photographer/scientist, the dioramas dramatize culture's separation from nature, the human's separation from animal existence. They offer an origin story of human development. Presenting the animals often in family groupings, Akeley's dioramas urge the viewer to see in the animal a reminder of what the human is or has become—the most developed member of family and culture. Just as the father is privileged over the mother and child, the human is privileged over the animal. Haraway argues that the dioramas do several things at once: link a biological organicism with the patriarchal ideology of the family; ground a certain kind of evolutionary theorizing; strengthen the opposition of nature and culture, human and animal; and enforce disciplinary boundaries between the sciences and the humanities, the natural sciences and the social sciences.

Focusing on the implied masculinism of this organicist/realist narration, Haraway elaborates a feminist cultural criticism of science that

is necessarily interdisciplinary. She draws together feminist history, feminist film criticism, and feminist literary criticism in order to engage in the deconstruction of rhetorics, discourses, and narrative logics—or what might be called disciplinary writing technologies. But Haraway's emphasis on writing technologies in the discursive analysis of scientific authority is not meant to reduce science to fiction in any narrow sense of the term; nor is it meant to suggest that the animal, the natural, or the human are only or merely cultural productions. Rather, for Haraway, discursive analysis opens up to a treatment of "material-semiotic entities," where there is an absolute simultaneity of materiality and semiosis, that is, where nature and culture cannot be separated from or reduced to each other. While her treatment of material-semiotic entities has implications for ontology, Haraway focuses, at least at first, on epistemology due in part to her engagement in the debates over what Sandra Harding first named "the science question in feminism."

In a ground-breaking text, Harding (1986) brought together the works of a number of feminist theorists engaged in criticisms of positivistic, empiricist practices of science. Harding also firmly set in place a desire and a hope for a feminist "successor science," an empirical science which, she maintained, would be characterized by a "strong objectivity" only when the standpoint of the scientist or researcher is made evident. Standpoint epistemologies, as they came to be known, were elaborated, often focusing on the identity and the experience of the knower. They were developed for the most part by those who had been excluded from the authority of science and who would offer their experience and vision as a way to understand the world from the positions of the marginalized, the oppressed, and the exploited. "Subjugated knowledges" were written and spoken by persons of color, neocolonial subjects, and the subjects of marginalized sexualities.

But standpoint epistemology also has been used to characterize the subject positions realized in the production of what has been called "knowledge itself," abstract disciplinary knowledge. For example, Dorothy Smith (1987) has elaborated a standpoint epistemology that is grounded in what she names "the relations of ruling," where abstract

"standpoint epistemology"

knowledge is central and highly valued. She argues that, usually, women free men to engage in abstract knowledge production, so that it is women's work as mothers, wives, and daughters that is exploited. Translating Marx's treatment of working class consciousness to women's consciousness, Smith argues that women can have a more objective perspective of the way the relations of ruling are produced and reproduced; women's position thus offers a standpoint in relationship to their erased and de-valued contribution to the production of abstract knowledge.

Haraway's contribution to debates over standpoint epistemology comes in what she calls "the partial perspectives of situated knowledges." In her much anthologized essay "Situated Knowledges," Haraway surprised readers who had found in her earlier work a strong resistance to realism and to the technologies of vision central to Enlightenment positivist, empirical science. Haraway insists that a deployment of visual technologies cannot be avoided by feminist researchers unless they plan to give up on science altogether. Unwilling to do that, Haraway insists that along with exposing the historical and ideological specificity of scientific practices—and thereby deconstructing their absolute authority—feminists must also aim to give a *better* account of the world. This better account, however, comes with the recognition of the irreducible difference and radical multiplicity of local knowledges. Haraway thus accepts a version of realism, but one that is to be expressed in partial visions or partial perspectives. The familiar scientific term "objectivity" is rescued, but with a profoundly and consequentially altered meaning.

