



Chapter Four

The Rights of Nature

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A good deal of the concern over environmental protection stems from the feeling that something known as "Nature" has rights or needs, and that industrial society is careless of these. What is it people have in mind when they say this? How can Nature, which is not in any obvious sense a moral agent or a unified, sentient thing, have any rights? What would our social planning be like if we set about to take care of "the rights of Nature" in some systematic way? And, to go one step farther back, is a secular, "homocentric" approach to morals and values capable of articulating or defending the principles on which a theory of "the rights of Nature" depends? What follows is a first effort on my part to sort out my thoughts on these matters. Happily, one starts with the help of a considerable deposit of thought in the western tradition.

I. "NATURE" IN SMALL CASE

The use of the word "Nature" in capitalized form is continuous with, but nevertheless different from, the use of the word in an uncapitalized form, as when we speak of "the nature of mules" or "the nature of war." In this latter use, the word refers, usually, to salient features of a class of things or events, selected because, with the help of appropriate generalizations, they allow us to explain or predict other significant characteristics of the things or events in question. Thus, it is the "nature" of water to boil at 100°C., and it is the "nature" of man to live in groups.

Sometimes, to be sure, the word "nature" is used to characterize not the significant traits of a class but those of an individual. We speak, for example, of "Hamlet's nature" or of the peculiar "nature"

of a particular chess game. In such cases, even though we are describing and explaining an individual thing, person, or event, we are still doing so with the use of generalizations. Classification remains implicit in the process. A "nature" is a system of regularities. Thus an explanation of Hamlet's behavior in terms of his "nature" might refer to his scrupulousness about condemning people on insufficient evidence, and his incapacity to act without watching and commenting on himself. These traits, in general, are known to accompany other traits, such as the tendency to delay action, to miss opportunities, and to move in a crooked path towards one's goal. They are thus organizing traits, which help us to understand a broad spectrum of Hamlet's behavior: they constitute his individual "nature."

The term "nature" when used in this way is an instrument that helps us to draw inferences and make predictions. It derives its use from the presupposition that there are certain general laws on the basis of which we are justified in saying, "If A then B." The term "nature" so used is not the name of anything. Fire has a nature, and Hamlet has a nature, but this is no more than to say that fire has the property of intense heat, or that Hamlet has the property of being thoughtful, and that from these traits we can deduce other important things about fire or Hamlet. A thing's "nature" is not a motor or a ghost inside it; it is merely that thing's traits, or rather some of them, organized in a logically coherent way. But implicit in the conception that things have "natures" is the idea that there is something hard and resistant about them; that they follow laws and can only be changed in accordance with laws; that their structure is independent, at least in part, of what we will, so that we must pay a price when we deal with them. We cannot follow every random impulse but must find the right key and adopt a correct method.

II. THE RELATIVITY OF "NATURE"

A thing's "nature" may be variously defined, depending on the purpose at hand. It is the "nature" of pigs to be dirty; it is also the "nature" of pigs to be delicious when properly cooked. The neglect of the evident point that definitions of a thing's or a class's "nature" are relative to specific purposes is responsible for the recurrent fallacy of assuming that, because it is the "nature" of a species or an individual to be X, it cannot be, or should not be, converted to Y. It is the "nature" of elephants to be wild; they survive and prosper without human intervention and training. But they can be tamed, and there are definite conditions under which this can be said to be

the right thing to do. Similarly, the sexual drives of human beings, though inherent in their natures, are nevertheless compatible with complete asceticism. Further, the question of the morality of asceticism cannot be decided by an appeal to "human nature." It requires a prior determination whether that nature is good or corrupt, and whether the suppression of "the natural" serves a necessary or desirable higher purpose.

These remarks do not vitiate the point made earlier, however, to the effect that "nature" contains the notion of something independent of human desires. Though the "nature" of redwood can be defined in a number of ways, depending on whether we are building a greenhouse bench, measuring fire hazards, or considering the costs of creating new redwood forests, there are some characterizations of the "nature" of redwood that are incorrect in any of these contexts, and some characterizations that are more comprehensively useful than others. Usually, these more comprehensive characterizations are provided by the generalizing sciences. It is in this sense, I believe, that we can understand the classic description of the sciences as disciplines that seek "the true nature" of things.

Of course, even in this context the term "nature" retains its relation to a distinct purpose. The object of scientific inquiry is to discover "patterns of relations . . . that are pervasive in vast ranges of fact,"¹ but this object is also the purpose of theologians, philosophers, and poets of the cosmos such as Dante or Goethe. What distinguishes *scientific* characterizations of "the nature of things" is that they are made subject to the regulative principle that inquiry yield results susceptible to experimental verification, and to the further principle that the preferred results are those that generate fruitful new lines of inquiry. Thus the concept of "nature," even in the sciences, carries the mark of a goal seeking animal.

However, the fact that a given theory of the nature of matter—e.g., quantum theory—successfully generates fruitful lines of further inquiry is not a fact simply about the structure of tastes of the human mind or the objectives of inquiry in a given culture. A theory's fruitfulness also tells us something about independent characteristics of the world. To deny this, so far as I can see, is ultimately to deny that the data of experience have any content independent of the conceptual categories into which we fit them. No doubt, depending on conceptual categories, a pain behind the eyes can be read as the visitation of a spirit, as eyestrain, or as the sign of a suppressed desire to quit work.

