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TRANS-CORPOREAL FEMINISMS AND THE ETHICAL SPACE OF NATURE

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Despite the tremendous outpouring of scholarship on "the body" in feminist theory and cultural studies and the simultaneous outpouring of environmental philosophy, criticism, and cultural studies, these two streams of scholarship rarely intermingle. Although there are notable exceptions, by and large two isolated conversations have evolved—conversations that would be complicated and enriched by collisions and convergences. Most feminist analyses of the body, in particular, sever their topic from the topos of "nature." Indeed, from an environmentalist-feminist standpoint, one of the most unfortunate legacies of poststructuralist and postmodern feminism has been the accelerated "flight from nature" fueled by rigid commitments to social constructionism and the determination to rout out all vestiges of essentialism. Nature, charged as an accessory to essentialism, has served as feminism's abject—that which, by being expelled from the "I," serves to define the "I" (Kristeva 1982, 1–4). This by now conventional move epitomizes one of the central contentions of this collection: that the predominant trend in the last few decades of feminist theory has been to diminish the significance of materiality. Predominant paradigms do not deny the material existence of the body, of course, but they do tend to focus exclusively on how various bodies have been discursively produced, which casts the body as passive, plastic matter. As Elizabeth A. Wilson puts it, "the body at the center of these projects is curiously abiological—its social, cultural, experiential, or psychical construction having been posited against or beyond any putative biological claims"

(1998, 15). Bracketing the biological body, and thereby severing its evolutionary, historical, and ongoing interconnections with the material world, may not be ethically, politically, or theoretically desirable.

Fortunately, there are other options. One would be that feminism take root in the very realm that has so long served as the abject. I would like to propose that we inhabit what I'm calling "trans-corporeality"—the time-space where human corporeality, in all its material fleshiness, is inseparable from "nature" or "environment." Trans-corporeality, as a theoretical site, is a place where corporeal theories and environmental theories meet and mingle in productive ways. Furthermore, the movement across human corporeality and nonhuman nature necessitates rich, complex modes of analysis that travel through the entangled territories of material and discursive, natural and cultural, biological and textual.

Crucial ethical and political possibilities emerge from this literal "contact zone" between human corporeality and more-than-human nature. Imagining human corporeality as trans-corporeality, in which the human is always intermeshed with the more-than-human world, underlines the extent to which the corporeal substance of the human is ultimately inseparable from "the environment." It makes it difficult to pose nature as a mere background for the exploits of the human,[1] since "nature" is always as close as one's own skin. Indeed, thinking across bodies may catalyze the recognition that the "environment," which is too often imagined as inert, empty space or as a "resource" for human use, is, in fact, a world of fleshy beings, with their own needs, claims, and actions. By emphasizing the movement across bodies, trans-corporeality reveals the interchanges and interconnections between human corporeality and the more-than-human. But by underscoring that "trans" indicates movement across different sites, trans-corporeality opens up an epistemological "space" that acknowledges the often unpredictable and unwanted actions of human bodies, nonhuman creatures, ecological systems, chemical agents, and other actors. Emphasizing the material interconnections of human corporeality with the more-than-human world, and at the same time acknowledging that material agency necessitates more capacious epistemologies, allows us to forge ethical and political positions that can contend with

numerous late-twentieth-century/early-twenty-first-century realities in which "human" and "environment" can by no means be considered as separate: environmental health, environmental justice, the traffic in toxins, and genetic engineering, to name a few.

FEMINIST THEORY'S FLIGHT FROM NATURE

Nature, as a philosophical concept, a potent ideological node, and a cultural repository of norms and moralism, has long been waged against women, people of color, indigenous peoples, queers, and the lower classes. Paradoxically, women, the working class, tribal peoples, and people of color have been denigrated because of their supposed "proximity" to nature, even as queers have been castigated for being "unnatural." The contradictory, ubiquitous, and historically varied meanings of "nature" have made it a crucial site for various feminist social struggles, including feminist anarchism, socialism, birth control, racial equality, and lesbianism. In *Undomesticated Ground: Recasting Nature as Feminist Space* (2000), I argue that because "woman" has long been defined in Western thought as a being mired in "nature" and thus outside the domain of human transcendence, rationality, subjectivity, and agency, most feminist theory has worked to disentangle "woman" from "nature." From the writings of Simone de Beauvoir, to Sherry Ortner, Juliet Mitchell, Gayle Rubin, and Monique Wittig, most feminist theory transports "woman" from the category of nature to the realm of culture. Working within rather than against predominant dualisms, many important feminist arguments and concepts necessitate a rigid opposition between nature and culture. For example, feminist theory's most revolutionary concept—the concept of gender as distinct from biological sex—is predicated on a sharp opposition between nature and culture. Moreover, while it would be difficult to overestimate the explanatory and polemical force of feminist theories of social construction, such theories are haunted by the pernicious notions of nature that propel them. Thrust aside, completely removed from culture, this nature—the repository of essentialism and stasis—nonetheless remains dangerously intact (Alaimo 2000, 4–14). Rather than fleeing from this debased nature, associated with corporeality, mindlessness, and passivity, it would

be more productive for feminist theory to undertake the transformation of gendered dualisms—nature, culture, body, mind, object, subject, resource, agency, and others—that have been cultivated to denigrate and silence certain groups of human as well as nonhuman life.

In a strange twist on feminist claims that women are created by culture, not nature, a diverse range of North American women writers, activists, and theorists, from the early nineteenth century to the present—including Catherine Sedgwick, Mary Wilkins Freeman, Sarah Orne Jewett, the Darwinian feminists Antoinette Brown Blackwell and Eliza Burt Gamble, Mary Austin, the Marxist-feminist theorists Mary Inman and Rebecca Pitts, Octavia Butler, Marian Engel, and Jane Rule—have turned toward nature as a habitat for feminist subjects. Their formulations condemn the *social* "manufacturing" of women as "unnatural" and imagine nature, not as the ground of essentialism, but as a habitat for gender-minimizing, sometimes queer, often nascent poststructuralist feminisms. Darwinian feminist Antoinette Brown Blackwell, in her 1875 *The Sexes Throughout Nature,* for example, turns to the "inorganic world" to undermine the cultural significance of sexual difference, arguing that "these elements and these forces [of sexual difference] are continually changing sides, entering into indefinite rearrangements in conjunction with other forces. Thus what might be distinguished as masculine in one case, would become feminine in the next" (1875, 44). In her striking formulation, matter, which is forever transforming, exposes the rigidity of sexual oppositions within culture. Similarly, the early-twentieth-century writer Mary Austin imagines the desert as an undomesticated ground for feminist subjects, a lawless place where the landmarks fail, gender unravels, and meanings come undone. This rich and innovative group of feminist writers demonstrate not only that it is possible to imagine nature in such a way that it is unrecognizable as the ground of essentialism, but that the project of radically redefining nature has long been at the heart of a range of feminist social struggles.[2]

