## THE CYBORG AS AN INTERPRETATION OF CULTURE-NATURE

by Anne Kull

*Abstract.* The idea of "nature" performs an important cultural work. The cyborg-nature is an attempt to free ourselves from the features of the culturally authorized concepts of nature. The cyborg offers new metaphors to both academic and popular theorizing for comprehending the different ways that sciences and technologies affect our lives, subjectivities, and concepts. The cyborg is a lived reality and a metaphor. Paul Tillich deemed it necessary to have a mythos of technology to explain our technologies and ourselves. He offered "The Technical City" as a symbol for his age. Donna Haraway's cyborg-figure could function as a symbol to interpret our time and technologies and ourselves.

*Keywords:* cyborg; Donna Haraway; the ideas of nature; symbol; technonature; Paul Tillich.

The idea of nature, its construction and reproduction, performs an important cultural work. It is an idea that reverberates across any conceptual field, creating effects on it as it passes through and by the elements and concepts of that field. However, the content of this idea is disputed, mobile, and relative to ethnic position. C. S. Lewis suggested that a small number of Greek thinkers invented nature—or, rather, invented "Nature with a capital" or "nature in the dangerous sense"—for, of all words, this is the one most likely to be employed where it is not required. In one sense, there can be nothing that is not "nature"—it has no opposite. In "demoted" sense, however, when it does not mean "everything," a curious transformation takes place. If nature is not all, then it may be thought of

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as just one thing, or one set of things. What once was an invisible, preconscious medium becomes an object to be examined and described.

R. C. Collingwood has proposed that the idea of nature is fundamentally historical (Collingwood 1945). The Greeks understood nature in analogy to a living organism, a rational animal. Since the fifteenth century (beginning with Copernicus, Leonardo da Vinci) the technologized, machine view of nature emerged. This is a view of nature as passive and inert, with God as the sovereign ruler of the world machine or as an explanation of natural causality (often concealing the inability to find other explanations of natural forces). This idea of nature employs mathematics, mechanics, or some kind of atomism, associating the functioning of nature with the functioning of a machine, as if it were truly a lifeless realm. On the other hand, within the mechanical worldview there was no fundamental conflict between technology and the organic. Mechanical concepts were deemed equally effective for explaining the motion of the planets, the action of matter, respiration, digestion, reproduction, and other processes.

The organic worldview encompasses a wide range of philosophies, including alchemy, vitalism, and Romanticism. Most organic world views have for a forefather Aristotle, who inverted the relationship between the organic and the inorganic. He assumed that organic development was fundamental; he also thought that substance was different at the end of a process from what it was at the beginning, that all matter, like the material of a seed, had the potential to develop distinctively into something else.

The modern period (since Darwin) has considered nature in analogy with historical process. Nature, thus, is not only what it is but also what it was and what it can become.

The cyborg-nature is an attempt to understand nature in a way that challenges the features of the culturally authorized concepts of nature; it is an attempt to free ourselves from conventional ideas of nature. The problem with conventional ideas is that they tend to become oppressive and normative-especially when a situation is perceived to be one of crisis. Then the nature of nature is denied change. Donna Haraway defines cy*borg* as "a cybernetic organism, a hybrid of machine and organism, a creature of social reality as well as a creature of fiction" (Haraway 1991, 149). The conceptual boundaries of what it means to be human or what we human beings mean by *nature* have never been less secure. Cyborgs appear where boundaries are transgressed: between human and animal, organism and machine, physical and nonphysical (Haraway 1991, 152). If we may find it impossible to have a persuasive definition of being human or of *nature*, we might follow Haraway and find new figurations. Cyborgs are aware that boundary construction is never innocent and that it is crucial to ask, Did anybody take responsibility for constructing those boundaries? Cui bono?