But is the datum itself—the feeling of pain—entirely concept dependent? It seems doubtful that we cannot even experience pain

except in the framework of a specific idea or interpretation of pain; it seems equally doubtful that the toothaches of Hopi Indians and Parisian existentialists are entirely incomparable experiences. Pain, the gold in a sunset, the halo around a star, are there to be observed whatever the culture, era, or conceptual paradigm. It is true that percepts without concepts are blind, just as concepts without percepts are empty. But percepts, if I am right, also have an irrepressible independence about them—a variability from the rule, an unpredictability in some element or other to which the concepts at hand have given no clue. It is this character in our percepts, I believe, that assures us that there is something in existence besides our ideas, something richer than the conceptual maps by which we make our way.

This epistemological reflection, sketchy though it is, may seem a lengthy digression. But it is central, I think, to discussions of “the rights of Nature,” to say nothing of the view that modern scientific ideas of “Nature” are somehow expressive of or conducive to callousness about the physical environment. We shall come to the direct discussion of these matters, but at this preliminary stage it is useful to clear the deck by reminding ourselves of the currents of philosophical opinion which have received considerable recent attention, and which seem on the way to sociologizing quite completely the concept of “nature.”^a Though I must state the point so briefly as to risk dogmatism, it appears to me that to erase from science the concept of “nature,” standing for something independent of human perspective, is to remove the lynchpin from the system of principles that direct scientific inquiry, and that distinguish it from other forms of human communication and cooperation.

Because scientific theories satisfy human purposes that are historically determined, it does not automatically follow that they do not also reveal something about the independent, unhistorical constitution of things. The concept of nature entertained by the sciences at any time is not a product of sociological structures and functions alone, any more than the shape and weight of a saw is explicable only in terms of the special history and needs of carpentering in a given culture. The characteristics of wood have something to do with the matter as well, which explains why saws tend to have certain constant characteristics of their own no matter where you see them. In sum, although it is true that the particular order that physics here and now makes of the world is connected to

^aThe work of Thomas Kuhn, and, in a more extreme form, Paul Feyerabend, illustrates this tendency.

the historic purposes of physicists, and is shaped by the contingencies of time and place, this is not at all the same thing as to say that one era's "nature" is inevitably another era's "ideology."

III. "NATURE": ONE OR MANY?

The notion of "nature" as designating those traits of the world that permit the most comprehensive ordering and explaining of phenomena, subject to the demands for continuing inquiry, is compatible, it should be noted, with a pluralistic as well as monistic conception of the universe. George Washington's soldierly character was independent of his bad teeth; the fact that Kennedy's assassin succeeded while Hitler's didn't is independent of the characters of Kennedy or Hitler. Individual events or things are bundles of contingency: they possess combinations of traits that cannot all be brought together into a single logically related system. Moreover, to put this down to our present level of ignorance, and to suppose that an omniscient observer would be bound to see every aspect of every individual thing as necessarily related to everything else, is to suppose that an omniscient observer would regard all distinctions between things and all temporal and partial discourse about them as illusory. Whatever may be said for such a supposition, it would leave us still requiring a system of contingencies to make our way through our illusory world.

There exists, in any case, no single science—e.g., physics—into which the explanation of all phenomena can be compressed. To be sure, nothing that exists is exempt from the laws of physics. But this does not imply that every aspect of everything—e.g., the plans in our minds, the characteristics of the American Constitution, the sorrows of young Werther—can be characterized or explained in physicists' terms. Accordingly, to be a determinist is not to rule out chance from the workings of the universe. So far as our existing knowledge goes, nature as a whole isn't a whole. It is a miscellany. The grammatical fact that we use the singular "it" to refer to it should not mislead us about what we have the intellectual right to say about it.

The idea of the unity of nature nevertheless persists. It has its origins in the monotheistic heritage of our civilization, and in the Greek philosophers' efforts to rationalize their polytheistic religious tradition. But it survives because it serves an indispensable intellectual function, particularly in science where it exercises its power as a unifying *ideal*—a goal by which inquiry is steered even though reaching that goal is not possible. "Nature," as used in scientific language—Nature with an implied capital letter—names the ideal

object of the scientific purpose. It represents the hope of achieving inclusive generalizations.

IV. "NATURE" CAPITALIZED

"Nature," so conceived, is to be contrasted most sharply with the Supernatural. What characterizes the Supernatural is the power to make exceptions, to pass miracles, to upset the senseless routines of the world, to play deliberate favorites. In contrast, if the success of modern science teaches anything, it teaches that the most reliable comprehensive generalizations are those that explain events in terms remote from the categories of human desire. Prayers, bets, willing, revenge, justice, mercy, have no efficacy in Nature's order. Even in the field of human behavior, where human desires have causal efficacy, the tendency of social scientific intelligence is to emphasize the unintended and undesired consequences of these desires, and the far greater causal efficacy of biological and institutional structures which have characteristics independent of the human will. The scientific use of the term "Nature" is an antidote to thoughts of human omnipotence. One of the myths propagated by the defenders of supernaturalism is that those in the tradition of Lucretius deny the limitations of man.