Human corporeality, especially female corporeality, has been so strongly associated with nature in Western thought that it is not surprising that feminism has been haunted not only by the specter of

nature as the repository of essentialism, but by, as Lynda Birke puts it, "the ghost of biology" (1999, 44). She charges that the "underlying assumption that some aspects of 'biology' are fixed becomes itself the grand narrative (albeit implicit) from which feminist and other social theorists are trying to escape" (1999, 44). Nancy Tuana, noting the recent resurgence of popular belief in racial and sexual determinism, charges that "we feminists have been epistemically irresponsible in leaving in place a fixed, essential, material basis for human nature, a basis which renders biological determinism meaningful" (1996, 57). Only by directly engaging with matter itself can feminism do as Tuana advocates: render biological determinism "nonsense." For instance, rather than bracketing the biological body, Birke insists upon the need to understand the biological body as "changing and changeable, as *transformable*" (1999, 45). Cells "constantly renew themselves," bone "is always remodeling," and "bodily interiors" "constantly react to change inside or out, and act upon the world" (1999, 45).

Even with these few sparse examples, it is clear that the notion of "biology as destiny," which has long haunted feminism, depends on a very particular—if not peculiar—notion of biology that can certainly be displaced by other models. Since biology, like nature, has long been drafted to serve as the armory for racist, sexist, and heterosexist norms, it is crucial that feminists invoke a counter-biology to aid our struggles. For example, Myra J. Hird, in "Naturally Queer," offers an abundance of biological examples that make heterosexism seem, well, unnatural. "The *vast* majority of cells in the human body are intersex"; "most of the organisms in four out of the five kingdoms do not require sex for reproduction," and, marvelously, the schizophyllum "has more than 28,000 sexes." She concludes by arguing that "we may no longer be certain that it is nature that remains static and culture that evinces limitless malleability" (2004, 85–86, 88). If this biology sounds queer, all the better. As a "situated knowledge" (Haraway 1991), this queer biology contests not only the content and the ramifications of normative hetero-biology, but its claim to objectivity and neutrality.

Perhaps the only way to truly oust the twin ghosts of biology and nature is, paradoxically, to endow them with flesh, to allow them to

materialize more fully, and to fully attend to their precise materializations.

THE MATERIAL TURN IN FEMINIST THEORY

Wondering whether it makes her a "survivor or a traitor of the age of (post)structuralism," Teresa de Lauretis, in the recent *Critical Inquiry* symposium devoted to "The Future of Criticism," boldly suggests that

> now may be a time for the human sciences to reopen the questions of subjectivity, materiality, discursivity, knowledge, to reflect on the post of posthumanity. It is a time to break the piggy bank of saved conceptual schemata and reinstall uncertainty in all theoretical applications, starting with the primacy of the cultural and its many "turns": linguistic, discursive, performative, therapeutic, ethical, you name it. (2004, 368)

What has been most notably excluded by the "primacy of the cultural" and the turn toward the linguistic and the discursive is the "stuff" of matter. However, scholars within three areas of feminist theory—feminist corporeal theory, environmental feminism, and feminist science studies—have all been working to conceptualize innovative understandings of the material world. The most intriguing work is that which is informed by poststructuralism, social construction, and cultural studies but that pushes against the edges of those very paradigms; those writers who have been immersed within the cosmos of the "linguistic turn," yet are turning toward the extra-discursive, or extra-linguistic realm. Theorists such as Donna Haraway, Vicki Kirby, Elizabeth Wilson, and Karen Barad have extended the paradigms of poststructuralism, postmodernism, and cultural studies in ways that can more productively account for the agency, "thought," and dynamics of bodies and natures. None of these theorists deny the profound significance of culture, history, and discourse; yet, even as they take social construction seriously, by insisting that culture profoundly shapes what we experience, see, and know, they ask how nonhuman nature or the human body can "talk back," resist, or otherwise affect its cultural construction. The most daunting aspect of such a project is to radically rethink materiality, the very "stuff" of bodies and natures. Some

feminist theorists, such as Moira Gatens, Claire Colebrook, and Elizabeth Bray, have embraced the work of Spinoza and Deleuze as countertraditions to the linguistic turn. Others have reread theorists at the heart of poststructuralism—for example, Derrida (Vicky Kirby and Elizabeth Wilson), Michel Foucault (Ladelle McWhorter and Karen Barad), Judith Butler (Karen Barad)—and have extended their paradigms into the material realm. Together, these theorists, as well as some others, constitute the "material turn" in feminist theory, a wave of feminist theory that is taking matter seriously.

Theorists such as Barad mark a decisive departure in recent feminist theory, which has branded any movement toward materiality as "essentialist." Susan Bordo tells a disturbing tale, for example, of having been ostracized at a feminist theory conference for having uttered the word "material" (1998, 88)—despite the fact that her rich, complex analyses never underestimate the power of social and political forces. Although material feminisms take matter seriously, they can hardly be labeled essentialist since they radically recast the very foundations of essentialism. They do not appeal to a nature or human body that exists prior to discourse, but they work to understand materiality as coconstituted by various forms of power and knowledge, some of these being more or less "cultural," and some more or less "natural," though such distinctions have become increasingly problematic. Indeed, even as I use these terms I am struck by their impossibility, since most material feminisms jumble the nature-culture opposition.

Such radical rethinkings of the material are difficult to sustain within an overwhelmingly discursively oriented theoretical cosmos. For example, Donna Haraway's provocative and influential figure of the cyborg (1991), which uproots the founding dualisms of Western thought, including the nature/culture opposition, has been celebrated in most feminist theory and cultural studies as a figure that blurs the boundary between humans and technology—but, significantly, in this latest "flight from nature," the cyborg is rarely embraced as an amalgamation of "human" and "nature." (Perhaps this is why Haraway has distanced herself from this celebrated figure and turned to canines in her most recent work.[3]) Thus, feminist cultural studies, profoundly influenced

by theories of social and discursive construction, have embraced the cyborg as a social and technological *construct,* significantly, but have ignored, for the most part, the *matter* of the cyborg, a materiality that is as biological as it is technological, both fleshy and wired, since the cyborg encourages human "kinship with animals" as well as with machines (Haraway 1991, 154). Most disturbingly, the pervasive recoding of the cyborg as technological but not biological resembles a sort of neo(super)Humanism, in which the (Wo)Man/Machine finally transcends nature. Yet Haraway's writing, as well as that of other material-feminist theorists, demonstrates that it is possible to radically reconceive materiality precisely by extending, reconfiguring, and working through many of the theoretical models of the linguistic turn.

