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Not for Humans Only: The Place of Nonhumans in Environmental Issues

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When we humans change the environment in which we live, we often harm ourselves. If we discharge cadmium into a bay and eat shellfish from that bay, we become ill and may die. When our industries and automobiles pour noxious fumes into the atmosphere, we find a displeasing smell in the air, the long-term results of which may be every bit as deadly as cadmium poisoning. The harm that humans do the environment, however, does not rebound solely, or even chiefly, on humans. It is nonhumans who bear the most direct burden of human interference with nature.

By "nonhumans" I mean to refer to all living things other than human beings, though for reasons to be given later, it is with nonhuman animals, rather than plants, that I am chiefly concerned. It is also important, in the context of environmental issues, to note that living things may be regarded either collectively or as individuals. In debates about the environment the most important way of regarding living things collectively has been to regard them as species. Thus, when environmentalists worry about the future of the blue whale, they usually are thinking of the blue whale as a species, rather than of individual blue whales. But this is not, of course, the only way in which one can think of blue whales, or other animals, and one of the topics I shall discuss is whether we should be concerned about what we are doing to the environment primarily insofar as it threatens entire species of nonhumans, or primarily insofar as it affects individual nonhuman animals.

The general question, then, is how the effects of our actions on the environment of nonhuman beings should figure in our deliberations about what we ought to do. There is an unlimited variety of contexts in which this issue could arise. To take just one: Suppose that it is considered necessary to build a new power station, and there are two sites, A and B, under consideration. In most respects the sites are equally suitable, but building the power station on site A would be more expensive because the greater depth of shifting soil at that site will require deeper foundations; on the other hand to build on site B will destroy a favored breeding ground for thousands of wildfowl. Should the presence of the wildfowl enter into the decision as to where to build? And if so, in what manner should it enter, and how heavily should it weigh?

In a case like this the effects of our actions on nonhuman animals could be taken into account in two quite different ways: directly, giving the lives and welfare of nonhuman animals an intrinsic significance which must count in any moral calculation; or indirectly, so that the effects of our actions on nonhumans are morally significant only if they have consequences for humans.

It is the latter view which has been predominant in the Western tradition. Aristotle was among the founders of this tradition. He regarded nature as a hierarchy, in which the function of the less rational and hence less perfect beings was to serve the more rational and more perfect. So, he wrote:

> Plants exist for the sake of animals, and brute beasts for the sake of man – domestic animals for his use and food, wild ones (or at any rate most of them) for food and other accessories of life, such as clothing and various tools.
>
> Since nature makes nothing purposeless or in vain, it is undeniably true that she has made all animals for the sake of man.[1]

If one major strain of Western thought came from Greece, the other dominant influence was that of Christianity. The early Christian writers were no more ready than Aristotle to give moral weight to the lives of nonhuman animals. When St. Paul, in interpreting the old Mosaic law against putting a muzzle on the ox that treads out the corn, asked: "Doth God care for oxen?" it is clear that he was asking a rhetorical question, to which the answer was "No"; the law must have somehow been meant "altogether for our sakes."[2] Augustine agreed, using as evidence for the view that there are no common rights between humans and lesser living things, the incidents in the Gospels when Jesus sent devils into a herd of swine, causing them to hurl themselves into the sea, and with a curse withered a fig tree on which he had found no fruit.[3]

It was Thomas Aquinas, blending Aristotle and the Christian writings, who put most clearly the view that any consideration of the lives or welfare of animals must be because of the indirect consequences of such consideration for humans. Echoing Aristotle, he maintained that plants exist for the sake of animals, and animals for the sake of man. Sins can only be against God, one's human neighbors, or against oneself. Even charity does not extend to "irrational creatures," for, among other things, they are not included in "the fellowship of everlasting happiness." We can love animals only "if we regard them as the good things that we desire for others," that is, "to God's honor and man's use." Yet if this was the correct view, as Aquinas thought, there was one problem that needed explaining: Why does the Old Testament have a few scattered injunctions against cruelty to animals, such as "The just man regardeth the life of his beast, but the bowels of the wicked are cruel?" Aquinas did not overlook such passages, but he did deny that their intention was to spare animals pain. Instead, he wrote, "it is evident that if a man practices a pitiable affection for animals, he is all the more disposed to take pity on his fellow-men." So, for Aquinas, the only sound reason for avoiding cruelty to animals was that it could lead to cruelty to humans.[4]