Behind this myth, however, there is sometimes a nagging and not easily put down question that has every air of plausibility. "Nature" as the ideal object of the scientific purpose is without an encompassing moral design. Any "value" found in it is found by taking some partial and limited point of view, by asking how nature affects some organized natural entity possessing an inner *conatus*. Thus it is that "Nature" comes to be seen, the dissatisfied questioner then points out, "solely in terms of potential human satisfaction."² And in the end this is to destroy the satisfaction human beings draw from it. In Max Horkheimer's words, "We cannot maintain that the pleasure a man gets from a landscape . . . would last long if he were convinced *a priori* that the forms and colors he sees are just forms and colors, that all structures in which they play a role are purely subjective and have no relation whatsoever to any meaningful order or totality. . . . Landscape deteriorates altogether into landscaping."³ And so a culture dominated by such a concept of Nature ends, it is said, by being unable to say why plastic trees aren't as good as real trees if only they serve human interests as satisfactorily.

But why would plastic trees *not* be as good as real trees if they served human interests equally well? Indeed, suppose real trees in a certain region turned out to be nesting places for insects carrying a

deadly sleeping sickness, and the only specific effective against the insects also killed the trees and ruined the soil. Would not plastic trees be better than real trees in this context? And would people's religions or metaphysical beliefs make any difference in reaching such a judgment, provided they included no specific taboos against killing insects or relieving human suffering and no conception of a cosmic plan that forbade intervention in natural processes? After our nineteenth and twentieth century experiences with the restrictive idea of a "Natural Law" in relation to efforts to alter economic relations, it seems almost majestically imprudent to revive, in scarcely disguised form, the notion that there are lines human beings should never cross, no matter what the exigent circumstance.

The fact is that, in the hypothetical circumstances described, most people, whether they called themselves "immanentist," "transcendentalist," or "positivist," would opt for plastic trees, and would do so on grounds of the human interests served. And most people do not normally opt for plastic trees for the very simple and direct reason that, in normal circumstances, plastic trees are lamentably inadequate substitutes for real trees as servants of human interests. Plastic trees don't smell like real trees, don't secrete moisture, don't turn toward the sun, don't look fresh in the morning, don't whisper mysteriously at night, don't have an independent life of their own. These are all precious values in human experience.

In brief, a fundamental fallacy in the idea that a scientific view of "Nature" leads inexorably to the worship of plastic man in a plastic landscape is that it confuses a *theory about values* (e.g., a value is that which serves a human interest) with *the values themselves*. What people think about plastic trees as substitutes for real trees depends on the *content* of their preferences and not on whether they also make those preferences the preferences of the universe as a whole. An outlook such as Spinoza's or Bertrand Russell's, which denies the executive order of things has a moral design, is perfectly compatible with love for the beauties and irreplaceable vitalities of natural things.

Similarly, a philosophical utilitarian need not be a man who thinks that nothing is of value that bakes no bread. It was hard-headed Bentham who thought it quite enough as an argument for kindness to animals to remind us that animals suffer. In counting human interests we must count human powers of empathy, and there is no evidence that appeals to compassion for animals have been less effective in protecting them than appeals to theologico-metaphysical beliefs asserting that cruelty violates an antecedent moral law. On the contrary, the historical evidence suggests that it has been in the

countries where "science" and "utility" have been most popular that the humane treatment of animals and the deliberate concern to protect natural things have flourished most.

We must also distinguish between the "homocentric" view that "human interests" are the measures of all value and the "individualist" view that treats "individual human need and desire as the ultimate frame of reference."⁴ A frequent tendency is to confuse the two. But while Aristotle, for example, was "homocentric"—that is to say, he was a eudaemonist who judged values in relation to the supreme goal of human happiness—Aristotle was not "individualistic." He recognized the *polis* as the seat of values greater—more conducive to the attainment of ideal happiness—than any that individuals by themselves might conceive, seek, or find. The recognition of collective goods, and of schemes of obligation whose rationale lies in their necessity for the survival and prosperity of human enterprises transcending the generations, is in fact a common, even if not universal, feature of "homocentric" ethics from Aristotle through Spinoza to John Dewey.

Nor is this an illogical inference for philosophers in this tradition to have drawn. "Human interests" are what they are, and many human interests are not self-centered or individually oriented: people sacrifice themselves for their children, they demand justice, they hunt for the Holy Grail. To argue that because all values are human values, all values reduce to "the satisfaction of individual human wants"⁵ is a version of the classic egoistic fallacy that asserts that because an altruist in serving others satisfies himself, he is no different from a self-centered man. The difference remains between the kind of thing that satisfies the altruist and that which satisfies the egoist. "Homocentricism," "humanism," "secularism" are not the names of uniquely identifiable substantive schemes of values.

