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THE MORAL PROBLEM OF PREDATION

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Predation as a Moral Issue

Viewed from a distance, the natural world may present a vista of sublime, majestic placidity. Yet beneath the foliage and concealed from the distant eye, a continuous massacre is occurring. Virtually everywhere that there is animal life, predators are stalking, chasing, capturing, killing, and devouring their prey. The means of killing are various: dismemberment, asphyxiation, disembowelment, poison, and so on. This normally invisible carnage provided part of the basis for the philosophical pessimism of Schopenhauer, who suggested that "one simple test of the claim that the pleasure in the world outweighs the pain . . . is to compare the feelings of an animal that is devouring another with those of the animal being devoured."[1]

The unceasing mass suffering of animals caused by predation is also an important though, at least until recently, largely neglected element in the traditional theological "problem of evil"—that is, the problem of reconciling the idea that there is a benevolent, omnipotent deity with the existence of suffering and other evils. Referring to "the odious scene of violence and tyranny which is exhibited by the rest of the animal kingdom," John Stuart Mill commented that

> if there are any marks at all of special design in creation, one of the things most evidently designed is that a large proportion of all animals should pass their existence in tormenting and devouring other animals. They have been lavishly fitted out with the instruments necessary for that purpose; their strongest instincts impel them to it, and many of them seem to have been constructed incapable of supporting themselves by any other food. If a tenth part of the pains which have been expended in finding benevolent adaptions in all nature, had been employed in collecting evidence to

> blacken the character of the Creator, what scope for comment would not have been found in the entire existence of the lower animals, divided, with scarcely an exception, into devourers and devoured, and a prey to a thousand ills from which they are denied the faculties necessary for protecting themselves! If we are not obliged to believe the animal creation to be the work of a demon, it is because we need not suppose it to have been made by a Being of infinite power.[2]

The suffering of animals is particularly challenging to the task of theodicy because it is not amenable to the familiar palliative explanations of human suffering. Animals are assumed not to have free will and are thus incapable either of choosing evil or of deserving to suffer it. Neither are they assumed to have immortal souls; hence there can be no expectation that they will be compensated for their suffering in a celestial afterlife. Nor, finally, do they appear to be conspicuously elevated or ennobled by the final suffering they may endure in a predator's jaws. Theologians have had formidable difficulties attempting to explain to their human flocks why a loving deity permits them to suffer; but the labors of theodicy will not be completed even if theologians are finally able, in Milton's words, to "justify the ways of God to men," for their God must answer to animals as well.

There have certainly been important religious thinkers who have found fault with the arrangement whereby a large proportion of sensitive beings are able to survive only by feeding upon others, and some of these thinkers have entertained visions of a better order. The prophet Isaiah, for example, writing in the 8th century BCE, described some of the elements of an improved natural order, beginning with the abandonment of war by human beings and continuing with the conversion of predators to veganism:

> The wolf also shall dwell with the lamb, and the leopard shall lie down with the kid; and the calf and the young lion and the fatling together; and the little child shall lead them. And the cow and the bear shall feed; their young ones shall lie down together; and the lion shall eat straw like the ox.[3]

Isaiah does not mention whether the reformed, pacifist human beings would join the other animals in their veganism, but it is doubtful that he would have them fall below the moral standards set by wolves and lions. These are standards that most human beings, unlike other predators, could satisfy now with no sacrifice of health and little if any sacrifice of happiness; yet most persist in practicing forms of predation that are at once more refined and more dreadful than those of other predators. Instead of having to capture their prey and kill it with their hands and teeth, human predators tend to employ professionals to breed their prey in captivity, slaughter them, and prepare their bodies for consumption. And just as most human beings rarely observe acts of predation in the wild, so they do not witness the mass torment and killing that occurs in their mechanized

farms and abattoirs, which is deliberately concealed, albeit with the collusion of those from whom it is concealed. A veil of propriety is maintained both to avoid putting people off their feed and to spare them the recognition that they too are predators, red in tooth even if not in claw (though curiously some do paint their vestigial claws the color of blood). Among our modes of sanitized predation, the one that is most common in developed societies—factory farming—inflicts a lifetime of misery and torment on its victims, in contrast to the relatively brief agonies endured by the victims of predation in the wild.

There are no even remotely credible arguments for the moral permissibility of factory farming. There is, in my view, only one argument for the permissibility of a practice of eating meat that has any plausibility, though it is restricted in scope. It supports the permissibility of eating meat only from animals that are caused to exist in order to be eaten, reared humanely to have lives that are worth living, killed painlessly, and then "replaced" by new animals that are caused to exist in a continuing cycle of production. I will not discuss this argument here, though I have done so elsewhere.[4] The problem with it is that one cannot know whether it is sound unless one can first determine whether and to what extent creating new individuals, whether human or nonhuman, can weigh against and compensate for killing existing individuals or allowing them to die. This question in turn cannot be answered with confidence unless the answer can be shown to have acceptable implications for a range of related but deeply intractable problems in "population ethics."[5]

In my view, it is only if this argument is sound, and even then only if meat is obtained exclusively from animals that have lived contented lives and been killed with little or no terror or pain, that there can be a permissible practice of eating meat, at least until meat produced in vitro becomes widely available. Unless these two conditions are met, we must fulfill our role in realizing Isaiah's vision not only by abandoning war (which also involves ceasing to act in ways that give others a just cause for war against us) but also by abandoning predation, with possible exceptions for the eating of animals that are arguably nonsentient, such as oysters and clams.

Ending Predation?

Granting, then, at least for the sake of argument, that morality requires that we eat straw like the ox, or at any rate the moral equivalent of straw, the question arises whether we also have a moral reason to protect animals from predation by nonhuman predators. This question is restricted in two important ways. First, the question is not whether there is a moral reason to intervene against all forms of predation, but only whether there is a reason to protect potential prey that are capable of suffering and of having a life worth living. Second, it is not, at least in the first instance, whether there is an *obligation* to prevent predation where possible, but only whether there is a moral *reason* to do so, and if so how strong that

reason is. It may be, for example, that there is a strong moral reason but that it is outweighed by competing considerations, or cannot be effectively acted on, in present conditions—conditions that might, however, be susceptible to change.

There is some intuitive support for the idea that there is a moral reason to intervene against predation. If one were to happen upon a young animal that was about to be captured and slowly devoured alive, piece by piece, by a predator, one's impulse would be to frighten off the predator, if possible. One's sympathies are with the prey, not the predator. There is a video that can be viewed on the Internet that shows a small group of lions about to kill a baby water buffalo but are prevented by defensive action by a herd of adult water buffalos.[6] In watching this video, one's sympathies are with the buffalos, and one experiences relief and satisfaction when they succeed, even though one knows that the lions are neither immoral nor cruel and may go hungry for having been thwarted.