The influence of Aquinas has been strong in the Roman Catholic church. Not even that oft-quoted exception to the standard Christian view of nature, Francis of Assisi, really broke away from the orthodox theology of his co-religionists. Despite his legendary kindness to animals, Francis could still write: "every creature proclaims: 'God made me for your sake, O man!' "[5] As late as the nineteenth century, Pope Pius IX gave evidence of the continuing hold of the views of Paul, Augustine, and Aquinas by refusing to allow a society for the prevention of cruelty to animals to be established in Rome because to do so would imply that humans have duties toward animals.[6]

It is not, however, only among Roman Catholics that a view like that of Aquinas has found adherents. Calvin, for instance, had no doubt that all of nature was created specifically for its usefulness to man;[7] and in the late eighteenth century, Immanuel Kant, in lecturing on ethics, considered the question of our duties to animals, and told his students: "So far as animals are concerned, we have no direct duties. Animals are not self-conscious and are there merely as a means to an end. That end is man." And Kant then repeated the line that cruelty to animals is to be avoided because it leads to cruelty to humans.[8]

The view that the effects of our actions on other animals has no direct moral significance is not as likely to be openly advocated today as it was in the past; yet it is likely to be accepted implicitly and acted upon. When planners perform cost–benefit studies on new projects, the costs and benefits are costs and benefits for human beings only. This does not mean that the impact of the power station or highway on wildlife is ignored altogether, but it is included only indirectly. That a new reservoir would drown a valley teeming with wildlife is taken into account only under some such heading as the value of the facilities for recreation that the valley affords. In calculating this value, the cost-benefit study will be neutral between forms of recreation like hunting and shooting and those like bird watching and bush walking – in fact hunting and shooting are likely to contribute more to the benefit side of the calculations because larger sums of money are spent on them, and they therefore benefit manufacturers and retailers of firearms as well as the hunters and shooters them-

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selves. The suffering experienced by the animals whose habitat is flooded is not reckoned into the costs of the operation; nor is the recreational value obtained by the hunters and shooters offset by the cost to the animals that their recreation involves.

Despite its venerable origins, the view that the effects of our actions on nonhuman animals have no intrinsic moral significance can be shown to be arbitrary and morally indefensible. If a being suffers, the fact that it is not a member of our own species cannot be a moral reason for failing to take its suffering into account. This becomes obvious if we consider the analogous attempt by white slaveowners to deny consideration to the interests of blacks. These white racists limited their moral concern to their own race, so the suffering of a black did not have the same moral significance as the suffering of a white. We now recognize that in doing so they were making an arbitrary distinction, and that the existence of suffering, rather than the race of the sufferer, is what is really morally significant. The point remains true if "species" is substituted for "race." The logic of racism and the logic of the position we have been discussing, which I have elsewhere referred to as "speciesism," are indistinguishable; and if we reject the former then consistency demands that we reject the latter too.[9]

It should be clearly understood that the rejection of speciesism does not imply that the different species are in fact equal in respect of such characteristics as intelligence, physical strength, ability to communicate, capacity to suffer, ability to damage the environment, or anything else. After all, the moral principle of human equality cannot be taken as implying that all humans are equal in these respects either – if it did, we would have to give up the idea of human equality. That one being is more intelligent than another does not entitle him to enslave, exploit, or disregard the interests of the less intelligent being. The moral basis of equality among humans is not equality in fact, but the principle of equal consideration of interests, and it is this principle that, in consistency, must be extended to any nonhumans who have interests.

There may be some doubt about whether any nonhuman beings have interests. This doubt may arise because of uncertainty about what it is to have an interest, or because of uncertainty about the nature of some nonhuman beings. So far as the concept of "interest" is the cause of doubt, I take the view that only a being with subjective experiences, such as the experience of pleasure or the experience of pain, can have interests in the full sense of the term; and that any being with such experiences does have at least one interest, namely, the interest in experiencing pleasure and avoiding pain. Thus consciousness, or the capacity for subjective experience, is both a necessary and a sufficient condition for having an interest. While there may be a loose sense of the term in which we can say that it is in the interests of a tree to be watered, this attenuated sense of the term is not the sense covered by the principle of equal consideration of interests. All we mean when we say that it is in the interests of a tree to be watered is that the tree needs water if it is to continue to live and grow normally; if we regard this as evidence that the tree has interests, we might almost as well say that it is in the interests of a car to be lubricated regularly because the car needs lubrication if it is to run properly. In neither case can we really mean (unless we impute consciousness to trees or cars) that the tree or car has any preference about the matter.

