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Judith Genova

> I am not saying: if such-and-such facts of nature were different people would have different concepts (in the sense of a hypothesis). But: if anyone believes that certain concepts are absolutely the correct ones, and that having different ones would mean not realizing something that we realize—then let him imagine certain very general facts of nature to be different from what we are used to, and the formation of concepts different from the usual ones will become intelligible to him.
>
> —Ludwig Wittgenstein, *Philosophical Investigations*

What, if any, is nature's effect on thought? Indeed, the issue has special urgency for those who seek a nonsexist society: Does the invention of such a society require new facts of nature—a new physiology or mode of reproduction?[1] On the one hand, Wittgenstein will not risk a causal hypothesis about the relation between the two; on the other, he is sure that different facts will mean different concepts. Despite his informed reluctance to theorize about causality,[2] his commitment to a deep connection between the way things are and the concepts of a culture is manifest throughout his work:

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> What if something *really unheard-of* happened?—If I, say, saw houses gradually turning into steam without any obvious cause, if the cattle in the fields stood on their heads and laughed and spoke comprehensible words; if trees gradually changed into men and men into trees. Now, was I right when I said before all these things happened "I know that that's a house" etc., or simply "that's a house" etc.? (Wittgenstein, *On Certainty* 513)

Wittgenstein's point is that in such widely different circumstances, right and wrong no longer apply. While he does not believe that thoughts are written on our genes as determinists argue, he cannot abide the relativist solution that they are written nowhere. Happily, according to my lights, he does not opt for the traditional synthesis: nature and culture mutually affect each other in dialectical or interactionist fashion. I have always found this tactic either disappointingly wise or incoherent, a vague gesturing at an all important, but never elaborated idea, et cetera. For him, new concepts, a systematically different culture, *depend in some sense* on different physical arrangements.

Donna Haraway, a postmodern feminist theoretician, agrees with him. For her too, nature plays a role that cannot easily be dismissed: "And yet, to lose authoritative biological accounts of sex . . . seems to be to lose not just analytic power within a particular Western tradition, but the body itself as anything but a blank page for social inscriptions, including those of biological discourse" ("Situated Knowledges" 197). Distancing herself from typical postmodernisms, she refuses to abandon nature to the devices of human imagination: "In its scientific embodiments as well as in other forms, nature is made, but not entirely by humans; it is a co-construction among humans and non-humans. This is a very different vision from the postmodernist observation that all the world is denatured and reproduced in images or replicated in copies" ("The Promise of Monsters" 5). Like so many other feminist theoreticians, especially feminist scientists, Haraway cannot accept total human control. Nature's voice needs to be liberated from the distortions of humanists as well as scientists.

Haraway's reservations are shared and brilliantly dramatized by a new breed of thinkers, women writers of science fiction.[3] Perhaps the genre, blending as it does the discourse of the real with

that of the imaginary, allows more play across the borders. Whatever the reason, many have begun experimenting with new concepts of nature and culture. In her latest work of xenogenesis, a trilogy beginning with *Dawn,* Octavia Butler argues that the need for hierarchy is the fatal genetic flaw in human beings. To survive, she urges, we must evolve. Ursula K. Le Guin has also speculated in this area. Her novel *The Left Hand of Darkness* considers the different societal practices attendant upon other biologies and forms of sexualities. As Joanne Blum says, "Le Guin's question . . . is, What happens to our conception of humanness and of human interaction, when gender is eliminated?" (62). While there are many others I could mention, one in particular, Alice Sheldon, better known as James Tiptree, Jr., is especially preoccupied with this problem. Her visions complement Haraway's theorizing perfectly.

In story after story, Tiptree explores the consequences of believing that biology locks us into certain behaviors and societal practices. While she rejects the biological determinism that her critics attribute to her, she does so not only with style, but without abandoning an independent and critical role for nature. Like Donna Haraway, she does not see nature as culture's silent dummy. Rather, both thinkers see themselves as rescuing nature from the clutches of determinist science. The task, as Haraway, who writes a kind of nonfictional science fiction, sees it, is to reinvent nature. Her latest book, *Simians, Cyborgs and Women: The Reinvention of Nature,* is dedicated to understanding nature's role in our cultural identities: "Above all, it is a book about the invention and reinvention of nature—perhaps the most central arena of hope, oppression, and contestation for inhabitants of the planet earth in our times" (1).[4] In addition to exposing the various sexist and racist constructions of nature by the life sciences, Haraway undertakes the task of imagining a new nature for a new world order. Just as Edward Said demanded that we stop orientalizing, i.e., creating a face for the other and then pretending that the face we created was always already that of the other, Haraway insists that we stop naturalizing, i.e., normalizing the conditions that science constructs. Indeed, her formulation of the problem makes a normative version of the question possible, Ought we to reinvent nature if that is what it takes to change society? Her brave answer, like Tiptree's, is, yes, of course.[5]

Alice Sheldon Is James Tiptree, Jr.