The material turn in feminist theory casts matter as, variously, material-semiotic, inter-corporeal, performative, agential, even literate. Whereas discursively oriented studies of human corporeality confine themselves to the corporeal bounds of the human, material feminisms open out the question of the human by considering models of extension, interconnection, exchange, and unraveling. Even though many of the theories that I will discuss focus neither on nature nor on environmentalism, their reconceptualization of materiality, and especially of the interchanges between human corporeality and the more-than-human world, bear great significance for environmental philosophy. And crossing back in the opposite direction, many of the ongoing debates in environmental philosophy regarding the agency of nature and the possibility for more capacious epistemologies bear significance for emerging models of materiality in feminist theory.

AGENCY WITHOUT SUBJECTS

One of the most significant and thorny questions that arises from a radical reconsideration of matter is the question of agency. If we are to understand nature as something other than as a passive resource for the exploits of Man, and if we are to understand the human body as something other than a blank slate awaiting the inscription of culture, we must reconceptualize bodies and natures in ways that recognize

their actions. Lynda Birke contends that it is crucial for feminists to "insist on more complex, nuanced ways of interpreting biological processes." She advocates that feminists "rename nature through complexity and transformation" in order to "challenge persistent dualisms" that feed the dualisms of gender (1999, 48). The concept of the agency of biological bodies is crucial for understanding biological entities as complex and ever-transforming. Birke argues, for example, that "internal organs and tissues" can be said to "perform," and, more broadly, that biological bodies are neither passive nor mechanistically determined, but instead exhibit "*active* response to change and contingency" (1999, 45).

Environmental philosophy and science studies offer rich and revealing discussions of agency that may be beneficial for corporeal theorists to consider. How to conceive of nature's agency (in ways that are neither anthropomorphic, nor reductive, nor silly-seeming) has been a central problem for the dismantling of discourses that define nature as a *terra nullius,* an empty ground, evacuated of all that culture would claim for its own self-definition. It is difficult, however, to imagine what agency would look like in an other-than-human sense. How is it possible to understand agency without a subject, actions without actors? How can we rethink matter as activity rather than passive substance?

Carolyn Merchant has long insisted upon the need for environmental historians to account for the agency of nature. In *Ecological Revolutions: Nature, Gender, and Science in New England* (1989) she "reasserts the idea of nature as historical actor"—an actor that may very well challenge the discursive constructions through which it is understood (7). Merchant places both humans and nonhuman nature on the historical stage: "The relation between humans and the nonhuman world is thus reciprocal. Humans adapt to nature's environmental conditions; but when humans alter their surroundings, nature responds through ecological changes" (1989, 8). A robust understanding of the agency of nonhuman nature not only enriches historical understanding but also catalyzes an environmental ethics of partnership. In *Earthcare: Women and the Environment* (1996) Merchant brings together chaos theory, which sees nature as "disorderly order," and "postclassical, postmodern

science," which is a "science of limited knowledge, or the primacy of process over parts, and of imbedded contexts within complex, open ecological systems." She urges us to envision nature as a "free autonomous actor" that we should respect as an equal partner deserving political representation (1996, 221). Merchant presents an environmental ethics that is compelling and understandable—if only nations, communities, and individuals would embrace a partnership ethic!

Merchant mounts an indisputable case for the agency of nature—citing floods, hurricanes, and other events. She also places humans and nature on an equal footing, describing nature as a "free, autonomous actor," "just as humans are free autonomous agents" (1996, 221). While this model encourages egalitarian relations between humans and nature, the conception of the "free autonomous actor" may not be sustainable. The autonomous actor suggests a distinct, humanist subject who is not entangled with or constituted by discourses, creatures, ecological systems, or biochemistry. Even though Merchant's model promotes the ethical ideal of considering nature as a sovereign entity rather than a resource for unbridled consumption, it is difficult to imagine nature—or humans, for that matter—as either free or autonomous, ultimately. Thus, the partnership ethic may isolate nonhuman nature from humans by forwarding a notion of autonomy that cannot flourish within models of interdependency, ecological systems, or environmental health.

Conceptions of nonhuman agency need not be predicated upon a humanist model of the free individual. In fact, some poststructuralist models of subjectivity may offer more fruitful ways to conceptualize nature's agency. The subject in Judith Butler's "Contingent Foundations" (1992), for example, bears some resemblance to various actors who populate the more-than-human world. In Butler's formulation, the subject is certainly not "its own point of departure." Instead, agency results precisely from the way in which the subject is produced by "matrices of power and discourse" (1992, 9). This discursive model of subjectivity is akin to an ecological model in which various nonhuman creatures act within complex systems and are interlaced with their "environment," which is never a background, but instead, the ground of their being that they, in turn, affect and transform. Notwithstanding these intriguing parallels, Butler's conception of agency would need to

be substantially recast in order to make sense for nonhuman creatures, since she describes the exercise of agency as a "purposive and significant reconfiguration of cultural and political relations" (1992, 12). The work of Ladelle McWhorter and Karen Barad, however, allows us to thoroughly rethink material agency in ways that make sense for that which is not human.

In her book *Bodies and Pleasures: Foucault and the Politics of Sexual Normalization,* Ladelle McWhorter boldly conducts a genealogy of her own body, which includes accounts of "becoming white" as well as that of "becoming dirt." McWhorter came to regard dirt quite differently while attempting to grow her own tomatoes. She notes that her change in perspective was an "amazing shift," since most "people treat dirt as nothing more than the place where plants happen to be, like a kind of platform that plants stand on, or in. . . . Dirt is inactive. Inert. Nobody pays much attention to dirt" (1999, 165). McWhorter, however, grants dirt a great deal of philosophical attention. Her account, in fact, puts forth a striking model of agency without subjects. After noting that dirt "has no integrity," she explains how it still acts:

> Dirt isn't a particular, identifiable thing. And yet it acts. It aggregates, and depending upon how it aggregates in a particular place, how it arranges itself around various sizes of empty space, it creates a complex water and air filtration system the rhythms of which both help to create more dirt from exposed stone and also to support the microscopic life necessary for turning dead organic matter back into dirt. Dirt perpetuates itself. (1999, 166)

Dirt demonstrates an agency without agents, a foundational, perpetual becoming that happens without will or intention or delineation. In fact, dirt, a rather indiscrete substance, is necessary for the emergence of less diffuse life forms: "Whatever discreteness, integrity, and identity living things may have, it all comes from the activity of that undifferentiated, much maligned stuff we call dirt" (1999, 167).