The remaining doubt about whether nonhuman beings have interests is, then, a doubt about whether nonhuman beings have subjective experiences like the experience of pain. I have argued elsewhere that the commonsense view that birds and mammals feel pain is well founded;[10] but more serious doubts arise as we move down the evolutionary scale. Vertebrate animals have nervous systems broadly similar to our own and behave in ways that resemble our own pain behavior when subjected to stimuli that we would find painful; so the inference that vertebrates are capable of feeling pain is a reasonable one, though not as strong as it is if limited to mammals and birds. When we go beyond vertebrates to insects, crustaceans, mollusks and so on, the existence of subjective states becomes more dubious, and with very simple organisms it is difficult to believe that they could be conscious. As for plants, though there have been sensational claims that plants are not only conscious, but even psychic, there is no hard evidence that supports even the more modest claim.[11]

The boundary of beings who may be taken as having interests is therefore not an abrupt boundary, but a broad range in which the assumption that the being has interests shifts from being so strong as to be virtually certain to being so weak as to be highly improbable. The principle of equal consideration of interests must be applied with this in mind, so that where there is a clash between a

virtually certain interest and a highly doubtful one, it is the virtually certain interest that ought to prevail.

In this manner our moral concern ought to extend to all beings who have interests. Unlike race or species, this boundary does not arbitrarily exclude any being; indeed it can truly be said that it excludes nothing at all, not even "the most contemptible clod of earth" from equal consideration of interests – for full consideration of no interests still results in no weight being given to whatever was considered, just as multiplying zero by a million still results in zero.[12]

Giving equal consideration to the interests of two different beings does not mean treating them alike or holding their lives to be of equal value. We may recognize that the interests of one being are greater than those of another, and equal consideration will then lead us to sacrifice the being with lesser interests, if one or the other must be sacrificed. For instance, if for some reason a choice has to be made between saving the life of a normal human being and that of a dog, we might well decide to save the human because he, with his greater awareness of what is going to happen, will suffer more before he dies; we may also take into account the likelihood that it is the family and friends of the human who will suffer more; and finally, it would be the human who had the greater potential for future happiness. This decision would be in accordance with the principle of equal consideration of interests, for the interests of the dog get the same consideration as those of the human, and the loss to the dog is not discounted because the dog is not a member of our species. The outcome is as it is because the balance of interests favors the human. In a different situation – say, if the human were grossly mentally defective and without family or anyone else who would grieve for it – the balance of interests might favor the nonhuman.[13]

The more positive side of the principle of equal consideration is this: where interests are equal, they must be given equal weight. So where human and nonhuman animals share an interest – as in the case of the interest in avoiding physical pain – we must give as much weight to violations of the interest of the nonhumans as we do to similar violations of the human's interest. This does not mean, of course, that it is as bad to hit a horse with a stick as it is to hit a human being, for the same blow would cause less pain to the animal with the tougher skin. The principle holds between similar amounts of felt pain, and what this is will vary from case to case.

It may be objected that we cannot tell exactly how much pain another animal is suffering, and that therefore the principle is impossible to apply. While I do not deny the difficulty and even, so far as precise measurement is concerned, the impossibility of comparing the subjective experiences of members of different species, I do not think that the problem is different in kind from the problem of comparing the subjective experiences of two members of our own species. Yet this is something we do all the time, for instance when we judge that a wealthy person will suffer less by being taxed at a higher rate than a poor person will gain from the welfare benefits paid for by the tax; or when we decide to take our two children to the beach instead of to a fair, because although the older one would prefer the fair, the younger one has a stronger preference the other way. These comparisons may be very rough, but since there is nothing better, we must use them; it would be irrational to refuse to do so simply because they are rough. Moreover, rough as they are, there are many situations in which we can be reasonably sure which way the balance of interests lies. While a difference of species may make comparisons rougher still, the basic problem is the same, and the comparisons are still often good enough to use, in the absence of anything more precise.

The principle of equal consideration of interests and the indefensibility of limiting this principle to members of our own species means that we cannot deny, as Aquinas and Kant denied, that we have direct duties to members of other species. It may be asked whether this means that members of other species have rights against us. This is an issue on which there has been a certain amount of dispute,[14] but it is, I believe, more a dispute about words than about substantive issues. In one sense of "right," we may say that it follows immediately from the fact that animals come within the scope of the principle of equal consideration of interests that they have at least one right, namely, the right to equal consideration. This is, admittedly, an odd kind of right – it is really a necessary foundation for having rights, rather than a right in itself. But some other rights could be derived from it without difficulty: the right not to have gratuitous pain inflicted would be one such right. There is, however, another sense of "right," according to