V. "NATURE" IN SCIENCE, HUMANISTIC STUDIES, AND TECHNOLOGY

"Nature" as an object of scientific study is to be contrasted not only with the supernatural but also with human art and creation. The natural is the opposite of the artificial, of what is conceived, willed, made by man. To be sure, within a scientific perspective, art and artifice fall among the natural processes. As I have already suggested, "Nature," as it figures in scientific investigation, is the name of an ideal object—what would be revealed if all inquiries were complete, and all explanations could be given in terms of a single system of comprehensive laws. It is incompatible with such a goal to make the

classic categorical distinctions that have been made (and that so many continue to speak of renewing) between "body" and "mind," "nature" and "spirit," "science" and "philosophy." Accordingly, science studies human behavior and accomplishments, but its triumph is to show how these phenomena are events in the larger system of Nature—to explain them as events within a system of relations, such as economic, psychological, or sociological laws, that are not themselves products of human contrivance but are the conditions of such contrivance.

In contrast with the scientific outlook, "humanistic" study tends to put the human mind and ego in the foreground, and to take the measure of "Nature" in terms of its impact on human thought, feeling, well-being, and use. This is true even—indeed, especially—for nature lovers like Thoreau. The woods and fields are important for what they mean to a human soul; they are companions, felt beings with which one lives in closer harmony than with most of one's human fellows. And for the humanist what bulks largest in the scientific conception of "Nature" is the human activity that explains the conception, the work of the mind and imagination in the creation and elaboration of concepts, and in the disciplining of argument and observation.

Nevertheless, "humanistic" study need not be inconsistent with the scientific approach, and a considerable number of the greatest observers of human affairs have combined the two. Sophocles, Thucydides, Shakespeare, Tolstoy, all have stressed, on the one side, the extraordinary fertility and audacity of the human mind and will, their capacity to outrun the predictions and to exist at levels of monstrosity or sublimity that seem to bend nature out of shape. But on the other side they have revealed human beings as inevitably caught in a net of relations and natural laws that carry them, by inexorable force, to a destiny that is not theirs to will. Human beings are like actors on a stage who play their parts perfectly but only come to understand very late, if at all, the full meaning of what they are saying and doing.

It is almost certainly misleading to speak of "the humanist approach" for humanists are various. And it is a gross canard (defined as "an extravagant or absurd report or story set afloat to delude the public")⁶ to set "science" against "the humanities" and to suggest that there is something fundamentally incompatible between them. A philosopher or dramatist may see in the human creature's setting himself against Nature, in his distinguishing himself from what is not human and in his proclamation that he is the lord of creation or at least the special trustee of God, the most important

thing about man—the source of his nobility, wickedness, pride, and fall. But he may at the same time hold a view like Homer's that individual men and women are like things in the wind, carried by forces they do not control:

As is the generation of leaves, so is that of humanity. The wind scatters the leaves on the ground, but the live timber burgeons with leaves again in the season of spring returning. So one generation of men will grow while another dies.⁷

There is, in fact, a more clean-cut distinction between the scientific conception of "Nature" and the technological-industrial conception than there is between the outlooks on man and nature of, say, Spinoza, the scientifically oriented philosopher, and Sophocles, the poet and dramatist. What science progressively reveals is the existence of facts and relationships that are what they are whether human beings approve or not, and that exact their inexorable cost no matter what mode of adjustment to them human beings work out. That discovery is one Sophocles' tragic heroes make as well. "Nature," in this sense, is the name of an order or structure unshakeable in its most fundamental characteristics. It imposes limits on human choice; individuals and societies seeking to live well by rational plan and not by happy accident learn as a first lesson that living well, within Nature, means learning a discipline or regimen. This is Spinoza's idea of "Nature," and it is a conception; it should be noted, that calls for classic religious attitudes of acceptance, obedience, and adoration, and not for kicking over the traces.

What leads to a confusion between the scientific and the technological-industrial conceptions of "Nature" is probably that both run afoul of traditional pieties. Scientific explanations of natural phenomena frequently conflict with religious explanations; technology, in parallel fashion, invades territory guarded by sacred precepts and takes it over (as, for example, with the birth control pill). And since technological achievements often also represent the application of scientific knowledge, it is easy to fall into the platitude that a common attitude towards Nature permeates both science and technology. But this is not true. Science and technology have some enemies in common, and they have attitudes towards Nature that have some common elements, but there are also significant differences. The technologist is interested in the appropriation, practical manipulation and exploitation of natural phenomena and relationships; the scientist is concerned with understanding. For the technologist, Nature is raw material; for the

scientist it is an object of wonder. For the technologist it is something to be challenged, improved, subdued; for the scientist it is what always triumphs over man, what controls the terms of human existence. (Obviously, I deal with ideal types here. Specific individuals may veer from one attitude to another; and people often hold both attitudes together.)

The distinction is important in understanding one impulse behind statements to the effect that "Nature has rights." The term "rights" is awkward and polyguous at best; to speak of impersonal things such as Nature as having "rights" seems still further to confuse matters. Nevertheless, such a way of speaking—which does, after all, have the stamp of established usage to support it—may be a way of saying, elliptically, that the individuals composing a society have, or should have, a right to the scientific examination of the costs and consequences of using nature for this or that human purpose. Technology deploys means, devices, strategies; but ends, purposes, goals ought also to be examined, for they too are natural events, and Nature never bends to a human purpose without charging a price. In other words, in the context of the distinction between the "scientific" and the "technological" conceptions of "Nature," the expression "Nature has rights" may be said to articulate the claim that the social introduction and use of technology should be subjected to methods of rational appraisal, and that unintended costs and consequences should be sought out.