Yet despite their intuitive response in this case, most people's immediate reaction to the suggestion that there is reason to reduce or eliminate predation in the natural world is incredulity. Indeed, when the issue is raised in the philosophical literature, the usual response to this suggestion is to argue that if a moral theory implies that there is a moral reason to reduce or eliminate predation, that constitutes a reduction of the theory to absurdity—a reductio ad absurdum. It is a familiar objection to utilitarianism that it is excessively demanding in the sacrifices it requires individuals to make for the sake of other people. Recently Alison Hills has sought to strengthen this type of objection by arguing that when utilitarianism takes account, as it must, of the sheer magnitude of the suffering experienced by animals in the wild, it must imply that human beings have reasons, and in many cases duties, to intervene to mitigate it, including duties to reduce the incidence of predation. She assumes, however, that this implication counts strongly against the plausibility of the theory. "Utilitarians," she writes, "have severely underestimated both how demanding their theory is, and how counter-intuitive. The demandingness objection is much more damaging when we take animals seriously."[7]

Lori Gruen, a sensitive critic of human practices that are harmful or degrading to animals, also considers the claim "that those who argue that other animals deserve our ethical attention should be committed to ending predation." She recognizes that this claim is often cited "as a *reductio ad absurdum* [of] the idea that we have ethical obligations to animals."[8] But rather than challenging the assumption that the implication would be absurd, Gruen argues that none of what she considers to be the major moral theories, whether utilitarian, rights-based, or feminist, actually implies that we ought to intervene to reduce or eliminate predation. These theories therefore "avoid the *reductio* that critics have raised."[9] She suggests at one point that "perhaps a better way to go is to figure out how to minimize the pain prey experience when eaten by predators."[10] But this presupposes, mistakenly in my view, that the reason to protect potential prey is only to prevent their suffering and not to preserve their lives as well.[11] In the end she seeks to reconcile defenders of the well-being of animals to the abandonment

of prey in the wild by suggesting that any efforts that might be made to help them would probably exacerbate rather than alleviate their predicament. "When we consider," she writes,

> the form human intervention often takes, and the havoc it wreaks, we may want to leave predators alone. . . . Perhaps we would do best to display more humility, to ask questions and explore options and to exercise restraint and perhaps even try to come to terms with tragedy, if need be.[12]

One reason why most defenders of animals are reluctant to acknowledge a moral reason to intervene against predation may be that they fear that embracing the conclusion of their opponents' reductio would diminish the credibility of their overall view in the minds of the majority. If so, their fear may well be justified. But unlike political action, moral philosophy is not a matter of strategic calculation, manipulation, and compromise. Its aim, as I conceive it, is to discover the truth about matters of morality. If we are ultimately to act in conformity with the reasons given by morality, we must know whether we do indeed have a moral reason to try to reduce the incidence of predation or perhaps even to eliminate it, if that becomes possible. The fact that the vast majority of people worldwide would now find it preposterous to suppose that we have such a reason provides little reason to suppose that they are right, just as the uniformity of opinion about the ethics of slavery among whites in the antebellum South provided little reason for supposing that it can be permissible to kidnap and enslave other people. Contemporary beliefs about the moral permissibility of harming animals and allowing them to be harmed are just as contaminated by self-interest, religious dogma, and prejudices masquerading as science as were the slave-owners' beliefs about slavery. Most commonsense intuitions about the question whether human beings ought, if possible, to eliminate or reduce the incidence of predation are therefore epistemically highly suspect. If the arguments in favor of intervention are better than the arguments against it, we can hope that they will eventually come to guide human action, in the same way that moral arguments against eating meat have, in only a few decades, increased the proportion of people who are vegetarians or vegans from negligible to substantial in those societies in which the arguments have been published and debated. In the meantime, there seems little reason to fear that people will be persuaded not to become vegetarian, or not to oppose factory farming, by becoming convinced that arguments that support vegetarianism and oppose factory farming also support the eventual elimination of predation. The moral case for vegetarianism has many dimensions that will remain compelling even if certain arguments for vegetarianism have implications that people are unwilling to accept. People can, for example, see that they bear greater responsibility for the suffering and premature deaths of animals that are killed specifically for human consumption than they bear for the suffering and deaths caused by predation.

The case in favor of intervening against predation is quite simple. It is that predation causes vast suffering among its innumerable victims, and to deprive those victims of the good experiences they might have had were they not killed. Suffering is intrinsically bad for those who experience it and there seems always to be a reason, though not necessarily a decisive one, to prevent it—a reason that applies to any moral agent who is capable of preventing it. (If suffering can be deserved, deserved suffering might constitute an exception, as its intrinsic badness for the victim might be outweighed by its impersonal goodness.)[13] There seems, indeed, to be a universally applicable reason not only to prevent the painful deaths of potential prey that exist now, but also to terminate the cycle in which new predators continuously replace the old, thereby ensuring an inexhaustible supply of sentient beings that can avoid suffering and death themselves only by inflicting suffering and death on others. The elimination of predation could therefore make the difference between an indefinitely extended future in which millions of animals die prematurely and in agony every day and an alternative future in which different animals would live longer and die in ways other than in terror and agony in the jaws of a predator.

Most people who read this chapter will recognize that we have a moral reason to avoid causing animals to suffer if we can do so without cost, and that this is because suffering is intrinsically bad for those that experience it. But if animal suffering is bad when we cause it, it should also be bad when it results from other causes, including the action of other animals. As Martha Nussbaum plausibly claims, "the death of a gazelle after painful torture is just as bad for the gazelle when torture is inflicted by a tiger as when it is done by a human being." This, she continues, suggests "that we have similar reasons to prevent it, if we can do so without doing greater harms."[14] Most of us believe, rightly in my view, that our moral reason not to cause suffering is in general stronger than our reason to prevent it from occurring—for example, to prevent someone or something else from causing it. If that is correct, our moral reason not to contribute to causing suffering by eating meat produced in factory farms is stronger than our reason to prevent comparable amounts of animal suffering caused by others, including predators. But that is compatible with our having a strong reason to prevent suffering in animals for which we would be in no way responsible when we can do so at little or no cost to ourselves.

The Counterproductivity Objection

There are two ways in which the incidence of predation could be significantly reduced, perhaps eventually to none. One is to bring about the gradual extinction of some or all predatory species, preferably through sterilization, and with the exception of the human species, which is capable of voluntarily ending its predatory behavior. The other, which is not yet technically possible, is to introduce germ-line (that is, heritable) genetic modifications into existing carnivorous

species so that their progeny would gradually evolve into herbivores, in fulfillment of Isaiah's prophecy.

Both of these methods of eliminating or reducing the incidence of predation would obviously require substantial interventions in the natural world. Perhaps the commonest objection to the simple moral case I sketched for intervening against predation is that any such intervention would risk environmental catastrophe, for the complexity of any major ecosystem so far surpasses our understanding that an attempt to eliminate predation within it, however carefully planned and well intentioned, would have unpredictable ramifications throughout the system. The most obvious scenario is that the elimination or even significant reduction in predation would produce a Malthusian dystopia in which herbivore populations would expand beyond the ability of the environment to sustain them. Instead of being killed quickly by predators, herbivores would then die slowly, painfully, and in greater numbers from starvation and disease. Rather than diminishing the suffering and extending the lives of herbivores, the elimination of predation might increase their suffering overall and even diminish their average longevity. We can call this the *Counterproductivity Objection*.