which rights exist only among those who are part of a community, all members of whom have rights and in turn are capable of respecting the rights of others. On this view, rights are essentially contractual, and hence cannot exist unless both parties are capable of honoring the contract.[15] It would follow that most, if not all, nonhuman animals have no rights. It should be noted, though, that this is a narrower notion of rights than that commonly used in America today; for it follows from this notion of rights that not only nonhuman animals, but also human infants and young children, as well as mentally defective humans, have no rights. Those who put forward this view of rights do not believe that we may do what we like with young or mentally defective humans or nonhuman animals; rather they would say that moral rights are only one kind of constraint on our conduct, and not necessarily the most important. They might, for instance, take account of utilitarian considerations which would apply to all beings capable of pleasure or pain. Thus actions which proponents of the former, broader view of rights may condemn as violations of the rights of animals could also be condemned by those who hold the narrower view, though they would not classify such actions as infringing rights. Seen in this light the question of whether animals have rights becomes less important than it might otherwise appear, for what matters is how we think animals ought to be treated, and not how we employ the concept of a right. Those who deny animals rights will not be likely to refuse to consider their interests, as long as they are reminded that the denial of rights to nonhuman animals does no more than place animals in the same moral category as human infants. Hence I doubt if the claim that animals have rights is worth the effort required in its defense; it is a claim which invites replies which, whatever their philosophical merits, serve as a distraction from the central practical question.

We can now draw at least one conclusion as to how the existence of nonhuman living things should enter into our deliberations about actions affecting the environment: Where our actions are likely to make animals suffer, that suffering must count in our deliberations, and it should count equally with a like amount of suffering by human beings, insofar as rough comparisons can be made.

The difficulty of making the required comparison will mean that the application of this conclusion is controversial in many cases, but there will be some situations in which it is clear enough. Take, for instance, the wholesale poisoning of animals that is euphemistically known as "pest control." The authorities who conduct these campaigns give no consideration to the suffering they inflict on the "pests," and invariably use the method of slaughter they believe to be cheapest and most effective. The result is that hundreds of millions of rabbits have died agonizing deaths from the artificially introduced disease, myxomatosis, or from poisons like "ten-eighty"; coyotes and other wild dogs have died painfully from cyanide poisoning; and all manner of wild animals have endured days of thirst, hunger, and fear with a mangled limb caught in a leg-hold trap.[16] Granting, for the sake of argument, the necessity for pest control – though this has rightly been questioned – the fact remains that no serious attempts have been made to introduce alternative means of control and thereby reduce the incalculable amount of suffering caused by present methods. It would not, presumably, be beyond modern science to produce a substance which, when eaten by rabbits or coyotes, produced sterility instead of a drawn-out death. Such methods might be more expensive, but can anyone doubt that if a similar amount of human suffering were at stake, the expense would be borne?

Another clear instance in which the principle of equal consideration of interests would indicate methods different from those presently used is in the timber industry. There are two basic methods of obtaining timber from forests. One is to cut only selected mature or dead trees, leaving the forest substantially intact. The other, known as clear-cutting, involves chopping down everything that grows in a given area, and then reseeding. Obviously when a large area is clear-cut, wild animals find their whole living area destroyed in a few days, whereas selected felling makes a relatively minor disturbance. But clear-cutting is cheaper, and timber companies therefore use this method and will continue to do so unless forced to do otherwise.[17]

This initial conclusion about how the effects of our actions on nonhuman animals should be taken into account is the only one which follows directly from the argument that I have given against the view that only actions affecting our own species have intrinsic moral significance. There are, however, other suggestions which I shall make more

tentatively which are at least consistent with the preceding argument, although much more discussion would be needed to establish them.

The first of these suggestions is that while the suffering of human and nonhuman animals should, as I have said, count equally, the killing of nonhuman animals is in itself not as significant as the killing of normal human beings. Some of the reasons for this have already been discussed – the probable greater grief of the family and friends of the human, and the human's greater potential. To this can be added the fact that other animals will not be made to fear for their own lives, as humans would, by the knowledge that others of their species have been killed. There is also the fact that normal humans are beings with foresight and plans for the future, and to cut these plans off in midstream seems a greater wrong than that which is done in killing a being without the capacity for reflection on the future.

All these reasons will seem to some not to touch the heart of the matter, which is the killing itself and not the circumstances surrounding it; and it is for this reason that I have put forward this view as a suggestion rather than a firm conclusion. For it might be held that the taking of life is intrinsically wrong – and equally wrong whatever the characteristics of the life that was taken. This, perhaps, was the view that Schweitzer held and which has become famous under his memorable if less than crystal-clear phrase, "reverence for life." If this view could be supported, then of course we would have to hold that the killing of nonhuman animals, however painless, is as serious as the killing of humans. Yet I find Schweitzer's position difficult to justify. What is it that is so valuable in the life of, say, a fly, which presumably does not itself have any awareness of the value of its own life, and the death of which will not be a source of regret to any member of its own species or of any other species?

