Can and should humans win or lose when they do the right thing caring for nature—for animals, wildflowers, endangered species, old-growth forests? That simple question has a multidimensional answer. Reaching back into the philosophical past, remember that Socrates said that no evil can come to a good man. But Socrates evidently was wrong, since good persons suffer nearly all the misfortunes of ordinary people, and sometimes they even suffer as a result of their goodness. Was not Socrates, himself a good man, condemned to death? Still, aphorisms can be true in ways not at first evident. Socrates claimed to know with certainty that good people do not lose.¹

Winning Wrong and Losing Right?

In environmental ethics, many of us hold two beliefs, typically present in some cognitive dissonance. First, we think that values are in conflict. What some gain, others lose; decisions are a win-lose game. Economists routinely calculate costs versus benefits. They ask about opportunity costs. If one uses a consumable resource one way, one cannot use it another way. One cannot eat a piece of pie twice. Either a tract is timbered or made wilderness for recreation, not both. Either a wetland is drained and plowed as farmland or is left as wetland for waterfowl
hunting, not both. Life is always an economics of value gain and value loss. There must be winners and losers among the humans who are helped or hurt by the condition of their environment.

Also, humans can gain or lose vis-à-vis nature. When we cut down a forest to gain timber and make a plowed field, the fauna and flora lose; humans gain. How much of the time should humans win—all of the time or only part of the time? We cannot lose all of the time, but, at the other extreme, we may also hold that humans ought not always and invariably be the winners. There must be a net gain for humans if we are to flourish, but that tenet still allows that humans can and ought sometimes to constrain their behavior for the good of plants and animals.

Second, in tension with this value conflict, we also believe that it is really in our human self-interest to conserve a decent environment. If we really get it right there need be no win-lose solutions. Norwegian prime minister Gro Harlem Brundtland, speaking for the United Nations Commission on Environment and Development, called for "a new holistic ethic in which economic growth and environmental protection go hand-in-hand around the world." Caring properly for the natural world can combine with a strategy for sustainability, a win-win solution. A bumper sticker reads: Re-cycling: Everyone wins. That is almost an aphoristic model for the whole human-nature relationship. If we are in harmony with nature, everyone wins.

The Science Advisory Board of the Environmental Protection Agency concludes in a report that "although natural ecosystems—and the linkages among them—are not completely understood, there is no doubt that over time the quality of human life declines as the quality of natural ecosystems declines." This is the entwined destinies view.

If we consult Socrates with these puzzles in mind, it might seem that he does not offer much help, For he is not talking about winning or losing environmental goods. He is about to die; his attention is on his own character. He is focusing too inwardly. Whoever wrongs another person always damages his own well-being more than his victim's. Socrates claims that the only true harm befalls one's character—he calls this "the soul"—and, at that focus, doing the wrong thing ruins the soul, the worst result imaginable. Doing the right thing ennobles the soul, beyond which there is nothing higher to be won. We should attach the highest value not to living but to living well, which is to live honorably and justly.

Socrates seems to be claiming that doing the right thing brings such a great benefit that even if considerable other harms come as a result, the just
person never loses. No accumulation of resulting harms can weigh negatively more than doing the right thing weighs positively. Doing the right thing gains an *arete*, an excellence, a virtue, and gaining that more than compensates for other losses, such as one might suffer in business, political, or social affairs. But has this much promise for environmental ethics?

No net loss comes to those who do right if they place a high enough value on doing right. If so, it is impossible to lose by doing right. This is the high-character-gain-no-net-loss view. But it is not just the doing right that is valued; the act itself is valued because it brings good to the character. Justice pays off with excellence. So this is a noble-soul view. The result is a virtue ethics. Virtue is its own reward. That might work in environmental ethics; people who do the right thing by environmental conservation are better people. On top of the benefits of a wise use of resources there comes a still higher excellence: personal satisfaction in having done the right thing. That is so true that even in some cases in which humans lose by a reckoning that counts only their consumption of goods, the character benefit means that the "losers" have gained something far better than they lost. Environmental ethics pays off.