Most critics read Tiptree as a determinist. They claim that her dim view of the mechanics of human sexuality dooms society to sexism. For them, Tiptree offers no escape from a sexist society. Lillian Heldreth, in a much quoted passage, says, "Tiptree seems to see no hope for feminist equality, no release from the bondage of violent sex, and no hope for the human race" (30; also qtd. in Blum 72; Barr 22). In another passage, she says, "She [Tiptree] sees the plight of twentieth century women to be grave and frightening because the facts of human biology preclude real equality, not because women are inferior to men, but because sex is so tightly linked to violence for human males" (26). Despite my disagreement with this reading, I cannot fault it easily. Tiptree exerts herself to mislead her readers. In part, I think she wants to sweeten the victory; only if the case for determinism is made most plausible will its rejection be significant. Basically, however, she loves to tease and tempt her readers. A brief look at two of her most famous stories will show how Tiptree baits the trap.

In stories like "Houston, Houston, Do You Read?" or "The Screwfly Solution", one can easily see the plausibility of Heldreth's reading. In the first story, Tiptree's case against biology and men's physiology, in particular, seems airtight. Men's glands, she argues, make them either adolescent (as his name implies) fuckers (Bud), authoritarian Gods (Dave), or emasculated scholar/scientists (Doc/Lorimer) secretly envying alpha males: "'Gawd . . . ' Bud's hand clasps his drooping penis, jiggles it absently until it stiffens. 'Two million hot little cunts down there, waiting for old Buddy. Gawd. The last man on Earth . . . *You don't count, Doc.* And old Dave, he's full of crap'" (Tiptree, *Houston* 79; emphasis added). Bud, Dave, and Doc—the son, the father, and the holy ghost—are the three faces of the one Godhead. Their monosyllabic presence testifies to their monolithic self-sufficiency. As the story commences, these three strays from the most important male con games of Western culture—sex, religion, and science—have been found wandering in space by an all-female spaceship from Earth's future, the Gloria.

The boys ("men" seems too dignified for these characters), victims of too close an encounter with a sun erection (the big one), while flying a mission from the late twentieth century when Hous-

ton was a main space station, have been transported into the future. Their insistent calls to Houston—"Do you read?"—go unanswered until they are heard by the mommies of the future. Thrilled at the prospect of meeting real men (men have become extinct in the future world), the women rescue them. However, their brief stay on board convinces the women that men cannot live without dominating women. Bud tries to rape them all; Dave gives them religion; and Doc lives these assaults vicariously, while all the time denying he is like them. Rather than bring the men home and risk the peace, the women kill them. The moral of the story seems to be that there is no hope for nonviolence and equality with men around: "As I understand it, what you protected people from was largely other males, wasn't it? . . . We can hardly turn you loose on Earth, and we simply have no facilities for people with your emotional problems" (91).

No, Tiptree's title taunts, the men of Houston, the epitome of the male space program, do not and probably cannot read. Reading is a civilized act of animals who can escape the demands of their bodies. Men, unfortunately, and the culture that expresses their desires and needs, cannot overcome their ancient bodily drives. Perhaps her play on reading as an activity of higher evolutionary status and reading as understanding, getting the message, is directed especially at science fiction's typically all male audience. They just don't get it. Like Lorimer in the story, who continually compares women to chicks, ants, gibbons, or space bunnies, even plants, our culture tends to reduce women to lower animals. Women are anything but human for Lorimer and Western culture. Tiptree's revenge is that it is the women who hear them calling, understand them, and read.

In "The Screwfly Solution," her grimmest story, the women of the world are being killed by men in the act of making love. The story is told in a series of letters between a husband, Alan (Adam), and wife, Anne (Eve). This dramatic technique works nicely since their very separation delays the ending, their ending, thus making the telling of the story possible. As the ugly truth begins to dawn, the situation is coolly explained to Alan by the voice of science: "A potential difficulty for our species has always been implicit in the close linkage between the behavioral expression of aggression/predation and sexual reproduction in the male. . . . Males of many

species bite, claw, bruise, tread, or otherwise assault receptive females during the act of intercourse; indeed, in some species the male attack is necessary for female ovulation to occur" (69). While the passage warns of the dangers of sex, "The sex was there, but it was driving some engine of death" (68), the assumption is that something has gone wrong with the mechanism switching off the predator response during sex. For the scientist, the problem is caused by a dysfunction; the normal situation has gone rogue. He suspects that a virus of some sort is responsible. Latitudes and longitudes tracking the progression of the phenomena are reported throughout the story to support this interpretation. Indeed, the opening line of the story sets the scene in the humid equatorial regions where presumably humans first appeared: "The young man sitting at 2° N, 75° W sent a casually venomous glance up at the nonfunctional shoofly *ventilador* [sic] and went on reading his letter" (53). The cleverness of the setting is matched only by the suggestion that the shoofly ventilator is dysfunctional which is exactly what is suspected of men's sexual urge. The casual intensity of Alan's anger at the ventilator, however, warns us that Mr. Everyday, someone still presumably untouched by the supposed virus, is already a screwfly needing shooing.[6] And indeed, Tiptree suggests that the situation is a normal, not an extraordinary one, "Whatever, it's our weak link, he thought. Our vulnerability. . . . The dreadful feeling of rightness he [Alan] had experienced when he found himself knife in hand . . ." (70). The normal situation is always already rogue for Tiptree. The violence inherent in male/female relations makes society itself impossible and not just a nonsexist society. The biological premise becomes so real in "Screwfly" that one finds oneself checking the latitude and longitude of one's own abode.

