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Animals and the Environment

In October 1993, astronauts aboard the space shuttle *Columbia* performed some unusual experiments. As part of their fourteen-day scientific mission they cut off the heads of six live rats and then performed various procedures on them. They used a tiny guillotine to decapitate the rats and did not administer any anesthetic to them beforehand. After the rats were dead the scientists were able to observe the various organs, bones, and muscles of the rats as they appeared in space. They also performed some dissections. When the shuttle returned to Earth, they planned to distribute tiny pieces of bone, muscle, brain tissue, and other body parts to scientists from around the world. The purpose of the experiments was "to investigate countermeasures for the debilitating effects of weightlessness" according to a NASA official. "Scientists hoped to discover how the rats changed with prolonged exposure to a lack of gravity." Among the problems that astronauts have faced in space have been "severe cases of motion sickness and more subtle transformations that include anemia and a bone softening similar to osteoporosis."[1] According to one scientist, the results of these studies might also benefit the elderly and persons who were bedridden.[2]

In addition to examples such as this, the news presents us daily with some new or not so new environmental issue. One day there is a report from a conference where timber industry representatives and environmentalists argued about how to reconcile their diverse interests and set governmental policy. Should private lumber companies be allowed to cut trees in old growth national forests, for example? On another day we hear more alarming news about global warming or ozone holes. Dozens of environmentalist groups, including Greenpeace, The Sierra Club, The Environmental Defense Fund, The World Wildlife Federation, and the more radical Earth First! work in various ways to preserve the environment and promote the humane treatment of animals.

Most of us do care about proper treatment of both animals and the environment. However, we are less sure about what this requires of us and why. We are uncertain because we are often unclear about our ultimate reasons for protecting animals or the environment. Moreover, even when we are able to point out certain values that we think are involved, we do not know what to say in face of conflicts of values. Should we preserve the wetland or fill in the land and lease it for projects that will bring jobs to low income areas? Should we dam the river for hydroelectric power and lessen the

need for nuclear power, or shall we leave it wild? In order to resolve these conflicts of values we need to arrange them in some overall hierarchy or recognize the kind of comparative evaluation that is involved in such resolutions. More basic yet is the question of the very source of value. What is it, for example, that makes a particular animal or plant or species valuable? We will address these and other ethical issues in this chapter.

Some Problems

We will combine a treatment of the ethical issues that arise regarding animals and the environment because the issues are interrelated. The following are some of the most serious problems we face.

Global Warming

Most scientists now admit that our modern industrial society has created a potentially deadly phenomenon known as the greenhouse effect. What has happened is that many of our modern industries rely on the burning of fossil fuels. The gases given off are put into the atmosphere, gases such as carbon dioxide, methane, fluorocarbons, and nitrous oxide. Automobile exhaust contributes as well. The levels of these gases in the atmosphere have increased significantly from their preindustrial levels: .4% for carbon dioxide, 1% for methane, 5% for fluorocarbons, and 2% for nitrous oxide.[3] This increase may not seem to be dramatic, but the results may be. In the atmosphere these gases combine with water vapor and prevent the sun's infrared rays from radiating back into space. The trapped rays contribute to an increase in air temperature. Thus gases function much as the panes of a greenhouse. The gases will remain in the atmosphere for thirty to one hundred years and the buildup has increased over time. Deforestation also contributes to the warming because as the forests are destroyed they are less able to absorb the carbon dioxide. Just what climatic changes these two practices may cause is a matter of dispute among scientists. Scientists disagree on how much the earth will warm, how fast, and how different regions will be affected. An increase or decrease in temperature and rainfall could play a role in droughts, famines, and food production, as well as in floods and other unusual weather phenomena. What are we obligated to do in face of uncertainties such as these?

Ozone Depletion

In the past twenty years, scientists have detected holes or breaks in the layer of ozone at the upper reaches of the stratosphere. This layer of ozone protects us from the damaging effects of the ultraviolet radiation from the sun. Such radiation can cause skin cancer and cataracts. The breaks or holes in the ozone layer are caused by chlorine-bearing pollutants such as the chlorofluorocarbons that are used in refrigeration and aerosol sprays. Carbon dioxide, which causes the greenhouse effect and global warming, has also been found to contribute to ozone depletion.[4] Presently the largest hole is over Antarctica. However, there are suspicions that it has migrated over Australia and led to increases in abnormalities such as skin cancer there. Scientists have also predicted openings over other areas in the Northern Hemisphere and recently found a 9–14% decline in ozone levels there.[5] Now, however, there is some good news. According to a recent study, the buildup that causes ozone depletion is finally slowing. It is expected to peak around the turn of the century and then begin a gradual recovery.[6]