It might be said – and this is a possible interpretation of Schweitzer's remark that there is the same "will-to-live" in all other forms of life as in myself – that while I may see my own life as all-important to me, so is the life of any living thing all-important to it, and hence I cannot justifiably claim greater importance for my own life. If I do, the claim will be true only from my own point of view. But this argument is weak in two respects. First, the idea of a being's life being important *for that being* depends, I think, on the assumption that the being is conscious, and perhaps even on the stronger assumption that the being is aware that it is alive and that its life is something that it could lose. This would exclude many forms of life from the scope of the argument, particularly if on reflection we decide that it is the stronger assumption that the argument requires. Second, the argument appears to rest on the implicit claim that if two things are each all-important for two independent beings, it is impossible to make a comparison which would show that in some objective or at least intersubjective sense that thing is more important for one than for the other. There is, however, no theoretical difficulty in a comparison of this kind, great as the practical difficulties may be. In theory, all I have to do is imagine myself living simultaneously the lives of both myself and the other being, experiencing whatever the two beings experience. I then ask myself which life I would choose to cease living if I could continue to live only one of the two lives. Since I would be making this decision from a position that is impartial between the two lives, we may conclude that the life I would choose to continue living is objectively or at least intersubjectively of greater value than the life I would choose to give up.[18] If one of the living beings in this thought experiment had *no* conscious experiences, then when imagining myself living the life of this being I would be imagining myself as having no experiences at all. It is hardly necessary to add that it would be no great sacrifice to cease living such a life. This suggests that, just as nonconscious beings have no interests, so nonconscious life lacks intrinsic value.

For Schweitzer, life itself is sacred, not even consciousness being necessary. So the truly ethical man, he says, will not tear a leaf from a tree or break off a flower unnecessarily.[19] Not surprisingly, given the breadth of its coverage, it is impossible for the ethic of reverence for life to be absolute in its prohibitions. We must take plant life, at least, if we are to eat and live. Schweitzer therefore accepts the taking of one form of life to preserve another form of life. Indeed, Schweitzer's whole life as a doctor in Africa makes no sense except on the assumption that the lives of the human beings he was saving are more valuable than the lives of the germs and parasites he was destroying in their bodies, not to mention the plants and probably animals that those humans would kill and eat after Schweitzer had cured them.[20] So I suggest that the idea that all life has equal value, or is equally sacred, lacks a

plausible theoretical basis and was not, in practice, adhered to even by the man whose name is most often linked with it.

I shall conclude this discussion of the comparative seriousness of killing human and nonhuman animals by admitting that I have been unable to say anything about *how much* less seriously we should regard the killing of a nonhuman. I do not feel that the death of an animal like a pig or dog is a completely trivial matter, even if it should be painless for the animal concerned and unnoticed by any other members of the species; on the other hand I am quite unable to quantify the issue so as to say that a certain number of porcine or canine deaths adds up to one human death, and in the absence of any such method of comparison, my feeling that the deaths of these animals must count for something lacks both proper justification and practical significance. Perhaps, though, this will not leave practical decision making about the environment in as bad a way as it might seem to. For when an environment decision threatens the lives of animals and birds, it almost always does so in a way that causes suffering to them or to their mates, parents, offspring, or pack-members. Often, the type of death inflicted will itself be a slow and painful one, caused, for instance, by the steady build-up of a noxious chemical. Even when death itself is quick and painless, in many species of birds and mammals it leaves behind survivors whose lives may be disrupted. Birds often mate for life, in some species separating after the young have been reared but meeting again, apparently recognizing each other as individuals, when the breeding season comes round again. There are many species in which a bird who has lost its mate will not mate again. The behavior of mammals who have lost their young also suggests sorrow and distress, and infant mammals left without a mother will usually starve miserably. In other social species the death of one member of a group can cause considerable disturbance, especially if the dead animal is a group leader. Now since, as we have already seen, the suffering of nonhuman animals must count equally with the like suffering of human beings, the upshot of these facts is that quite independently of the intrinsic value we place on the lives of nonhuman animals any morally defensible decision affecting the environment should take care to minimize the loss of animal life, particularly among birds and mammals.