But now we begin to wonder about motivations. We are uncomfortable with saying "good ethics is good business" and stopping at that. We may think that good ethics and good business are compatible enough; but still, if I have good ethics only because it is good for business, because it pays off, then am I not being more prudent than moral? Extrapolating, we can now say: Doing the right thing environmentally, you may not gain in business at all. But you will gain elsewhere more than you lose in business. There is still a payoff. Winning soul has become the determinative thing, although gains to nature are closely coupled with gains to the high soul. Gains to nature are always gains to the lofty character—win-win. Why be moral? Because it offers the best chance for happiness.

Perhaps what we need is a paradoxical view. We must lose to gain, gain to lose. The high-character-gain—no-net-loss view is too shallow; there is a paradox at the heart of morality. We really ought to sacrifice self for others, and when we do this without expectation of further reward, a surprising thing happens. We are, in fact, blessed in return. Those who care for others find that these caring relationships bring meaning to life. One cannot care for others in order to gain reward, looking for stars in one's crown, but neither can one care for others selflessly without being rewarded. So we would have to crack a paradox to lose and win at the same time in environmental ethics.
Let us try another account—the winning right account. In the course of learning morality, we come to be corrected from a misperception. One wins because one gets his or her values right. The issue is not trade-off, nor is it paradox; it is error correction. The loser will be worse off by his lights, but his lights are wrong; and if he or she gets things in the right light, there is no loss, only gain. We can couple this with another of Socrates’ startling beliefs: that those who do wrong do so involuntarily because they act in ignorance. It doesn't do any good to win if one is wrong, and the win isn't a win. One can't win wrong. Really, one can only win right.

Let us take an example from southern history. Suppose the South had won the Civil War: slavery would have continued, the United States would have been weakened and fragmented, and industrial development would have lagged. And the South would not be anywhere close to the prosperous society that exists today, where whites and blacks have more genuine and more productive relationships, trade flourishes, people are autonomous, human rights are defended, and so on. The South may have lost the war, but it did not really lose, because the war was wrong. When the right thing was done, things turned out win-win in the long term.

Similarly with the liberation of women. Some men lost job opportunities; others have to do housework they did not have to do before. Males lost their dominance, they lost power. But relationships are now more just and humane; male-female interpersonal relationships are more genuine. The talents and skills of women, formerly often wasted, now are more fully utilized in the work force; family incomes are higher, marriages are richer, and so on. Males have much to gain if women are liberated—far more than they have to lose—and what they have to lose ought to be lost because it is chauvinistic.

There is a parallel in environmental ethics. The person reforms, re-forms his or her values. In reformation of soul, focus shifts from its own excellence and is refocused on environmental values. Such a soul is ennobled, but it is not ennobled alone and isolated; it is ennobled just as it is reconnected into a larger value web. The soul knows its ecology.

**Redefining Winning**

Some will protest that we insist that humans can win but then we redefine winning, change the rules of the game while the game is in progress. We win by moving the goalposts. That is cheating, like showing a net positive balance in your checkbook by revising the multiplication tables. You will win by losing at the old game and then playing a
new game. Some persons did lose, in the sense that losing had when this argument started. They lost timber or opportunities for development or jobs. But when winning is redefined, they do not lose. Reevaluating, they gain character excellence. That does not establish anything true about the world; it is just a redecision about how to use words.

Yes, you do have to move the goalposts to win. That might be cheating if the game is football, and the two teams have agreed on where the goals are. The goals are arbitrary. But in environmental ethics, there is a disanalogy. You move the goalposts because you discover that they are in the wrong place. And that is really to win, because getting to the wrong goal is not winning but losing. You have more ability to value. You find more values in the natural world than you did before. You stop exploiting nature and become a member of a human and a biotic community residing on a richer, more meaningful earth.

The person who is doing the wrong thing will, quite likely, not think that it is the wrong thing. Socrates was sure that the person doing the wrong thing thinks that decision and action are the right things. Whoever acts in a way that jeopardizes species must think that the action does not really jeopardize species, or, if jeopardy is known, that there are overriding considerations. The members of the Denver Water Board must have thought something like this when they spent large amounts of money, energy, and time trying to build the Two Forks Dam, even though it might have jeopardized the whooping cranes and the sandhill cranes as well as the Pawnee montane skipper. Loggers who press to cut more old-growth forest in the Pacific Northwest must think something like this. The action must seem good to the person who does it. One way or another, the person has calculated what seems right and expects to win.

