Priority Principles

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We must ... try to find priority principles for resolving conflicts between humans and nonhumans which do not assign greater inherent worth to humans, but consider all parties as having the same worth. The principles, in other words, must be consistent with the fundamental requirement of quasi-importance. For only then can there be genuine fairness in the resolution of such conflicts.

Five Priority Principles for the Fair Resolution of Conflicting Claims

I now consider in depth five such principles, to be designated as follows:

a. The principle of self-defense.
b. The principle of proportionality.
c. The principle of minimum wrong.
d. The principle of distributive justice.
e. The principle of restorative justice.

Although I believe these five principles cover all the major ways of adjudicating fairly among competing claims arising from clashes between the duties of human ethics and those of environmental ethics, I must emphasize at the outset that they do not yield a neat solution to every possible conflict situation. Each principle represents one cluster of morally relevant considerations one must take into account, and these considerations can serve as rough guides in reaching decisions about what duties outweigh others. But the principles do not function as premises in a deductive argument. We cannot deduce from them, along with the facts of the case, a true conclusion expressible in a normative statement about what ought to be done, all things considered. We should strive to make our

decisions on the basis of relevant considerations, and the relevance of a consideration is determined by the application of the principles. To the extent we are successful in this case we can have some confidence in the fairness of our judgment. Neverthe-
less, there will always be a degree of uncertainty, and our minds should accordingly be open to the possibility that we have made a mistake. We must remain ready to revise our judgment, not only in the light of new factual information but also on the basis of further critical reflection concerning the precise meaning of a principle and the conditions of its proper application.

Using these five principles as normative guides in our decision-making will not enable us to avoid the "hard cases." (The same holds true for conflicts of duties involving human ethics or environmental ethics.) These are the cases where the competing claims are so complex and so pow-
erful on both sides that no solution by reference to the principles alone can be reached. These in-
evitable gaps in our decision-making procedure, however, need not mean that we must then be-
come arbitrary in our choice of what to do. We must take another step in seeking a fair resolution of the conflict. This step involves appealing to the ethical ideal that underlies and inspires (defines the "spirit" of) the whole structure of priority relations contained in the five principles and their conditions of applicability. I shall analyze and ex-
plain what this ethical ideal is after discussing the five principles. It provides a comprehensive vision of the place of human values in the larger world of the natural order of living things. We might designate it "an ideal harmony between nature and human civilization," or "a vision of the best possible world" that expresses the "spirit" behind the letter of the five principles, that unifies them and interrelates them in a coherent manner, and that gives them their overall point and pur-
pose. It is in the light of this ethical ideal that all the hard cases must finally be resolved. Thus a fair resolution is a problem of competing claims, even when not wholly determined by one of the principles, as a decision that fits coherently into the overall vision of human civilization and nature that underlies and unifies the five principles.

Putting aside consideration of this ethical ideal until later, I shall now consider the five priority principles in the order given in the foregoing list.

The Principle of Self-Defense

The principle of self-defense states that it is permissible for moral agents to protect themselves against dangerous or harmful organisms by de-
stroying them. This holds, however, only when moral agents, using reasonable care, cannot avoid being exposed to such organisms and cannot pre-
vent them from doing serious damage to the envi-
ronmental conditions that make it possible for moral agents to exist and function as moral agents. Furthermore, the principle does not allow the use of just any means of self-protection, but only those means that will do the least possible harm to the organisms consistent with the purpose of preserving the existence and functioning of moral agents. There must be no available alternative that is known to be equally effective but causes less harm to the "attacking" organisms.

The principle of self-defense permits actions that are absolutely required for maintaining the very existence of moral agents and for enabling them to exercise the capacities of moral agency. It does not permit actions that involve the destruction of organisms when other actions simply promote the interests or values which moral agents may have as persons. Self-defense is defense against harmful and dangerous organisms, and a harmful or dangerous organism in this context is understood to be one whose activities threaten the life or basic health of those entities which need normally func-
tioning bodies to exist as moral agents.

There is a close parallel here with the principle of self-defense as it is found in the domain of hu-
man ethics. If we have a moral right to life it follows that we also have a moral right to protect ourselves, by forceful means if necessary, when our lives are threatened by others. But this does not mean we are permitted to use force against others merely to further our own ends and values. It should be noted that even when the attacker is an innocent human being, we would be in the case where an innocent man is going berserk and will harm us unless we use force to stop him, our right of self-defense makes it permissible to protect ourselves against him to the point of killing him if there is no other way to avoid being killed ourselves. Thus the parallel with self-defense in environmental ethics against nonhuman animals and plants holds. The fact that the "attackers" are morally innocent does not vitiate the principle.
The full meaning of this priority principle and the grounds upon which it rests can be brought out by considering the following three points.