Waste Disposal

Another serious problem concerns the disposal of various forms of waste, from garbage to toxic industrial pollutants to radioactive materials. No one wants the city dump located next to them, and yet the tons of garbage that we produce each year must be put somewhere. Industrial waste is washed into our rivers and lakes and blown into our air. Radioactive waste may be of the greatest concern, partly because the long-term risk is so unknown. We have more information about the short-term damage it can do. It is also of great concern because these dangerous materials must be contained for thousands of years. According to one estimate, "of the approximately 32,000 hazardous waste disposal sites in this country, from 1200 to 2000 . . . pose significant dangers to human health."[7] This is all the more frightening because of the fact that "about 600 of these sites have been abandoned by their owners."[8] Furthermore, military pollution may be the most extensive. According to a recent report of the group Physicians for Social Responsibility, more than 11,000 sites at over 900 facilities are contaminated. The contaminants come from the production, testing, cleaning, and use of weapons, explosives, and rocket fuels, and from aircraft and electronic equipment. The cost for cleanup at such sites is estimated to be at least $150 billion.[9] Recycling programs aim to reduce the amount of aluminum, glass, paper, and plastics that we throw away each year. Regulations for the disposal of toxic wastes continue to be debated.

Acid Rain

In the burning of fossil fuels, sulphur dioxide and nitrogen oxides are released into the air and can be carried for miles with the wind currents. There they mix with rain and fall to Earth. Thus the damage that they cause is far away from their source. Midwest factory emissions may adversely affect the fish and wildlife in the far Northeast. Acid rain is also likely to cause damage to buildings because of its generally corrosive effects.

Treatment of Animals

There are many ways in which we relate to and depend on our nonhuman counterparts. They are pets and provide many people with companionship and comfort. They are the source of food such as meat, fish, milk, eggs, and cheese, and of clothing made of leather and fur and wool. Nonhuman animals are used in experiments to test not only the safety and effectiveness of medical drugs and devices, but also the possible side effects of cosmetics. They sometimes provide us with medicinal aids such as hormones, blood-clotting factors, and treatment for diseases such as diabetes. They are also sources of wonderment because of their variety and beauty and strength. However, nonhuman animals are also sentient creatures. Some can feel pleasure and pain just as we do and at times seem almost human in their perception of and reactions to us. Thus we can rightly ask whether we are justified in using them in all of the ways that we do.

Endangered Species

According to the World Wildlife Fund, "Without firing a shot, we may kill one-fifth of all species of life on this planet in the next 20 years."[10] We do this primarily by destroying their habitats. Some people contest these figures, claiming that these estimates are extreme and far exceed any known loss of species.[11] We do need to know the extent of the loss. Yet we also need to ask ourselves why the loss of species matters. The ethical issues involved in whether and why we should or need not preserve species (plant or animal) are distinct

from the ethical issues about how we ought to treat individual plants or animals. Why do we care—or ought we to care—about animal species than ourselves, for example? Is there some good or value in their very existence, and do they have some right to exist? Is their value, rather, in their contribution to biodiversity or to the satisfaction of human needs?

Energy Conservation

Conservation aimed at reducing trash and waste and preserving animal species are not the only conservation concerns. We also care about energy conservation, not only because of the effects of the loss of energy resources upon us, but also because of the possible effects on future generations. To determine what to think about energy use for ourselves, we need to know whether the cost of conservation will be worth the benefits. In order to know what to think about energy conservation we also need to give some thought to the question of whether we have any obligation to future generations. There is something puzzling about the notion that we owe something to generations that do not as yet exist, especially if the arguments rest on our attributing rights to them. How can a being that does not exist have any rights? Are we obligated just not to make them worse off than we are or to make them better off? Exhausting fossil fuel resources without providing something as a substitute form of energy would certainly harm future generations. So too would it harm them to leave our toxic or other dangerous wastes all over the earth. Other ethical issues also arise with regard to our use of energy resources. One of these is the fairness issue. We can rightly ask whether it is fair for certain rich nations to use a disproportionate share of the world's energy resources. We will discuss this particular conservation issue in the last chapter of this text, which deals with global issues.