To this point we have been discussing the place of individual nonhuman animals in environmental issues, and we have seen that an impartial consideration of their interests provides sufficient reason to show that present human attitudes and practices involving environmental issues are morally unjustifiable. Although this conclusion is, I think, obvious enough to anyone who thinks about the issue along the lines just discussed, there is one aspect of it that is in sharp contrast to an underlying assumption of much environmental debate, an assumption accepted even by many who consider themselves for animals and against the arrogant "human chauvinism" that sees all of nature as a resource to be harvested or a pit for the disposal of wastes. This assumption is that concern for nonhuman animals is appropriate when a whole species is endangered, but not when the threat is only to individual animals. It is in accordance with this assumption that the National Wildlife Federation has sought and obtained a court injunction preventing the U.S. Department of Transportation from building an interstate highway interchange in an area frequented by the extremely rare Mississippi sandhill crane, while the same organization openly supports what it calls "the hunter-sportsman who, during legal hunting seasons, crops surplus wildlife."[21] Similarly the National Audubon Society has fought to preserve rare birds and other animals but opposed moves to stop the annual slaughter of 40,000 seals on the Pribilof Islands of Alaska on the grounds that this "harvest" could be sustained indefinitely, and the protests were thus "without foundation from a conservation and biological viewpoint."[22] Other "environmentalist" organizations which either actively support or refuse to oppose hunting include the Sierra Club, the Wilderness Society, and the World Wildlife Fund.[23]

Since we have already seen that animals' interests in avoiding suffering are to be given equal weight to our own, and since it is sufficiently obvious that hunting makes animals suffer – for one thing, no hunter kills instantly every time – I shall not discuss the ethics of hunting, though I cannot resist inviting the reader to think about the assumptions behind the use of such images as the "cropping" of "surplus wildlife" or the "harvesting" of seals. The remaining ethical issue that needs to be discussed is whether it is still worse to hunt or otherwise to kill animals of endangered species than it is to kill those of species that are plentiful. In other words, suppose that groups like

the National Wildlife Federation were to see the error of their prohunting views, and swing round to opposition to hunting. Would they nevertheless be justified in putting greater efforts into stopping the shooting of the Mississippi sandhill crane than into stopping duck-shooting? If so, why?

Some reasons for an affirmative answer are not hard to find. For instance, if we allow species to become extinct, we shall deprive ourselves and our descendents of the pleasures of observing all of the variety of species that we can observe today. Anyone who has ever regretted not being able to see a great auk must have some sympathy with this view. Then again, we never know what ecological role a given species plays, or may play under some unpredictable change of circumstances. Books on ecology are full of stories about how farmers/the health department/the army/the Forestry Commission decided to get rid of a particular rodent/bird/fish/insect because it was a bit of a nuisance, only to find that that particular animal was the chief restraint on the rate of increase of some much nastier and less easily eradicated pest. Even if a species has already been reduced to the point where its total extinction could not have much "environmental impact" in the sense of triggering off other changes, it is always possible that in the future conditions will change, the species will prove better adapted to the new conditions than its rivals, and will flourish, playing an important part in the new ecological balance in its area to the advantage of humans living there. Yet another reason for seeking to preserve species is that, as is often said, the removal of a species depletes the "gene pool" and thus reduces the possibility of "improving" existing domestic or otherwise useful animals by cross-breeding with related wild animals. We do not know what qualities we may want domestic animals to have in the future. It may be that existing breeds lack resistance to a build-up of toxic chemicals or to a new disease that may break out in some remote place and sweep across our planet; but by interbreeding domestic animals with rare wild varieties, we might be able to confer greater resistance on the former, or greater usefulness to humans on the latter.

These reasons for preserving animals of endangered species have something in common: They are all concerned with benefits or dangers for humans. To regard these as the only reasons for preserving species is to take a position similar to that of Aquinas and Kant, who, as we saw earlier, thought cruelty to animals wrong only because it might indirectly harm human beings. We dismissed that argument on the grounds that if human suffering is intrinsically bad, then it is arbitrary to maintain that animal suffering is of no intrinsic significance. Can we similarly dismiss the view that species should be preserved only because of the benefits of preservation to humans? It might seem that we should, but it is not easy to justify doing so. While individual animals have interests, and no morally defensible line can be drawn between human interests and the interests of nonhuman animals, species as such are not conscious entities and so do not have interests above and beyond the interests of the individual animals that are members of the species. These individual interests are certainly potent reasons against killing rare animals, but they are no more potent in the case of rare animals than in the case of common animals. The rarity of the blue whale does not cause it to suffer any more (nor any less) when harpooned than the more common sperm whale. On what basis, then, other than the indirect benefits to humans, can we justifiably give preference to the preserving of animals of endangered species rather than animals of species that are not in any danger?

One obvious answer, on the basis of the foregoing, is that we ought to give preference to preserving animals of endangered species if so doing will have indirect benefits for nonhuman animals. This may sometimes be the case, for if the extinction of a species can lead to far-reaching ecological damage, this is likely to be bad for nonhuman animals as well as for humans. Yet this answer to our question, while extending the grounds for preserving species beyond the narrow limits of human benefits, still provides no basis for attributing intrinsic value to preservation. To find such a basis we need an answer to the following modified version of the question asked above: On what basis, other than the indirect benefits to humans or other animals, can we justifiably give preference to the preserving of animals of endangered species rather than animals of species that are not in danger?