VI. "NATURE" THE VITAL

"Nature," when defined in terms of the ideals of science, and in contrast to the supernatural, is characterized by traits like impersonality, regularity, predictability, indifference to human feelings. But "Nature" may also be contrasted with the technological, the deliberately planned. So perceived, "Nature" becomes the name of the fertile, the unpredictable, the vital and mysterious.

"Technology" is more than machinery; it is a style, a mode of approaching and perceiving things, a way of organizing them. The most conspicuous feature of this style, probably, is its explicitness. Everything of significance, technologically speaking, can be put into words or abstract symbols. But human experience, whether it is on the human or the nonhuman scene, has implications as well as explications. It is suffused with portents, memories, possibilities, tones, that are not susceptible to being caught in the net of exact language.

“Tyger, tyger, burning bright
In the forests of the night.”

“Nature”—particularly the Nature of the Romantics—is used as the name for those aspects of experience that overflow the categories of the technologists, that deny “Newton’s single vision.”

It is in this context, I think, that we should place “Nature” as a name of love for the hills and streams, the forests and animals. These are what have not been turned into human constructs. They make visible a power “far more deeply interfused,” not captured or capturable by human wit or will. Reflection will suggest that, in fact, the hills and streams, forests and animals loved by nature poets and others have usually had the benefit of considerable human intervention. They are not trackless jungles, but *preserves*; not scorpions and fever-carrying ticks, but responsive animals who have given their names to human traits (“lion-hearted,” “eagle-eyed,” “foxy,” “dovish”) and with whom we have a kind of implied social contract, a communal arrangement of mutual respect. They are *man’s* surroundings, relatively tamed; if there is risk in them, the risk is just enough to add pleasurable excitement to life; it is not so large as to make life grim or desperate.

The “wilderness” of the preservationist is not wildness: it is a refuge from technology and cities. Members of civilized societies desire it and value it. They look to it as one corrective to technological explicitness—as an opportunity for the exercise of other powers of body, mind, and intuition than those ordinarily demanded of them. “The rights of Nature” in this meaning may be said to express the claim that there is an indispensable social value in the maintenance of opportunities for such kinds of physical and emotional exercise. The case for these rights, so interpreted, is that a society whose members have no direct experience of Nature will have a joyless conception of the human condition and may well die of technological hubris.

VII. “NATURE” AS A PRINCIPLE OF DEVELOPMENT

The use of “Nature” in which the word stands for the unplanned and untracked, for the vital and the ineffable, comes close to another use of the term in which it is associated with the biological. Physics, in this convention, studies mere “matter”—undeveloping, static in its properties. Biology, in contrast, studies life process—unfolding, growth, decay. And the collection of the laws which govern the stages of unfolding, growth and decay are denominated “Nature.”

In the modern world Rousseau is probably the key figure in developing this concept of "Nature." For all his undoubted originality, Rousseau revived an older tradition with regard to appeals to "Nature." Like some of the Greek sophists, he was a spokesman for "Nature" as the green spaces outside the cities, and for the superiority of the moral life in such settings. When men forsook artifice and costumes, so the theory went, they were simple and direct, functional in speech and dress and approach to life; and they were equal in their relation to one another, recognizing the common human purpose of living together and forsaking the cumbersome, unnatural system of inequality, trickery, and rivalry that too much civilization—cityfication—creates. In effect, "Nature" was the name for a process of civilizing mankind—up to a point. "Nature" was not the raw and undeveloped; neither was it the overripe and overdeveloped. It was a word calling on men to remember their origins and not to push their powers of artificial reason and governance too far.

Rousseau's "Nature" of the reasonable peasant was in fact part of a larger conception of "Nature" as a set of principles of development. Man, as a creature of Nature, as a vital and growing being, should be recognized as possessing a distinctive arc of growth. Not that every individual *had* to move through this arc. An individual's desires for affection, for example, though implanted in him by Nature, could be ignored or repressed, so that he grew up incapable of giving love or receiving it. But such an individual would be unhappy, and very probably useless or even dangerous to his fellows. He would be warped, misshaped, like a tree deprived of the sunlight except on one side. "Nature," so used, is the point of departure for most current educational theory and notions of child rearing. And it is not without significance for conceptions of environmental planning: that the human environment should be planned in relation to the needs and idiosyncrasies of the human organism, and that dire consequences flow when it is not, is surely part of what is meant when people object to the destruction of open areas as "violations of Nature."

John Stuart Mill, not himself a product of an education shaped to a child's normal pattern of growth, wrote: "Human nature is not a machine to be built after a model, and set to do exactly the work prescribed for it, but a tree, which requires to grown and develop itself on all sides, according to the tendency of the inward forces which make it a living thing."⁸ Rousseau, the product of a Calvinist-Genevan childhood, meant, similarly, to suggest that, in the education of children, their individual needs and the quality of their

unfolding intellectual and emotional powers be taken into account. Like educational reformers—e.g., Rabelais—before him, and like Mill, John Dewey, or Bertrand Russell after him, Rousseau's appeal to the "nature" of children was an appeal against pedantry and the imposition of mind-killing disciplines. This concept of "nature" is easily sentimentalized, as Rousseau himself gave proof. Nevertheless, it is not to be automatically confused with the idea that rules as such are bad. Rousseau's appeal to "Nature" hardly made him an apostle of "permissiveness." If a child repeatedly broke windows, he wrote *Emile*, for example, the child should be locked in a windowless room. He would then learn, not by arbitrary punishment but "naturally," by being made to experience the meaning of his actions—why windows were valuable and should not be broken.