(i) The principle of self-defense does not justify harming creatures that do not harm us, unless doing so is a practical necessity arising from a situation where we cannot separate harmless organisms from the harmful ones against which we are defending ourselves. In this respect we shall see that the principle of self-defense differs from the second, third, and fourth principles, to be considered. In certain situations to which these other principles apply, harm may have to be done to at least some harmless creatures even when this is not a matter of protecting ourselves from harm.

(ii) Despite what might at first appear to be a bias in favor of humans over other species, the principle of self-defense is actually consistent with the requirement of species-impartiality. It does not allow moral agents to further the interests of any organism because it belongs to one species rather than another. In particular, humans are not given an advantage simply on the basis of their humanity.

There are two considerations that support this view on species neutrality. In the first place the principle of self-defense is formulated in such a way as to be species-blind. The statement of the principle refers only to moral agents and organisms of whatever species that are not moral agents. No position is taken on how humans or nonhumans, or both, should treat one another when facing each other. Of course, in discussing various aspects and implications of the principle, we are inevitably led to humanities and nonhumanities in typical situations in which the principle applies to the practical circumstances of life. Strictly speaking, however, no reference to any species need be made. The fact that (most) humans are moral agents and (most) nonhumans are not is a contingent truth which the principle does not take to be morally relevant. Moral agents are permitted to defend themselves against harming or dangerous agents that are not moral agents. This is all the principle of self-defense allows. If there happen to be nonhuman moral agents whose existence as moral agents is endangered by the actions of humans who are not moral agents such as the instant and the severity described, then the principle states that it is permissible for the nonhumans in question to kill those humans who endanger them, if this is required for the preservation of the nonhumans’ status as moral agents and there is no alternative way to protect themselves.

The second consideration that supports the species-impartiality of the principle is that the principle is fully consistent with the idea that all living things, human and nonhuman alike, have the same inherent worth. It is helpful here to refer once again to the principle of self-defense in the domain of human ethics. Our right to use force against another human being who assaults us does not imply that we have greater inherent worth than the attacker. It only means that we can rightfully use a “less evil” means to preserve our own existence. Indeed, out of respect for the personhood of the other we are duty-bound to do him or her no greater harm than is absolutely needed for our defense.

Equally worth between aggressor and defender in human ethics is shown in our willingness to make the principle of self-defense universal. From a moral point of view, we would judge it right for another to defend himself or herself against ourselves if we were the aggressor. This idea of retribution (if it is right, for A to do X to B) it is right, for B to do X to A) entails the equal worth of agent and subject. For any person may be in the role of subject and any may be in the role of agent, without change in the justifiability of acts of self-defense.

In the case of self-defense against animals and plants, however, the universality or irreversibility tests are inexplicable, since animals and plants cannot take the role of moral agents, though, they can be in the position of moral subject. When what do to us is neither right nor wrong, because their activities are not within the range of moral standards or rules. Still, the permissibility of our defense against them does not imply they are inferior in worth to us, as we can see from the following considerations. When we have a firm sense of our own worth we place intrinsic value on our existence as persons. Out of self-respect we judge our personhood to be something, worthy of being preserved. At the same time we believe that we are not inferior in worth to animals or plants. How if we were to refrain from defending ourselves against them and so allow them to kill us, we would be sacrificing our very existence to them. To require such a sacrifice as a moral duty could only be passed on the ground that they have greater inherent worth than we do. Assuming that we have no good reasons for accepting that ground, we may conclude that there is no validly binding duty on our
part to sacrifice ourselves to them. It is therefore morally permissible for us to defend ourselves against them, even though they are equal to us in inherent worth.

(iii) The third point has to do with the undeniability of actions taken under the principle. With regard to the parallel case in the domain of human ethics, we are permitted to use force against another in defense of our life only when we cannot avoid the other's attack or escape from the situation. If someone threatens us and we can safely get out of the way, we should do so. For the analogous case of resolving competing claims by reference to the principle of self-defense, we should make every reasonable effort to avoid situations where nonhuman organisms will be likely to harm us, and we should keep ourselves strong and healthy so that there is less need to destroy other creatures whose activities would endanger us in a weak condition. Finally, before harming nonhuman organisms can be permitted on grounds of self-defense, it must be the case that reasonable precautions have been taken by moral agents to guard against known circumstances where disease, poisoning, or other biologically caused dangers are apt to be present.