To this question I can find no satisfactory answer. The most promising suggestion, perhaps, is that the destruction of a whole species is the destruction of something akin to a great work of art; that the tiger, or any other of the "immensely complex and inimitable items produced in nature" has its own, noninstrumental value, just as a great

painting or cathedral has value apart from the pleasure and inspiration it brings to human beings.[24] On this view, to exterminate a species is to commit an act of vandalism, like setting about Michelangelo's *Pietà* with a hammer; while allowing an endangered species to die out without taking steps to save it is like allowing Angkor Wat to fall into ruins and be obliterated by the jungle.

My difficulty with this argument is a difficulty with the allegedly less controversial case on which the analogy is built. If the analogy is to succeed in persuading us that there may be intrinsic value quite independently of any benefits for sentient beings in the existence of a species, we must believe that there is this kind of intrinsic value in the existence of works of art; but how can it be shown that the *Pietà* has value independently of the appreciation of those who have seen or will see it? If, as philosophers are fond of asking, I were the last sentient being on earth, would it matter if, in a moment of boredom, I entertained myself by making a bonfire of all the paintings in the Louvre? My own view is that it would not matter – provided, of course, I really could exclude the possibility that, as I stood around the dying embers, a flying saucer would not land and disgorge a load of tourists from Alpha Centauri who had come all the way solely in order to see the Mona Lisa. But there are those who take the opposite view, and I would agree that *if* works of art have intrinsic value, then it is plausible to suppose that species have too.

I conclude, then, that unless or until better grounds are advanced, the only reasons for being more concerned about the interests of animals from endangered species than about other animals are those which relate the preservation of species to benefits for humans and other animals. The significance of these reasons will vary from case to case, depending on such factors as just how different the endangered species really is from other nonendangered species. For instance, if it takes an expert ornithologist to tell a Mississippi sandhill crane from other, more common cranes (and I have no knowledge of whether this is so), then the argument for preservation based on the pleasures of observing a variety of species cannot carry much weight in this case, for this pleasure would be available only to a few people. Similarly, the value of retaining species that perhaps will one day be usefully crossbred with domestic species will not apply to species that have no connection with any domestic animal; and the importance we place on this reason for preserving species will also depend on the importance we place on domestic animals. If, as I have argued elsewhere, it is generally both inefficient and inhumane to raise animals for food, we are not going to be greatly moved by the thought of "improving" our livestock.[25] Finally, although the argument that the greater the variety of species, the better the chances of a smooth adjustment to environmental changes, is usually a powerful one, it has little application to endangered species that differ only marginally and in ecologically insignificant ways – like minor differences in the markings of birds – from related, nonendangered species.

This conclusion may seem unfavorable to the efforts of environmental groups to preserve endangered species. I would not wish it to be taken in that way. Often the indirect reasons for preservation will make an overwhelming case for preservation; and in any case we must remember that what we have been discussing is not whether to defend animals against those who would kill them and deprive them of their habitat but whether to give preference to defending animals of endangered species. Defending endangered species is, after all, defending individual animals too. If we are more likely to stop the cruel form of commercial hunting known as whaling by pointing out that blue whales may become extinct than by pointing out that blue whales are sentient creatures with lives of their own to lead, then by all means let us point out that blue whales may become extinct. If, however, the commercial whalers should limit their slaughter to what they call the "maximum sustainable yield" and so cease to be a threat to blue whales as a species, let us not forget that they remain a threat to thousands of individual blue whales. My aim throughout this essay has been to increase the importance we give to individual animals when discussing environmental issues, and not to decrease the importance we presently place on defending animals which are members of endangered species.

Notes

1 *Politics*, 1256b.
2 1 *Corinthians* 9: 9–10.
3 St. Augustine, *The Catholic and Manichean Ways of Life*, tr. D. A. Gallagher and I. J. Gallagher (Boston: Catholic University Press, 1966), p. 102.

4 See the *Summa Theologica*, I, II, Q 72, art. 4; II, I, Q102 art. 6; II, II, Q25 art. 3; II, II, Q64 art. 1; II, II, Q159 art. 2; and the *Summa Contra Gentiles* III, II, 112.

5 *St. Francis of Assisi, His Life and Writings as Recorded by His Contemporaries*, tr. L. Sherely-Price (London, 1959); see also John Passmore, *Man's Responsibility for Nature* (New York: Charles Scribner's Sons, 1974), p. 112.