Like a good detective writer, Tiptree relentlessly leads readers to believe that nature is the culprit. And like good detective readers, we should have become suspicious. Other stories, "Love is the Plan, the Plan is Death" or "Out of the Everywhere," widen the scope of her charge against nature. Men's aggressive, competitive, hierarchical nature can do nothing but end their existence as well as women's. The rhythm of life, its random, casual alterations of births and deaths, the self-destructive nature of mother love, the lethal effects of children's curiosity, all lead inevitably to human

misery. Her passive observation of Dr. Ain in "The Last Flight of Dr. Ain," who travels round the world disseminating a lethal virus to destroy the human species, is perhaps the strongest statement of her frustration at human folly. The only solution, it would appear, is to go off with the aliens as the women do in another of her stories, "The Women Men Don't See" or take the suicidal solution of Thelma and Louise in the recent movie *Thelma and Louise.*

Tiptree's novels, *Up the Walls of the World* and *Brightness Falls From the Air,* continue to hammer unmistakably at the innate brutality of the human species and its determination to destroy this planet and every other planet with which it comes into contact. Both books are about light, delicate, airy creatures whose contact with muscular, brute earthlings almost destroys them. Sarah Lefanu calls "the potential for cruelty, for inflicting pain . . . Tiptree's central concern" (108). Everything she writes contributes to the interpretation that there is no hope because human physical and behavioral repertoires make any kind of nonviolent-sexed society impossible, and sexism, for Tiptree, is lethal.

Biting hook, line, and sinker, Robert Silverberg, in a famous introduction to a collection of Tiptree stories, gives the ultimate determinist reading by arguing that a woman could not have produced this literature: "It has been suggested that Tiptree is female, a theory that I find absurd, for there is to me something ineluctably masculine about Tiptree's writing. I don't think the novels of Jane Austen could have been written by a man nor the stories of Ernest Hemingway by a woman, and in the same way I believe the author of the James Tiptree stories is male" (xii). (Tiptree guarded her identity closely; no one knew her identity until she was outed late in her career.) Everyone was fooled by her masquerade: "She fooled us good and proper. And we can only thank her for it," says Ursula K. Le Guin ("An Introduction" 182). Indeed, I believe she fooled us even more than Le Guin realizes. Not only is Tiptree no determinist, she isn't even the female that Le Guin confidently takes her to be. However, to see this is to begin to understand her new view of nature.

Alice Sheldon begins her reinvention of nature with herself; she becomes James Tiptree, Jr. As the equation with which I began this section says, Alice is James. Using the strict "is" of identity, I mean to claim that Alice became something new, a hybrid being,

Alice/James. Neither, nor both, male and female, she hoped to dash the categories altogether. Her full name, created by stringing together all her identities, Alice James Raccoona Tiptree Sheldon, Jr., warms the heart of any boundary-crosser: Alice is for woman; James is for man; Raccoona, for animal and Tiptree, for plant; as for Sheldon, it names the structures of culture, while Junior announces that culture is patriarchal. Freed by her exercise in physical change, her "sex change" as she referred to it, her imagination was able to produce something new. Just like the marvelous title to a collection of her stories, *Star Songs of an Old Primate,* she had become an old primate able to sing star songs.

Her metamorphosis was obviously produced by her rich imagination; however, this was possible only because of an equally rich and bountiful nature. Underlying her faith in fiction's world-making powers is an unusual and dynamic view of nature. Instead of the narrow and rigid view of nature's possibilities as it is so often portrayed by patriarchal science, Tiptree saw nature as a world of infinite plasticity and endless variation. Nature was not fixed, but more mutable than even culture or society. The best evidence for this claim comes from her most used pseudonym, James Tiptree, Jr. While she minimizes her choice as a matter of mere preference, claiming that the name appealed to her when she saw it on a jar of preserves in the market ("A Woman Writing" 51), the incongruous vision of a tipped tree tips her hand. Gardner Dozois (what's in this name?, I wonder) calls "tiptreeish" an impossible adjective. Trees are stalwart; they grow straight. Like rocks, they are there—the most immovable of living objects. Everyone in Western culture knows that. But, what, the name itself asks, if trees were not so straight, a little warped perhaps? And what if they were not so permanent? The answer should be obvious: trees, plain old regular natural trees, are for the most part more tipped than straight, more ephemeral than solid. How, Tiptree frets, did trees get so fixed, so impoverished in our cultural imaginations? Her work challenges the tendency of both science and art to flatten and reduce nature, making it far more predictable than it really is. The digs at science fiction, which punctuate her stories, suggest that not even the wild stories of science fiction can match nature's dreaming: "'How much of that is for real, Doc?' Bud rubs his curly head. 'They're giving us one of your science fiction stories'" (*Hous-*

ton 37). Nature, she shall insist, cannot be cast as straight woman to an artful and punning culture. As the more famous Alice knew, nature is too funny, too tipped for that.