The reason for these restrictions and qualifications is that all living things, whether harmful or harmless to humans, possess inherent worth and so are the appropriate objects of the attitude of respect. To kill or otherwise harm such creatures is always something morally bad in itself and can only be justified if we have no feasible alternative. At the same time we must have a valid moral reason for doing so, and a moral reason sufficiently weighty to override the prima facie reason against doing so. Self-defense, when understood as an act absolutely required to preserve the very existence of a moral agent, can be such an overriding reason. It is only under these conditions that the principle of self-defense applies.

The Principle of Proportionality

Before considering in detail each of the four remaining priority principles, it is well to look at the way they are interrelated. First, all four principles apply to situations where the nonhuman organisms involved are harmless. If left alone their activities would not endanger or threaten human life and health. Thus all four principles apply to cases of conflict between humans and nonhumans that are not covered by the principle of self-defense.

Next we must make a distinction between basic and nonbasic interests. Using this distinction, the arrangement of the four principles can be set out as follows. The principles of proportionality and minimum wrong apply to cases in which there is a conflict between the basic interests of animals or plants and the nonbasic interests of humans. The principle of distributive justice, on the other hand, covers conflicts where the interests of all parties involved are basic. Finally, the principle of restitution justice applies only where, in the past, either the principle of minimum wrong or that of distributive justice has been used. Each of those principles creates situations where some form of compensation or reparation must be made to nonhuman organisms, and thus the idea of restitution becomes applicable.

What differentiates basic from nonbasic interests? To answer this it is necessary first to define what is meant by the term "interests," and then specify criteria for determining whether interests are basic or nonbasic. In our present context it will be convenient if we speak of those ends and conditions in the lives of organisms that are conducive to the realization of their good as being adverse to, opposed to, or unacceptable to their interests. I shall also use the term "interests" to refer to whatever objects or events serve to preserve or protect to some degree or other the good of a living thing. Whether or not an organism likes or dislikes anything, feels pleasure or pain, has any conscious desires, aims, or goals, cares about or is concerned with what happens to it, and whether or not it is even conscious at all, I shall have speak of its interests in this way.

In considering how interests can be classified as basic and nonbasic, we must take into account the fact that the interests of an organism can be of different degrees of comparative importance to it. One of its interests is of greater importance to it than another, either if the occurrence of the first makes a more substantial contribution to the realization of its good than the second, or if the occurrence of the first is a necessary condition for the preservation of its existence while the occurrence
of the second is not. We might say that one interest is of greater importance than another to the extent that the nonfulfillment of the first will constitute a more serious deprivation or loss than the nonfulfillment of the second. The most important interests are those whose fulfillment is needed by an organism if it is to remain alive.

It is possible for us to make judgments of the comparative importance of interests of nonhuman animals and plants because, once we become factually enlightened about what projects or promotes their good, we can take their standpoint and judge what is, from their point of view, an important or unimportant event in their lives as far as their overall well-being is concerned. Thus we are able to make a reasonable estimate of how seriously they would be harmed or deprived of something good if a certain condition were absent from their lives.

What counts as a serious harm or deprivation will, of course, depend on the kind of organism concerned. If each organism has a good of its own, so that it makes sense to speak of its lasting well or poorly to the extent that it is able or unable to live a life fitted for its species-specific nature, then we may consider a serious harm or deprivation as being whatever severely impairs its ability to live such a life or makes it totally unable to do so.

In the case of humans a serious harm or deprivation will be whatever takes away or greatly reduces their powers of rationality and autonomy, including conditions of mental or physical incapacity that deprive a human being of the ability to live a meaningful life. Since properly functioning organs and the soundness and health of other components of one's body are essential to human well-being, whatever injures these parts of one's body is a harm. The seriousness of the harm depends on the extent and permanence of the damage done to those parts and on their contribution to the ability of the organism as a whole to function in a healthy way. With regard to the psychological aspect of a human being, a serious harm will include anything that causes instantly severe emotional disorder or mental retardation of a kind that prevent the development or exercise of the basic powers of rationality and autonomy.

I might note that with reference to humans, basic interests are what rational and factually enlightened people would voice as an essential part of their very existence as persons. They are what people need if they are going to be able to pursue those goals and purposes that make life meaningful and worthwhile. Thus for human persons their basic interests are those interests which, when morally legitimate, they have a right to have fulfilled. We do not have a right to whatever will make us happy or contribute to the realization of our value system; we do have a right to the necessary conditions for the maintenance and development of our personhood. These conditions include subsistence and security ("the right to life"), autonomy, and liberty. A violation of people's moral rights is the worst thing that can happen to them, since it deprives them of what is essential to their being able to live a meaningful and worthwhile life. And since the fundamental, necessary conditions for such a life are the same for everyone, our human rights have to do with universal values or primary goods. They are the entailment we all have as persons to what makes us persons and preserves our existence as persons.