Partial Perspectives and Material-Semiotic Entities: The Ontological Implications

Partial perspectives are epistemologically demanding. While it is understood that the marginalized, the oppressed, and the exploited might not easily be taken in by what Haraway calls the "god trick"—that is, seeing everything, everywhere, from nowhere—nonetheless, partial perspectives are not themselves innocent. They are ideologi-

"the god trick"

cal, and they are historically specific, but they are recognized as such in their practice. Partial perspectives have, therefore—and provocatively so—a "strong objectivity"; they are not reducible to the truth about the world through a truer self-knowing. The self-presence implied in that familiar move is what Haraway calls a "bad visual system." Instead, she argues, all vision is always mediated by techniques or technologies; vision is never "naked" or direct. Situated knowledges make their technological mediation explicit and thus are shown to be "techno-scientific." In this sense, every object of study should be seen as an event, a technoscientific production. The object of study becomes then inextricable from the apparatus or the technology of both its production and further elaboration. For example, when light is made to be seen as either a particle or a wave, each instance of "light" unfolds as such through a particular inscription device and becomes then part of differing applications in the world. For Haraway, knowledge objects such as the gene, the computer program, the chip, the fetus, the immune system, and the neural net are more productively seen as events than as objects. As such, they are dynamic and generative. Each object/event is like a temporary knot in a field of moving forces.

Material-semiotic entities require a form of criticism that is different from a scientist's self-reflection or reflexivity. Grasped as event, including human and nonhuman agencies, material-semiotic entities require a criticism that engages the social contexts or social processes that these entities bring into being as they themselves unfold. Haraway argues that to engage these social processes or contexts, to intervene in them, something more than a practice of human self-reflexivity is needed. Instead, Haraway promotes criticism by "diffraction." While retaining a place for vision, diffraction is more about registering movement (as when light passes through the slits of a prism and the diffracted rays are registered on something like a screen). Diffraction is about registering histories of movement in a field of moving forces such that the movement or dynamism of forces (contexts and processes) can be reoriented or redirected—that is, disturbed and changed.

Diffraction implies a collapse of the opposition of epistemology and ontology and is thus more characteristic of the nonhumanistic post-

structural criticism of the late twentieth century. Yet, Haraway does not draw on the nonhumanism of poststructuralism, and it is perhaps surprising that she makes no connections to Jacques Derrida's treatment of writing as technology or to Gilles Deleuze's elaboration of biophilosophy. Her work, nonetheless, is ontologically bold. Like most poststructuralist critics, Haraway refuses to accept the negativity of either Heidegger's treatment of modern technology (*ge-stell*) or the many Marxist reductions of teletechnology to a mere effect of transnational capital. For Haraway, technology, theory, science, and rationality cannot be separated; a revised ontology of technology is needed. From her early "Manifesto for Cyborgs" essay (1985) to her *Modest Witness@Second_Millennium.FemaleMan@Meets_Oncomouse*TM (1997), Haraway has rethought the border between human and nonhuman, between human and machine in the figure of the cyborg.

The cyborg is a historically specific material-semiotic entity, organism, and communication technology, a post-World War II knowledge object which, as Haraway sees it, belongs to the "telos of the West's escalating domination," offering the possibility of a "final imposition of a grid of control over the planet." But the cyborg also promises future freedoms and attracts Haraway because it evokes partiality, perversity, and necessitates the reworking of the oppositions of private and public, nature and culture, machine and organism, the living and the inert. It demands a criticism which is not merely for or against late twentieth century technology but is instead more nuanced. This is when criticism by diffraction becomes more desirable, if not necessary; when intervention becomes essential, sometimes to stop, but more often to interrupt, redirect, or reorient the process of technological elaboration. Indeed, Haraway's most sustained treatment of diffraction appears in *Modest Witness* in relationship to "Oncomouse."

Oncomouse is a patented research organism, grown to the specifications of biomedical research, such as that on cancer or AIDS. As a transgenic organism, standing at the doorway of cross-species cloning, Oncomouse opens up to an understanding of biology as biotechnology, as "biology always already rewriting itself," as Vicki Kirby (1991) puts it.

the cyborg as dominating + liberatory

For Haraway, Oncomouse is also a narrative figure, for which she wants to compose a counter narrative, a fiction to live by in the age of genetic engineering. Since one of the central issues of genetic engineering is the patenting process that makes the genome a commodity from which surplus value can be extracted, Oncomouse is a figure in a story about the changes realized in late twentieth-century capitalism.