Thinking through the agency of dirt with McWhorter's poetic narrative demands a reconceptualization of agency itself. Neither humanist models of reasonable subjects nor psychoanalytic models of unreasonable subjects will do. Instead, we must thoroughly rethink the very nature of agency along the lines of Donna Haraway's trickster coyote,

which acknowledges "the world as a witty agent" with an "independent sense of humor" (1991, 199). Whereas Haraway's work is replete with such compelling figures as the cyborg, primate, trickster coyote, OncoMouse, and canine, all of which reconceptualize agency in more-than-human terms, Barad's work puts forth a more abstract reconceptualization of material agency that emerges from physics. Barad's theory, in which "agency is not an attribute" but a "'doing'/'being' in its intra-activity" (2003, 826), helps makes sense of McWhorter's dirt—or, from another perspective, it is the dirt that makes Barad's theory a bit more clear. In "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter," Barad offers an "elaboration of Performativity—a materialist, naturalist, and posthumanist elaboration—that allows matter its due as an active participant in the world's becoming, in its ongoing 'intra-activity.'"[4] Transporting the ideas of Niels Bohr to feminist theory, she constructs a notion of "agential realism" in which agency "is cut loose from its traditional humanist orbit":

> Agency is not aligned with human intentionality or subjectivity. Nor does it merely entail resignification or other specific kinds of moves within a social geometry of antihumanism. Agency is a matter of intra-acting; it is an enactment, not something that someone or something has. . . . Agency is not an attribute whatsoever—it is "doing"/"being" in its intra-activity. (2003, 826)

Barad's account of Bohr's "intra-activity," as opposed to interactivity, rejects an ontology whereby "things" precede their relations. Instead, "relata" (as opposed to discrete "things") "do not preexist relations; rather, relata-within-phenomena emerge through specific intra-actions" (2003, 815). Barad's agential realism, which rejects representationalism in favor of a material-discursive form of performativity, "circumvents the problem of different materialities." Thus, "there is no mystery about how the materiality of language could possibly affect (through whatever mechanism and to any degree whatsoever) the materiality of the body" (1998, 108). Barad formulates an utterly comprehensive, utterly compelling model of materiality, specifically, of material agency.

For our purposes here, it is important to note that one of the reasons Barad's theory offers such a far-reaching and potent reconceptualization of materiality is that it does not sever nature from culture, human from nonhuman. In fact, Barad critiques Butler's theory of materiality because it is restricted to human bodies, in particular, to their surfaces (1998, 107). She also states that materiality "is explicitly not nature-outside-of-culture" (1998, 109). Barad's ontology, which renders distinctions between "nature" and "culture" nonsensical, is a major intervention in feminist and cultural theory. Even as I find her onto-epistemology extraordinarily valuable for feminist and environmentalist philosophy, I think that such radical reconceptualizations will not take root very quickly, and thus it is still useful to consider the different implications of endowing human bodies and nonhuman natures with agency. Acknowledging the agency of the more-than-human world is crucial for environmental ethics because it challenges the prevalent practice of "thingification" (in Barad's terms), which, in this case, means the reduction of lively, emergent, intra-acting phenomena into passive, distinct resources for human use and control. Moreover, acknowledging the agency of all that is not human affirms the need for places—urban, suburban, and especially "wilderness"—in which the "doing/being" of creatures, ecological systems, and other nondiscrete life forms can flourish. In fact, one of the most fundamental values of environmental ethics—the value of the "wild"—can be understood as a kind of material agency. Wildness may well be defined as nature's ongoing, material-semiotic intra-actions—actions that may well surprise, annoy, terrify, or baffle humans, but that nonetheless are valued by environmentalists as the very stuff of life itself.

An environmental ethic of wildness, as vast as it is, however, may not provide a suitable habitat for the material agency of the human body. While desire, especially sexual desire, can be readily celebrated as a form of material agency, when one's own body baffles, annoys, disappoints, or falls ill, such actions are rarely valued. As Susan Wendell contends, the celebratory tone of most feminist writing about the body signals the failure to fully confront the "experience of the negative body" (1996, 167). Disability studies works to account for a different sort of corporeal agency—bodies that resist the processes of

normalization, or refuse to act, or act in ways that may be undesirable to those who inhabit them or to others. Yet even as Wendell argues that people who inhabit disabled bodies, chronically ill bodies, or bodies in pain have good reason to desire the transcendence of the corporeal and to practice "strategies of disengagement," the very obdurateness of the disabled body itself insists upon a recognition of corporeal agency. As Wendell puts it, "the body may have a complex life of its own, much of which we cannot interpret" (1996, 175). In short, the agency of the body demands an acceptance of unpredictability and not-quite-knowing.

Chronic illnesses, such as lupus or rheumatoid arthritis, present a tangible example of the "negative" agency of corporeality, since the actual symptoms, as well as their severity, can vary from day to day and even within the course of the same day. Pain moves. A knee suddenly doesn't work. The sun kindles a flaming headache. Furthermore, since auto-immune diseases are affected by countless known, suspected, and unknown factors—such as stress, diet, or the weather—they illustrate Barad's sense of material agency as "'doing'/'being' in its intra-activity," in which myriad forces are constantly in play. While one no doubt would appreciate a full and complete understanding of this particular medical condition, even the combined information from physicians, medical research, support groups, and the experiential data of one's own body will not result in some sort of crystalline understanding, since there are many (how many?) forces continually intra-acting.

Without diminishing the specificity of living as a chronically ill person, there is obviously a sense in which all embodied beings experience corporeal agencies, be they positive, negative, or neutral. Acknowledging that one's body has its own forces, which are interlinked and continually intra-acting with wider material as well as social, economic, psychological, and cultural forces, can not only be useful but may also be ethical. In the most obvious sense, if one cannot presume to master one's own body, which has "its" own forces, many of which can never fully be comprehended, even with the help of medical knowledge and technologies, one cannot presume to master the rest of the world, which is forever intra-acting in inconceivably complex ways.