Given the state of our knowledge at present, this is a strong objection to almost any attempt to reduce predation *now*. But we should not be dismissive of Isaiah's gifts as a prophet. Ecological science, like other sciences, is not stagnant. What may now seem forever impossible may yield to the advance of science in a surprisingly short time—as happened when Rutherford, the first scientist to split the atom, announced in 1933 that anyone who claimed that atomic fission could be a source of power was talking "moonshine." Unless we use Rutherford's discovery or others like it to destroy ourselves first, we will likely be able eventually to eliminate predation while preserving the stability and harmony of ecosystems. It should eventually become possible to gradually convert ecosystems that are now stabilized by predation into ones resembling island ecosystems that have flourished for significant periods without any animals with a developed capacity for consciousness being preyed upon by others. We should therefore begin to think now about whether we would have moral reason to exercise the ability to intervene against predation in an effective and discriminating way if we were to develop it. If we conclude that we would, that gives us reason now to try to hasten our acquisition of that ability.

One possible way to eliminate predation in an ecosystem without increasing the suffering of herbivores through overpopulation is to limit the expansion of herbivore populations by means other than predation. In some instances in which predation has been diminished unintentionally, human beings have then intervened to replace the original predators. In the United States, Britain, and various other developed countries, for example, the increasing incursion of human activities into hitherto stable ecosystems has diminished the number of animals that once preyed on deer, resulting in an increased number of deer that have then had difficulty finding sufficient food. Some suffer starvation or malnutrition

while others survive by feeding in people's gardens, thereby becoming a nuisance to those whose who drove out the predators. Most human communities solve this problem by permitting or encouraging the hunting of the deer. Hunters then happily perform the service of culling the herds without having to be paid for it, as they enjoy both the killing and the eating of their prey.

But when they are successful, hunters, like other predators, deprive their prey of further life that could have been good. And they often cause great suffering as well, particularly when they wound an animal that is able to escape being killed. In principle there are better ways of controlling populations of herbivores whose exposure to predators has decreased. The most obvious of these is selective sterilization.[15] Scientists are already working to develop effective means of sterilization that do not require surgery. These are mainly intended for use in dogs and cats (in part to reduce the number of strays, which is the analogue for domesticated animals of overpopulation among wild animals), but some communities are seeking to use them to control local deer populations as well.[16] If we were ever to become serious about eliminating or reducing the incidence of predation, we could eventually develop a chemical means of sterilization that could be administered to herbivores in the wild in a discriminating and painless way. Presumably it will become possible at some point to regulate the size of herbivore populations through germ-line genetic modification as well.

The question whether predation is bad is relevant to present action in ways other than helping to guide or inform our research agendas. There are various predatory species that are now threatened with extinction. Many people advocate intervention to preserve those species and to restore their populations to some prior level. An example of such a species is the Siberian tiger. Human beings can decide now whether to allow (or cause) that species to disappear, to enable it to continue to exist in small numbers, or to try to restore the number of its members to a much higher level. Because the number of remaining Siberian tigers has been low for a considerable period, any ecological disruption occasioned by the great decline in their number has already occurred. If the several hundred that remain were all to disappear, the effect on the ecology of the region would presumably be negligible. But there might also be little ecological risk in facilitating the gradual reintroduction of a much larger population of Siberian tigers into the extensive region in which they once flourished, thereby greatly diminishing the probability that they will become extinct.

If this is right, human beings can choose between two ecologically sustainable options. One is to complete the elimination of predation by Siberian tigers in a large region, the other to increase the level of predation in that region by repopulating it with tigers. If the latter option would substantially increase terror, suffering, and premature death among other animals inhabiting the region, and maintain that increase indefinitely, then the view that there is a moral reason to prevent suffering and premature death among animals, however they might be caused, supports the option of allowing (or causing) the tigers to die out in

the region—unless, perhaps, their role in the food web would simply be taken over by some other preexisting predatory species, in which case the extinction of the tigers would be a loss without any compensating gain in the reduction of suffering.

The Impersonal Value of Species

As the previous sentence concedes, there is generally a loss of value when a species becomes extinct. I accept that, and I also accept that there can be value in the continued existence of a species that is independent of or additional to the value for each member of the species of its own continued existence. The existence and survival of a species may, in other words, have *impersonal* value—that is, value in itself, independent of whether it is good or valuable *for* or *to* anyone. This may seem most obviously true of species, such as the Siberian tiger, whose members are beautiful, graceful, majestic, or otherwise aesthetically impressive—though the impersonal value of the species is entirely distinct from the aesthetic benefits that the existence of the species provides for us. That animal species have impersonal value is part of what Ronald Dworkin means when he observes that "we tend to treat distinct animal species (though not individual animals) as sacred. We think it very important, and worth a considerable economic expense, to protect endangered species from destruction."[17] Sacredness, as Dworkin understands it, is impersonal in that an entity can be sacred without being *good for* anyone. Yet it is unlike certain other forms of impersonal value in that it does not imply that it would be better for there to be more of whatever it is that is sacred. Thus, that a type of entity is sacred does not imply a moral reason to cause more entities of that type to exist. "Few people," Dworkin comments, "would think it important to engineer new bird species if that were possible. What we believe important is not that there be any particular number of species but that a species that now exists not be extinguished."[18]

This understanding of the impersonal value of species seems to imply that the loss involved in the extinction of a species cannot be wholly, or perhaps even partially, compensated for by the coming-into-existence of an entirely new species, whatever its properties might be. If that is right, it excludes one possible response to the claim that the extinction of, for example, the Siberian tiger would involve a significant loss in impersonal value—namely, that this loss could be made up for by the genetic engineering of a new, equally majestic herbivorous species.

But it is doubtful that this conception of the impersonal value of species is correct. Since animals first appeared, an indefinite number of species have become extinct and an indefinite number of new species have arisen. If the extinction of a species involves a loss of impersonal value that cannot be made up for by the appearance of a new species, it seems that the world must have got worse with every extinction, even when the extinction of one species has coincided with the appearance of more than one new species. It thus seems that, according to this

understanding of the value of species, the world would have been better impersonally if none of the earliest species had become extinct, even if a consequence of that would have been that most of the newer species, perhaps including the human species, would never have existed.

This conception of the impersonal value of species also raises the question how the extinction of a species could involve a loss of impersonal value when the coming-into-existence of that species did not involve a gain in impersonal value. A parallel and perhaps more familiar question arises if we think, as Dworkin says we do, that individual human lives are sacred—that is, that the death of a person involves a loss of impersonal value, though the coming-into-existence of a person does not involve a gain in impersonal value. These beliefs, while common, seem to be in tension with one another.

Persons are, however, quite different from species. While individual persons do seem morally irreplaceable, in that the loss involved in the ceasing to exist of one cannot be counterbalanced or offset by the coming-into-existence of another, it seems that the loss in impersonal value from the extinction of one species could in principle be made up for by the coming-into-existence of another, even if the new species would not make up for the loss of the *instrumental* value of the previous species (that is, its value for other beings and its role in the ecosystem of which it was a part). Suppose, hypothetically, that some primate species would not have existed had some psychologically less developed species of reptile not become extinct. It is plausible to suppose that the replacement of the reptilian species by the primate species would not have been a net loss in impersonal value but an actual improvement in impersonal terms.

As this example suggests, the impersonal values of species can vary. Indeed, even those who are most convinced that species generally have impersonal value might accept that there are some species that lack it, so that their extinction would involve no loss of any kind—or even some species whose existence has *negative* impersonal value. Either of these might be true, for example, of HIV or the Ebola virus. But if one believes that even these species have impersonal value, so that the world would be *in one respect* worse if they were to become extinct, it seems clear that the impersonal loss would be vastly outweighed by the gain to human beings. This is important because it shows that we acknowledge that the impersonal value of a species may have to be traded off against other values.