The Tiptree twist to Silverberg's determinist view that writing is gendered and Le Guin's nongendered view is that her prose was gendered, but not either male, or female. Above all, it was not sexist. The creature she had become, Alice/James, could produce something new. Le Guin's belief that Tiptree's true identity as female proves that there is no such thing as male or female writing is too modern, too humanist for Tiptree's lights. As an experimental psychologist and ardent observer of nature, Tiptree would never underestimate nature's influence. I suspect Tiptree realized that there was such a thing as male or female writing, or that there could be such a thing, and therefore would not object to this idea. She was always saying things like, "Women can be over-obsessed by minutiae, by trivial concerns with no broad implications. This is only natural in a gender evolved to rear children" ("A Woman Writing" 48). Nature exists; that is, non–human-made physical conditions obtain which affect how we think and live. Accordingly, in order to change our thoughts and dreams, we must change the gender/sex roles. The irony for Tiptree is that this is possible. We must allow our imaginations to be as versatile as nature. Nature never said there were only two genders; culture did that. Our fictions must actualize other possibilities, both those that are already there and those that could be there. A second look at the two stories developed earlier shows how her new view of nature spares us determinism while preserving the importance of nature.

In *Houston,* while men are portrayed in the story as violent and responsible for the nuclear destruction of the world, they are curiously not responsible for their sex's demise. Instead, women, as Lorimer accuses, have "poisoned" men (90). Lorimer speaks for the patriarchy in mentioning Eve's biblical crime. Tiptree, however, has another kind of poison in mind: "Women are *natural* poisoners" (3; emphasis added). In the context of the story, she is referring to their genetic make-up. After the nuclear holocaust, a virus attacked the X gene. Since the disease was recessive, women could survive since they have two Xs, but men who have only one X chromosome could not. The additional fact that women carry all the eggs they will ever produce from birth clinched the extermi-

nation of the male sex. The women of the future reproduced by cloning the remaining genetic material. Through hormone treatment, they even created some male types to do the heavy work. Nature has its effects and takes its course. Yet, the twists abound.

First, despite all the male violence, it is the women who have unwittingly killed the men. Second, men die because they are part female. This irony is particularly merciless for Lorimer who has spent his whole life denying his femaleness. From the opening of the story and his life, when he mistakenly finds himself in the "girls' can," to his and the story's end in another "girls' can," the spaceship Gloria, he adamantly proclaims his virility. If only he could have gotten the point and realized how vulnerable virility is: "His fly open; his dick in his hand, he can still see the grey zipper edge of his jeans around his pale exposed pecker" (1). Third, at the end of the story, the women knowingly kill the men. Indeed, in the last exchange of the story, they seem as callous as the men when they were in control: Lorimer asks,"'What do you call yourselves? Women's World? Liberation? Amazonia?'" Lady Blue replies, "'Why, we call ourselves human beings. . . . Humanity, mankind.' She shrugs, 'The human race'" (92). Tiptree's point is not that women can be as violent as men, thereby unlinking behavior and physical conditions. All along, she has insisted on nature's strong voice in culture's affairs. Her point is that we are not determined to live under those conditions. We can live in a menless world. The story mocks determinism, not by denying a connection between nature and culture, but by denying that nature cannot be changed.

A different twist occurs in "Screwfly." The screwfly solution refers to the strategy of genetically manipulating a species so as to use the very behavioral repertoires that the species has used for survival to destroy it. For example, Alan is about to tamper genetically with caneflies who have taken to using humans as incubators for their young. His idea is to disrupt the reproductive pattern by having the males mate with sterilized females, thus eliminating "naturally" the population of caneflies. All the genetic engineer need do is adjust ever so slightly a potential in the system as it exists. Alan's experiments with caneflies is a drama within a drama. The larger one concerns human mating patterns which for some reason are leading to the destruction of the species, rather than its

continuation. As I suggested earlier, the story makes it seem as if Catharine MacKinnon were right; sex is violence against women pure and simple. But then the Tiptree twist occurs, the *deus ex natura*.

At the end of the story just before Anne, the last woman on earth, commits suicide, we learn that it was aliens all along who were tampering with our sexuality. Anne sees an apparition, an alien "angel," and says with typical, wry Tiptree humor, "*I think I saw a real estate agent*" (75). Aliens were manipulating us just as Alan was manipulating the caneflies. They were colonizing the earth. Thus, power, greed, and the imperialistic motives of another species were responsible for the termination of "man," not the normal violence of men and sex. It is not natural after all, mocks Tiptree, that men should brutalize women and see it as part of the behavioral repertoire of sexual reproduction. They, we, are being manipulated by aliens. The vulnerable link in our behavioral chain is our susceptibility to the idea that we are determined to live in certain ways. Tiptree is never tired of sending this message.