In her treatment of Oncomouse, Haraway's focus on the intermix of transnational capital and knowledge objects is, however, in no way remarkable. In all her work, Haraway traces the transformation of capitalism—from when the extraction of surplus value from human labor is central to production to when technoscience becomes central to production and to the extraction of surplus value. In all her work, Haraway is concerned with the effects of the transformation of capitalist production on bodies, women's bodies but also on what Haraway calls "postmodern bodies"—from the laboring bodies of women working in the integrated circuit of transnational capital, which Haraway treats in "Manifesto," to the techno-scientifically produced bodies discussed in "The Biopolitics of Postmodern Bodies." Haraway has focused on the contentious relationship between labor and the ownership of the means of production in a global context. She has raised questions such as: "Who should own genetic material extracted from local areas?" "What labor counts, and do local laborers have a claim to surplus value or to determining further applications of genetic material?" "Who should have access to information technologies and how shall the capacity to use them, itself, be communicated?" Finally, questions are raised about race, gender, ethnicity, age, sexuality, and nation in order to guard against practices of technoscience and genetic engineering guided only by commercial gains.

Oncomouse

Appraisal of Key Advances and Controversies

Donna Haraway's cultural criticism of science presumes that technoscience is a primary agent of power relations in contemporary societies around the globe, albeit with varying local effects. As such, she points to

the inextricability of science and relations of power. In this understanding, she is one of a number of critics of science, including sociologists, who have insisted that relations of power are internal to science, rather than external to it. In the 1970s, these sociologists began to rethink the sociology of science established in the mid-1940s by Robert K. Merton and continued by his students. Merton proposed to study science in terms of the patterned social relationships between knowledge practitioners, the effects of science on society, and the institutional development of science, including the political dynamics of funding. The next generation of sociologists doing science studies, however, shifted their focus to the content of science—that is, to the social production of scientific knowledge itself. They proposed that relations of power are part of the production of scientific knowledge and that this knowledge, like all cultural practice, is thoroughly ideological.

Michael Lynch and Steve Woolgar (1990) have suggested that while poststructuralism is to be counted as an influence on the new sociology of science, perhaps even more important, at least at first, were philosophers and historians of science, such as Thomas Kuhn, Ludwig Fleck, Michael Polanyi, Imre Lakatos, and Paul Feyerabend. Their work opened up the possibility of treating scientific knowledge itself as socially produced. With the development of the Edinburgh “strong programme” of science studies, science no longer would be studied only in terms of its “truth”-fulness or its mimetic relationship to “reality” or “nature.” Instead, scientific knowledge was to be treated in terms of the local processes of its production. The contents of scientific knowledge would be treated as an accomplishment, as a doing. Researchers were to question how scientists actually produce models or do experiments or even “discover” facts; how various technologies are central to the production of scientific knowledge; and how scientists use and then recreate the authority of scientific knowledge.

In the context of these changes in science studies, no one has been more influential than Donna Haraway in developing a cultural criticism of science and scientific knowledge that interrogates dominations of class, race, gender, sexuality, age, and nation. Although many sociolo-

gists who study science interrogate the production of scientific knowledge in terms of differences of race, class, gender and/or sexuality (see, for example, Aronowitz 1988, Clarke and Olesen 1999, and Star 1991), other sociologists of science, perhaps most famously, Latour (1987, 1993) rarely do. No other cultural critic has had more influence than Haraway in bringing forward difficult questions that point to the ways scientific work and knowledge are interimplicated with a wide range of global and local practices of exploitation and domination. In this work she has established links between cultural studies and science studies that benefit both fields. Indeed, although Haraway has insistently pressed her colleagues in science studies to consider questions of sexuality, gender, race, and class, she also has oriented her cultural studies colleagues to think about science, especially technoscience. Her own work here has given form to a cultural criticism of the body that necessarily de-naturalizes the body so as to include technonatures, technobodies, and cyborgs. Haraway's figure of the cyborg, although not original with her, has spawned countless clones and there is yet no end to its productivity.