The appeal to "Nature," in this tradition, is essentially an effort to correct or reduce arbitrariness, willfulness, and authoritarianism in social relations. The message is that "reason"—the "reason" inherent in adjusting individual behavior and social institutions to the requirements imposed by Nature—ought to be substituted as fully as possible. To this tradition Rousseau added the ingredient of affection. He conceived the desirable kind of social authority as resting on affection and rational conviction rather than on fear, money, superstition, or a tyrant's force of will. Whatever one may think of the practical possibility of achieving such an ideal, it is best understood not as a revolt against classic notions of "Nature" and "Reason" but as an attempt to revive them. It is an exercise in nostalgia, a harking back to the doctrine of Natural Law, and to the effort to show that law rests, ultimately, not on arbitrary will but on reason addressed to the common good. Rousseau greatly altered this tradition precisely because, like Luther or Jonathan Edwards, he was a Revivalist. He wished to inject fresh feeling into it, new moral energy; inevitably, he purified—simplified—the tradition he wished to restore.

In some considerable measure, current appeals to "the rights of Nature" represent this special amalgam of belief and moral attitude: "Nature" is perceived as a system of growth, an order or harmony not to be broken on pain of endangering human happiness and fulfillment. Excessive civilization—too many laws, rules, bureaucrats, schools, computers, too much professionalism, specialization, urbanism, impersonality—is inherently "alienating"; it separates the self from its essential "nature," its inherent tendency of growth. What is needed to repair the world is directness of feeling, simplicity of language and manner, and the warmth of small groups joined by bonds of affection and shared experience.

The tradition for this kind of thinking runs, in this country, from Rousseau through Jefferson and Emerson. Elements of it can be found in Charles Peirce, William James, and John Dewey. It is easy to parody; indeed, the tradition has often engaged in self-parody. Yet it is important to remember the spine of invulnerable good sense that holds it together. It equates "Nature" with the idea of limits to human plasticity. It tells us that there is something under the human skin with its own vitality, something not wholly malleable, not susceptible to Skinnerian conditioning except at the price of destroying spontaneity, talent, zest, vitality.

The values to which people in this tradition appeal may, if one wishes, be called "fragile" values. But they are the durable values celebrated in legend and literature by Panurge, Puck, Scapin, the Marx Brothers, the serpent—the unpredictable idiosyncrasy that breaks the plans, the marvelous waywardness and prolixity of natural forces outrunning man's powers of artifice. The appeal to Nature so construed may be taken as a warning that no social plans, no matter how ingeniously or carefully devised, can annul the random and unpredictable, that it is the inner vitality of human beings that counts for most, and that society should provide the environment likely to safeguard this vitality.

VIII. "NATURE" AS THE PRIMITIVE

As I have suggested, this notion of "Nature" lends itself to grotesque exaggeration. Beginning as a critique of authoritarianism, it becomes, when torn out of context, an appeal to "Nature" against "Culture" in general: a praising of the instinctual, the untutored, the unordered, unhierarchical, unauthorized.

The appeal to "Nature," so understood, becomes an appeal to a disguised principle of Providence. It rests on the assumption that men's fundamental drives are mutually supportive, and that a radical clash between different wills is therefore not possible in "Nature." Only "society" creates such conflicts. Not surprisingly, most of those who hold this view also tend to take it for granted that the "natural" curve of human growth is in the direction of the ethical attitudes they admire. Although they stress the individuality of each person and the glories of diversity and pluralism, they assume that unthwarted, unwarped, truly "individual" and fulfilled people will all be humanitarians, liberals, nature lovers, radicals—whatever they themselves happen to be. Biology and social virtue coincide, as do biology and historical progress—something that Freud never supposed. It is this theologized, or Hegelianized, biology that triumphs

(to take examples of two influential books) in Adorno's *Authoritarian Personality* and Marcuse's *Eros in History*.

Hobbes, too, used the term Nature to designate the precivil condition of man. But Hobbes, less impressed by the benevolence of the Creation, took it for granted that this natural state was one to be escaped. If one wishes to be generous, "Naturists" may perhaps be taken as accusers of "society" for bringing out the fierceness in man. Their appeal to "Nature" may be interpreted as a call to review social institutions to take account of the degree to which they do the opposite of what they say—making people more warlike rather than more peaceful, more distrustful rather than trustful. But the act of faith implicit in this appeal to Nature Primitive still bulks large. It is an act of faith bespeaking the life of comfortable people who have had a protected relationship with raw nature, and who live off the fruits of man's thinking and active artisanry while refusing to give these the respect they deserve as expressions of man's nature. The apostles of Nature show a fear of tinkering with nature, of upsetting the delicate harmony of things, that is rarely a fear fixed on anything specific. It indicates in the main the hold of that ancient taboo against eating from the tree of knowledge.