If such a person is wrong, the goalposts, since they are misperceived, will have to be moved. But that is not cheating to win, that is facing up to the truth: what was before thought to be winning is losing. Consider the Pacific Northwest. There will be some losers, in the sense that some people will have to change jobs. They will, meanwhile, come to reside in a community that is stable in its relationship with the forests in which it is embedded, and that makes them winners. They once lived in a community with a worldview that saw the great forests of the Northwest as a resource to be taken possession of, exploited. But that is not an appropriate worldview; it sees nature as a commodity for human gratification and nothing else. The idea of winning is to consume, the more the better. When the goalposts are moved, these "losers" at the exploitation game will come to live in a community with a new worldview, that of a sustainable relation-
ship with the forested landscape, and that is a new idea of winning. What they really lose is what it is a good thing to lose: an exploitative attitude toward forests, What they gain is a good thing to gain: a land ethic.

Or take the Denver Water Board. They believed that their dam project would not jeopardize the whooping crane, but it would have. They believed that their dam, with its life of fifty years, was more important than the whooping crane, which has lived here five million years and might continue another million, if unperturbed or restored by humans. But they were wrong. They lost the Two Forks decision; the dam they proposed as a good thing, to supply more water to Denver and its suburbs, will not be built. They lost their case; they lost the water.

So what do they now have? They have the opportunity to introduce conservation measures—recycling water, reducing water on lawns, switching from bluegrass to native grasses, curbing water-intensive industries. They have to turn to agricultural water saved from improved agricultural techniques. And, of course, they—those on the board and Denverites and Coloradans—have the Two Forks Canyon in all its splendor, available for recreation. Now, did those who fought for the dam really lose? They lost the dam, but the dam was a loser anyway. And when one loses a loser, one really wins.

A dynamic rather than a static view of interests is necessary to decide whether we win or lose. Our desires change over time, are shaped and reshaped by the affiliations of our careers. The goalposts are constantly moving. Values won are as prospective as retrospective. It may take a decade or two to know whether one won or lost, because interests and values shift over time. In a society that is already perhaps the wealthiest in the world, environmental integrity is likely to become ever more valuable. Chances are, those who lost an opportunity for development really won natural values they, their children, and their grandchildren will cherish.

Self-interest, Self-transformation, and Altruism

A win-win ethics is not much ethics at all, because to be self-interested in a trade-off is not to be particularly ethical; it is simply to be prudent. No doubt there are win-win situations, and these are to be delighted in, but they are not ethical situations. If I purchase a new car, I get what I want (the car), the automobile salesman gets what he wants (my $12,000), and we are both happy. The deal is a good thing, but
it is not an action in which either of us is to be praised for our charity, or even our morality, though the trade does require a minimal honest dealing.

Philosophers' protest that ethics is not really ethics until one is prepared to lose in the cause of justice is likely to be met by a counterprotest from biologists that a loser ethics is biologically impossible. We are often told by biologists that humans are full of selfish genes; they are constituted by human nature to act in terms of self-interest. It is easily shown that such self-interest can lead to several kinds of cooperation. Such reciprocal altruism is really disguised self-interest, enlightened by the facts of mutual support in culture. And when we learn our ecology, we will act further to save our environment and thereby to save ourselves. But humans cannot act as real losers—unless by mistake.

After the biologists, economists are ready enough to add their weight to the gathering insistence, against ethicists, that humans cannot really be expected to behave as losers in the economies in which they operate. Indeed, the very definition of a rational person, as an economist uses this term, is one who acts to maximize self-interest. For example, we expect that persons will earn the most money they can and get the most possible for what they spend. It is irrational to do otherwise. The economy is fueled by persons acting in intelligent self-interest. No economy can work if people are intent on being losers. No ethics can expect people to be steady losers; that flies in the face of what people have to do to eat, clothe themselves, put shelter over their heads, and look after their offspring.