But the excitement over the cultural studies of science during the 1980s and early 1990s was followed by a strong negative reaction. By the end of the decade, science studies, along with all cultural criticism that focuses primarily on rhetorics, narrative logics, or discursive constructions of disciplinary authority, had become the object of a sharp criticism. Perhaps the most perverse instance of this was that by Alan Sokal involving *Social Text*, a journal of Marxist cultural studies. In an essay appearing in a special issue on science studies, Sokal (1996) drew connections between the field of modern physics and Derridean deconstruction, feminist theory, and Marxist cultural studies. Later, Sokal (1996a) claimed that his essay had purposely offered insupportable arguments and had drawn illogical conclusions, which nonetheless had gone unrecognized as such by the journal's editors. This had occurred, Sokal argued, because of the editors' unquestioned presumption of the political correctness of the cultural criticism of science, which Sokal claimed was embedded in his essay. Sokal maintained that his aim in perpetrat-

ing the hoax was to teach those "leftists" involved in science studies that they know neither science nor politics, not if they meant to turn the latter against the former and break with what he described as "the two century-old identification" of the left with science aimed at laying bare "the mystifications promoted by the powerful" (64).

Haraway's work was not directly addressed in the so-called "Sokal Affair," although it was implicated. In fact, it is Haraway's work that stands as a strong response to the kind of trivializing criticism made by Sokal, who also claimed, with seeming amazement, that the cultural critics of science and disciplinary discourses, think that "there is no reality," "no materiality." More than other feminist cultural critics who have been subjected to severe criticism on these grounds, such as Judith Butler (1998) and Gayatri Chakravorty Spivak (1999), Haraway makes clear that matter and materiality have not been ignored in the cultural criticism of science or in the discursive analysis of disciplinary authority. Rather, she argues, matter and materiality must be conceived differently under the regime of transnational capital, global telecommunications, and technoscience. Haraway, who respectfully recognizes Butler and Spivak in her own work, argues, as they do, that the changes in the conception of matter and materiality also require that we rethink family, nations, bodies, machines, nature, technology, and the disciplines. Her work makes clear that it is in fact *for* leftist politics that a different kind of self-criticism of science is necessary.

Against Sokal's claim that the cultural studies of science makes leftist politics impossible, Haraway seems always to draw out the implication of her work for political action. Indeed, the practice of diffraction is nothing less than political activism, although conceived specifically for the domain of technoscience. Diffraction, after all, requires intervention, both individual and collective, in the domain of technoscience, which has become the primary agency of global/local power relations at millennium's end. But with Butler and Spivak, Haraway also explores a certain feminist sensibility in relationship to leftist politics—a leaning towards partiality, difference, and the necessary reconfiguring of the arrangement of social spaces presumed in western discourse, that is,

the practice of diffraction + its political aim

the idealized arrangement of the public and private spheres, the state and civil society, family and national ideologies.

Haraway's work proposes that in the context of neocolonial societies and late capitalist postmodern societies, social spaces are being reconfigured in various ways under the pressure of the transnationalization of capital and the globalization of teletechnology. With Spivak and Butler, she argues for a new sense of relatedness, one that includes nonhuman agencies. She calls for an "unfamiliar unconscious, a different primal scene where everything does not stem from the dramas of identity and reproduction" (1997, 265). While valuing the non-knowingness of the unconscious as well as its movement of desire, Haraway nonetheless wants to disconnect the unconscious from the familiar oedipal narrative. She argues that "perhaps the most promising monsters in cyborg worlds are embodied in non-oedipal [sic] narratives with a different logic of repression, which we need to understand for our survival" (1985, 66). Haraway reminds leftists that feminist politics more than ever demands a rethinking of "bonding through kinship and 'the family,'" and that there is a need to imagine different "models of solidarity."