The cyborg offers new metaphors to both academic and popular theorizing for comprehending the different ways that sciences and technologies work in our lives-metaphors that start with our complicity in many of the processes we may wish were otherwise. That is, the cyborg renews a talk of a (morally) ordered universe, a cosmos, which is made up of things Westerners formerly would have classified either as natural or cultural. This modern taxonomy does not work anymore; nature for us is made, but not all agents are human. Cyborg is also a tool useful in discussing human nature: cyborg anthropology poses a serious challenge to the (only) human-centered foundations of anthropological discourse. It explores an alternative, as the autonomy of individuals has already been called into question by poststructuralist and posthumanist critiques, by examining the argument that human subjects and subjectivity are crucially as much a function of machines, machine relations, and information transfers as they are machine producers and operators. Haraway asks, "Why should our bodies end at the skin or include at best other beings encapsulated by skin?" (Haraway 1991, 178). Commonly both theology and ethics were assuming the concept of human being as given and unchanging (even while there were significant differences between different schools of thought). Because human nature was a constant, the categories of good and evil could be relatively easily determined. The nonhuman world, including organic nature and technology, was assumed to be morally neutral, as well as a given and a constant that could be little affected or changed by any human action. Thus human beings had little responsibility for nature or technology. The decentered, fragmented focus of cyborg anthropology or theology must be on the mechanical/cybernetic-organic system (on the cyborg, in other words).

Cyborg position is a lived historical position; it describes humanness or, more generally, culture-nature relationship in a particular time, namely ours.

Choice is not overabundant in this matter: we inhabit the world of technoscience whether we acknowledge it or not, asserts Haraway, and this world is constituted as a mixture of transgressions, mutations, and boundary violations rather than something akin to nature corrupted by culture. Contemporary technoscience challenges the distinction between science and technology as well as between nature and culture, subjects and objects, natural and artifactual, physical and nonphysical, real and simulated.

When I use the terms *culture-nature*, *technonature*, *cyborg-nature* (also referred to as *posthuman*, *postvital*), I mean to point to something of which we are not habitually aware; and even when we are aware, this nature is not considered as extensively as it deserves. That is, an important part of our experience of nature is not congruent with our thinking about nature. Haraway, in my estimation, is one of the most promising writers in this area, providing up-to-date phenomenological descriptions of this nature.

Her goal is to get at 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" (Haraway 1991, 1). The technonature, including its invented and copyrighted organisms, inhabits the borderland—totally natural and totally cultural simultaneously—thus making it impossible to define nature in opposition to culture, human activity, or technological interventions anymore. According to Haraway, technoscience is a form of life, a culture, a generative matrix. It "designates dense nodes of human and nonhuman actors that are brought into alliance by the material, social, and semiotic technologies through which what will count as nature and as matters of fact gets constituted for-and by-many millions of people" (Haraway 1997, 210). In her characteristically precise language she explains, "The relations among the technical, mythic, economic, political, formal, textual, historical, and organic are not causal. But the articulations are consequential; they matter. Implosion of dimensions implies loss of clear and distinct identities but not loss of mass and energy" (1997, 222).

What is nature, and where is it to be found, then? Because virtually no "nature" untouched by human activity exists, we face a conceptual problem: On what grounds can one define nature as really natural and not artificial? And we face a practical problem: Either we have no nature at all, or nature is all around us but we cannot see it because we want nature to be "out there," separate and distinct from our actual interactions with nature. Technologies and science permeate everything anywhere, but they do not determine (in the sense of a one-to-one correspondence between the causal agent and its effects) social organization and practices. They may fail to have any effect, fail to be taken up, or are taken up beyond or differently from the intentions of their inventors. If they are taken up, however, the result is a cyborg—a subjectivity formed not only by education, relationships, nature, and genes but as much produced by a technological component. The image of "cyborg" is designed to call attention to ways in which science, technology, and medicine routinely contribute to the fashioning of selves. In our transnational enterprise culture, "species being is technically and literally brought into being by transnational, multibillion-dollar, interdisciplinary, long-term projects" (Haraway 1997, 216). Of course, there are the varieties of ways in which experience resists science and medicine; people do express creativity with regard to facts, technologies, and regulations.