One such value is the prevention of suffering. Although many philosophers are skeptical of the idea that species have impersonal value (some because they believe there is no such thing as impersonal value), almost no one denies that suffering is intrinsically bad (which is compatible with its being instrumentally good on occasion).[19] And not only is the intrinsic badness of suffering less open to doubt than the impersonal badness of the extinction of species, but also the *extent* to which suffering is bad is more susceptible of rough measurement than the extent to which the extinction of a species is bad. Imagine an animal species that has been slowly declining for more than a century and is now on the verge

of extinction. Because the number of its remaining members is small, the effect of its extinction on the equilibrium of the ecosystem of which it is a part would be negligible. And suppose that its members are rather repellent, so that there would be no aesthetic loss in its disappearance. How impersonally valuable is the preservation of this species? How much ought human beings to sacrifice as a means of preventing its extinction? Such questions are notoriously difficult to answer. It is, moreover, quite difficult even to understand how to argue about them—for example, to know what considerations might plausibly be advanced in favor of one position or against another.

Imagine that the endangered species just described is a carnivorous species that preys only on human beings who live in the remote and undeveloped area in which the surviving members of this species are located. These isolated human beings seek to hunt down and kill all the remaining animals that prey on them. This is necessary for their safety and the safety of their children. No one else is proposing to preserve the species by keeping some of its members in captivity where they would threaten no one. The choice is therefore between eliminating the species and allowing its remaining members to continue to kill and eat human beings. Recall that this is a species that lacks any instrumental value. By hypothesis, the only reason to preserve it, apart from the interest its existing members have in continuing to live, is that it has impersonal value and contributes marginally to the species. It is difficult to believe that the impersonal value of the species could on its own outweigh the lives and well-being of the human beings who would otherwise be its victims.

It seems, then, that even granting that most or all species have impersonal value, this value may vary among species and may in some instances have relatively little weight in relation to other values such as the prevention of human suffering and the protection of human lives.

The Suffering of Animals

Given that the impersonal value of a species might not weigh heavily in our deliberations about its preservation if its extinction would have no disruptive ecological effects but its survival would cause significant harm to human beings, it seems that the impersonal value of the survival of certain carnivorous species could also be outweighed by the importance of preventing suffering and premature death among other animals. Yet, as I observed earlier, most people find it implausible to suppose that the harms that predators inflict on their animal prey constitute a significant moral reason for trying to eliminate or reduce the incidence of predation.

It is common for people to think that, while the suffering of animals matters, the continuation of the lives of individual animals generally does not, or does not matter much. It is this belief that motivates the action of many who avoid eating meat produced by factory farms but see no objection to eating the meat

of animals that have been reared humanely and killed painlessly but at an early point in their natural life span. I believe this view is mistaken and that if the suffering of animals matters, that is because their well-being matters, in which case it must also matter whether they live or die, if death would deprive them of well-being they would otherwise have had. But I will not argue for this here.[20] I will put aside the loss that animal prey suffer in being killed by predators and focus entirely on the suffering they experience in being hunted and devoured.

The suffering that animals undergo while being caught and eaten may be intense, and the process by which they are killed may last for a quarter of an hour or more. Because the number of predators worldwide is enormous, and because, like us, many of them must eat with considerable frequency, the aggregate amount of suffering in the world at any time that is caused by predation is unimaginably vast. If human beings could eliminate even one carnivorous species while ensuring that its extinction would not have disruptive ecological effects, that alone could prevent a vast amount of suffering among animals that would otherwise have been prey for members of that species. As I argued earlier, the prevention of that suffering could outweigh the loss in impersonal value involved in the disappearance of the species. If the impersonal value of a species can be outweighed by human suffering, it seems it can also be outweighed by animal suffering.

Some might reject this inference on the ground that the suffering of animals does not matter, or matters much less than the comparable suffering of human beings. But it is unlikely that the idea that the suffering of animals does not matter at all can be reconciled with the idea that the suffering of human beings does matter. If we concede that the suffering of all human beings matters, that would seem to be because we recognize that it is in the nature of suffering that it is intrinsically bad for those who experience it and that it therefore matters that it should not occur. Thus, my recognition that the suffering of human beings matters is not the view that my suffering matters to me, while other people's suffering matters to them, or that theirs might matter to me *if* I cared about or were specially related to them. If that were my view, I should have the same view about the suffering of animals—namely, that it matters to them and that it might matter to me if the suffering animal were my pet. But my recognition is rather that the suffering of other human beings matters because it is in the nature of suffering that it ought not to be. As Nagel puts it, the "immediate attitude" of the sufferer is that "*this experience* ought not to go on, *whoever* is having it."[21] There is nothing in this thought about the species of the subject of the experience.

(The idea that the suffering of animals does not matter is also incompatible with at least one interpretation of the counterproductivity objection. That objection is that, without predators to control their numbers, herbivores would suffer even more than they do now, for their deaths from starvation or disease would involve substantially more suffering than a comparatively quick death inflicted by a predator. This would of course not be an objection if the suffering of prey did not matter.)

One might argue that the suffering of prey is offset by the pleasure that predators derive from eating them—a claim that Schopenhauer, in the passage quoted in my first paragraph, thought self-evidently false. But even if Schopenhauer were wrong, most acts of predation would still produce far more loss than gain, for each meal for a predator comes at the cost of depriving the prey of a great many meals it would have enjoyed, perhaps as much as the predator enjoys eating its prey. I know of no reason to suppose that carnivores as a rule get more pleasure from eating than herbivores do.

There is, perhaps, some reason for skepticism about whether animal prey actually do suffer, or suffer much, in being killed and eaten by predators. Some people, for example, speculate that when prey are caught, their brains release a flood of endogenously produced analgesics. Whether or to what extent this is true is an empirical question, for which there is some evidence on both sides. In human beings, great physical trauma sometimes induces unconsciousness, and there are also stories of soldiers fighting for their survival who later testify that they became aware of some grave physical injury only after the fighting had ceased. Yet there are also people who have survived being mauled by an animal who report having experienced agonizing pain and terror. Given these facts, it seems reasonable to suppose that there is some variation in the degree of suffering experienced by prey when they are being killed. While some may immediately become unconscious or numb, others may suffer excruciating pain. The higher the proportion of cases that involve numbness of unconsciousness, the less morally urgent the problem of predation is. But given the evolutionary function of pain, it seems likely that the killing of prey inflicts great suffering in a high proportion of cases. Thus, despite the possibility of numbness or unconsciousness, few of us would be indifferent between the prospect of dying without violence and dying by being torn asunder by a pack of wild dogs. Even though it is implausible to suppose that the suffering of animals does not matter, there are various reasons why the suffering of an animal might matter *less* than the equivalent suffering of a person, or less than suffering caused in the same way in a person. One obvious reason is that suffering in a person may be accompanied by fear of its significance or anxiety about its continuation, whereas most animals seem to be immune to these higher-order thoughts. This does not, however, show that the same degree of suffering matters unequally in human beings and animals. It shows only that a certain degree of suffering may be increased or exacerbated in persons, though not in most animals, by self-conscious reflection upon it. This consideration also cuts both ways, for it is equally true that human suffering can be mitigated somewhat by an understanding of its cause, which can be reassuring if it indicates that the suffering is transient and without sinister significance. (One need not suppose that these different dimensions of suffering are crudely additive. It may be that self-conscious awareness of physical suffering yields a qualitatively different form of suffering that is much worse than mere physical suffering of the same degree. But, except at the high end of the

spectrum of suffering, it seems that, for each degree of self-conscious awareness of suffering, there is some degree of merely physical suffering that is just as bad. The worst forms of physical suffering in persons tend to crowd out self-conscious reflection altogether.)