When Haraway criticizes the (Oedipal) logic of realist narrativity deployed typically to authorize scientific texts, as she first did in "Teddy Bear Patriarchy," her aim is not only to invite experimental writing in the narrow sense of that term. It is, rather, to seek new ways of bonding and connecting across difference, that is, new ways to organize social spaces—including the private and public spheres, the state and the civil society, the nation and the family, both in late capitalist postmodern societies and neocolonial societies under the regime of transnationalized capital and globalized teletechnology.

Haraway promotes (experimentation in writing) as a way to help reconfigure social spaces. These experimental writing forms hold the promise of an intervention consistent with her figure of diffraction. It is in these terms that Haraway's work has influenced some of the experiments in sociology, and especially those in recent ethnographic writing linked to the critique of the colonial heritage in anthropology that has emerged over the last two decades. On one hand, an autoethnographic

form) has been developed in which accounts of diasporic experience have been offered by those who have lived them. On the other, there are social scientists who have turned the reporting of comparative, cross-cultural data to an exploration of forms of dialogue between ethnographer and subjects of study, or between western and nonwestern social scientists. Here too, autoethnography is used as a form for treating the experience of doing fieldwork and the writing linked to it. In both cases, (autoethnographic experimentation) points to demands made by subjects who expect to tell their own stories, or, at least, to present their stories in dialogue with the ethnographer.

There are also autoethnographic experiments that point to the reconfiguration of the private and public spheres, especially in postmodern, late-capitalist societies (see, for example, Ellis 1995 & Richardson 1997). But this attempt at reconfiguration, although focusing on the often-ignored play of emotions in social life, easily can be recuperated in and by quite familiar forms. Often focusing on the traumas of domestic or family life—sickness and death, incest and physical abuse, addictions and psychosomatic disorders—autoethnography has a kinship with the confessional and melodramatic culture of talk television. Yet these writers often do not recognize this kinship, and the writing is presented as both an autoreferential and a realist account of experience without problematizing the technoscientific apparatus of its own production (see, for example, Ellis 1995). This kind of autoethnography, then, disappoints the promise of diffraction and is a form of hyper self-reflection, as Haraway might put it, and not yet the kind of “swerve” away from reflection that she imagines.

Other sociologists have combined autobiographical forms of writing with cultural criticism of technoscience in more promising ways. Often meant to be performed in order to engage various media or information technologies, these writing experiments engage the larger sense of writing as technology. They put the autoreferential treatment of experience on the same plane as the technoscientific apparatuses through and by which such experience is produced. That is, the writing/performance becomes something like a collage, in which each element is intended not to fit seamlessly with the others, if they are intended to “fit” at all. Rather,

the elements are free to interfere with each other, often in ways that cannot be anticipated in advance (see, for example, Pfohl 1992; Gordon 1997; Orr 1999; see also Denzin 1997; Clough 1998, 2000; Schneider and Wang 2000). While social theorists seem to have ignored these forms of experimental writing, they may well be a rich resource with which to think and act toward the transformations to which Haraway's work points.

In conclusion, Haraway's work historically and socially situates recent developments in biotechnology and technoscience while suggesting some of their future implications, even their promise. Her work reminds social theorists that there are “actants” and “agencies” other than human and that human and nonhuman agencies are mixed in “material-semiotic entities” or technoscientific knowledge objects, such that material-semiotic entities are social processes, embedded in or productive of social contexts that traditionally have not been the subject of social theorizing. Haraway's work, therefore, urges social theorists to rethink social theory in terms of a considerably more complex sociality—that is, to address sociality on different scales, from the microphysical to the macrophysical. Her work urges us to imagine ways to jump, even skip, from one scale of sociality to another. Haraway thus promotes a “risky interdisciplinarity” in order to critically engage the dynamism of various contexts at various scales of sociality and to pursue in each and every context a criticism of domination within categories of sex, gender, race, class, ethnicity, and nation. In her reconfigured relationship of nature, culture, and technology, she challenges the familiar epistemologies and ontologies on which most social theory rests.

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the failure of such experiments in diffraction

collage

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