Nor ought an ethics expect them to lose. If one wants to get people to do the right thing, one must give them incentives. If one wants them to do the right thing by way of saving endangered species or recycling their wastes or controlling their pollutants, one must make it to their advantage to do these right behaviors, otherwise failure is certain. Probably one can persuade a few people to do these things out of charity some of the time, but if one wishes to elicit these behaviors from most of the people most of the time, people must be allowed to do right by themselves at the same time that they do right by the environment. It will have to be a win-win situation.

In reply to this portrait of humans as constitutionally self-interested winners, environmental ethicists take three somewhat divergent routes; they move the goalposts to somewhat different locations. The first position transforms winning by satisfying self-interest to winning by self-transformation. The once-isolated self, defending itself against the community it inhabits, is reenvisioned, extended, so that the self is smeared out
in the community. By the account of deep ecology and Arne Naess, when
the self realizes its wide "identification" with others, "we must see the vital
needs of ecosystems and other species as our own needs; there is thus no
conflict of interests. It is a tool for furthering one's own realisation and
fullness of life. ... So, if we progress far enough, the very notion of 'en-
vironment' becomes unnecessary." "Self-realization" is indistinguishable
from "self-realization for all beings!"?

That is an interesting win-win situation. The self wins by enlarging itself
to include all other selves, or, put another way, the self becomes indistin-
guishable from other selves. This is said to follow a principle of ecology
that everything is what it is not in isolation, but where it is, integrated into
its community. Interdependence is more true than independence. Although
it appeals to a holistic ecology, this position is also a metaphysical mon-
ism or holism, and it often has a decidedly religious flavor, perhaps that
of a pantheistic naturalism or an Eastern nondualism. Whether or not one
adopts this position all the way, enlarging the self does seem to be moving
in the right direction. If we add ecology to genetics, biology is just as insis-
ten that selves are what they are in the web of their communities as they
are full of selfish genes.

Now it is becoming hard to say, however, exactly where the goalposts
are. We discover that the self is so enlarged that there is no longer any en-
vironment. Environmental ethics has made the environment unnecessary!
Perhaps we should say that the environment has won, since the self is en-
larged into it and all selves are realized. Perhaps we should wonder whether
the environment wins if it becomes unnecessary. Winning and losing are
not terms that have much meaning if we cannot distinguish self from other.

The second kind of win-win self-transformation is the self-ennobled
view, an environmental virtue ethics. The world remains a plural contest
of values. Though humans must win often enough to have their vital needs
met, they can and ought to behave with caring concern for fauna and flora
because the result is that they become quite excellent humans. With an
elevated idea(l) of human excellence, we win. We reply to the selfish-gene
biologist and to the rational self-interested economist that there is yet a
further, philosophical concept of self, the Socratic self, that wishes charac-
ter above all else. Excellence can best be gained by doing the right thing in
environmental ethics. So environmental ethics is really self-actualizing; it
is the pursuit of human excellence, if we get our goalposts right. There will
be only winners, excellent winners.

On a no-lose-high-soul account, the environmentally virtuous person
seems to be valuing natural things for what they are in themselves, but in the end the primary value sought turns out to be human excellence. But if all value of and in nature is derived from the virtuous actions of human agents, then nature is, after all, a kind of moral resource. This does not sound any more like such a high-souled account. It seems unexcellent—cheap and philistine, in fact—to say that excellence of human character is what we are after when we preserve endangered species. We want virtue in the beholder. Is value in the species a just tributary to that? Excellence of human character does indeed result from a concern for these species, but if this excellence of character really comes from appreciating otherness, then why not value that otherness in wild nature first? Let the human virtue be tributary to that.

There are various intrinsic goods that the self desires and pursues in relation to others that are not self-states of the person who is desiring and pursuing. These are satisfactions of which I will speak in a moment. The preservation of the bald eagle is not covertly a cultivation of human excellences; the life of the eagles is the overt value defended. An enriched humanity results, with values in the eagles and values in persons compounded—but only if the loci of value are not confounded.