In contrast with these universal values or primary goods that constitute our basic interests, our non-basic interests are the particular ends we consider worth seeking and the means we consider best for achieving them that make up our individual value systems. The nonbasic interests of humans thus vary from person to person, while their basic interests are common to all.

This discussion of basic and nonbasic interests has been presented to introduce the second and third priority principles on our list, proportionality and quantum wrong. Both principles employ the distinction between basic and nonbasic interests, so it was necessary to clarify this distinction before examining them.

The principles apply to two different kinds of conflicts among competing claims. In both cases we are dealing with situations in which the basic interests of animals and plants conflict with the nonbasic interests of humans. But each principle applies to a different type of nonbasic human interests. In order to differentiate between these types, we must consider various ways in which the nonbasic interests of humans are related to the fundamental respect for nature.

First, there are nonbasic human interests which are intrinsically incompatible with the attitude of respect for nature. The pursuit of these interests would be given up by anyone who had respect for nature since the kind of actions and intentions in-
volved in satisfying them directly embody or express an exploitative attitude toward nature. Such as attitude is incompatible with that of respect because it means that one considers wild creatures to have merely instrumental value for human ends. To satisfy purist intents at this first kind is to deny the inherent worth of animals and plants in natural ecosystems. Examples of such intents and of actions performed to satisfy them are the following (all actually occur in the contemporary world):

Slaughterhing elephants as the ivory of their tusks can be used to carve items for the tourist trade.

Killing rhinoceroses so that their horns can be used as dagger handles.

Picking rare wildflowers, such as orchids and cactuses, for one's private collection.

Capturing tropical birds, for sale as caged pets.

Trapping and killing reptiles, such as snakes, crocodiles, alligators, and turtles, for their skins and shells to be used in making expensive shoes, handbags, and other "fashion" products.

Hunting and killing rare mammals, such as leopards and jaguars, for the luxury trade.

All hunting and fishing, which is done as an enjoyable pastime (whether or not the animals killed are eaten), when such activities are not necessary to meet the basic interests of humans. This includes all sport hunting and recreational fishing.

The ends and purposes of these practices and the human interests that motivate them are inherently incompatible with the attitude of respect for nature in the following sense: if we consider the various practices along with their central purposes as representing a certain human attitude toward nature, this attitude can only be described as exploitative. Those who participate in such activities with the aim of accomplishing the various purposes that motivate and direct them, as well as those who enjoy or consume the products while knowing the methods by which they were obtained, cannot be said to have genuine respect for nature. For all such practices treat wild creatures as mere instruments to human ends, thus denying their inherent worth. Wild animals and plants are being valued only as a source of human pleasure or as things that can be manipulated and used to bring about human pleasure.

It is important to realize that the human interests that underlie these practices are not toxic. Even when hunters and fishermen kill what they have killed, this is usually a subconsciously or unconsciously conceived purpose and concerning aim of their sport. It is not at this point considering the very different case of subsistence hunting and fishing, where such activities are not done as enjoyable pastimes but out of necessity. That eating what they kill is a matter of pleasure and hence serves only a subservient interest is shown by the fact that they would continue to hunt or fish even if, for some reason of health or convenience, they did not eat the mammal, bird, or fish that they killed. They see not hunting or fishing in order to have enough food to live.

With reference to this and to all the other examples given, it should be noted that none of the actions violate human rights. Indeed, if we stay within the boundaries of human ethics alone, people have a moral right to do such things, since they have a freedom-right to prepare without interference their legitimate interests and, within those boundaries, an interest is "legitimate" if its pursuit does not involve doing any wrong to another human being.