Her complex attitude toward nature is made most directly in this story. Studying the notes of another scientist trying to understand what has happened, Alan reads: "'Man's religion and metaphysics are the voices of his glands. Schonweiser, 1878.'" In response, Alan thinks: "Who the devil Schonweiser was Alan didn't know, but he knew what Barney was conveying. This murderous crackpot religion of McWhosis [referring to Reverend McIllhenny who was circulating women-hating pamphlets] was a symptom, not a cause. Barney believed something was physically affecting the Peedsville men, generating psychosis, and a local religious demagogue had sprung up to 'explain it'" (61). While this simple determinism does not reflect Tiptree's position—here one most remember the end of the story where the territorial desires of another species become responsible for the disease affecting the men, not men's normal sex behavior—she has more sympathy for this position than believing it a matter of hatred, or misogyny. For Tiptree, it is as if hatred were too personal, too psychological a concept to account for men's sexist treatment of women. Nor does it explain the fact that young boys are also slaughtered by the ravenous men. Rather, either territorial expansion, from the point of view of the end of the story, or natural force, from the point of view of the

middle of the story, is to blame; that is, forces larger than individual intention or will predominate.

Like Wittgenstein, Tiptree is saying that new ways of thinking require new bodies, but not in a causal or strictly necessary sense. In fact, Tiptree's new view of nature includes a different view of space and time. Nature cannot produce the other since there is no time lag, no gap, for causality to fill. Causality is a relation that connects things externally; nature and culture are related, on the other hand, internally. A few comments on her style will help make this point.

According to Robert Silverberg, one of the most prominent features of her writing is "his ability to create a sense of sustained and prolonged movement . . . a sense of *extended process,* that makes the scene literally unforgettable" (xvii). Silverberg is right; the attenuation of the scene for what seems like an eternity is palpable. The descriptions of the slow, ponderous progress of the huge being wandering space in *Up the Walls of the World* is a perfect example. The creature is vast but moves at a snail's pace; its voyage seems endless. Its voice is recorded only in capital letters, and its story is told piecemeal fashion, interspersed between the other narratives. The capitals not only distinguish the creature's voice and story from the others going on simultaneously, but slow one down as well. Sentences with all capitals are harder to comprehend, and the interweaving of the voice with others also prolongs the story's movement. One must stop to get one's bearings. The creature is not in space; we feel we are suspended in space itself, endless space.

Her other stylistic trait, also recognized by Silverberg, of jagged, staccato phrasing, "dialogue broken by bursts of stripped-down exposition" (xv), which one would think the opposite of the "slow music" of the sustained process, creates the same sense of an endless present.[7] Both styles, along with her penchant to tell stories backwards, or shuffle the time-frame, interrupt our passion for cause/effect narrative. Time/space cannot be easily divided into a past, present, future, a here, there, or up/down. Causality that depends on the separability of two distinct moments and spaces is frustrated in such a universe. Only duration seems to exist; the endless present in which things affect each other by becoming expressions of each other. While Tiptree has no new name for the

interaction she sees between nature/culture, she seems to have a sense that causality is an insufficient relation.

Is it nature? Is it culture? For Tiptree, these questions are misconceived. To dramatize her position, she stacks all the cards toward making us believe that there is no hope but that we will be victims of our own biology. And then just as one accepts this message, she exonerates nature and blames such willful displays of culture as greed, avarice, ignorance. Has nature failed the human species for Tiptree or culture? The answer is neither. Her final irony is that only humans fail themselves by thinking cheap and small about both nature and culture. Just as Sheldon gave birth to herself, she ended her life, killing first her ailing husband and then herself. So much for nature's natural course.

Donna Haraway Is a Cyborg

"A Cyborg Manifesto," probably the most fictional piece of nonfiction in the feminist canon next to Hélène Cixous's "The Laugh of the Medusa," presents a nonfictional kind of science fiction. For Haraway, the category of science fiction challenges any easy distinction between fiction and nonfiction. For her both facts and fictions are made by human action. Why, then, can she not interweave both forms of discourse in her own metacritiques of science? In flaunting the normal truth-telling/seeking, measured style of the documentary essay, Haraway exemplifies her avowed goals of breaching boundaries, collapsing dualisms, inventing new categories of classification. With the joy of a whale at play, she breaks the still waters of philosophical and biological writing, displacing the normal and natural forever. Who, perhaps one should ask, what, is this fearless creature who would advance humanity to a new evolutionary level?

As she tells us in her avowedly personal tone, she is a cyborg, or rather aspires to be one: "I would rather be a cyborg than a goddess" ("Manifesto" 181). Appropriately, she prefers to think of her action as one of regeneration, rather than rebirth. The identity she invents for herself crosses the boundaries between machine, non-human organism, and human: "A cyborg exists when two kinds of boundaries are simultaneously problematic: 1) that be-

tween animals (or other organisms) and humans, and 2) that between self-controlled, self-governing machines (automatons) and organisms, especially humans (models of autonomy). The cyborg is the figure born of the interface of automaton and autonomy" (*Primate Visions* 139). It is also a hybrid of fiction and reality, a new being that is more and more becoming a social reality: "The cyborg is a matter of fiction and lived experience that changes what counts as women's experience in the late twentieth century" ("Manifesto" 149). To embrace a cyborg future is to relinquish the need for purity, origins, a self/other dualistic consciousness, and the fear of our evolutionary other. The future for Haraway, like technology, need not automatically be dreaded. Becoming a cyborg may not be the great loss it seems to others. In fact, it is to be preferred if it enables a better society.