Technonature is a topic that has not been stabilized yet; it is up to us to determine what will count as "normal" and "natural" and what forms of life will make up nature for us. Technonature includes transuranic elements, transgenic organisms, invented and copyrighted, "enterprised up" organisms, and much of the rest of nature, including the possibility of the idea of planet Earth as Gaia. Technonature is a result of a dense network of interconnections. These historical and contemporary links interconnect large arrays of beings, human (scientists, lawmakers, laboratory workers, environmentalists) and nonhuman (machines, animals, computers, genes), on a changing military, political, and economic landscape. The standard categories and distinctions of the modern age (and not only of the modern but of those present in the Western tradition perhaps since Plato's creation story in the *Timaeus*, in which nature and human spirit occupy separate realms) are simply inadequate for understanding subjects and objects of a technoscientific age. The patented and engineered animal is simultaneously natural and artificial, biological and economic, subject and object of research, a hybrid species of nature that demands a hybrid analysis.

Haraway's second argument is that we can occupy no clear-cut for-oragainst position but are implicated and involved in the net of stories, agencies, and instruments in which objects such as the transgenic animal, the transuranic elements, the gene, the bomb, the chip, and the fetus are embedded. The cyborg embodiment is never simple. Contemporary practices are unfinished, ongoing, continuously maintained, and potentially amenable to intervention by one's own practices. Although indifference and opposition are more common options, the ongoing critical participation allows more creative responses. There are no neutral positions. The cyborg as a figure of contemporary identity may encourage a responsible awareness of and interaction with the material world. It is worthwhile to remember that significant experiences, knowledge-producing experiences, come to us through interaction not only with human beings but also with nonhuman others. Even if the image of cyborg makes us nervous, we will have to learn to speak as cyborgs, to express the qualitatively and quantitatively different experiences of technology and nature. The cyborgian nightmare could be a vision that could be not only patented, sold, and possessed but fundamentally reconstituted in response, purely and simply, to market pressures, thus making cyborg society the terminal and purest form of capitalism.

All of our stories, whether fictional or scientific, are striving for presentation. All of these presentations are exclusive in some respect, and frequently one's story leaves out that which is most important to another. That is, all attempts at representation ultimately have been failures. Even worse, we cannot compare our representation to reality, only to other representations. Haraway points to the reason for this failure: her suggestion that we see the world as a "witty agent" with whom we must converse and have a loyal relationship, while giving up mastery, even while knowing that "all the while we will be hoodwinked" (Haraway 1991, 199), suggests that nature and human being are not self-revealing, even to a self-reflective species such as the human one. The cyborg-nature allows new, possibly unsettling possibilities. Nature, however defined, constructed, or invented, is beyond any comprehensive conceptual grasp yet wholly within the domain of our social, political, and moral responsibility. Environmental problems are human problems but not merely human moral problems. There are many ways and places in which nature is produced, and there is a wide variety of people whose experience of nature, uses of nature, and ideas about nature never come to the foreground. The culturally particular way of creating nature is an enterprise that combines science, technology, politics, and free-market capitalism.

As a theologian, albeit a beginner, I was naturally interested in finding theological attempts to get at the contemporary technoscientific situation. Paul Tillich, a German American theologian, turned out to be a fascinating resource in my consideration of the culture-nature relationship. Tillich rejects both the mechanistic idea of nature and the organicist idea of "automatic harmony" in culture and nature. Instead, he proposes an ontology and epistemology of encounter in which the subject-object relationship is transformed. He rejects also various dualisms, and his multidimensional unity of life acts as a unifying principle. At the same time, the polarity of individuation and participation protects the integrity of the known and the integrity of the dimensions. Intrinsic value is attributed to all "selves" comprising nature (and in nature there are no things).

Tillich noted that

with a suddenness and violence comparable to a natural catastrophe, modern technology came upon Western nations. And they bowed themselves before it without understanding what had happened. . . . To comprehend the logos of technology, its essence, its characteristic forms of being, its relation to other forms of being, that is thus our first and most important task. (Tillich [1927] 1988, 51)

He attempts to understand technology in two steps: first, through an analysis of the essence of the technical structure, and second, through the systematic location of technology within other functions of culture and realms of meaning. The technical function is itself one of the functions through which life creates itself under the dimension of spirit. Tillich wrote in 1927 concerning the place of the mythos of technology in the ultimate meaning of our life,

We no longer have a mythos that expresses itself in symbols as past times had. We cannot determine a place for technology as they did. We can only contemplate the matter itself and interpret it and hope that in the interpretation something resonates from the hidden, symbol-less mythos that sustains our time and gives it meaning. (Tillich [1927] 1988, 59)