There are, however, two important respects in which a fixed degree of suffering can be worse in a person than in an animal. These are not ways in which equivalent suffering can be intrinsically worse in a person; rather they are ways in which suffering can be worse in a person because of its further effects on the victim. First, human suffering can be worse because of its opportunity costs. When suffering is distracting or debilitating, which it often or even typically is, it may prevent the sufferer from experiencing great happiness that he or she would otherwise have experienced, or from engaging in some valuable activity. This can be the case with animals only to a lesser extent, for their lower psychological capacities exclude them from many of the higher dimensions of well-being accessible to most human beings, and it is unlikely that an animal that is incapacitated by suffering would otherwise be engaged in an activity of substantial value.

Second, suffering can have damaging psychological effects throughout the subsequent life of a person. These effects may be especially pronounced when the suffering occurs early in life, but as our enhanced understanding of post-traumatic stress disorder has revealed, certain types of suffering can be highly damaging psychologically at any time in a person's life. Of course, similar phenomena can be observed in animals, as anyone who has known a dog that was mistreated as a puppy is aware. But the scope for damage is much greater in most human beings. In part this is simply because the lives of human beings continue much longer than those of most animals, so that the damaging effects within a human life are typically more protracted over time. But it is also because the greater psychological depth, complexity, and unity in most human beings make it possible for them to have lives that contain more, and arguably more important, dimensions of the good (such as significant accomplishment, personal relations based on mutual understanding, and so on) and are therefore more worth living than those of animals. In most cases, therefore, the psychological damage caused by suffering is worse in human beings because the life that is damaged matters more.

At least in most cases, however, what is primarily bad about suffering is the suffering itself, as it is occurring, not its opportunity costs or psychological ramifications throughout the sufferer's subsequent life. It is therefore important to consider whether the sheer intrinsic badness of suffering can matter less simply because the sufferer is an animal rather than a human being. Some think it cannot. Thus, Peter Singer maintains that

> pain and suffering are in themselves bad and should be prevented or minimized irrespective of the race, sex, or species of the being that suffers. How

> bad a pain is depends on how intense it is and how long it lasts, but pains of the same intensity and duration are equally bad, whether felt by humans or animals.[22]

Yet it is possible that the suffering of one individual can matter less in an objective way than the equivalent suffering of another individual. It might be, for example, that a certain amount of suffering matters less *morally* when it is experienced by an individual whose moral status is lower.

We can see how this might be possible by considering the common view about suffering that is deserved. When a person experiences deserved suffering, the suffering is as intrinsically bad *for him* as it would be if he did not deserve it. But when the suffering is deserved, it may be *impersonally* good rather than bad and others may have no reason to prevent it. So how suffering matters and how much it matters may depend on certain facts about the sufferer. If what an individual deserves can affect the way in which that individual's suffering matters, it may be that facts about the moral status of the sufferer could also affect the way in which suffering matters.

Commonsense intuition suggests that moral status can be affect the extent to which a death matters. Suppose that one can either save the life of a human stranger who would then live only for another day or save the life of a stray dog that would then live for another month. Assume for the sake of argument that, because the person would lose so little good life in dying today rather than tomorrow, the dog's loss in dying now would be greater. It might still matter more to save the person—that is, one's moral reason to save the person might be stronger—not because the person's continuing to live matters more to him or to others but because the person's higher moral status makes his continuing to live more important morally.

If it is true that the strength of our moral reason to save an individual's life can vary with the individual's moral status, it may be that the strength of our moral reason not to cause an individual to suffer, or to prevent that individual from suffering, also varies with the individual's moral status. It seems that our moral reason to prevent an individual from suffering is in general stronger than our reason to enable that individual to enjoy further benefits. Yet to save an individual's life is just to enable that individual to have further benefits. It seems, therefore, that if the strength of our reason to enable an individual to have the benefits of further life varies with the individual's moral status, the same should be true of the strength of our reason to prevent that individual from suffering.

There is, however, a significant reason for doubting that the suffering of animals matters less because their moral status is lower. It derives from the fact that the lower moral status of animals cannot plausibly be explained by reference to their not being members of the human species. Their lower moral status must be attributable instead to their lack of certain morally significant intrinsic properties on which the higher moral status of persons supervenes, such as the

capacities for self-consciousness, rationality, and autonomy. But whatever the intrinsic properties are that distinguish persons morally from animals, there are some members of the human species that lack them. Consider, for example, an orphaned human infant with a genetic condition that both limits its potential for psychological development, so that it can never have psychological capacities beyond those of a day-old infant, and also makes it impossible for the infant to live for more than a few months after birth. It is arguable that this human infant lacks the properties that are the basis of the higher moral status of persons. Even though almost everyone has the intuitive conviction that this infant has a higher moral status than an animal with more highly developed psychological capacities, such as an intelligent and sociable dog, no one, to my knowledge, has given a plausible explanation of the basis of this higher status. Suppose, then, that the moral status of this infant is lower than that of a normal adult person. This would help to explain one claim that I think is true—namely, that our moral reason to save the life of a person who would live only another day would be stronger than our reason to save the life of the infant, even if the infant might live a few more months in complete comfort. Yet it is doubtful that the infant's *suffering* would matter less, so that, apart from the issue of opportunity costs, it would matter more to prevent the person from experiencing a certain degree of physical suffering than to prevent the infant from experiencing the same suffering. But if this cognitively impaired and inevitably short-lived infant would have a moral status no higher than that of an unusually intelligent and sociable dog, the equivalent suffering of the dog should also matter no less because of its lower moral status.

In this section I have argued that suffering is bad in itself and that there is a moral reason to prevent it in any beings that might experience it (with the possible exception of those who allegedly deserve it). I have conceded that in many cases our reason to prevent the suffering of a person may be stronger than our reason to prevent equivalent suffering in an animal—for example, because of opportunity costs, side effects, or special relations. I have considered the possibility that the suffering of animals matters less because of their lower moral status but have suggested that this has an implication that most would be reluctant to accept—namely, that the suffering of an orphaned human infant with psychological capacities and potential no higher than those of a higher nonhuman animal must matter less as well. The conclusion I draw is that there is a strong moral reason to prevent the suffering of animals in the wild when this is possible.

Playing God and the Principle of Nonintervention

In addition to the counterproductivity objection, the appeal to the impersonal value of species, and the claim that animal suffering does not matter, or matters much less, another reason for opposing intervention against predation is that it would be presumptuous for beings as imperfect and fallible as we are to attempt to regulate the natural world in accordance with our own notions of what is

good and bad. Some people with religious commitments may object that any attempt to reduce or eliminate predation would be a usurpation of a prerogative that belongs to the deity alone.