As with Tiptree, Haraway begins by a reimagination of herself. She introjects the other and becomes other than herself. Haraway has become another kind of being; her classification is cyborg, not human. Using the "is" of class inclusion this time, instead of identity, she counts as a cyborg. Her imagination of a new identity makes new narrative strategies possible for her and perhaps new social relations, new politics, possible for all of us; that is, it transforms how we live and thus ultimately moves from the realm of imagination to the realm of the real. Only split, non-whole selves can do this: "The split and contradictory self is the one who can interrogate positionings and be accountable, the one who can construct and join rational conversations and fantastic imaginings that change history" ("Situated Knowledges" 193). Science fiction, I believe, is born from split and contradictory selves. The "natural-technical object" has a different view of the world. As with all postmodern theories, Haraway's being and writing disrupt what we take to be the normal: "This identity [U.S. women of color] marks out a self-consciously constructed space that cannot affirm the capacity to act on the basis of natural identification, but only on the basis of conscious coalition, of affinity, of political kinship" ("Manifesto" 156). The normal, the natural, deserve to be banished from our conception of nature. Just as a state of affairs is not in itself good or bad, no state is in itself natural. Alternatively, one might put the point this way: since every state is potentially a natural one, no state can be considered natural. The natural has been essen-

tially a term of appropriation, not description; it has normative, not descriptive force.

The importance of autobiography, of inventing oneself and locating subjects in their context, cannot be overestimated in Haraway's work. The self-referential gesture functions to situate knowledge and remind one of its embodiment. More importantly, one's thinking and being are so integrally related that adjustments in one affects states of the other. Once again boundaries are being transgressed, those between the I and the We, the informal and formal, the personal and the political, the real and the fictional. Ironically, Haraway's commitment to identity politics makes her an unwilling standpoint theorist. Yet, I doubt she would mind as long as one were allowed to multiply standpoints indefinitely and according to a very inventive and prudential scheme. What matters for her is not who you are, but what you might become.

The newness of Haraway's message is that perhaps the only way or maybe the most effective way of avoiding the dualisms of Western culture is literally to go beyond them by becoming something that simply eludes the categories the dualism describes—to go where no "man" has gone before. One does not breach the boundaries only in thought, but in reality. One uses one's mind to transform what one is. This is impossible to imagine only if one lives in the exclusion of nature/culture; then the comment that one can't change what one is by thinking about it finds a place. Then, lectures on Darwinian inheritance apply. However, once beyond the dualism, once the two domains are not exclusive and are not described in exclusive fashion, the effects of minds on bodies makes perfect sense. Haraway's view of meaning makes this point nicely: "Meanings are applications; how meanings are constituted is the essence of politics. No one can constitute meanings by wishing them into existence; discourse is a material practice" (*Primate Visions* 111). Echoing Wittgenstein's point that meaning is use, Haraway is suggesting that meanings and discourse are as material, as nonfictional as rocks. The meaning of "nature," for example, is a concrete practice, not an abstract exercise. Words are deeds. In this view, metaphysics and science are always already political acts, but just for that reason, not necessarily ideological ones.

In Haraway's hands postmodernism becomes something new.

It rejects dualisms, boundaries, etc., not by ignoring them, or pronouncing them bad and dead, but by literally inventing something that cannot be grasped with the old dualisms. Philosophy, the discourse invented by Plato, and the nonfictional forms of explanation derived from it and continued ad nauseam can wither away since we have evolved into beings for whom those discursive practices no longer make sense. Even her prose resists categorization, rather especially her prose. Since her prose is the act by which she regenerates herself, it becomes the womb of her new being and therefore the very life-line to the future.

Like science fiction, Haraway's prose creates an elsewhere from which to view our current situation: "I want readers to find an 'elsewhere' from which to envision a different and less hostile order of relationships among people, animals, technologies, and land" (*Primate Visions* 15).[8] Another passage from this same text provides a revealing gloss on her concept of "elsewhere": "Space and the tropics are both utopian topical figures in western imaginations, and their opposed properties dialectically signify origins and ends for the creature whose mundane life is outside both: civilized man. Space and the tropics are 'allotopic'; i.e., they are 'elsewhere,' the place to which the traveler goes to find something dangerous and sacred" (137). Accordingly, if her story is to provide an "elsewhere" for those of western imagination, it should capture this danger, trade in taboos, and wallow in estrangement. And it does. Jargons from widely different disciplines bang against each other, tucking layers of information in serpentine clauses (closets) that give an unending feel to many of her sentences. Moments like these are ponderous and daunting. Yet, they have their own logic. The density fits the thoughts being expressed. A clear, concise syllogism would be all wrong. Those who ask for clarity are clearly missing the point. The picture she paints is blurred all the way down; it cannot be brought into better focus by better writing.