Wilderness Preservation

Finally, we note that preservation of wilderness areas is also an environmental concern to many. Our forests and wilderness areas are valuable for a number of reasons. They provide habitats for wildlife, including some threatened species. They provide us with leisure and relaxation and with many possibilities for recreational opportunities, such as white water rafting, boating, fishing, hiking, and skiing. They also provide possibilities for aesthetic and religious experiences and simple communing with the wider world of nature. Federal and local governments have gotten into the act of preservation. The 1964 Wilderness Act has set aside certain wilderness areas to be preserved unspoiled and natural. The National Forest Service has responsibility for almost 200 million acres of land and the management of more than 150 national forests.[12] What is the extent of our obligation to preserve these forests and wilderness areas, especially in light of the fact that the preservation often has a negative impact on human economic interests, such as jobs? How should we decide between sports hunting interests and species and animal rights interests? What kinds of activist tactics are and are not justified in the pursuit of a group's fight for causes, such as two thousand-year-old trees? These conflicts leave us with many questions.

This summary of environment- and animal-related problems should make us realize more acutely the breadth and complexity of the issues involved. It should also clarify that these issues are at heart ethical issues because they are concerned with such matters as values, rights, and interests.

Key Terms

There are several key terms used in the debates over the issues presented in the previous sections. We will discuss them here.

Anthropocentrism

As you may know, the terms *anthropocentrism* and *anthropocentric* refer to human-centered perspectives. A perspective is anthropocentric if it holds that humans alone have *intrinsic worth* or value (see the next section). According to this perspective, those things are good that promote the interests or value of human beings. Thus, for example, some people believe that animals are valuable simply because they promote the interests of humans. We noted some of these interests earlier: Animals provide emotional, aesthetic, food, clothing, entertainment, and medical benefits for us. Those holding an anthropocentric view may also believe that it is bad to cause animals needless pain, but that if this is necessary to ensure some important human good, then it is justified.

The same is true regarding preservation of wilderness. According to an anthropocentric perspective, the environment or nature has no value in itself. Its value is measured by how it affects human beings. Again, some of the values wilderness or forests have for us were already noted: They are sources of recreation, relaxation, and they provide for some of our physical needs, such as lumber for building. Sometimes anthropocentric values conflict. For instance, we cannot both preserve the trees for their beauty or historical interest and use them for lumber. Therefore, we need to think about the relative value of aesthetic experiences and historical appreciation and cheaper housing. What is the value, for example, of being able to reflect on our history and our ancestors? Consider some two thousand-year-old trees. Touching one of these giants today is in some way touching the beginning of calendar time. We can think of all the great moments and events of history that have occurred in the life of this tree and thus appreciate the reality of the events and their connection with us. How would the value of this experience compare with other values? Cost–benefit analyses, as discussed later, present one method for making such comparisons.

Value

In explaining the term *anthropocentric*, we noted that according to this view humans alone have intrinsic value or worth. That is, they alone have worth in themselves. The contrast is with a notion of *instrumental value*. Something has instrumental value if it is valued because of its usefulness. Thus, according to an anthropocentric view, animals and trees have instrumental rather than intrinsic value, that is, they are valuable because of their usefulness to us or simply because we value them.[13] In contrast, some environmentalists believe that animals and plants and even ecosystems have value in themselves. The basis for this belief will be explored next.

Another term sometimes used in discussions of environmental ethics is *prima facie* value. The phrase literally means "at first glance." Something has *prima facie* value if it has some value but not absolute value. In other words, it has a kind of value that can be outweighed by other interests or values. For example, we might say that economic interests of one group are to be given weight and thus have *prima facie* value, but they may be overridden by stronger interests of another group or by greater values, such as medical values or human health.

Ecology and Ecocentric Moral Theories

According to a dictionary definition, ecology is the scientific study of the relation of organisms to their environment. This branch of science studies such things as the effects of animals on their environment, and the effect of an environment on the survival and life of the animals. When we speak of an ecological or an ecocentric

perspective in the context of environmental ethics, however, we generally refer to a moral theory. An ecological moral theory in general holds that our moral judgments about environmental matters ought to take note of how the earth is a whole composed of interdependent parts. There are different forms that such ecological ethical theories can take and different models that they use. These are described in the section, "For the Sake of the Earth."

Cost–Benefit Analysis

Because many environmental issues involve diverse values and competing interests, a technique known as cost–benefit analysis can be used to determine what is best to do. If we have a choice between various policies, we need to assess and compare the risks or costs and benefits that each entails to know which is the better policy. Using this method we should choose the alternative that has the greater net balance of benefits over costs or harms. It is basically a utilitarian form of reasoning. Using this method, we can reason that if we clean up the smoke stacks, emissions are reduced and acid rain and global warming are curtailed, which are important *benefits*. However, this also creates *costs* for the company and its employees and those who buy its products or use its services. We want to know whether the benefits will be worth those costs. We also need to assess the relative costs and benefits of other alternatives.