This type of objection, which even now is sometimes also advanced against efforts to alleviate human suffering, is quite puzzling. Is the idea that it must be offensive to the deity if our action suggests that we can do a better job of running things than he can? This is reminiscent of the response by the central character in Saki's novel, *The Unbearable Bassington*, to a woman who expresses the wish that she could improve him:

> You're like a relative of mine up in Argyllshire, who spends his time producing improved breeds of sheep and pigs and chickens. So patronizing and irritating to the Almighty, I should think, to go about putting superior finishing touches to Creation.[23]

Yet while the God of the Old Testament is certainly portrayed as abnormally sensitive to criticism and neglect, it is nevertheless curious to suppose that the creator of the universe could be so insecure.

Nor can those who object to our "playing God" seriously suppose that we actually have the ability to thwart the designs of the deity. Indeed, it is one of the burdens of theodicy to explain why the deity does not consistently exercise the capacity to prevent our interference with his arrangements but instead stands by while people cause some terrible harm and only later intervenes by sending them to Hell. One might infer that a person can be guilty of playing God, usurping a divine prerogative that we expect the deity will not exercise, by preventing a crime rather than allowing it to be done and then punishing the offender. Yet theists generally assume that it can be permissible to prevent people from inflicting unjustified suffering on others—even by defensive force, if necessary. But if preventing people from inflicting unjustifiable suffering on others is among our legitimate prerogatives, it seems that merely preventing predators from coming into existence as a means of preventing animal suffering should be among them as well.

If, as many of us believe, there is no deity guiding events, our only options are allowing events to be determined by purposeless natural forces and guiding them ourselves as intelligently and beneficently as we can. The latter is significantly more likely than the former to result in better outcomes overall.

This seems an appropriate response not only to the objection to "playing God" but also to the closely related but more secular "principle of nonintervention" that has largely guided wildlife policy in the United States since the Wilderness Act was passed in 1964.[24] Since then, conservation biologists, ecologists, and environmentalists have generally sought to protect wilderness areas from all forms of encroachment or intervention by human beings. This is unsurprising given that most previous human interventions had been motivated by self-interest and were heedless of any consequences other than benefits the interveners sought

for themselves. And even when human interventions were more benignly motivated, they were sometimes ill-informed or incompetent. Insofar as the opposition to intervention has been a response to this history of damaging disruption, it will cease to be appropriate once our science enables us to intervene with a high probability of avoiding unforeseen effects—provided, of course, that our aims are also morally justified.

It has been argued, however, that there is a more principled basis for nonintervention, which is that interferences with animals in the wild violate their autonomy or self-determination. In the original edition of his landmark book, *The Case for Animal Rights*, published in 1983, Tom Regan wrote:

> The total amount of suffering animals cause one another in the wild is not the concern of morally enlightened wildlife management. Being neither accountants nor managers of felicity in nature, wildlife managers should be principally concerned with *letting animals be*, keeping human predators out of their affairs, allowing these "other nations" to carve out their own destiny.[25]

A similar passage appears in the new preface to an updated edition of the book published in 2004:

> Our ruling obligation with regard to wild animals is to *let them be*, an obligation grounded in a recognition of their general competence to get on with the business of living, a competence that we find among members of predator and prey species . . . As a general rule, they do not need help from us in the struggle for survival, and we do not fail to discharge our duty when we choose not to lend our assistance.[26]

Lori Gruen, who quotes the latter passage with approval, adds this reinforcing summary: "Paternalism is appropriate in the case of children, but not so in the case of individuals who are capable of exercising their freedom to live their lives in their own ways."[27]

Despite my admiration for both these authors, I find their claims about the autonomy and competence of animals inflated. When Regan says that "members of predator and prey species . . . do not need help from us in the struggle for survival," he is at least obliquely invoking a familiar Darwinian notion that seems to have no place in this discussion. It is true that predator and prey *species* will continue to evolve through the competition for survival, but it is false that *individual* prey can do without our help in *their* struggles for survival. They would do much better were we to protect them than they do now when we leave them to deal with predators by themselves. The fact that predators tend to be well fed when there are prey around, together with the fact that in some species only about 1 percent of those born survive to adulthood, indicates that the "general

competence" of prey "to get on with the business of living" is less impressive than Regan's comment suggests.

The claims of Regan and Gruen are reminiscent of the claims of those, from John Stuart Mill to Michael Walzer, who have maintained a general opposition to ostensibly benevolent military interventions by arguing that they tend to violate the rights of self-determination of people in the states in which they are carried out.[28] The core of truth in this anti-interventionist position is that, when the internal balance of forces within a single political community has not already been skewed by prior external intervention, it is generally better for a dispute about the terms on which the members of this community will live together to be settled among themselves rather being imposed by others who will not share in the resulting common life. This is so even when the outcome is determined by the superior forces of one side rather than by agreement. For only in this way will the outcome be the product of a genuine process of *self*-determination.

The limitation of this argument, however, is that it fails to apply in situations in which there are two or more distinct communities, or collective "selves," living within the same political boundaries and one seeks to rule, expel, enslave, or exterminate another. When, as in Rwanda in 1994, one group is engaged in genocide, nonintervention is not a matter of "allowing these 'other nations' to carve out their own destiny." (Indeed, in Rwanda the members of one nation were allowed literally to carve up those of another.) Nor could intervening be plausibly described as acting paternalistically toward "individuals who are capable of exercising their freedom to live their lives in their own ways." But conditions in which the members of one human group systematically exploit and kill the members of another are the analogues in human affairs of predation among animals, though the analogy is imperfect because the situation of prey in the wild is generally even more hopeless in the absence of intervention. Prey are seldom able to defend themselves and there is certainly no prospect, as there is in conflicts involving human beings, that predators and prey will, on their own, eventually achieve a modus vivendi that will enable them to live together peacefully in the manner prophesied by Isaiah. All things considered, there seems to be no reason not to prevent the suffering or premature deaths of animal prey on the ground that this would involve a failure of respect for the competence or self-determination either of individual animals or of animal groups.

The "Values of Nature"

It is sometimes suggested that concern about the suffering of animals in the wild betrays a limited, parochial, or perhaps anthropocentric perspective on issues that are appropriately evaluated only from an ecological or environmental point of view. Several years ago I wrote a short piece for the online *Opinionator* column of the *New York Times* in which I argued for the moral desirability of controlling predation with the aim of reducing the suffering of animals.[29] The present

chapter is, in effect, a rewritten, significantly expanded descendant of that little article. The online piece elicited quite a bit of commentary, the vast majority of which was highly and often indignantly critical. One comment was from Paul Falkowski, an eminent professor of ecology and evolution at my own university. He wrote that

> it is clear you have either never taken a course in ecology and evolution, or forgot the message. There is this strange thing called a food web—in which organisms are primary producers, eat primary producers, eat the eaters of primary producers—and so on. That is called life. It has NO ethical or moral values. Those are HUMAN values. A wolf or lion kills another animal—the pain and suffering are not ecological issues—the life of the wolf or lion is the issue. If the wolf or lion dies of starvation—then the prey potentially become over populated—like the deer in Princeton. Your values are not the values of nature.[30]

A prominent environmental philosopher, J. Baird Callicott, has made similar claims:

> Pain and pleasure seem to have nothing at all to do with good and evil if our appraisal is taken from the vantage point of ecological biology. . . . The doctrine that life is happier the freer it is from pain and that the happiest life conceivable is one in which there is continuous pleasure uninterrupted by pain is biologically preposterous.[31]

He adds that "if nature as a whole is good, then pain and death are also good."[32] Presumably, this is again "from the vantage point of ecological biology."