Both of the responses discussed above—concerning the totally enlarged self and the greatly ennobled self—are troublesome even in principle. They could be even more troublesome in practice, since there would have to be widespread self-reformation for the environmental crisis to be solved. Either movement would have to become popular enough to make a difference, and that seems unlikely. One must not say, of course, that an ethics has to be popular to be right; to the contrary, ethics has often set ideals that are only partially attainable. It may be that there are such win-win ideals and that a few high-souled persons attain such character, but now the win problem shifts. Winning requires success that is attainable by only a very few persons. Most of the members of the Denver Water Board, most timber operators in the Pacific Northwest, and most ordinary citizens will remain ordinary selves interested both in taking care of themselves and in doing right by the environment. What can we say about them?

We cannot expect people to be steady losers, but neither must we expect them to be aggrandizing maximizers. Self-interest is not the only rule in the game, though it is one of the indispensable rules. It may be, for instance, that self-interest is satisfied with "enough" (the root, etymologically, of satis-faction), and that thereafter, with enough for self, self becomes more interested in its relations with others, in the community the self inhabits.
and from which it increasingly draws meanings and further satisfactions. In this community, "right" relations are what is most satisfying, though they need no longer add to personal property accumulations.

That brings us to a third response to the question of whether the self wins or loses, to another way of combining self-interest, self-transformation, and altruism. This is the satisfied-self view. The world remains plural; the self does not dissolve in it. The self is interested in excellence, but that is not the only determinant of behavior. The self finds its satisfactions, first, in capturing enough values from the natural world to have vital needs met, to be prosperous; that is a consumer self. Second, the self finds satisfaction in meaningful relations with the cultural world that the self inhabits as citizen, and also with the natural world in which the self resides. This is the communitarian self. Winning involves more than one set of goalposts. People do continue to shift goalposts. Human development reaches levels where we say "Enough!" and shift our value focus, because to win more of what we already have enough of is not to win any more. To the contrary, it is to begin to lose.

This view of human nature does not require that persons lose self-identity in the monistic whole, or even that they be particularly excellent, high-souled individuals. Nor does it see them as full of selfish genes and nothing more. Human nature has multiple satisfactions, multiple values that the person can take an interest in defending, multiple goalposts on the field of play. There are multiple natural values in which humans can and ought to take an interest. The possibilities in human nature and the possibilities in nature are such that in the present culture, no one needs to lose when doing the right thing in environmental ethics, thought many will have to learn different satisfactions. Winning is here redefined from the "scoring the most points" of the aggrandizing self to the "satisfied life" of the person enjoying an optimal value richness in his or her community.

It is not that what we choose is satisfying, and that brings our good. Rather, what is satisfying is our good, and the environmental component is that we find the ecology we inhabit satisfying. This ecology can be satisfying if and only if it is both resource and residence, only if we use it while living in a meaningful community. We are not choosing it for our happiness, but our happiness is bound up with it.

Would we choose these things if they did not involve our happiness? That is a difficult question, and not because we think we ought to answer yes or are reluctant to say no. Rather, we do not know how to answer either yes or no. We are constituted in these relationships, and we find such
a constitution to be satisfying; and we also find these things satisfactory
fits in their places, whether or not we are there to be satisfied with our
experiences of these relationships. We do want to say: "Yes, we want those
things to flourish whether or not we are around to be happy; we want them
there without our happiness."

If we answer: "No, we would not choose these things without our hap-
piness," then simply not choosing them makes us unhappy, unsatisfied.
Having moved the goalposts to where they now are, constituted by our
ecology, there is no other happiness to be chosen elsewhere. There are
other ingredients to happiness, but they now are conjoined with this eco-
logical one. Repudiating the natural world in which we reside, repudiating
our ecology, is itself unsatisfying. Not choosing these ecological goods in
order to gain happiness, therefore, is a logical and empirical impossibility.
All the other, nonnatural goods, whatever they are, are undermined by the
loss of these natural values.

Two kinds of satisfactoriness constitute the relationship established by
doing right: (1) the satisfactoriness of the natural world, a complex web
of adapted fits in a prolific ecosystem, is continued; and (2) human-taking
satisfaction in this natural world is continued likewise. These things have
a good of their own; they are located in a good place, they are desired
for their own sake, and desiring them is my satisfaction. That is a
win-win situation. Oppositely, losing them is losing the satisfaction that
comes based on them; that is a lose-lose situation.