Involved in such analyses are two distinct elements. One is an *assessment* of costs and benefits, in other words, a determination or description of these factual matters as far as they can be known. The other is *evaluation*, the establishment of relative values. In cost–benefit evaluations, the value is generally a function of the usefulness to humans. The usual use of cost–benefit analysis is in the overall context of an anthropocentric perspective. Some things we find more useful or valuable to us than others. Additionally, if we have a fixed amount of money or resources to expend on some environmental project, we know that this money or these resources will not be able then to be put to work elsewhere or used to buy other things. Thus every expenditure will have a certain *opportunity cost*. In being willing to pay for the environmental project, then, we will have some sense of its importance in comparison with other things that we will not then do or have. However, if we value something else just as much or more than a slight increase in cleaner air or water, for example, we will then not be willing to pay for the cleaner air or water. (This issue is discussed by Baxter in a reading included in this chapter.)

In making such evaluations, however, we may know what monetary costs will be added to a particular forest product such as lumber if certain cutting were curtailed, but we are less sure about how we should value the two thousand-year-old tree. How do we measure the historical appreciation or the aesthetic value of the tree or the species of animal that lives in the tree? How do we measure the recreational value of the wilderness? What is beauty or a life worth? The value of these so-called intangibles is difficult to measure because measuring implies that we use a standard measure of value. Only if we have such a standard can we compare, say, the value of a breathtaking view to that of a dam about to be built on the site. However, we do sometimes use monetary valuations of such intangibles as human lives or life years, as for insurance and other purposes.[14] Doing so is obviously problematic.

One of the costs that might be considered is that to animals. In the discussion that follows we will focus first on the particular ethical issues that arise in debates over the ethical treatment of animals. Then we raise basic ethical questions about our treatment of nature.

Animal Rights

Some people are vegetarians because they distrust the quality of meat or because they believe that a meatless diet is healthier. However, other vegetarians follow this practice because they believe that it is wrong to use animals for food. They vary in their reasons for believing that this is wrong. Some believe that it is wrong because they feel that animals have certain rights. Others believe that it is wrong simply because our present practices of raising animals for food involves animal suffering.

There are many issues to be considered under the general heading of animal rights. To begin, we should distinguish the position holding that *individual animals* have rights or a particular moral status from the position holding that it is *animal species* that we ought to protect, not individual animals. Suppose, for example, that a certain population of deer is threatened because their numbers have outstripped their food supply and they are starving to death. In some such cases wildlife officials have sought to thin the herds by selective killing or limited hunting. It is thought to be for the sake of the herd that some are killed. Animal rights activists are generally horrified at this policy and argue that ways should be found to save all of the deer. Those seeking to protect species of animals might not object if the practice of thinning will in fact save the whole. We can see that these two groups might be at odds with one another.[15]

Let us examine first the notion that individual animals have what we will call "moral standing." This is the view that animals have moral worth in themselves on some account. No one would argue that animals have no value. People do disagree, however, concerning whether their value is purely instrumental or whether they have intrinsic value, that is, are valuable apart from their usefulness to us. How would we know if animals had intrinsic value? One view is that everything that exists just because it exists has some intrinsic value. If this is so, we may ask further whether there is a hierarchy in the value of beings with the more complex beings perhaps having higher value than the less complex. Are beings that are living or beings that are sentient of greater value than those that are not? This is a difficult issue but one that arises in a number of debates about topics such as animal rights. It also is a key issue for ecologists.

Animals are not *moral agents*. This is because presumably they do not make deliberate moral decisions for moral reasons. However, this does not mean that they are not *moral patients*. A being is a moral patient if the way we treat that being in itself matters morally. It is a moral patient, for example, if it can suffer and if its suffering is in itself bad. Those like Peter Singer, in a reading selection in this chapter, have argued that we should have a higher regard for animals because of their sentience or their ability to feel pleasure and pain. That suffering in itself is bad probably needs no argument. It is only *prima facie* bad, however, for sometimes pain is good for us, such as the pain that lets us know of some medical problem. There are also things that are worth the pain that we experience in attaining them. Nevertheless, it seems reasonable that if pain is at least *prima facie* bad, it is bad not just because of the negative consequences to us who know about it or inflict the pain, some argue, but for the animal that experiences it. Nevertheless, other values may take precedence and justify the pain. However, there is a difference in the case of animals: They would experience the pain while we would receive the benefit.