Both writers object that those who are concerned about the suffering of animals are wrong to assume that suffering is an ecological issue or that it matters from the perspective of ecological biology. But that complaint reflects an elementary confusion. While there are some philosophers who identify moral facts and properties with natural facts and properties, even they would agree that it would be a mistake to suppose that the question whether there is a moral reason to prevent the suffering of animals is a scientific question that could be answered by consulting theories of ecological biology.[33] Falkowski seems to think that I would do better if I were to put aside *my* values, which are perhaps merely personal or subjective, as well as what he calls human values, and instead consult the "values of nature." But I have no idea what he might mean by that curious phrase. Nor are there "human values" that contrast with nonhuman values.

Falkowski is of course right that whether we have a moral reason to prevent the suffering of animals is not an ecological issue. But that is because no moral issue is an ecological issue. Morality is nonetheless a part of reality. And while only science, including ecological science, can tell us what the consequences of

our interventions in the natural world are likely to be, only morality can tell us whether those interventions are, all things considered, good or bad, justified or unjustified.

To suggest, as Callicott does, that the claim that suffering is bad for those who experience it is "biologically preposterous" makes no more sense than to say that it is mathematically preposterous. The claim that suffering is bad is neither biologically sensible nor biologically preposterous, for it is not a claim about biology at all. Nor does biology have anything at all to say about it. Suffering is of course a biological phenomenon and it occurs in the natural world. But the *badness* of suffering is not a biological phenomenon. It is nevertheless neither an illusion nor a projection; it too is a part of reality, just not a part that is accessible to the investigative tools of natural science.

Some ecologists have begun to challenge the venerable principle of nonintervention in nature by appealing to what they consider to be a higher value: the preservation of the "health" of ecosystems. They argue that we should regard a wilderness area as "a place where concern for ecosystem health is paramount, even if human action is required to maintain it."[34] In a recent op-ed column in the *New York Times*, three ecologists cite the example of a remote island in Lake Superior on which the number of wolves is dwindling, allowing for an ecologically disruptive surge in the moose population. The shrinkage of the wolf population is not the result of starvation but of genetic degeneration from inbreeding. In the past, the wolf population was replenished and diversified when wolves crossed to the island on temporary bridges of ice; but with global warming those bridges hardly ever form anymore. Without human intervention, wolves could disappear from the island. Arguing in favor of such intervention, the writers cite

> one of the most important findings in conservation science: that a healthy ecosystem depends critically on the presence of top predators . . . when large herbivores . . . are present. Without top predators, prey tend to become overabundant and decimate plants and trees that many species of birds, mammals, and insects depend on. Top predators maintain the diversity of rare plants that would otherwise be eaten, and rare insects that depend on those plants. The loss of top predators may disturb the nutrient cycling of entire ecosystems. In addition, predators improve the health of prey populations by weeding out the weakest individuals.[35]

The authors conclude by observing that if the health of the island's ecosystem is preserved through the reintroduction of a substantial population of predators, the island will remain a place "where we can witness beauty while reflecting on how to preserve it."[36]

According to these writers, we face a dilemma. While in general they support the principle of nonintervention, they claim that in this case it conflicts with the value of "ecosystem health." One of these guiding values must yield in this

case, and they argue that it should be the principle of nonintervention. But the sufferings and premature deaths of the moose are not mentioned. They do not appear to be regarded as relevant considerations. Yet while it seems obvious that suffering and premature death are bad for those to whom they happen, it is much less clear that the "health" of an ecosystem has significant value independently of the well-being of its sentient inhabitants. Many philosophers, for example, are "welfarists" who believe that only the welfare of sentient beings matters.

Imagine a small island with an ideally healthy ecosystem. No one had ever been to this island until a person arrived and somehow loaded all the sentient beings, predators and prey alike, into his ark and transported them to another environment into which they were integrated without any compromise of the health of that environment's ecosystem. Suppose that no person will ever again go to the island. But the removal of the animals eventually fatally disrupted the processes of nutrient cycling on the island, and the health of the ecosystem began a decline that resulted eventually in its destruction, in that all but the most rudimentary forms life on the island disappeared. None of this was bad for any sentient being. The animals that were removed, along with their descendants, flourished in their new environment at least as well they would have on the island, and no person was or ever will be prevented by this one intervention from witnessing the beauty of a healthy ecosystem on the island.

Let us grant that the welfarists are wrong and that, even though what has happened to the island is not worse for any sentient being that will ever live, it is nevertheless impersonally bad, in that the island ceased to have a flourishing ecosystem and became barren and lifeless instead. Even so, it does not seem terribly bad. It is a comparatively minor change for the worse. Suppose that shortly after the animals had been removed, a government learned what had been done. This government had a fixed set of resources that it could have used either to return the animals to the island, thereby preventing the destruction of its ecosystem, or to produce and distribute a medicine that would prevent thousands of patients from experiencing brief but intense suffering during minor surgical procedures. It decided to use the resources in the second way. It does not seem a mere human prejudice to suppose that this was the better choice.

Consider again the actual island in Lake Superior from which wolves may vanish. Some ecologists, as I mentioned, propose to transport wolves to the island, thereby ensuring that the cycle of predation continues, as a means of preserving the health of the island's ecosystem. Yet the cycle of predation they wish to preserve and prolong indefinitely is, for the prey, a cycle of fear, suffering, and violent death. This is an essential element of what they call "health." In this actual case, as they point out, the alternative to reintroducing a substantial wolf population may be only to allow overpopulation among the moose, which would result in greater suffering as a result of premature but protracted deaths from starvation and disease. That is, the counterproductivity objection may apply to the option of *not* sustaining the cycle of predation. But suppose

there were another alternative: intervention to control the size of the moose population through nonviolent means. It will eventually become possible, as I noted earlier, to use chemical means of sterilization to regulate the size of herbivore populations in the wild. If the counterproductivity problem could be solved in this way, by stabilizing the moose population and thus preserving the harmony of the ecosystem as a whole without increasing the wolf population, it seems that the only advantage of maintaining predation on the island would be that it might be less costly. But if the means of controlled sterilization were available, it is unlikely that the difference in cost could justify the perpetuation of avoidable suffering and premature death over indefinitely many generations of moose. If we were to take the suffering and premature deaths of animals more seriously than we do, it would probably not take long to develop effective chemical means of sterilization and techniques for administering them in a discriminating and precisely calibrated way to regulate the size of herbivore populations.

Conclusion

I have argued that the prevention of suffering in animals matters—arguably almost as much as the prevention of suffering in human beings does. Some people may concede this, and also concede the weakness of the objections to the reduction or elimination of predation I have reviewed, but nevertheless find it pointless to press the case for intervening against predation. This is not just because they anticipate that human beings will never become motivated to undertake so ambitious a project merely for the sake of animals, but also because they believe that there will always be more serious problems that will have a higher moral priority, such as the relief of poverty, the prevention of crime, the prevention of war, the mitigation of threats to human survival, and so on. Some argue that it would be wrong to devote our efforts and resources to the problem of predation when more important problems remain unresolved.

When this claim is pressed in public discussions, it is often made defensively and hypocritically by people who are not among those who are working seriously to address the moral problems cited. This is of course merely ad hominem and does not address the concern of those who make the claim without hypocrisy. There are, however, at least three responses to the genuine concern about moral priority.