Being ethical sometimes means having to place the interests of others
above our own, and that means that certain of our interests will not be
satisfied, at least not in the degree that they might have been had we no
ethical concern. If my interest is in making a profit, that interest will not
be satisfied in the degree before. If my interest is in building a cabin on a
parcel of bayshore land that the state wishes to include in a nature conser-
ve for eagles, I lose that opportunity. Do I lose? Yes, if there is no other way
to make a profit; yes, if I have no shelter over my head. But no, if there
are other sectors of the economy in which these desires can be satisfied;
no, if my enlarged value set means that I subsequently find higher satis-
factions than I did before residing on a landscape replete with the native
fauna and flora.

In addition to promoting personal self-interests, we want to have integ-
rity, to be responsible members of a community. That sense of belonging to
a healthy society—and, in environmental ethics, of belonging to a healthy
ecosystem—is also part of self-interest, but now the self is entwined with
the community destinies. One cannot be healthy if the ship on which one is sailing is sinking. We win when we assume responsibility for heritages that are greater than we are.

We make a mistake if we have too private a view of interests, too dualistic a view of winning. Certain things have to be won together. Our sense of our common interest merges with the welfare of the community we inhabit. At this point we may need even to redefine what Socrates thought winning meant. He thought winning was gaining a noble soul. His noble soul was concerned about a community, the political community of Athens. But Socrates did not have much concern about the biotic community. "You see, I am fond of learning. Now the country places and trees won't teach me anything, and the people in the city do."9

Environmental ethics is not inclined to focus just on the human community or, if that fails, to retreat into the isolated self with its excellence and justice. Valuing others, valuing nonhuman others, is itself a satisfactory act. That is what is wrong with the human excellence view; it has fallen into a concern with what is a satisfactory, satisfying view of self. But what we are really satisfied by is not just the excellence of an own self, but a display of excellences in the surrounding world. We are so satisfied by the flourishing of these others that there is no sense of loss at all. Your gain is my gain; not my gain in any selfish sense, but my gain in living in a richer, more value laden, meaningful world.

Nature Harmed for Culture?

Is there some peculiar human excellence that requires that nature be harmed? When culture wins, must nature lose? That question has a timebound answer; and I fear that the first answer to this question has to be yes. Culture is the peculiar human excellence, and advanced agricultural and technological culture is not possible except as it is superimposed on nature in such a way that it captures natural values and redirects them to cultural use. Take forestry. Civilization on the earth over the last twenty centuries is almost unthinkable without the use of wood for structure and fuel. The scale of timber and fuel needed to support a developing civilization will invariably modify forest ecosystems adversely. It is to be hoped that such an extractive resource use can be put on a sustainable basis; trees can be well tended, fertilized, and sprayed. But even so, when a forest is made a resource for culture, the natural forest as a wild ecosystem will be harmed. The integrity of the primeval forest ecosystem is sacrificed, more or less, when it is harnessed to culture.
Or, consider agriculture. Plowing the soil disturbs the native forest or grassland that preceded it. In this sense, all agricultures harm the ecosystems on which agriculture is superimposed. Perhaps the ecosystem can retain its health; an agriculture can be fitted intelligently into the ecological process of a landscape. Nevertheless, agriculture proportionate to its extent disturbs and harms the pristine integrity of the landscape. It rebuilds the landscape to meet the needs of the farmers. The farmers win; the pristine grasslands and forest are sacrificed to their benefit, and the city folk have bread in their supermarkets.

Or, consider animals raised both for food and for other products, such as their skins. When animals are domesticated—as with cows, sheep, and goats—they must be tended. The welfare of the cows is entwined with the welfare of the cowboy; that of the sheep is entwined with that of the shepherd. But the animals become artifacts of culture. They are bred for the qualities humans desire: tender meat or soft wool. Their reproduction is manipulated by breeders, they are traded in markets, and so on. They are not necessarily unhappy; the chickens I remember on my grandfather’s farm in Alabama seemed to like it where they were. Nevertheless, all domestic animals are captured for human uses. On the farm we butchered in the fall, sheared sheep in the spring, and ate chicken every Sunday.