It is a further step, however, to say that because of this (or something else) animals have rights. Just what is meant by a right and on what grounds any being has rights are two different issues. When we say that a person has a right to something, we generally mean that the person has a strong claim to that thing, say, a

bicycle that belongs to her. We probably also mean that others have a duty to the person with regard to her claim, say, not to take her bicycle. So too, if I have a right to health care, others may have a duty to provide it. The grounds for the right can vary. For example, persons may have a right to care from a hospital because of a contractual relation that they have just established, while a young child has a right to care from her or his parents because of the natural or legal relationship. But what could provide the basis for a claim that animals have rights? And what kind of rights might they have? We could argue that it is because they can feel pain that they have a right not to suffer, or at least, suffer needlessly. This would mean that others have a duty with regard to this claim. However, we may still have a duty not to needlessly cause pain to animals even if they had no right not to suffer. We have many duties that are not directly a matter of respecting anyone's rights. For instance, I may have a duty not to destroy a famous building or an old tree but not because the building or tree has a right to exist.

However, to argue that individual animals have a right to life requires additional reasons. Peter Singer has stated that not to respect the interests of animals is *speciesism*. This is, he believes, an objectionable attitude similar to racism or sexism. It is objectionable because it results in treating animals badly simply because they are members of a different species and because it gives preference to members of our own species simply because we are human beings. This attitude is anthropocentric. But on what grounds is this objectionable? According to Singer, it is because of animals' ability to feel pleasure and pain that they are the type of being that can be said to have interests. Thus they are different from plants. We can do things for plants that are *in their interest* even though they do not *have interests*. Singer believes that if the interests of animals are similar to ours in some respect, then they ought to be given equal weight. This does not mean that they have a right to whatever we have a right to. It would make no sense to say that a pig or horse has a right to vote. However, it would make sense to say that they had a right not to suffer or not to suffer needlessly or perhaps not to be used for no good purpose.

Others argue that animals need not be treated as equal to humans and that their interests ought not to be given equal weight with ours. It is because of the difference in species abilities and potentialities that animals are a lesser form of being, according to this view. This does not mean, however, that their interests ought to be disregarded. It may also mean that peripheral interests of human beings should not override more serious interests of animals. It is one thing to say that animals may be used if necessary for experiments that will save the lives of human beings and quite another to say that they may be harmed for the testing of cosmetics or even food or clothing that is not important for human life. Whether this would provide a good a basis for vegetarianism would then be dependent on the importance of animal protein, for example, and whether animals could be raised humanely for food.

Why Should We Respect Nature?

There are two views regarding *why* we should respect nature. The first is human-centered, providing reasons based on human needs and benefits. The second is Earth-centered, providing reasons based on the nature of Earth itself.

For Our Own Sake

As noted earlier, some environmentalists believe that it is in our own best interest to have a sound environmental policy. We know that what we do to the environment today affects

us and others tomorrow. If we use up our natural resources or pollute our skies or water, we and our descendents will suffer. If we want to have the goods that industrialization produces, then we must determine how to take care of the wastes that it produces, or we will suffer the results. If we want the benefit of cheap energy, then we must find new energy sources and use what we have wisely. If we want to have wilderness areas in which to renew ourselves, then we must preserve them as such. We do not always know what benefits to us might come from some rare plant or animal species and thus we ought to take care not to destroy them wantonly.

However, we sometimes face trade-offs. We cannot have all that we would like or would be desirable. Cost–benefit analyses play a role in letting us know the comparative value of doing one thing versus another. Economists remind us that there are opportunity costs that come with our choices. And we must find some way to place a value on so-called intangibles such as life and beauty and even health in order to factor them into our decision-making.

The charge of anthropocentrism has often been disparagingly leveled against such a view. Some say that it is wrong to regard only humans as having intrinsic value, or to regard nature as something simply to be used by us. Some fault the Judeo-Christian tradition for this. In particular, they single out the biblical mandate to "subdue" the earth and "have dominion over the fish of the sea and over the birds of the air and every living thing that moves upon the earth" as being responsible for this instrumentalist view of nature and other living things.[16] Others argue that this view is reductionistic. All of nature is reduced to the level of "thinghood." Descartes is sometimes cited as a source or example of a reductionist point of view because of his belief that the essential element of humanity is the ability to think ("I think, therefore I am.") and his regard for animals as mere machines.[17] We can ask ourselves whether we value too highly the human powers of reason and intelligence. "Knowledge is power" is a Western view. One of the sources of this view was the early modern philosopher Francis Bacon's *The New Organon*.[18] Evolutionary accounts also depict humans at the pinnacle of evolution, or as the highest or last link in some great chain of being.

That humans are the highest form of life as we know it is assumed by many but questioned by others. What a human-centered or anthropocentric perspective will support, however, is a broad environmentalism. Our own good requires that we have due and wise regard for animals and the environment. Moreover, this good need not be defined narrowly in terms of the satisfaction of individual human interests of a limited sort. Aesthetic and health interests may be included. Such a view may include a good dose of altruism or concern for others and for future generations.