The following year, 1928, he presented his "The Technical City as Symbol" for his age. Here he claimed that, behind the technological "ordering of things according to laws and relationships that is calculable in every one of its parts," there is to be found a "feeling of uncanniness," a feeling of

threatening strangeness and incomprehensibility, that hovers on the edges of all technical constructions ([1928] 1988, 180). The technical city is the symbol of pure autonomy; its structures are strictly rational and highly organized but are lacking spiritual depth. The technical city as symbol "unites the thought of the domination of being with that of making a home within being" ([1928] 1988, 182). While the technical city symbolizes the age of the fulfillment of the technical utopia of the Renaissance, it also has become

the symbol for the uncertainty that hangs over our age. . . . As the technical structures develop an independent existence, a new element of uncanniness emerges in the midst of what is most well known. And this uncanny shadow of technology will grow to the same extent that the whole earth becomes the "technical city" and the technical house. . . . [The technical city] has become lifeless, and it induces lifelessness in us. . . . [This new uncanniness], a kind of dread of the lifeless world, which serves us but which cannot speak as life speaks to life. ([1928] 1988, 182–83)

The technical city is redeemed through the creation of a theonomous unity of form and meaning.

It seems to me that in the cyborg figure a symbol has been found to interpret our time, our technologies, and ourselves. Our expressions of technology have acquired uncanny liveliness of their own. As Haraway writes, "Our machines are disturbingly lively, and we ourselves frighteningly inert" (Haraway 1991, 151). Tillich wrote about the genesis of symbols, especially symbols of nonconformism in the midst of surroundings that try to compel adjustment to models and patterns. He agreed that we are made by our environment and that we make it at the same time. But on some happy occasions a symbol for the time is born. His description could be a birth certificate to Haraway's cyborg:

We should not imagine that we can change our cultural trend, either as architects or as theologians or as educators. . . . Symbols cannot be produced intentionally. They are born and grow and die. But one can tell how they are conceived and born: Out of the personal passion of individuals who in total honesty and total seriousness penetrate into the demands of the material with which they work, who have a vision of the form that is adequate to their aim, and who know that in the depth of every material, every form and every aim, something ultimate is hidden that becomes manifest in the style of a building, of a poem, of a philosophy. Out of this depth, symbols can and will be born that, by their very character, say no to present conformity and that point to an environment in which the individual can find symbols of his encounter with ultimate reality. (Tillich [1957] 1988, 143)

The disruption of boundaries that the cyborg myth foregrounds is always, and necessarily, ambiguous with respect to its promise. And this ambiguity signals a kind of playful daring of the cyborg. Haraway's cyborg signals not a collapse into some variant of a return but an advance into the zone of greatest danger. Haraway's wager is that the cyborg can find the weak points, the points that offer political possibilities for more pleasurable modes of life from within the planetary grid of technological domination. Storytelling and mythmaking are not opposed to materiality, but materiality itself is tropic; it is a knot of the textual, technical, mythic, political, and economic. Perhaps cracking open possibilities for belief in more livable worlds would be the most incisive kind of theory—indeed, even the most scientific kind of undertaking in the midst of permanently dangerous times.

The careful divide between what is cultural and what is natural is not that interesting: culture and nature are the consequences, not the causes, of the relays, networks, and alliances. The definitions of nature, society, religion, politics, technology, and science are all produced together: we can do better than have religion without nature, society without religion, politics without participating populations, nature without technology. This nonscientific talk sounds strange only because we are immersed in an intellectual tradition that says the opposite. In (feminist) cyborg discourse, emergence replaces teleology; distributed cognition replaces autonomous will, embodiment replaces a body seen as a support system for the mind, and a dynamic partnership between human and nonhuman beings (including intelligent machines) replaces the liberal humanist subject's manifest destiny to dominate and control nature. Of course, this is not necessarily what cyborgs will be about-only what cyborgs can mean, given that cyborg argument is still fluid and that new visions, figurations, and worlds are possible. These new figurations have to forge new possibilities of narrative, new possibilities of livable lives, and ultimately these new figurations have to find ways to deal with gender inequalities, past and present.

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