Consider beasts of burden. It is difficult to think that civilization could have developed to its advanced state without beasts of burden. If no human had ever ridden a beast nor laid a load on its back, humans would not have figured out how to build motorcars and trucks. It is true that a horseman attends to the welfare of his horse, and that most of these animals would never have existed without their breeders; nevertheless, they became artifacts of culture.

The point is that culture does require the capture and sacrifice of specific kinds of natural values. The cultural phase of human history not only must be superposed on natural history, it must also adapt and rebuild that natural history to its own benefit. And, from here onward, any society that we can envision must be scientifically sophisticated, technologically advanced, globally oriented, as well as (I hope) just and charitable, caring for universal human rights and for biospheric values. This society will try to fit itself in intelligently with the ecosystemic processes on which it is superposed. But it will also have to redirect those processes to its benefit. In that sense nature must be harmed if culture is to continue. Culture is a postevolutionary phase of our planetary history; it must be superposed on the nature it presupposes. At the same time, humans should build sustainable cultures.
that fit in with the continuing ecological processes. So, the first principle of culture is that it rebuilds wild nature; the second principle of culture is that culture ought to be sustainable on the ecological processes that support it.

"Sustainable development," J. Ronald Engel tells us, "may be defined as the kind of human activity that nourishes and perpetuates the historical fulfilment of the whole community of life on Earth."\(^9\) That statement sounds vaguely reasonable so long as it is kept reasonably vague, but closer analysis shows that historically, the fulfillment of the human community does not result in simultaneous fulfillment of the whole biotic community. When Iowa is plowed up to plant corn, it can hardly be said that the grasslands of Iowa reach their historical fulfillment. The bison must scatter, and there will be fewer bobolinks—all sacrificed so that Europeans may build their culture on the North American continent. The most we can say is that Iowans can and ought to sustain their agriculture within the hydrology, soil chemistries, nutrient-recycling processes, and so on, that operate on the Iowa landscape. But there is no sustainable development of Iowa agriculture that leaves the natural history of Iowa unblemished. Legitimate human demands for culture cannot be satisfied without the sacrifice of nature. That is a sad truth."

**Culture Harmed for Nature?**

That is looking past. What is ahead? Must we further harm nature to develop culture? The answer to that question, again, is timebound; and, at least in the developed countries, is no, a satisfactory culture is quite possible without further degrading nature. Indeed, further degrading nature is likely to make culture less satisfactory. This is an empirical claim. About 2 percent of the contiguous United States is wilderness (1.2 percent designated; 1 percent under study); 98 percent is developed, farmed, grazed, timbered, or designated for multiple use. Another 2 percent might be suitable for wilderness or semiwild status—cutover forests that have reverted to the wild, or areas as yet little developed. On the 96 percent that is domesticated, vast natural processes—rainfall, streamflow, soil fertility, photosynthesis, nutrient recycling, native fauna and flora—often remain, though these processes have typically been much degraded: pollutants in the streams and soils, soils lost, native fauna and flora decimated, species endangered, exotics introduced.

Remembering the root of *satisfactory*, we are far past the point where enough is enough, and the mix of cultural values and natural values ought
not be further skewed in the direction of the cultural. It is already so disproportionate that in many areas of the United States it is the natural values that are in short supply, not the cultural ones. These natural values ought to be preserved for their own ends, but when they are preserved, they simultaneously enrich the culture that is otherwise impoverished of natural values. When Columbus arrived in the Americas in 1492, there was a vast amount of wilderness. In the five hundred years since, there has been an explosion of European culture rebuilding the landscape, and that rebuilding has now reached a point where further expansion of culture at the price of nature will be counterproductive, even for culture. The next five hundred years simply cannot be like the last five hundred years without a tragic loss of natural values that will harm humans as well as harm what nature today remains on the landscape.