For the Sake of the Earth

In the 1940s one of the first of the new thinkers about the environment, Aldo Leopold, wrote in his famous essay "The Land Ethic" that we should think about the land as "a fountain of energy flowing through a circuit of soils, plants, and animals."[19] Look at any section of life on our planet and you will find a system of life, intricately interwoven and interdependent elements that function as a whole. The earth-system itself is also such a whole and functions like a living organism. Thus Leopold did not think it amiss to speak about the whole system as being healthy and unhealthy. If the soil is washed away or abnormally flooded, the whole system suffers or is sick. In this system, individual organisms feed off of one another. Some elements come and others go. It is the whole that continues. Leopold also believed that a particular type of ethics follows from this view of nature. It is a *biocentric* or *ecocentric ethics*.

It holds that "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends to do otherwise."[20] It is easier to understand this remark if one thinks of a particular small environmental system, such as the river sandbar he describes. (See where Leopold is quoted in the end-of-chapter reading by Wenz.) The system has a certain *integrity*, in that it is a unity of interdependent elements that combine to make a whole with a unique character. It has a certain *stability*, not because it does not change, but because it changes only gradually. Finally, it has a particular *beauty*. Here beauty is a matter of harmony or a well-ordered form, a unity in diversity.[21] When envisioned on a larger scale, the entire earth system may then be regarded as one system with a certain integrity, stability, and beauty. Morality becomes a matter of preserving this system or doing only what fits it.

The kind of regard for nature manifest in biocentric views is not limited to contemporary philosophizing. *Native American* (Indian) views on nature provide a fertile source of biocentric thinking. Certain forms of *romanticism* have long regarded nature in a different way than that found in dominant western perspectives. Such were the views of the transcendentalists, Ralph Waldo Emerson and Henry Thoreau. *Transcendentalism* was a movement of romantic idealism that arose in America in the mid-nineteenth century. Rather than regarding nature as foreign or alien, Emerson and Thoreau thought of it as a friend or kindred spirit. In fact, nature for them symbolized spirit. Therefore, a rock is a sign of endurance and a snake of cunning. The rock and the snake can symbolize spirit because nature itself is full of spirit. Thoreau went to Waldon Pond to live life to its fullest and commune with nature. He wanted to know its moods and all its phenomena. While he and Emerson read the lessons of nature, they also read their Eastern texts. Some have characterized aspects of their nature theory as *idealism*, the view that all nature is ideas or spirit, or as *pantheism*, the doctrine that holds that all nature is God.

John Muir, the prophet of Yosemite and founder of the Sierra Club, once urged Emerson to spend more time with him. He thus wrote to Emerson:

> I invite you to join me in a month's worship with Nature in the high temples of the great Sierra Crown beyond our holy Yosemite. It will cost you nothing save the time and very little of that for you will be mostly in eternity.... In the name of a hundred cascades that barbarous visitors never see... in the name of all the rocks and of this whole spiritual atmosphere. Do not leave us now. With most cordial regards I am yours in Nature, John Muir.[22]

Such romantic idealistic views provide a stark contrast to anthropocentric views of a reductionist type. However, they also raise many questions. For example, we can ask the transcendentalist how nature can be spirit or God in more than a metaphorical sense. And we can ask followers of Aldo Leopold the following question: Why is the way that things are good? Nature can be very cruel, at least from the point of view of certain animals and even from our own viewpoint as we suffer the damaging results of typhoons or volcanic eruptions. And, more abstractly, on what basis can we argue that whatever is is good? (Recall the discussion of "deriving an ought from an is" in Chapter 6 on natural law theory.) This type of view is often now identified under the title of "deep ecology," which we will turn to now.

Deep Ecology

The whole range of nonanthropocentric environmentalist views are sometimes labeled *deep ecology* in distinction from a more anthropocentric *shallow ecology*. The term *deep ecology*

was first used by Arne Naess, the Swedish environmentalist.[23] Deep ecologists take a more holistic view of nature. They believe that we should look more deeply to find the root causes of environmental degradation. The idea is that our environmental problems are rooted in the Western psyche, and that radical changes of viewpoint are necessary in order to solve them. Western reductionism, individualism, and consumerism are said to be the causes of environmental problems. The solution is to rethink and reformulate certain metaphysical beliefs about whether all reality is reducible to a kind of machine. It is also to rethink what it is to be an individual. Are individual beings the same as so many disparate independent atoms? Or are they interrelated parts of a whole? Solving our environmental problems also requires a change in our views about what is a good quality of life. The good life, these ecologists assert, is not one stressing the possession of things and the satisfaction of wants and desires.