IX. "NATURE" AS A SYSTEM OF SYMBOLS

As may have already been suggested, appeals to "the rights of Nature," like appeals to "property rights," are ways of saying that human beings should have claims over one another's behavior, or, looked at from the opposite end, certain obligations towards one another, with respect towards nonhuman things. They are calls for certain kinds of human conduct.

What kinds of conduct? The answer lies in meanings of the word "Nature" such as those I have attempted to adduce in the preceding pages. The word "Nature" and the associations attached to it symbolize at once the idea of a unified rational system and of biological fertility and unexpectedness; of raw material for human use and of a resistant, implastic power that strikes back when misused; of a primitive origin which it is mankind's pride to have overcome and of a principle of development by which mankind should abide as a condition for its goodness and happiness. Nature's powers, said John Stuart Mill, "are often toward man in the position of enemies, from whom he must wrest, by force and ingenuity, what little he can for his own use. . . . Killing, the most criminal act recognized by human laws, nature does once to every being that lives. . . ."⁹

But Ralph Waldo Emerson, in contrast, wrote in his essay on the same theme that "in the woods we return to reason and faith. There I feel that nothing can befall me in life—no disgrace, no calamity . . . which nature cannot repair. . . ."10 The word, indeed, is so pregnant with meanings, so full of implications pointing in different directions, that it is not surprising that very large numbers of people should be concerned to defend the rights associated with what it designates. It has something of the flavor of religious words as used by those of a genial Anglican persuasion who do not care much about finer doctrinal points, or doctrinal points at all, but who enjoy feelings of awe and rededication to principle.

Moreover, it is not only the abstract concept of "Nature" that is rich with symbolism. The natural world, in its specifics, is richer still. There in the sky as we see them, sunrise and sunset are for very few of us merely moments in the whirling of the globe. They are signs in the heavens, images of endings and beginnings, pictures of our destiny. We worry about the fate of birds affected by breaches in the aquatic food chain. Is the only reason for our worry the fear of upsetting the "harmony" of natural systems? Or is it also, and probably even more, that eagles, ospreys, and falcons—and whales, sharks, and the little fishes—have a long history as symbols in poetry and religion? Lions, lambs, serpents, doves, mountains, valleys, primroses, thorns, all are wrapped in meanings that give our relation to them its intensity and mystery, and make their destruction or violation portents of the world's impoverishment. It is *this* world of "Nature"—and not only the biologist's or ecologist's—that we want to save when we speak of "the rights of Nature." We want to save a world created by the human imagination, but created in large part "naturally," involuntarily, and coming uncalled back into our imaginations, with the force of natural events, whether we will it or not.

Is it this world that Dr. Horkheimer claims is destroyed when we learn that it is merely "subjective"? But it is not destroyed. Nor is it merely subjective—no more than the Cathedral of Chartres is. Though it is a human construct, it partakes of a public world, of a collective deposit of experience and imagination; and epistemological theories about "primary" and "secondary" qualities do not destroy that world. If its details have changed—if, for example, lions and serpents have lost some of their symbolic intensity—it is not because the prevailing metaphysics has been altered but because other natural creatures (for example, mad scientists) have come, in the urban society, to share symbolic power with them. "Nature"—the living, dramatic Nature in our imaginations—reasserts itself no matter what

the science or abstract metaphysics we put into our lectures. I am not sure what the disease is to which Laurence Tribe, for example, seeks a cure.

Nor do I believe that a new "faith," "myth," or "metaphysic" can be produced on demand to fill a psychic or social need, if need there be. Faiths, myths, and metaphysical doctrines do indeed come into being and win assent because they fill such needs. But the psychological fact appears to be that people must believe them to be, on independent grounds, true. The moment they realize that they believe only because it is therapeutic, useful, or expedient for them to believe, they stop believing. They recognize that they are only rationalizing, which is to recognize the absence of good grounds for belief.

X. "NATURE" AS A SYMBOL OF REASONABLENESS

I imagine it is the insensitivity of planners to the symbolic density of "Nature," together with their sometimes almost puritanical disregard for the variety of perspectives within which the meaning and value of an environmental design should be judged, that gives strength and an air of plausibility to some of the more irrationalist tendencies in the "Back-to-Nature" movement, with their celebration of the unplanned life and the multiple mysteries of existence. But it would be "unnatural" for man, not in accord with his nature as it has evolved, not to tamper with his environment or his own impulses. The choice is between different tamperings, between trying to imagine and weigh the costs of alternatives and sheer trusting to luck and prayer.

"Do what thou wilt" is the maxim by which Rabelais thought that the members of his *Abbaye de Thélème* should live. It is a hard maxim. We usually *will* incompatible things. To *do* what we will requires that we sort out our desires, investigate the conditions and likely consequences of our actions, and distinguish between what lies within our powers and what lies beyond them. In the end, perhaps the most important of all the elements of meaning in the appeal to "the rights of Nature" is that which associates "Nature" with the balanced, the circumspect, the reasonable. Values, choices, and the standards for appraising these values and choices—all these are natural events. They take place under conditions and in accordance with general laws that give us the potential, if we study them carefully enough, to see how they affect our other values, choices, and standards. By considering them to be "natural," by taking them to be on trial just as other historical products are, we may be able to

make them more coherent, and thus work towards a unified notion of what it is that we will to do and be.