JUST BEYOND REACH: EPISTEMOLOGICAL SPACE AS ETHICAL SPACE

Feminist epistemology and environmental philosophy have long recognized the ethical impact of epistemological paradigms and practices. There is no space here to sketch out the intersections between these two fields, but we may note two salient examples of environmental feminist theory that encourage more cautious and capacious ways of knowing—ways of knowing that do not foreclose the actions, significance, and value of the more-than-human world. Donna Haraway, in "Situated Knowledges: The Science Question in Feminism and the Privilege of the Partial Perspective," offers a compelling epistemological model which requires that "the object of knowledge be pictured as an actor and agent, not a screen or ground or a resource, never finally as a slave to the master that closes off the dialectic in his unique agency and authorship of 'objective knowledge'" (1991, 198). Haraway uses a spatial metaphor to describe this stance: "Feminist objectivity *makes room* for surprises and ironies at the heart of all knowledge production; we are not in charge of the world" (1991, 199, emphasis added). We may imagine, perhaps, that the trickster coyote needs some sort of space, or habitat, to thrive.

Likewise, Catriona Sandilands uses some spatial metaphors to describe her "radical democratic vision that includes nature, not as positive, human-constructed presence, but as enigmatic, active Other" (1999, 181). She contends that "the best kind of human language around the space of unrepresentable nature is a democratic and politicized one that validates partiality and multiplicity and that can never claim to 'get it right'" (1999, 181). Epistemological "space" becomes ethical in environmental philosophy and feminist theory because it repels presumptions of human mastery that would reduce the stuff of life to mere "resources" for human consumption. Epistemological space needs to be contiguous space—it is always as close as our own skin—and yet it offers ample room for the more-than-human world to act, and, more to the point, to intra-act, in surprising ways. Allowing a space-time for unexpected material intra-actions, be they the actions of hawks nesting in high-rises or the effects of genetically modified

plants on bees, butterflies, or human populations, is one way of understanding an ethics that embraces the wild, even as it is wary of wilderness paradigms that divide humans from nature and erase the presence of indigenous peoples.

Interestingly, some avenues of approach to "the" body, or even one's own body, sometimes echo wilderness imaginings of nature as an external, foreign, unknown, and perhaps unknowable space. As the poet and novelist Linda Hogan puts it in her memoir, *The Woman Who Watches Over the World:* "In the world of matter what is valuable lives, in much the same way, as in dreams, beneath the ground, just outside of human sight, sometimes just a bit beyond reach" (2001, 137). Hogan's musings imagine the interior of her own body as an unfamiliar space where she would like to "journey":

> Sometimes I see the dress of muscle and flesh worn by these bones, and wonder why I can't heal myself, why I can't change the body clothing as some believe, and let the bones be free, why I can't journey into the matter of my own body and touch the organs, loosen the ligaments where they hold things together, like the body Vesalius found, the network, the tangle not existing at the base of this human brain that sets us apart from animals who have so much grace. But the interior, the vital force, slips through all our hands, even with our own bodies. (2001, 191)

The passage begins with the repetition of "why I can't," which serves to complicate conventional notions of subjectivity—the "I" severed from the body is far less omniscient and omnipotent than it would like to be. The next sentence poses an alternative, a more constrained epistemology in which the image of "all our hands" suggests ways of knowing that are more corporeal and communal, and that recognize the elusive agency of natural forces. Significantly, the "I" here is no longer the subject of the sentence, but instead it is "the interior, the vital force" who acts, by "slip[ping] through all our hands."

Hogan's poetic account traces an internal journey that ends with a community of hands, reaching outwards. The space the "vital force" traverses is a trans-corporeal one, linking corporeal interiority with the more-than-human life processes. This trans-corporeal space may

help us to imagine an epistemological time-space in which, because they are always acting and being acted upon, human bodies and nonhuman natures transform, unfold, and thereby resist categorization, complete knowledge, and mastery. As Moira Gatens explains, the

> Spinozist account of the body is of a productive and creative body which cannot be definitively "known" since it is not identical with itself across time. The body does not have a "truth" or a "true" nature since it is a process and its meaning and capacities will vary according to its context. . . . These limits and capacities can only be revealed by the ongoing interactions of the body and its environment. (1996, 57)

These "ongoing interactions of the body and its environment" demand knowledge practices that emerge from the multiple entanglements of inter- and intra-connected being/doing/knowings. A material, trans-corporeal ethics would turn from the disembodied values and ideals of bounded individuals toward an attention to situated, evolving practices that have far-reaching and often unforeseen consequences for multiple peoples, species, and ecologies. Trans-corporeal, material ethics takes place in a "post-human" space, as described by Andrew Pickering: "a space in which the human actors are still there but now are inextricably entangled with the nonhuman, no longer at the center of the action and calling the shots. The world makes us in one and the same process as we make the world" (1995, 26).

MAPS OF TRANSIT

One way to map this post-human space is to focus on the traffic between bodies and natures. What are some of the routes from human corporeality to the flesh of the other-than-human and back again? How are both terms transformed by the recognition of their interconnection? What ethical or political positions emerge from the movement across human and more-than-human flesh?

Perhaps the most palpable example of trans-corporeality is that of food, whereby plants or animals become the substance of the human. While eating may seem a straightforward activity, peculiar material agencies may reveal themselves during the route from dirt to mouth.

Ladelle McWhorter tells how her quest to grow a real, flavorful tomato ends not only with a "high regard for dirt," as we have seen, but with a sense of kinship to this degraded substance. Munching on a bag of Doritos, she is about to toss the crumbs in her composting trench but stops:

> "Nope," I thought, "can't feed that crap to my dirt." I threw the crumbs in the trash and reached for that one last chip. It was halfway to my mouth before I was struck by what I'd just said. I looked out the kitchen window at my garden, my trenches, my dirt, and then my gaze turned downward toward my Dorito-stained hand. Dirt and flesh. Suddenly it occurred to me that, for all their differences, these two things I was looking at were cousins—not close cousins, but cousins, several deviations once removed. I haven't purchased a bag of Doritos since. (1999, 167)

As that last Dorito hangs—in mid-air—the epiphanic narrative surrounds it with a humorous recognition that this precarious sense of kinship between dirt and flesh may not only elevate dirt to the status of family member, but in this case, elevates the very substance of the self into something worthy of proper care and feeding. A queer, green, ethical family, indeed. We can trace the literal route though which dirt becomes flesh, via the tomato, a synecdoche for all plant and most animal foods that ultimately arise from the dirt, but McWhorter herself doesn't belabor that point, perhaps because dwelling on food, rather than the very matrix of life, serves up nature as an ingestible morsel. True, we are transformed by the food we consume (as the film *Supersize Me* will attest), but for the most part the model of incorporation emphasizes the outline of the human—food disappears into the human body, which remains solidly bounded.