That is the way to interpret what happened with the Two Forks Dam. The good dam sites in the nation have long since been occupied; the water available in the American West has been appropriated, often without regard for the so-called in-stream benefits of riparian flows that maintain the native fauna and flora. Further damming of the rivers and further de-watering the streams will not be good for nature or culture either, since it will deprive culture of the benefits carried by nature. That is the way to interpret what is happening in the Pacific Northwest. The old-growth forest has been massively cut, and further cutting of the old growth is not going to be good for the fauna and flora, not good for the spotted owl. It is not going to be good for the culture in the Pacific Northwest either, because it will throw the natural values there into increasingly short supply, and it will only further prolong an already unsustainable culture, increasing the disaster when the crash comes.

The end of ethics is more life, increased quality of life, more experience of neighborhood. It is a sad truth that life preys on life, that culture does have to eat nature, but that is not the only truth; there is a glad truth that culture can be satisfied, can only be satisfactory, if its destiny is entwined with nature. I do not say that there is no further cultural development needed, only that we do not need further cultural development that sacrifices nature for culture, that enlarges the sphere of culture at the price of diminishing the sphere of nature. Nor will culture be harmed if we do not get it.

We can put this claim into empirical form by examining a human population growth curve over the last century (Figure 1). The realm of culture has exploded relative to the realm of nature, and this is true in both the
developing and the developed countries. Not only have people grown in numbers, their expectations have grown as well, so that we have one exploding curve on top of another one. A superficial reading of such a graph is that humans really start winning big in the second half of the twentieth century. But when we come to our senses, we realize that this kind of winning, if it keeps on escalating, is really losing. When we get the goalposts in the right place, we see that we are headed in the wrong direction. Humans will lose, and nature will be destroyed as well. Cultures have become consumptive, with an ever-escalating growth of insatiable desires. Culture does not know how to say "Enough!" Starkly put, the growth of culture has become cancerous. That is hardly a metaphor, for a cancer is essentially an explosion of unregulated growth.

Individual persons caught up in this cancerous growth can and will be—even ought to be—harmed in terms of their immediate perceived personal goals, perhaps even deprived of their bodily needs. This could be prevented by a just distribution of the goods of culture, now often so inequitably distributed. Few persons would need to go without "enough" if we could use,
justly and charitably, the produce of the already domesticated landscape. If such redistribution does not take place, people will be hurt. But it is better to try to fix this problem where it arises, within society, than to try to enlarge the sphere of society by the sacrifice of remnant natural values. Growth is not what we want, even though it seems a short-range solution meeting what seem like legitimate personal needs. The species curve indicates that Homo sapiens will not be harmed if the cancerous growth is stopped. We win when there is no more development. And our win is simultaneously nature’s win. However painful the surgery, no one is harmed when a cancer is stopped.

Inheriting the Earth

Can and should humans lose? The world is a complicated place. There is no simple answer: the answer is first yes and later no; sometimes yes, sometimes no; in some ways and places yes, in others no; superficially yes and at depth no; yes for self-aggrandizing humans, no for communitarian humans; yes for humans caught up in the inequities of culture, no for humans doing the right thing by nature. Perhaps the proper response is not to be dismayed that the question is so elusive, but to be glad instead that the answers are so open-ended. We have a great deal to gain by doing the right thing, and even when it seems that we lose by doing it, we typically do not; not if we get our goalposts in the right place, not if we can refocus our goals off the narrow self and enlarge them into the community we inhabit. There is always a deeper, philosophical sense in which it seems impossible to lose; that is all the more incentive to do the right thing.

Socrates did not think he could be a loser in Athens, and we have discovered a bigger truth. Humans ought not be losers on the earth; they belong on their home planet. Earth is a planet with promise, a planet of great value. Our human experience has characteristically been devoted to the promise of the culture in which we live and move and have our being. But our human experience must also devote itself to the promise of nature, in which we also live and move and have our being. For not only are humans the only species capable of enjoying the promise of culture, we are also the only species capable of enjoying the splendid panorama of life that vitalizes this planet.
NOTES


6 Socrates holds that anyone who knows the good is going to value the good so much that he or she will do it. So only those who are ignorant do the wrong thing. We may not agree with Socrates that this is always true, but it is often true; see *Protagoras* 352b-c, in *The Dialogues of Plato*, trans. B. Jowett (New York: Random House, 1937), 1:352-53.


8 We are also constituted by our culture, and we trade off these double constitutions, as I discuss later.