Other aspects of her style are equally telling. Consider her description of Frederick Wiseman's documentary *Primate:*

> Leaving the portrait gallery, the camera takes the viewer up the drive into a complex of scientific buildings, to a hall of cages, where filmmakers (bearded) and scientists (bearded) discuss gorilla sex in front of a male-female pair of that ape

> species. The sound track gives us a fragment of a discussion on data collection in ape sex research. The scientist explains the observation and caging system: 'We don't want them doing things when we can't see it.' In the scientist's office we see photographs of copulating gorillas and get a discussion of sexual behavior observed in the field by George Schaller. (*Primate Visions* 117)

This passage is typical of her travelogue or art history lecture style in *Primate Visions*. Perversely, she focuses on details usually missed by the scientists. She is expert at listening or looking in at the crucial moment when the scientists expose themselves. The scene of instruction, of knowledge production, for example, loses its credibility when reframed with her skeptical, ironic voice. For example, the juxtaposition of "complex of scientific buildings" with "hall of cages" humorously blurs the two. The beards breach the line between the hairy scientist, filmmaker, and gorilla. The movie, the photographs of copulating gorillas, the admission of voyeurism, the strange obsession with primate sex make those involved look foolish. What is this, Haraway asks, but bestial pornography under long, dry titles? Deftly, she deconstructs the scientists' accounts of their practice. Her goal is to recapture science, to make it new for a new being: "Feminists reappropriate science in order to discover and to define what is 'natural' for ourselves" ("The Past" 23).

High on her list of biology's sacred cows is the belief that species endlessly reproduce themselves. For Haraway this is wrong even from an evolutionary point of view. Elephants come from something which is not elephant—not nothing, nor some other, more fundamental or simple stuff, just some other complex stuff. The mechanism for the metamorphoses may be mutation; but since the causes of mutation are not clear, mutation may be a mixed bag of things. Cyborgs are not the product of classical mutation; yet, humans have already begun to look, feel, and think like them. Classical taxonomy imposed an order on nature that never really existed. It was a simplification, a reduction for the sake of theory and order. Plurality and alterity have always been the hated other of the one, the same, the only. Reappropriating science means letting the chaos of nature back in and refusing to tame it with the stultifying straight lines of abstraction.

Science has always constructed nature. As computers are making clear, reproduction involves production: to re-produce something, e.g., weather patterns, requires the creation of a coded process that produces those patterns in what might be an entirely different way from their original production. Indeed, the terms "simulation" and "original" are losing their distinctness. Haraway makes science's world-making capacities clearer than any other feminist critic today: "The form in science is that artefactual-social rhetoric of crafting the world into effective objects. This is a practice of world-changing persuasions that take the shape of amazing new objects—like microbes, quarks, and genes" ("Situated Knowledges" 185). Scientists are world-makers just like novelists. Creating a kind of nonfictional science fiction of her own, Haraway shows the world-making potential of criticism and commentary as well.

Despite the fact that women have suffered more than men from the political uses of "natural," they resist the call to become cyborgs. Most are put off by the thought of evolving into a monster, half machine/half human. After centuries of conditioning, humans hanker for the natural, the organic, the myth of oneness and wholeness, and fear the artificial, the concocted. While psychologically understandable, the reluctance is politically dangerous. We must move on, especially since whether we like it or not nature/culture is already in motion producing the future.

Science Is Fiction

Both Tiptree and Haraway owe much to the discourse and ethos of science fiction. In critical ways, it enabled their self-regenerations and their visions of a different relationship between nature and culture. As I have suggested at different points in this essay, the genre builds the problem of nature/culture or the relation between fact and fiction into its very definition. Perhaps it is fitting to conclude with some comments on the genre.

Both the concept and practice of science fiction have been changing even as debate rages about what constitutes a work in science fiction. While everyone has their own definition, some seem more fruitful than others. A recent definition from feminist

writers focuses on dealing with the other: "There was a time when a sound definition of the term was 'stories in which some scientific idea was extrapolated, and was integral to the action and plot'. This has not been the case for a long time. It would seem that anything with a streak of 'otherliness' fits the bill, alongside the usual hard core of spaceships and robots" (Saxton 205). Sarah Lefanu echoes this idea: "And they [horror and ghost stories] share with science fiction that sense of 'otherness': a concern with the effects of the strange, or the alien, or the unconscious, on the familiar and the commonplace, and an abiding interest in how the strange and the familiar can inhabit the same terrain" (184). The other may be cast in terms of other beings, or it can also be other times and spaces. Robert Scholes' notion that other times or places are as critical to science fiction as other persons can be incorporated under this idea of otherliness.

In some works by women, the problem is dealing with the self as other. Octavia Butler problematizes this idea in *Dawn*. Speaking of the Oankali, the people of the novel, Haraway says: "Their nature is always to be midwife to themselves as other. Their bodies themselves are genetic technologies, driven to exchange, replication, dangerous intimacy across the boundaries of self and other, and the power of images. Not unlike us" (*Primate Visions* 379). For Haraway, the Oankali are us, only we refuse to admit it. Humans too transform themselves and depend on such transformations for their survival. Yet, there is so much resistance to change. Butler's novel examines human resistance to change, to the strange, to the future.

The work of Tiptree and Haraway also makes extensive use of the self as other. Each has to operate on themselves first to make possible a different vision for nature. However, the primary thing that got otherized in their work is science itself. Seeing the discourse of science as fictional is critical to both their projects. For me, this is the enabling insight of science fiction as a fictional praxis: science is fiction.