In addition to describing the radical changes in our basic outlook on life that we need to make, the deep ecologist platform also argues that any intrusion into nature to change it requires justification. We must show that there is a vital need of ours at stake.[24] We ought to intervene only with much deliberation because we are not sure of the results of our action, which may be far-reaching and harmful, and because nature as it is is regarded as good and right and well balanced. Moreover, if, as deep ecologists believe, nature itself as a whole has intrinsic value, this also shows why we need reasons to justify our interventions. Their platform also includes the belief that the flourishing of nonhuman life requires a "substantial decrease in the human population."[25] The deep ecology movement has been quite politically active. Its creed contains the belief that people are responsible for the earth. Beliefs such as these often provide a basis for the tactics of groups like Earth First! Their tactics have included various forms of ecosabotage, for example spiking trees to prevent logging or cutting power lines.[26]

Both the tactics and the views underlying them have been subject to criticism. The tactics have been labeled by some "ecoterrorism."[27] The view that all incursions into nature must be justified by vital need seems to run counter to our intuitions, for the implication is that we must not build the golf course or the house patio because these would change the earth and vegetation and the need to play golf or sit on a patio is hardly vital. Others might have difficulty with the implied view that nature and other natural things have as much value as persons, and so persons' interests should not take precedence over the good of nature. The view that nature itself has a "good of its own" or that the whole system has value in itself many also find problematic. However, at the least deep ecologists have provided a valuable service by calling our attention to the deep philosophical roots and causes of some of our environmental problems.

Ecofeminism

A new variant of ecological ethics has recently been developed by some feminists. It has come to be called "ecofeminism" or "ecological feminism."[28] It may be seen as part of a broader movement that locates the source of environmental problems not in metaphysical or world views, as deep ecologists do, but in social philosophy. Social ecology, as this wider movement is called, holds that we should look to particular social patterns and structures to discover what is wrong with our relationship to the environment. Ecofeminists believe that the problem lies in a male-centered view of nature, that is, one of human domination over nature. According to one philosopher, ecofeminism is "the position that there are important connections . . . between the domination of women and the domination of nature, an understanding of

which is crucial to both feminism and environmental ethics."[29] It can be noted here that deep ecologists and ecofeminists do not generally get along well with each other. The deep ecologists criticize ecofeminists for concentrating insufficiently on the environment and ecofeminists accuse deep ecologists of the very male-centered view that they believe is the source of our environmental problems.[30] However, there are a variety of ecofeminist views and they are espoused by diverse groups of feminists.[31]

One version acknowledges the ways in which women differ from men and rejoices in it. This view is espoused by those who hold that because of their female experience or nature women tend to value relationships and the concrete individual. They stress caring and emotion, and they seek to replace conflict and assertion of rights with cooperation and community. These are traits that can and should carry over into our relationship to nature, they believe. Rather than using nature in an instrumentalist fashion, they urge a cooperation with nature. We should manifest a caring and benevolent regard for nature just as for other human beings. One version of this view would have us think of nature itself as in some way divine. Rather than think of God as a distant creator who transcends nature, these religiously oriented ecofeminists think of God as a being within nature. Some also refer to this God as Mother Nature or Gaia, after the name of the Greek goddess.[32]

Another version of ecofeminism rejects the dualism that they find in this position. They hold that this promotes the devaluing and domination of both women and nature. Rather than dividing reality into two contrasting elements, the active and passive, the rational and emotional, the dominant and subservient, they encourage us to recognize the diversity within nature and among people. They would similarly support a variety of ways of relating to nature. Thus they believe that while science that proceeds from a male orientation of control over nature has made advances and continues to do so, if it has just this orientation it will miss important aspects of nature. If instead we also have a feeling for nature and a listening attitude, we might be better able to know what actually is there. They also believe that we humans should see ourselves as part of the community of nature, not a distinct nonnatural being functioning in a world that is thought to be alien to us.

It is sometimes difficult to know just what in particular are the practical upshots of ecological feminism and deep ecology. Yet the following sentiment is indicative of what might make a difference:

> In behalf of the tiny beings that are yet to arrive on Earth, but whose genes are here now, let's try a little CPR for the Earth—conservation, protection and restoration. And a little tender loving care for the only bit of the universe we know to be blessed with life.[33]

As discussed earlier, some anthropocentrists would contend that they, too, believe in a wise use of nature, one that does not destroy the very nature that we value and depend on. It may well be that if we care for and about nature and nonhuman animals our treatment of it and them will be better in some important ways.