Perhaps the most important of these is that the many problems that might be cited as more important than preventing the suffering that predation causes to animals are so vast and demanding that it is unlikely that any particular individual is morally required to devote significant time, effort, and resources to any one of them in particular. For any individual, making significant sacrifices to address any of these problems is likely to be supererogatory. When that is the case, it cannot be *wrong* to devote one's efforts to preventing the suffering of

animals even when it would be *better* if one were to devote one's time and effort to a more important problem instead.

Second, even if the extent to which the suffering of animals matters morally is discounted for the lower moral status of animals, the suffering of animals in the wild may still be one of the more important moral problems simply because the number of animals that suffer and die from predation is so vast. The number of animals in the world exceeds the number of human beings by many orders of magnitude.

Of course, predation is not the only cause of suffering or premature death in animals. Animals suffer and die from disease, parasites, malnutrition and starvation, dehydration, freezing, and so on. But this just means that we have moral reason to try to prevent animals from suffering and dying from these causes as well, when we can do so at reasonable cost and without neglecting other duties.

Finally, it may well be that any substantial efforts to mitigate the suffering of animals in the wild through the control of predation must await advancements in both our scientific and moral capacities. At present it does seem more important to concentrate on eliminating various major sources of human misery and premature death. We can, moreover, be more confident of our potential effectiveness in alleviating suffering and preventing premature death through, for example, the reduction and eventual elimination of human poverty than we can be in our ability to reduce the incidence of predation without causing unforeseen side effects. But even now there are cases, such as that of the island in Lake Superior, in which decisions must be made that will affect the level of predation in a certain area. In these cases, there is a strong moral reason to do what will diminish or eliminate predation rather than what will sustain or increase it.[37]

Notes

1. Arthur Schopenhauer, *Essays and Aphorisms* (London: Penguin, 1970), p. 42.
2. John Stuart Mill, *Three Essays on Religion* (London: Longmans, Green, Reader, and Dyer, 1875), pp. 58–59.
3. Isaiah 11:6–7.
4. Jeff McMahan, "Eating Animals the Nice Way," *Daedalus* (Winter 2008): 66–76, and "The Comparative Badness of Suffering and Death for Animals," in Tatjana Višak and Robert Garner, eds., *The Ethics of Killing Animals* (Oxford: Oxford University Press, forthcoming).
5. The seminal and still unsurpassed work in this area is Derek Parfit's *Reasons and Persons* (Oxford: Oxford University Press, 1986 reprint), pt. 4.
6. http://www.youtube.com/watch?v=LU8DDYz68kM. Last viewed December 7, 2013.
7. Alison Hills, "Utilitarianism, Contractualism, and Demandingness," *Philosophical Quarterly* 60 (2010): 225–242, p. 231.
8. Lori Gruen, *Ethics and Animals: An Introduction* (New York: Cambridge University Press, 2011), p. 179.
9. Ibid., p. 183.

10. Ibid., p. 181.
11. See McMahan, "The Comparative Badness of Suffering and Death for Animals."
12. Gruen, *Ethics and Animals*, pp. 184 and 187.
13. For a defense of the claim that there is a universally applicable reason to prevent suffering, no matter whose it is, see Thomas Nagel, *The View From Nowhere* (New York: Oxford University Press, 1986), pp. 156–162. I take no position here on whether anyone can deserve to suffer.
14. Martha C. Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership* (Cambridge, MA: Belknap Press, 2006), p. 379. Nussbaum is among the few philosophers who have suggested that there is a moral reason to intervene against predation. The other two of whom I am aware are Eric Rakowski in *Equal Justice* (Oxford: Clarendon Press, 1991), pp. 363–367, and Tyler Cowen in "Policing Nature," *Environmental Ethics* (Summer 2003): 169–182. The latter can be found in manuscript form on his website at http://www.gmu.edu/centers/publicchoice/faculty%20pages/Tyler/police.pdf.
15. Compare Martha Nussbaum's claim that "any nonviolent method of population control (for example, by sterilization) is to be preferred to a violent method." Nussbaum, *Frontiers of Justice*, p. 380.
16. Douglas Quenqua, "New Strides in Spaying and Neutering," *New York Times*, December 2, 2013; Lisa W. Foderaro, "A Kinder, Gentler Way to Thin the Deer Herd," *New York Times*, July 6, 2013.
17. Ronald Dworkin, *Life's Dominion* (New York: Alfred A. Knopf, 1993), p. 75.
18. Ibid. Dworkin's claims are explicitly about what "we" believe or what "people" believe. They are not necessarily endorsements of the beliefs that he claims people have.
19. For a strong challenge to the concept of impersonal value, see Richard Kraut, *Against Absolute Goodness* (New York: Oxford University Press, 2011).
20. For elucidation and defense, see McMahan, "The Comparative Badness of Suffering and Death for Animals."
21. Nagel, *The View From Nowhere*, p. 161.
22. Peter Singer, *Animal Liberation*, rev. ed. (New York: Avon Books, 1990), p. 17.
23. Saki (H. H. Munro) *The Unbearable Bassington* (London: Bodley Head, 1929), p. 74.
24. John A. Vucetich, Michael P. Nelson, and Rolf O. Peterson, "Predator and Prey, a Delicate Dance," *New York Times*, May 9, 2013. There have, however, been some interventions that have been harmful to animals, such as the extermination of animals not considered to be native and the reintroduction of predators. See Jo-Ann Shelton, Killing Animals that Don't Fit In: Moral Dimensions of Habitat Restoration," *Between the Species* 13/4 (2004): 1–21; and Oscar Horta, "The Ethics of the Ecology of Fear against the Nonspeciesist Paradigm: A Shift in the Aims of Intervention in Nature, *Between the Species* 13/10 (2010): 163–187.
25. Tom Regan, *The Case for Animal Rights* (London: Routledge and Kegan Paul, 1983), p. 357.
26. Tom Regan, *The Case for Animal Rights* (Berkeley: University of California Press, 2004), p. xxxvii.
27. Gruen, *Ethics and Animals*, p. 182.
28. John Stuart Mill, "A Few Words on Non-Intervention," *The Collected Works of John Stuart Mill*, vol. 21 (1825), accessible online at http://oll.libertyfund.org/?option=com_staticxt&staticfile=show.php%3Ftitle=255&chapter=21666&layout=html&Itemid=27; and Michael Walzer, *Just and Unjust Wars* (New York: Basic Books, 1977), chap. 6.
29. Jeff McMahan, "The Meat Eaters," *Opinionator* (blog), *New York Times*, September 19, 2010, accessible at http://opinionator.blogs.nytimes.com/2010/09/19/the-meat-eaters/#more-61873.
30. Ibid., comments section.

31. J. Baird Callicott, "Animal Liberation: A Triangular Affair," in Robert Elliott, ed., *Environmental Ethics* (New York: Oxford University Press, 1995): 29–59, pp. 52–53 and 54.
32. Ibid.
33. Prominent moral naturalists include Richard Boyd, Philippa Foot, and Peter Railton.
34. Vucetich, Nelson, and Peterson, "Predator and Prey."
35. Ibid.
36. Ibid.
37. In preparing this substantially revised and expanded version of my original piece in the *Opinionator*, cited in note 29, I have greatly benefited from insightful written comments by Andrew Chignell, Terence Cuneo, Catia Faria, Matthew Halteman, Oscar Horta, and Ezekiel Paez.