It is only when the principles of environmental ethics are applied to such actions that the exercise of freedom-rights in these cases must be weighed against the demands of the ethics of respect for nature. We may then find that the practices in question are wrong, all things considered. For if they were judged permissible, the basic interests of animals and plants would be assigned a lesser value or importance than the human values interests of humans, which no one who held the attitude of respect for nature (as well as the attitude of respect for persons) would find acceptable. After all, a human being can still live a good life even if he or she does not own cages wild birds, wear apparel made from fur and reptile skins, collect rare wildflowers, engage in hunting and fishing, as recreational pastimes, buy ivory carvings, or use horn dagger handles. Not everyone of these practices treats wild animals and plants as if their very existence is something having no value at all, other than as means to the satisfaction of human preferences.
Let us now consider another type of nonbasic human interest that can come into conflict with the basic interests of wild animals and plants. These are human interests which, in contrast with those just considered, are not in themselves incompatible with respect for nature. Nevertheless, the pursuit of these interests has consequences that are undesirable from the perspective of respect for nature and should therefore be avoided if possible. Sometimes the nonbasic human interests concerned will not be valued highly enough to outweigh the bad consequences of fulfilling them. In that case a person who has respect for nature would willingly forgo the pursuit of those interests. Other times the interests will be so highly valued that even those who genuinely respect nature will not be willing to forgo the pursuit of the interests. In the latter case, although having and pursuing the interests do not embody or express the attitude of respect for nature, neither do they embody or express a purely exploitative attitude toward nature. Wild animals and plants are not being used or consumed as means to human ends, though the consequences of actions in which the interests are pursued are such that wild creatures suffer harm. Examples of nonbasic interests of this type are:

- Building an art museum or library where natural habitat must be destroyed.
- Constructing an airport, railroad, harbor, or highway involving the serious disturbance of a natural ecosystem.
- Replacing a native forest with a timber plantation.
- Damsming a free-flowing river for a hydropower project.
- Landscaping a natural woodland in making a public park.

Whether people who have true respect for nature would give up the activities involved in these situations depends on the value they place on the various interests being furthered. This in turn would depend on people's total systems of value and on what alternatives were available—in particular, whether substitutes less damaging to the environment could be found and whether some or all of the interests could be satisfied in other ways.

Let us recapitulate this classification of nonbasic human interests, since it is crucial to the examination of the priority principles. I will consider below first those interests that directly express an exploitative attitude toward nature: actions taken to satisfy such interests are intrinsically incompatible with respect for nature. Second, there are interests that do not exemplify in themselves an exploitative attitude toward nature, but in many practical circumstances the means taken to satisfy those interests bring about effects on the natural world which, in the eyes of those who have respect for nature, are to be avoided whenever possible. Among this second class of interests are those which are not important enough to (not so highly valued by) a person to make the gains of their pursuit outweigh the undesirable consequences for wildlife. Others are such that their value does outweigh the undesirable consequences, even when such weight is assigned by one who has full respect for nature.

This classification bears on the two priority principles we are now about to consider: the principle of proportionality and that of minimum wrong. Each of the two kinds of non-basic human interests mentioned above determines the range of application of one of these principles. The principle of proportionality applies to situations of conflict between the basic interests of wild animals and plants and those nonbasic human interests that are intrinsically incompatible with respect for nature. The principle of minimum wrong, on the other hand, applies to conflicts between the basic interests of wild animals and plants and those non-basic human interests that are intrinsically incompatible with respect for nature. The principle of minimum wrong, on the other hand, applies to conflicts between the basic interests of wild animals and plants and those non-basic human interests that are intrinsically incompatible with respect for nature.

... (Figure 1) schematically represents the relations among the five priority principles and their ranges of application.

Putting aside consideration of the principle of minimum wrong until later, I shall now discuss that of proportionality. The central idea of the principle of proportionality is that, in a conflict between human values and the good of (harmful) wild animals and plants, greater weight is to be given to basic than to nonbasic interests, no matter what species, human or other, the competing claims arise from. Within its proper range of application the principle prohibits us from allowing nonbasic in-
interests to override basic ones, even if the nonbasic interests are those of animals and the basic are those of animals and plants.

The conditions of applicability of this principle are that the human interests concerned are nonbasic ones that are intrinsically incompatible with the attitude of respect for nature, that the competing claims arise from the basic interests of wild animals and/or plants, and that these animals and plants are harmless to humans (self-defense is not in question). Examples of conflicts of the relevant sorts were given earlier. It should be noted that such practices as recreational fishing and hunting and buying luxury furs made from the pelts of wild creatures are actually accepted by millions of people as morally permissible. This fact merely shows the unquestioned, total anthropocentricity of their outlook on nature and their attitude toward wild creatures. It is clear, however, that from the standpoint of the life-centered system of environmental ethics defended in this book, such practices are to be condemned as being fundamentally exploitative of beings who have as much inherent worth as those who exploit them.

The Principle of Minimum Wrong

The principle of minimum wrong applies to situations in which (i) the basic interests of animals and plants are unavoidably in competition with nonbasic interests of humans; (ii) the human interests in question are not intrinsically incompatible with respect for nature; (iii) actions needed to satisfy those interests, however, are detrimental to the basic interests of animals and plants; and (iv) the human interests involved are so important that rational and factually informed people who have genuine respect for nature are not willing to relinquish the pursuit of those interests even when they take into account the undesirable consequences for wildlife.