In their revealing article "Incorporating Nature," Margaret FitzSimmons and David Goodman argue for a model of "incorporation" "as metaphor and as process—as a useful way of bringing nature into the body of social theory and, more literally, into the body of living organisms, including ourselves" (1998, 194). FitzSimmons and Goodman's complex model, which accounts for the agency of nature as well as social, economic, and political forces, promotes the notion of incorporation "to capture the relational materiality of ecologies and bodies

that characterizes agro-food networks" (1998, 216). While this formulation provides an illuminating way of thinking through the productions of nature-culture, ultimately, the production of food is a rather one-sided affair, for the model of incorporation is only one bite away from capitalist consumption. Although McWhorter begins with a simple desire for a tomato, her scenario moves in the opposite direction, extending her own flesh to the dirt, rather than merely incorporating the fruits of the dirt into herself. McWhorter's Foucauldian analysis of corporeality, which for most of the book concerns not ecological issues but the regulatory regimes of sexual identity, reaches into the ground, becoming a thoroughgoing redefinition of the stuff of matter.

Drawing upon Spinoza rather than Foucault, Moria Gatens similarly describes human bodies that open out into the more-than-human world. The identity of the human body "can never be viewed as a final or finished product as in the case of the Cartesian automaton, since it is a body that is in constant interchange with its environment. The human body is radically open to its surroundings and can be composed, recomposed and decomposed by other bodies" (1996, 110). Whereas in a model of incorporation, the human self remains the selfsame, in Gatens's reading of Spinoza, the human body is never static because its interactions with other bodies always alter it. Gatens explains that these "'encounters' with other bodies are good or bad depending on whether they aid or harm our characteristic constitution" (1996, 110). Oddly, Spinoza's understanding of the body seems particularly akin to some twenty-first-century models of corporeality such as that of the environmental health movement, which warns that particular "interchange[s] with [the] environment" may result in disease, illness, and death. Indeed, the many protests against genetically modified (GM) foods demonstrate that these foods may not be benignly incorporated into the human body. GM foods may well have unintended health effects on humans or other creatures that science may not discover for decades.

While the gastronomical relations between earth and stomach offer a rather digestible example of trans-corporeal transit, Vicki Kirby presents a counterintuitive account of how human corporeality opens

out onto the more-than-human world. In her brilliant book *Telling Flesh: The Substance of the Corporeal,* Kirby presents a provocative reading of Jacques Derrida's famous dictum, "There is no outside of text." She contends: "It is as if the very tissue of substance, the ground of Being, is this mutable intertext—a 'writing' that both circumscribes and exceeds the conventional divisions of nature and culture" (1997, 61). In fact, Kirby opens up the possibility "that nature scribbles or that flesh reads": "For if nature is literate, then the question 'What is language'—or more scandalously, 'Who reads?'—fractures the Cartesian subject to its very foundation" (1997, 127). Kirby extends the poststructuralist model of textuality to such a degree that its most basic terms are radically rewritten:

> What I am trying to conjure here is some "sense" that word and flesh are utterly implicated, not because "flesh" is actually a word that mediates the fact of what is being referred to, but because the entity of a word, the identity of a sign, the system of language, and the domain of culture—none of these are autonomously enclosed upon themselves. Rather they are all emergent *within* a force field of differentiations that has no exteriority in any final sense. (1997, 127)

Kirby's critique transforms poststructuralism into a truly posthumanist horizon as it refuses to delineate the human, the cultural, or the linguistic against a background of mute matter. Nature, culture, bodies, texts—all unravel into a limitless "force field of differentiation." For McWhorter, Gatens, and Kirby, that which had been exclusive to the Human opens out into a wider realm in which the substance of human corporeality—and in Kirby's case, even human linguistic systems—is not ultimately separable from that which it is difficult not to call "nature." These theorists can be read as a sort of postscript to feminism's many invocations of nature as an undomesticated—literally, non-domestic—space. For the walls of domestic enclosure that would separate human from nature and define the human as such are nowhere to be found, as human corporeality and textuality effortlessly extend into the more-than-human-world. Word, flesh, and dirt are no longer discrete.

From the standpoint of environmental ethics, it may be dangerous to make comparisons between human corporeality and nonhuman nature, since in some ways this replicates the very dualisms at the root

of the problem. Nature, to put it bluntly, is populated with myriad nonhuman minds as well as matter; it does not make sense to equate the many self-directed, lively, communicative, "cultural" beings with the supposedly inert "stuff" of matter. Val Plumwood, for example, makes the compelling argument that to combat the persistent nature/culture, body/mind dualisms of Western culture we must "reconceive of ourselves as more animal and embodied, more 'natural,' and that we reconceive of nature as more mindlike than in Cartesian conceptions" (1993, 124). Similarly, even though Carolyn Merchant notes that one of the reasons women become activists is "because their bodies, or the bodies of those with whom they have a caring relationship, are threatened by toxic or radioactive substances," she does not emphasize corporeality as a connection between human and nonhuman, preferring instead, as we have seen, to "elevate" nature to the status of a political "subject" (1996, xviii).

I agree with Plumwood that it is essential for environmental politics, practices, and ethics to continually articulate compelling understandings of the "mindlike" aspects of nature—such as the languages of dolphins or bees, or the cultures of elephants and chimps—things that people have gone to great lengths to deny. I would suggest, however, that dwelling within trans-corporeal space, where "body" and "nature" are comprised of the same material, which has been constituted, simultaneously, by the forces of evolution, natural and human history, political inequities, cultural contestations, biological and chemical processes, and other factors too numerous to list, renders rigid distinctions between "mind" and "matter" impossibly simplistic. Thus, by recasting the terms of the debate, something as unlikely a candidate for glory as dirt may be understood as an agent, rather than as (solely) the ground for the action of something else. Although this may sound like a mere philosophical exercise, and in some ways it is, contemporary material realities and practices may propel this philosophical rethinking, since it has become more and more difficult to separate "human" from "nature." As Haraway so presciently predicted with her cyborg manifesto, in the early twenty-first century the dichotomies between mind and matter, culture and nature, are no longer stable moorings. Examples abound. Here's one: the recent cascade of psychopharmaceuticals, most

notably the (in)famous popularity of Prozac, make it impossible to consider the human mind, emotions, psyche, or "spirit" as something distinct from biochemistry and neuro-networks.[5]