6 E. S. Turner, *All Heaven in a Rage* (London: Michael Joseph, 1964), p. 163.

7 See the *Institutes of Religion*, tr. F. C. Battles (London, 1961), Bk. 1, chs. 14, 22; vol. 1, p. 182 and elsewhere. I owe this reference to Passmore, *Responsibility for Nature*, p. 13.

8 *Lectures on Ethics*, tr. L. Infield (New York: Harper & Row, 1963) pp. 239–40.

9 For a fuller statement of this argument, see my *Animal Liberation* (New York: A New York Review Book, 1975), esp. ch. 1.

10 Ibid.

11 See, for instance, the comments by Arthur Galston in *Natural History* 83, no. 3 (March 1974): 18, on the "evidence" cited in such books as *The Secret Life of Plants*.

12 The idea that we would logicaly have to consider "the most contemptible clod of earth" as having rights was suggested by Thomas Taylor, the Cambridge Neo-Platonist, in a pamphlet he published anonymously, entitled *A Vindication of the Rights of Brutes* (London, 1792) which appears to be a satirical refutation of the attribution of rights to women by Mary Wollstonecroft in her *Vindication of the Rights of Women* (London, 1792). Logically, Taylor was no doubt correct, but he neglected to specify just what interests such contemptible clods of earth have.

13 Singer, *Animal Liberation*, pp. 20–3.

14 See the selection of articles on this question in part IV of *Animal Rights and Human Obligations*, ed. Tom Regan and Peter Singer (Englewood Cliffs, NJ: Prentice-Hall, 1976).

15 A clear statement of this view is to be found in H. L. A. Hart, "Are There Any Natural Rights?" *The Philosophical Review* 64 (1955).

16 See J. Olsen, *Slaughter the Animals, Poison the Earth* (New York: Simon and Schuster, 1971), especially pp. 153–64.

17 See R. and V. Routley, *The Fight for the Forests* (Canberra: Australian National University Press, 1974), for a thoroughly documented indictment of clear-cutting in Australia; and for a recent report of the controversy about clear-cutting in America, see *Time*, May 17, 1976.

18 This way of putting the question derives from C. I. Lewis, *An Analysis of Knowledge and Valuation* (La Salle, Il.: Open Court, 1946), p. 547, via the work of R. M. Hare, especially *Freedom and Reason* (Oxford: Oxford University Press, 1963) and "Ethical Theory and Utilitarianism," in *Contemporary British Philosophy*, 4th series, ed. H. D. Lewis (London: Allen and Unwin, 1976).

19 *Civilization and Ethics*, tr. John Naish, reprinted in *Animal Rights and Human Obligations*, p. 134. (Nor, says Schweitzer in the same sentence, will the truly ethical man shatter an ice crystal that sparkles in the sun – but he offers no explanation of how this prohibition is derived from the ethic of reverence for life. The example may suggest that for Schweitzer killing is wrong because it is unnecessary destruction, a kind of vandalism.)

20 There is, I suppose, an alternative rationale for Schweitzer's medical activities: that while all life is of equal value, we owe loyalty to our own species and have a duty to save their lives over the lives of members of other species when there is a conflict. But I can find nothing in Schweitzer's writings to suggest that he would take so blatantly a speciesist line, and much to suggest that he would not.

21 For the attempt to obtain a court injunction, see *The Wall Street Journal* January 9, 1976, and for the statement in support of hunting, Lewis Regenstein, *The Politics of Extinction* (New York: Macmillan, 1975), p. 32.

22 Victor Scheffer, *A Voice for Wildlife* (New York: Charles Scribner's Sons, 1974), p. 64, quoting "Protest, Priorities and the Alaska Fur Seal," *Audubon* 72 (1970): 114–15.

23 Regenstein, *Politics of Extinction*, p. 33. There are, of course, some who argue for the preservation of species precisely because otherwise there will be no animals left to hunt; for a brief discussion see Passmore, *Responsibility for Nature*, p. 103.

24 Val Routley, "Critical Notice of *Man's Responsibility for Nature*," *Australasian Journal of Philosophy* 53 no. 2 (1975): 175. Routley uses this argument more as an ad hominem against Passmore (who accepts that works of art can have intrinsic value) than as the basis for her own view. For further discussion of this view, see Passmore, *Responsibility for Nature*, p. 103; and Stanley Benn, "Personal Freedom and Environmental Ethics: The Moral Inequality of Species," paper presented to the World Congress on Philosophy of Law and Social Philosophy, St. Louis, Mo., August 1975, especially p. 21.

25 Singer, *Animal Liberation*, esp. chs. 3 and 4.