This is the good sense, as I see it, in the doctrine of "Natural Law," though it is not the sense, I hasten to add, that its advocates have usually emphasized. If certain goals are stipulated and certain plans are instituted to achieve these goals, the goals themselves can be treated as "natural events" and one can inquire about their connection with still other purposes, values, and events. One can always ask about a given plan whether it has been instituted within a broad enough context, or whether the time span is long enough, or whether the levels of probability of the evidence are sufficient to justify the chances being taken. In that sense, to speak of "the rights of Nature" is to utter a simple appeal to keep inquiry open and not to do things that are not justifiable in the light of the inquiries that have been taken.

We live in a world that exacts a price for whatever we do. Nothing is for free. When we say that Nature has rights we are asking what the cost is. And beyond this, we live in a world that is mysterious. No matter how much you come to know about it, it remains random, unpredictable, full of portents and fears. You see the rabbit or the deer, you live with animals who have their own vitality, and you recognize the limitations of human plans. An appeal to nature has a quasi-educational message. One is saying, "Do you want a society in which people never have the experience of living with what follows its own course, quite apart from human knowledge, desire, or hope? Do people want to build cultures and never see, in the background, things and events, processes and lives, that transcend culture, and that show that any culture is limited? Does man—educated man as much as or more than uneducated man—not need a standing warning, constantly and visibly there, reminding him of time spans that dwarf his time, of inexorabilities that mock his experiments, of fertilities that he has not set in motion?"

A technological-urban environment encourages those it envelops to think that man writes his own ticket. But he is born, he matures, he dies under call. Every peasant living with Nature knows this. It is what every man knows if he will look at the Nature within him, and listen to the signals he receives each day in the beating of his heart and the rise and fall of his passions that he is an incident, a temporary collocation of energies, in a larger process. Indeed, the appeal to "Nature" may well be a useful reminder that human purposes fade, and that the sacred truths of an era are usually only collective follies. It also reminds us that, although there are laws,

presumably, that explain what happens in human life, we do not know these laws and, from our partial point of view, must accept Nature as in part random, unpredictable, mysterious. So it is that the experts *must* be wrong, are destined to be wrong, unless they make explicit provision for reversing their plans and hedging their bets. They will not recognize how provincial and temporary their own sense of values is; they will not see that its sources, in all probability, lie beyond their awareness. "Nature," not man, not convention, is in the driver's seat. Intelligence and knowledge must be used to steer, but attempts at steering that ignore the unpredictability of the vehicle and the limitations of human vision are bound to be comic and disastrous.

The feeling that there is so much that drops through the net of human foresight is clearly what is involved when people not directly affected by environmental plans nevertheless raise the signal, "Go slow." Planners, after all, *have* regularly missed the boat. At the meeting of the American Economic Association at the end of 1973, its new President, Walter Heller, reminded his colleagues that there was not an important practical problem with which economists were then wrestling that they anticipated ten years earlier. A man in his fifties will have lived in this century through scores of prophecies and a dozen irresistible, but now disappeared, waves of the future. He will remember unnumbered remedies and discoveries that social scientists have offered to change the world, all now discarded. Perhaps when people say "Nature has rights" they mean only to say that we ought always to have institutional protection against being carried away by temporary enthusiasms.

Nature in fact is often cruelly unbalanced. But "Nature" in principle has been a human symbol for balance and harmony. When people appeal to "Nature," they are saying, many of them, that there is variety in the world, a plurality of value systems, an awful weight of human ignorance, and that the best we can do, the best that one must not forget to do, is to allow as commodious an arrangement of interests as possible. Inarticulately, metaphorically, they are asking, "Can you take account of what you're not taking account of? Can you not bring into harmony things over which you are riding roughshod?" Like "justice," like "truth," "Nature" is a call to keep the inquiry open, to close no books on live possibilities, and to suspect—always to suspect—the reliability of the human arts and institutions on which men are staking their lives, and, more to the point, other people's lives.

NOTES

1. E. Nagel, *The Structure of Science* (New York: Harcourt Brace, 1961), p. 4.
2. Laurence H. Tribe, "Ways Not to Think About Plastic Trees," *Yale Law Journal* 83 (June 1974):1315-1348.
3. Quoted by Tribe, *supra*.
4. Tribe, *supra*.
5. Tribe, *supra*.
6. *Webster's New Collegiate Dictionary* (1960).
7. *The Iliad of Homer*, trans. by Richmond Lattimore (Chicago, London: University of Chicago Press, 1951) VI, lines 146-150, p. 157.
8. J.S. Mill, *On Liberty* (Garden City, N.Y.: Doubleday), Chapter III.
9. J.S. Mill, "Nature," in *Essential Works of John Stuart Mill*, ed. by Max Lerner (New York: Bantam Books, 1961, 1965), pp. 377, 381.
10. "Nature," in *Ralph Waldo Emerson, Representative Selections*, ed. by Frederic I. Carpenter (New York: American Book, 1934), p. 13.