Yet even as it becomes more difficult for humans to indulge in delusions of grandeur that place us far above a base nature, that does not mean, from an environmentalist perspective, that we should forward notions of trans-corporeal space that are, by definition, somewhat anthropocentric, since this space may be imagined as that which surrounds the human. More specifically, it may be dangerous, from an environmentalist perspective, to dwell within the interface between human and nature, since that is the very site of environmental devastation wrought by (over)consumption, dumping, and trampling. In short, it may still be best to embrace environmental ideals of wilderness, or the respect for the "sovereignty" of nature (as Plumwood puts it), both of which work to establish boundaries that would protect nature from human exploitation and degradation. Even as the wilderness ideal has become unsustainable, both because of its pernicious ideological legacy of erasing the presence of indigenous peoples and because it promotes a devaluation of the various "natures" that most of us actually inhabit,[6] the survival of many species depends on creating more areas in which wild creatures and ecosystems can flourish. Some of these places may include humans involved in sustainable subsistence practices. I think, however, that it is possible to argue both for the value of places in which nonhuman creatures are sovereign or wild and human impact is minimal and, at the same time, to reconceptualize various routes of connection to that seemingly distant space. For the nonhuman bodies that inhabit wild areas are riddled with the same toxins as our own human bodies, since these toxins reach everywhere, carried by water, air, and the tissues of living, traveling creatures. Trans-corporeality, in that sense, need not be limited to the area contiguous with the human, but may instead offer a path of connection from one's own embodied existence to the survival of nonhuman creatures.

The need to cultivate a tangible sense of connection to "nature" in order to encourage an environmentalist ethos is underscored by the pervasive sense of disconnection that casts "environmental issues" as

containable, distant, dismissible topics. Witness, for example, the right-wing denial of global warming, or the blasé use of dangerous pesticides and herbicides at home (the attitude may be offhand, but the poison isn't). Observe, as well, the flood of horror movies that begin with the threat of some boundary-crossing creature, only to conclude with a triumphant human transcendence from nature.[7] Yet the sense of kinship, connection, and unraveling between dirt and flesh, word and world, needs to be accompanied by capacious epistemologies that allow for the unfolding of innumerable material intra-actions. Interestingly, the need for actual wilderness areas, which grant various creatures the space to thrive, parallels the need for epistemological space, which insists that the material world continually intra-acts in ways that are too complex to be predicted in advance. The "material world" here includes human actions and intra-actions, along with the intra-actions of man-made substances, all of which intra-act with natural creatures, forces, and ecological systems as well as with the bodies of humans. The maps of transit between human corporeality and nonhuman nature are infinite. But even a few sketches suggest that political and ethical interests usually seen as separate are inextricably linked by the substantial transit across bodies and natures.

THE TRANS-CORPOREAL TIME-SPACE OF TOXIC BODIES

Pickering, in *The Mangle of Practice: Time, Agency, and Science,* describes scientists as "human agents in a field of material agency which they struggle to capture in machines." He argues that "human and material agency are reciprocally and emergently intertwined in this struggle. Their contours emerge in the temporality of practice" (1995, 21). Time, then, fosters a kind of "space" for the actions, or agency, of the material world to reveal itself. Just as Pickering's mangle of (scientific) practice captures nature's agency by observing how it unfolds in time, trans-corporeal ethics acknowledge a time-space for the workings of human and nonhuman bodies. The space-time of trans-corporeality is a place of both pleasure and danger—the pleasures of desire, surprise,

interconnection, and lively emergence as well as the dangers of pain, toxicity, disability, and death.

Unfortunately, we have neither the space nor the time to examine pleasure here. Instead, we will turn toward one particularly potent site for examining the ethical space of trans-corporeality: toxic bodies. Certainly, all bodies, human and otherwise, are, to greater or lesser degrees, toxic at this point in history. Even those humans and animals who reside far from the most polluted zones still harbor a chemical stew in their blood and their tissues, as the oft-cited example of contaminated Inuit breast milk will attest. Since the same chemical substance may poison the workers who produce it, the neighborhood in which it is produced, and the plants and animals who end up consuming it, the traffic in toxins reveals the interconnections between various movements, such as those of environmental health, occupational health, labor movements, environmental justice, environmentalism, ecological medicine, disability rights, green living, anti-globalization, consumer rights, and child welfare. The traffic in toxins may, in fact, render it nearly impossible for humans to imagine that their own health and welfare is disconnected from that of the rest of the planet or to imagine that it is possible to protect "nature" by merely creating separate, distinct areas in which "it" is "preserved." In other words, the ethical space of trans-corporeality is never an elsewhere but is always already here, in whatever compromised, ever-catalyzing form. Greenpeace, an environmental organization known for its innovative tactics, recently launched a campaign against mercury that encouraged people to send in a sample of their own hair to be tested for mercury contamination. Such an action renders one's own corporeal connection to global environmental campaigns quite palpable, especially since Greenpeace, in turn, informed each participant of the level of mercury in his or her body, explained the significance of that number in terms of possible health effects, and discussed how to minimize mercury exposure through both dietary and political means. To take another example, tracing the traffic in toxins may allow us to notice that carcinogenic chemicals are produced by some of the same companies that sell chemotherapy drugs. This may be a useful thing to notice.

On a larger scale, it is useful to consider that it is probably not possible, even in the "foreseeable(?) future," to predict the staggeringly vast number of chemical interactions that may occur as a result of the "*billions* of pounds of toxic chemicals being routinely emitted" in the United States alone (Steingraber 1997, 102). The problem is not only that, as Sandra Steingraber informs us, "two-thirds of the most widely used chemicals have still not gone through basic carcinogenicity tests," but that far less is known about how various chemical combinations inter- and intra-act in bodies and "environments" (1997, 281, 258). Steingraber advocates the "precautionary principle," which states, in part, that

> [w]hen an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relations are not fully established scientifically. In this context, the proponent of an activity, rather than the public, should bear the burden of proof. (1997, 284)

From the perspective of all of us inhabitants of toxic, trans-corporeal, material places, the "precautionary principle" may well epitomize the notion of epistemological space as ethical space, as it emerges from a scientific and political understanding of the enormity of the effects of material agencies that humans can never quite chart and can certainly never master. The precautionary principle serves as a practical, commonsensical procedural map as well as an embodiment of an inter-corporeal, as well as trans-corporeal ethic that emerges from more constrained, more responsible epistemologies.