Examples of such situations were given earlier: building a library or art museum where natural
habitat must be destroyed, constructing an airport, railroad, harbor, or highway involving serious disturbance of a natural ecosystem, slamming a door on a hydroelectric power project, replacing a wilderness forest with a timber plantation, landscaping a natural woodland to make a public park. The problems of priority in these situations is this: How can we tell when it is morally permissible for humans to pursue their nonbasic interests when doing so adversely affects the basic interests of wild animals and plants?

It is true here as it was in the case of the principle of proportionality that human ethics allow permissory actions (such as destroying wildlife habitat in order to build an art museum) that further nonbasic human interests at the expense of the basic interests of other living things. This is because humans have a freedom-right to pursue their legitimate interests, wherever an interest is legitimate when its pursuit does not involve wrongdoing to other humans. But as soon as the principle of environmental ethics are brought in, what people have a right to do with regard to other persons is no longer the decisive question. The well-being of other living things must be taken into consideration.

Now, fulfilling the nonbasic interests of humans in our present case is held to be so important that, even for those who have the attitude of respect for nature, such fulfillment is deemed to be worth the cost of harming wildlife. What is the basis for this special importance? The answer lies, first, in the role such interests play in the overall view of civilized life that rational and informed people tend to adopt autonomously as part of their total world outlook. Secondly, the special value given to these interests stems from the central place they occupy to people's rational conception of their own true good. The first point concerns the cultural or societal aspect of the valued interests—more specifically, the importance of their contribution to human civilization seen from a broad historical perspective. The second concerns the relation of the valued interests to an individual's view of the kind of life which, given one's circumstances and capacities, is most worth living.

With regard to the first point, the interests in question are considered by the people as essential to a whole society's maintaining a high level of culture, when judged from the shared standards of its common way of life as it has developed throughout its history. The judgment of contribution to a high level of culture, I assume here, is being made by persons who are rationally and enlightened. Not only the endeavors to create meritorious works and make worthwhile discoveries in the intellectual and aesthetic dimensions of human culture will be included among these valued interests, but also the legal, political, and economic systems needed for the community's steady advancement toward a high level of civilized life. Thus the goals and practices that form the core of a rational and informed conception of a community's highest values will be interests that carry great weight when they compete with the basic interests of the Earth's nonhuman inhabitants, even in the minds of people who regard those inhabitants as possessing an inherent worth equal to that of humans themselves. Using the concepts of intrinsic value and inherent value introduced earlier in this book, we might say that the system of intrinsically valued ends shared by a whole society as the focus of its way of life, along with those human creations and productions that are judged as supremely intrinsically valuable by rational and enlightened members of the society determine the set of human interests that are to be weighed against the interests of animals and plants in the situations of conflict to which the principle of minimum wrong is applicable. Within the framework of a given culture's way of life when we see it from the perspective of its history taking into account the meaning its history has for the people of that culture, we can make a rational and informed judgment of the kind of civilization that is, within that framework and from that perspective, most worthy of being preserved. The human values, intrinsic and inherent, whose realization is central to that conception of civilization are the values that must be compared in importance with the undesirability of destroying wildlife habitat and natural ecosystems, when that is an unavoidable consequence of realizing those values.

Similarly what certain human interests are seen to be at the center of a rational person's system of autonomously chosen ends, thus functioning as the unifying framework for a total conception of an individual's own true good, the value placed on such interests may be given greater weight by the
persists than the undesirable effects on the natural world the pursuit of those interests might have, even when the person has adopted the attitude of respect for nature.

We have so far dealt with the kinds of conflict to which the principle of minimum wrong applies. It is now time to make clear the content of the principle. The principle states that, when rational, informed, and autonomous persons also have adopted the attitude of respect for nature, they are nevertheless unwilling to forgo the two sorts of values mentioned above, even though they are aware that the consequences of pursuing those values will involve harm to wild animals and plants. It is permissible for them to pursue those values only so long as doing so involves fewer wrongs (violations of duties) than any other alternative way of pursuing those values.

This principle is certain moral constants on the pursuit of the two types of human values we are concerned with here. Indeed, the case of social institutions and practices basic to a community's realization of a high-level of civilization, the principle requires that the particular institutions and practices of a community are such that they result in the least wrong being done to the natural world. Here, "least wrong" means the lowest number of violations of the rule of nonmalefice. It is the ethical system of respect for nature. The lowest number of wrongs means that there are no alternative institutions and practices which could be used by the community to accomplish the same social ends but which would involve still fewer instances of wrongdoing to wild living things in natural ecosystems.