The "is" in this sentence, "Science is fiction," introduces the last major use of "is," namely, the "is" of predication. Unlike the "is" of identity or the "is" of class inclusion, the "is" of predication attributes predicates to subjects, e.g., "Alice/James and Donna/Cyborg are happy." So my claim, science is fiction, says that science

works by constructing stories about nature; it is a fictional discourse. However, this is not to say that it is counterfactual, or contrary to truth. Once again, as Haraway argues, fictions are not the antithesis of facts. Using the license granted to them by the label, "fiction" writers of science fiction have always known science's power to construct the real. More than any other group of writers of either fiction or nonfiction, they have noticed and furthered science's constructions of nature. While the genre's constructions are fictional in that they go beyond the known, they connect to the facts of science and reveal a commonality between them.

Perhaps myth is a concept that best captures science fiction's blending of fact and fiction. Rather than being fantastical, or individual, science fiction's constructions often aim at mythological status. Many commentators on science fiction have noticed its connection to myth. Wendy O'Flaherty, for example, says: "Science fiction provides a body of literature in which great mythological classics take refuge in a demythologized age. It is one of the few places in which we continue to create superheroes, the last survivals in a kitsch mythology of atheism" (31). She also notices the social thrust of the genre, the way in which it develops secular ritual communities, e.g., Trekkies. I feel the pull of these communities every time I buy a text; for some strange reason, since I usually avoid used books, I find myself wanting only used science fiction texts. I get a perverse pleasure reading about the new through the old. Joanna Russ's minimalist and materialist definition of myth as "material which has passed through other hands, that is not raw-brand-new," (10) is obviously far more accurate than one would initially think. The used books emphasize not only a community of readers but a community of ideas that transcend the individual. Michel Butor goes so far as to see science fiction as a collective myth: "The SF narratives derive their power from a great collective dream we are having, but for the moment are incapable of giving it unified form. It is a mythology in tatters, impotent, unable to orient our action in any precise way" (164). While I disagree that the stories are impotent, I find his attempt to see science fiction in some unexplained but Jungian way as a function of a collective or social conscious, rather than an individual one, aiming in the right direction. Science fiction has been able to have its unsettling, political edge precisely because of its social, mythological dimension.

Science fiction finally allows women to go where most men have not gone before. The imagination of other peoples, other places, or times brings perspective. We can see changes needed either in the way the world is or the way we think about the world. The critical point that I have argued in this paper is that the two are related: Changes in how we think and act require changes in what we are and vice versa. New thoughts may not require new ontologies, but the latter certainly facilitate the former.

Notes

Thanks to Julia Epstein, Elaine Hansen, Sandra Harding, and Ann Matter for their comments on an earlier version of this essay.

1. While most feminists today would dismiss this supposition outright, there is good reason to consider the possibility that new cultures require new facts. Certainly, the claim is more plausible if one believes that all societies known to recorded history have been sexist. Michelle Zimbalist Rosaldo is among those who argue this position. Since it is not my purpose to debate that issue, let it suffice to say that I am not denying the incredible number of different cultures and societies that a set of physical conditions can tolerate. I am only making a minimal claim: altered biological conditions is one way—one interesting and if not sure, at least likely way—to transform women's place and status.

2. Even if one could prove the necessity of certain facts, one could never show their sufficiency since it is always possible to imagine a totally different physical world in conjunction with our same concepts. Accordingly, to the extent that causality depends on sufficiency, it cannot describe the relations between nature and thought, or more broadly, culture.

3. Ursula K. Le Guin's fame in popular culture is only the tip of the iceberg. For the past 20 years, women have been turning to science fiction in record numbers. The open possibilities of the genre, no doubt, attracted attention. To mention only a few more names: Joanna Russ, Vonda McIntyre, Pamela Sargent, Suzy Charnas, Marge Piercy, and Suzette Elgin.

4. Shulamith Firestone was among the first feminist critics to argue that we must evolve into a new species in order to fully overcome sexism. Her position, however, is very different from Haraway's in that, for Firestone, we are trapped by our biology. For Haraway, our imaginations of our bodies imprison us, not the facts of biology.

5. The correspondence between Haraway's feminist theory and the themes of women's science fiction is no accident. Haraway is an avid reader of these authors and acknowledges their influence on her work. Her enthusiasm for science fiction has been contagious; I caught the passion from her.

6. Adam Frisch gives a spectacular analysis of another series of Tiptree sentences from "The Women Men Don't See": "We emerged dry-mouthed into a vast windy salmon sunrise. A diamond chip of sun breaks out of the sea and promptly submerges in cloud" (56–57). He sees this in terms of an internal polarization of

imagery: opposites are contrasted whenever possible, e.g., emerging/submerging, vague boundaries/detailed ones.

7. "Slow Music" is the title of one of her stories.

8. Haraway's view from elsewhere contrasts nicely with the standard philosophical view that Thomas Nagel has dubbed "the view from nowhere." Elsewhere, unlike nowhere, is embodied even if by other, alien bodies.

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