To turn back to feminist theory, thinking through toxic bodies allows us to reimagine human corporeality, and materiality itself, not as a utopian or romantic substance existing prior to social inscription, but as something that always bears the trace of history, social position, region, and the uneven distribution of risk. Indeed, as Sandra Steingraber puts it, comparing the composition of the human body to the rings on a tree, "our bodies, too, are living scrolls of sorts. What is written there—inside the fibers of our cells and chromosomes—is a record of our exposure to environmental contaminants" (1997, 236). Toxic bodies are produced and reproduced, simultaneously, by science, industrialized

culture, agribusiness, capitalist consumerism, and other forces. Toxic bodies are certainly not essentialist, since they are volatile, emergent, and continually evolving, in and of "themselves," but also as they encounter different sorts of chemicals as they move from neighborhoods or jobs, or as they otherwise encounter various products or pollutants. These bodies are certainly post-Humanist, not merely because their borders are exceedingly leaky, but because even one's own putatively "individual" experience and understanding of one's body is mediated by science, medicine, epidemiology, and the swirl of subcultures, organizations, Web sites, and magazines devoted to exposing dangers and cultivating alternative and oppositional practices and pleasures.

Although they are not something to celebrate, toxic bodies may help lead feminist theory out of the false dilemma of having to choose between a romanticized valorization of bodies and natures or an anti-essentialist flight from the grounds of our being. As a particularly vivid example of trans-corporeal space, toxic bodies insist that environmentalism, human health, and social justice cannot be severed. They encourage us to imagine ourselves in constant interchange with the "environment," and, paradoxically perhaps, to imagine an epistemological space that allows for both the unpredictable becomings of other creatures and the limits of human knowledge.

NOTES

1. See Val Plumwood (1993) for an analysis of the "backgrounding" of both women and nature.

2. See Alaimo 2000 for more on how American women writers and theorists have transformed particular conceptions of nature for various political ends.

3. Haraway explains that the cyborg was designed to do "feminist work in Reagan's Star Wars times of the mid-1980s," but by "the end of the millennium, cyborgs could no longer do the work of a proper herding dog to gather up the threads needed for critical inquiry" (2003, 4). Substituting canines for cyborgs, Haraway insists that dogs are "fleshly material-semiotic presences," not just "surrogates for theory" (2003, 5).

4. This article is reprinted in this collection.

5. See Elizabeth A. Wilson's work in this volume and elsewhere.

6. See William Cronon, "The Trouble with Wilderness; or, Getting Back to the Wrong Nature" (1996).

7. See Alaimo 2001 and 1997.

References

Alaimo, Stacy. 1997. "Endangered Humans? Wired Bodies and the Human Wilds." *Camera Obscura* 40–41: 227–44.

———. 2000. *Undomesticated Ground: Recasting Nature as Feminist Space.* Ithaca, N.Y.: Cornell University Press.

———. 2001. "Discomforting Creatures: Monstrous Natures in Recent Films." In *Beyond Nature Writing,* ed. Karla Armbruster and Kathleen Wallace, 279–96. Charlottesville: University of Virginia Press.

Barad, Karen. 1998. "Getting Real: Technoscientific Practices and the Materialization of Reality." *differences* 10.2: 87–128.

———. 2003. "Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter." *Signs* 28.3: 801–31.

Birke, Lynda. 1999. "Bodies and Biology." In *Feminist Theory and the Body: Reader,* ed. Janet Price and Margrit Shildrick, 42–49. New York: Routledge.

Bordo, Susan. 1998. "Bringing Body to Theory." In *Body and Flesh: A Philosophical Reader,* ed. Donna Welton, 84–97. Malden: Blackwell.

Brown Blackwell, Antoinette. 1875. *The Sexes Throughout Nature.* New York: G. P. Putnam's Sons.

Butler, Judith. 1992. "Contingent Foundations: Feminism and the Question of 'Postmodernism.'" In *Feminists Theorize the Political,* ed. Judith Butler and Joan W. Scott, 1–21. New York: Routledge.

Cronon, William. 1996. "The Trouble with Wilderness; or, Getting Back to the Wrong Nature." In *Uncommon Ground: Rethinking the Human Place in Nature,* ed. William Cronon. New York: Norton.

De Lauretis, Teresa. 2004. "Statement Due." *Critical Inquiry* 30.2: 365–68.

FitzSimmons, Margaret, and David Goodman. 1998. "Incorporating Nature: Environmental Narratives and the Reproduction of Food." In *Remaking Reality: Nature at the Millennium,* ed. Bruce Braun and Noel Castree. London: Routledge.

Gatens, Moira. 1996. *Imaginary Bodies: Ethics, Power and Corporeality.* New York: Routledge.

Haraway, Donna J. 1991. *Simians, Cyborgs, and Women: The Reinvention of Nature.* New York: Routledge.

———. 2003. *Companion Species Manifesto: Dogs, People, and Significant Otherness.* Chicago: Prickly Paradigm Press.

Hird, Myra J. 2004. "Naturally Queer." *Feminist Theory* 5.1: 85–89.

Hogan, Linda. 2001. *The Woman Who Watches Over the World: A Native Memoir.* New York: W. W. Norton.

Kirby, Vicki. 1997. *Telling Flesh: The Substance of the Corporeal.* New York: Routledge.

Kristeva, Julia. 1982. *Powers of Horror: An Essay on Abjection.* Trans. Leon S. Roudiez. New York: Columbia University Press.

McWhorter, Ladelle. 1999. *Bodies and Pleasures: Foucault and the Politics of Sexual Normalization.* Bloomington: Indiana University Press.

Merchant, Carolyn. 1989. *Ecological Revolutions: Nature, Gender, and Science in New England.* Chapel Hill: University of North Carolina Press.

———. 1996. *Earthcare: Women and the Environment.* New York: Routledge.
Pickering, Andrew. 1995. *The Mangle of Practice: Time, Agency, and Science.* Chicago: University of Chicago Press.
Plumwood, Val. 1993. *Feminism and the Mastery of Nature.* New York: Routledge.
Sandilands, Catriona. 1999. *The Good-Natured Feminist: Ecofeminism and the Quest for Democracy.* Minneapolis: University of Minnesota Press.
Steingraber, Sandra. 1997. *Living Downstream: A Scientist's Personal Investigation of Cancer and the Environment.* New York: Vintage.
Tuana, Nancy. 1996. "Fleshing Gender, Sexing the Body: Refiguring the Sex/Gender Distinction." *Southern Journal of Philosophy* 35 (Supplement): 53–71.
Wendell, Susan. 1996. *The Rejected Body: Feminist Philosophical Reflections on Disability.* New York: Routledge.
Wilson, Elizabeth. 1998. *Neural Geographies: Feminism and the Microstructure of Cognition.* New York: Routledge.

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