Construing the second type of human value, the principle of minimum wrong lays down the requirement that actions taken by individuals in the pursuit of ends that lie at the core of their rational conceptions of their true good must be such that no alternative ways of achieving those ends produce fewer wrongs to wild living things. As before, the key test for moral permissibility is that certain non-basic interests of humans may be furthered only under the condition of minimizing wrongs done to nonhumans in natural ecosystems.

Is this principle consistent with the idea that wild animals and plants have inherent worth? To assess this, we must take into account the difference between a utilitarian calculation of consequences and a deontological or nonconsequential view of minimizing wrongdoings. According to a utilitarian ethical system there is always a duty when harm must be done to some in bringing benefits to others, to do that action in a way that results in the least amount of harm when weighed against the benefits. One simply calculates the best consequences, as measured by quantities of intrinsic value and disvalue. The principle of minimum wrong, on the other hand, does not consider the benefits that are beneficial or harmful to so many "containers" of intrinsic value or disvalue. They are beings to which we owe prima facie duties. We owe the duty of nonmaleficence, for example, to both humans and nonhumans alike. Each being has inherent worth as an individual and must accordingly be treated with respect, regardless of what species it belongs to. An action that brings harm to any one such being constitutes a prima facie wrong from which moral tolls have a duty to refrain. To harm several such beings is not merely to bring about a certain amount of intrinsic disvalue in the world, to be balanced against whatever value might also be produced. It is to commit a number of violations of duties corresponding to the number of creatures harmed.

Suppose, then that one alternative way for humans to pursue their interests in situations of the sort we are here concerned with brings harm to a certain number of living things, while another way to pursue those interests involves being done to a smaller number of living things. If we were to choose the first alternative we would be knowingly performing more wrong actions than if we chose the second. It is not the aggregate amount of disvalue or harm that is relevant here, but the number of cases in which one fails to harm one being to another being. Each entity that is harmed is thereby treated unjustly and so is wronged. Because the duty of nonmaleficence is owed to each individual organism it would be morally unjustified to harm a larger number of organisms than a smaller number. If a particular act of a certain kind is wrong because it is of this kind, then more wrongs are committed when more particular acts of that kind are done. This is the central consideration that underlies the principle of minimum wrong.

In the light of this consideration we can now see why, in general, it is worse to harm in species populations than an in-individual organism, and still worse to harm a basic community as a whole. We
cannot do harm to a species-population without doing harm to a great many of the organisms that make up the population. Hence, one species-population is not simply doing wrong to one moral subject. Many such subjects, each having the same inherent worth, will also be wronged. Namely, all the members of the population that are killed or injured. Similarly by damaging or destroying the ecological balance and integrity on which the well-being of an entire biospheric community depends, harm is done to many of the species-populations that constitute the community. A great number of instances of violations of duty are thus involved. The way of looking at the principle of minimum wrong does not entail a holistic or organicistic view of environmental ethics, such as Aldo Leopold's "Land Ethic" or Holmes Rolston's "Ecological Ethic." The holistic view was critically discussed in Chapter Three in connection with the second component of the biocentric outlook (the natural world as a system of mutual dependence). What is relevant in the present context is the role that humans should play in relation to the natural world. According to the holistic view, the basic criterion for right action is the tendency of the action to preserve ecological integrity in the natural environment in which the action takes place. From this perspective one begins with the premises that human life is but one component of the Earth's totality and that ecological integrity has value in itself. One then argues that the proper moral role of humans on earth is to function in a biologically sound way in relation to the planet's biosphere. Humans are seen to occupy a certain ecological niche and accordingly should govern their conduct so as to maintain a healthy relationship with the world-wide system of which they are a part. Such a holistic view includes no conception of moral agents having duties that are owed to individual organisms, each of which is regarded as possessing inherent worth.

In contrast with this, the principle of minimum wrong presupposes that each living thing deserves moral consideration. Since each has inherent worth, a prima facie wrong is done when any one of them is harmed. It is true that a greater wrong is done when a whole species-population or biotic community is harmed. This is not because the group as such has a greater claim-to-be-respected than the individual, but because harming the group necessarily involves harming many individuals. Hence, it is not simply wrong for one species-population to do wrong to another species-population, but it is also wrong for one species-population to harm another species-population in a way that causes harm to a great number of the organisms that make up the latter population. The principle of minimum wrong applies when we are knowingly committing acts that are prima facie wrong. Only if we perform the fewest such acts available to us are we justified in what we do to living things. Our primary obligation in such situations is to choose the alternative which involves the least number of harm-causing acts. There is, however, a further obligation that is binding upon us in these situations. This obligation must be fulfilled if we are to act consistently with the attitude of respect for nature. It is the duty entailed by the principle of species-impartiality between humans and nonhumans. Since we are aiming at a fair resolution of conflicting claims, whenever we cause harm to animals and plants in the pursuit of our human values, some recognition must be given to the fact that our treatment of them is prima facie wrong. This recognition is expressed in practical terms by our accepting the moral requirement to make restitution for the injustices we have committed. Even though we may have acted in accordance with the principle of minimum wrong, at least some creatures possessing inherent worth equal to our own have been unjustly treated.