The Chapter Readings

In the readings at the end of this chapter, those by Peter Singer and Bonnie Steinbock exemplify the debate over whether nonhuman animals ought to be treated equally in some way with humans. William Baxter presents an anthropocentric environmentalist point of view, and Peter Wenz presents an ecological environmentalist point of view.

Notes

1. The *San Francisco Examiner*, October 31, 1993, A11.
2. As reported in the *New York Times*, Nov. 1, 1993, A7.
3. The *New York Times*, "Science Times," February 7, 1989, B5. The data are from preindustrial to 1986 levels.
4. Ibid., "Science," November 24, 1992, B8.
5. *Science*, April 1993.
6. The *New York Times*, August 26, 1993, A1.
7. Leonard G. Boonin, "Environmental Pollution and the Law," *Newsletter from the Center for Values and Social Policy at Boulder, Colorado*, vol. XI, no. 2 (Fall 1992): 3.
8. Ibid., 3.
9. Reported in the *San Francisco Examiner*, May 16, 1993.
10. World Wildlife Fund paper, ca. 1992.
11. See, for example, Julian L. Simon and Aaron Wildavsky, "Facts, Not Species, Are Periled," the *New York Times*, May 13, 1993, A15.
12. Joseph R. des Jardins, *Environmental Ethics* (Belmont, CA: Wadsworth Publishing Co., 1993), 48.
13. Some writers also distinguish intrinsic and inherent value. Something has intrinsic value if it is valued for its own sake rather than for its usefulness. Something has inherent value if it is valuable in itself regardless of whether or not it is valued by anyone. Ibid., 146–147.
14. Safety regulation needs to make use of such monetary equivalencies, for how else do we decide how safe is safe enough? There is no such thing as perfect safety, for that would mean risk-free. Thus, we end up judging that we ought to pay so much to make things just so much safer but no more. The implication is that the increased life years or value of the lives to be saved by stricter regulation is of so much but no more than this much value. See Barbara MacKinnon, "Pricing Human Life," *Science, Technology and Human Values* (Spring 1986): 29–39.
15. In fact, one supporter of animal rights has referred to holistic views of the value of animals as "environmental fascism." Tom Regan, *The Case for Animal Rights* (Berkeley: The University of California Press, 1983), 361–362.
16. Genesis 1: 26–29.
17. Rene Descartes, *Meditations on First Philosophy*. However, it might be pointed out that for Descartes this was not so much a metaphysical point as an epistemological one. That is, he was concerned about finding some sure starting point for knowledge, and found at least that he was sure he was thinking even when he was doubting the existence of everything else.
18. Francis Bacon, *Novum Organum*, ed. Thomas Fowler (Oxford, 1889).
19. Aldo Leopold, "The Land Ethic," in *Sand County Almanac* (New York: Oxford University Press, 1949).
20. Ibid., 262.
21. See John Hospers, *Understanding the Arts* (Englewood Cliffs, NJ: Prentice-Hall, 1982).
22. Quoted in the *San Francisco Examiner*, May 1, 1988, E5.
23. Arne Naess, *Ecology, Community, and Lifestyle*, tr. David Rothenberg (Cambridge: Cambridge University Press, 1989).
24. Paul Taylor, *Respect for Nature* (Princeton: Princeton University Press, 1986).
25. Naess, *Ecology*, Chap. 1.
26. On the tactics of ecosabotage see Bill Devall, *Simple in Means, Rich in Ends: Practicing Deep Ecology* (Layton, UT: Gibbs Smith Publishing, 1988).
27. See Michael Martin, "Ecosabotage and Civil Disobedience," *Environmental Ethics* 12 (Winter 1990): 291–310.
28. According to Joseph des Jardins, the term *ecofeminism* was first used by Francoise d'Eaubonne in 1974 in her work *Le Feminisme ou la Mort* (Paris: Pierre Horay, 1974). See des Jardins, *Environmental Ethics*, 249.
29. Karen J. Warren, "The Power and Promise of Ecological Feminism," *Environmental Ethics* 12 (Summer 1990): 126.
30. I thank Wendy Lee-Lampshire of Bloomsburg University for this point, and also for Discussion Case 3 at the end of this chapter.
31. See the distinctions made by Allison Jaggar between liberal (egalitarian) feminism, marxist feminism, socialist feminism, and radical feminism in *Feminist Politics and Human Nature* (Totowa, NJ: Rowman & Allanheld, 1983).
32. See Carol Christ, *Laughter of Aphrodite: Reflections on a Journey to the Goddess* (San Francisco: Harper and Row, 1987).
33. David R. Brower, "Step Up the Battle on Earth's Behalf," *San Francisco Chronicle*, August 18, 1993, A15.