As a way of restoring the balance of justice between ourselves and them, some form of compensation must be provided for wild animals and plants. Only when that has been done can the actions we have performed in accordance with the principle of minimum wrong also satisfy the criterion of species-impartiality and so be morally justified, all things considered. It shall be discussed further in connection with the principle of restitutive justice.

The moral constraints imposed by the principle of minimum wrong are fully applicable to the very beings whose actions are so constrained. For they are the agents who have adopted the attitude of respect for nature and who view their relation to the natural world from the perspective of the biocentric outlook. Thus they are disposed to want to minimize wrongs done to wild creatures while they pursue ends whose value is so great to them that they are unwilling to give them up. Their respect for nature is not diminished or weakened by their valuing of those ends. So they will readily acknowledge their obligation to adopt the principle of minimum wrong as setting valid moral restrictions.
upon their own decision and conduct. The principle, in other words, will be one to which they voluntarily subscribe and which they follow as their own normative guide. ... 

Notes


2. In one of the few systematic studies of priority, principles holding between humans and nonhumans, Donald VanDeveer argues that the distinction between basic and "peripheral" (nonbasic) interests, which applies to all species that can be said to have interests, is a morally relevant difference, see VanDeveer, "On-Specific Justici," Inquiry 27:1-21 (Summer 1984): 55-79. VanDeveer would set, however, be likely to accept any of the present principles I set out since he considers the psychological capacity to live a satisfying life a prion for counting the interests of beings possessing that capacity to be of greater weight than the equally basic interests of beings lacking it. His main reason for opposing pure egalitarianism among species seems to be that such a view is counterintuitive, being incomparable with "our deepest and strongest pre-theoretical convictions about specific cases." p. 56; see also pp. 66 and 76. For reasons given in Chapter One, I also find Paul W. Taylor's Regent for Nature: A Theory of Environmental Ethics, I do not consider and appeal to pre-theoretical convictions, however, deeply held, to be philosophically relevant.

VanDeveer's position has recently been defended, with certain qualifications, by Robin Arfield in The Ethics of Environmental Concern (New York: Columbia University Press, 1983), chapter 9. Arfield hold that "... varying degrees of intrinsic value attach to lives in which different capacities are realized" (Arfield's Italic, p. 176). This is a view similar to that of Louis G. Lombardi, which I critically examined in Chapter Three. Arfield's arguments, unlike Lombardi's, are marred by a failure to distinguish the concept of intrinsic value from that of inherent worth. The utilitarianism Arfield exposes is not so beg to be logically incompati- bility with the principle that each organism has inher- ent worth as an individual, a principle he also appears to hold. The incomparability of these two views has been clearly explained by Tom Regan in The Case for Animal Rights, chapters 7 and 8. See also note 4, below.

4. My principle of proportionality is similar to Tom Regan's " Worse-off Principle," differing mainly from it in that the "Worse-off Principle" is stated in terms of rights and is restricted to conflicts be- between humans and only those animals that satisfy what Regan calls "the subject-of-a-life criterion." These are animals that "... have beliefs and desires, perceptions, memories, and a sense of the future, including their own future, and an enriched life together with feelings of pleasure and pain, preference and welfare interests, the ability to initiate ac- tion in pursuit of these desires and goals, a psychological identity over time, and an individual welfare in the sense that their experiential life fares well or ill for them, logically independently of their utility for others and logically independently of their being the object of anyone else's interests." (The Case for Animal Rights, p. 23). The "Worse-off Principle" is set forth and discussed by Regan on pp. 306-312 of his book.

5. The distinction between a utilitarian calculation of least bad consequences and a nonconsequential principle of minimizing variations of duty has been "proposed and carefully examined by Tom Regan in The Case for Animal Rights, sections 8.6, "Should the Numbers Count?," and section 8.10, "The Maja- ride and Worse-Off Principles," (pp. 297-312). Regan's work in this area, to which I am indebted, makes an original and significant contribution to human ethics as well as to our understanding of the moral relations between humans and animals.