BLACKWELL PHILOSOPHY ANTHOLOGIES

Each volume in this outstanding series provides an authoritative and comprehensive collection of the essential primary readings from philosophy's main fields of study. Designed to complement the *Blackwell Companions to Philosophy* series, each volume represents an unparalleled resource in its own right, and will provide the ideal platform for course use.

1 Cottingham: *Western Philosophy: An Anthology*
2 Cahoone: *From Modernism to Postmodernism: An Anthology* (expanded second edition)
3 LaFollette: *Ethics in Practice: An Anthology* (second edition)
4 Goodin and Pettit: *Contemporary Political Philosophy: An Anthology* (second edition)
5 Eze: *African Philosophy: An Anthology*
6 McNeill and Feldman: *Continental Philosophy: An Anthology*
7 Kim and Sosa: *Metaphysics: An Anthology*
8 Lycan: *Mind and Cognition: An Anthology* (second edition)
9 Kuhse and Singer: *Bioethics: An Anthology* (second edition)
10 Cummins and Cummins: *Minds, Brains, and Computers – The Foundations of Cognitive Science: An Anthology*
11 Sosa and Kim: *Epistemology: An Anthology*
12 Kearney and Rasmussen: *Continental Aesthetics – Romanticism to Postmodernism: An Anthology*
13 Martinich and Sosa: *Analytic Philosophy: An Anthology*
14 Jacquette: *Philosophy of Logic: An Anthology*
15 Jacquette: *Philosophy of Mathematics: An Anthology*
16 Harris, Pratt, and Waters: *American Philosophies: An Anthology*
17 Emmanuel and Goold: *Modern Philosophy – From Descartes to Nietzsche: An Anthology*
18 Scharff and Dusek: *Philosophy of Technology – The Technological Condition: An Anthology*
19 Light and Rolston: *Environmental Ethics: An Anthology*
20 Taliaferro and Griffiths: *Philosophy of Religion: An Anthology*
21 Lamarque and Olsen: *Aesthetics and the Philosophy of Art – The Analytic Tradition: An Anthology*
22 John and Lopes: *Philosophy of Literature – Contemporary and Classic Readings: An Anthology*
23 Cudd and Andreasen: *Feminist Theory: A Philosophical Anthology*
24 Carroll and Choi: *Philosophy of Film and Motion Pictures: An Anthology*
25 Lange: *Philosophy of Science: An Anthology*

Environmental Ethics

An Anthology

Edited by
Andrew Light
and
Holmes Rolston III

Blackwell
Publishing

Evelyn B. Pluhar, "The Justification of an Environmental Ethic," *Environmental Ethics* 5 (1983): 47–61.

15 Kenneth E. Goodpaster, "On Being Morally Considerable," *The Journal of Philosophy* 75 (1978): 308–25.

16 Kenneth E. Goodpaster, "From Egoism to Environmentalism," in *Ethics and Problems of the 21st Century*, ed. K. E. Goodpaster and K. M. Sayre (Notre Dame: University of Notre Dame, 1979), p. 29.

17 Note again that the well-being of individual animals to be sacrified includes the well-being of human animals. If an environmental ethic limits human projects and activities, then some humans will undoubtedly suffer discomfort, pain, and even death. There may be less energy to be used for recreation or labor-saving devices in the home. Buildings may be colder in the winter and hotter in the summer. Some humans may even die for the sake of environmental well-being: if the mosquito population is not controlled by pesticides, some humans could die from encephalitis, for example.

18 Although some small percentage of the human population may yearn, for example, for the "wilderness experience," it is not clear why this recreational pleasure cannot be satisfied in some other way. As Martin Krieger has argued: "Artificial prairies and wildernesses have been created, and there is no reason to believe that these artificial environments need be unsatisfactory for those who experience them." ("What's Wrong with Plastic Trees?" *Science* 179 (1973): 453.)

19 For a more detailed discussion of the "human interest" arguments for environmentalism, i.e., the arguments based on the instrumental or utilitarian value of the natural environment, see my "Utilitarianism and Preservation," *Environmental Ethics* 1 (1979): 357–64; Mark Sagoff, "On Preserving the Natural Environment," *Yale Law Journal* 84 (1974): 205–67; Sagoff, "Do We Need a Land Use Ethic?" *Environmental Ethics* 3 (1981): 293–308; Laurence H. Tribe, "Ways Not to Think About Plastic Trees," in *When Values Conflict*, ed. Laurence H. Tribe, Corinne S. Schelling, and John Voss (Cambridge, Mass.: Ballinger, 1976): 61–91; and William Godfrey-Smith, "The Value of Wilderness," *Environmental Ethics* 1 (1979): 309–19.

20 Callicott, "Animal Liberation," p. 330.

21 I realize that the issue of domesticated animals and an environmental ethic cannot be adequately discussed in a brief summary paragraph: it requires an entire essay in itself. All that I wish to suggest is that the animal liberationist's concern for the proper treatment of domesticated animals is neither condemned nor condoned in a theory of environmental ethics. The fate of domesticated animals, as such, is not a subject area of environmental ethics. Of course if domesticated animals begin to intrude upon and harm a natural ecological community, then they would be treated like any other human artifact (machines, chemicals, etc.) that harmed the environment. Or if a human began to kill wild natural animals in order to protect his domesticated sheep he would be violating an environmental ethic, just as if he polluted a stream to "protect" his recreational pleasure in speedboating. But the vast majority of cases involving domesticated animals – the morality of factory farming, for example – are in a realm of substantive ethics completely removed from the concerns of an environmental ethic. The question of the compatibility or incompatibility of an environmental ethic and an animal liberation ethic when dealing with the treatment of domesticated animals as such is thus unanswerable and misconceived: these are simply two different subject matters.

8

Can Animal Rights Activists Be Environmentalists?

Gary E. Varner

Introduction

I have never thought of myself as an activist. I occasionally write letters to the editor and to my legislators, but to date, I have only once held a protest sign, and that had nothing to do with the environment or animals.[1] Nevertheless, I began to study and write on questions in environmental ethics and animal rights because I cared about animals and the environment and I believed that philosophical work on these questions would ultimately make a difference in practice. I recall thinking, as early as eighth grade, that humans had commandeered too much of the earth's surface and that we often mistreated animals because we thought that only human beings mattered, morally speaking. I hadn't yet heard the word "anthropocentric," and I was unaware of philosophy as a discipline, but I believed that part of the problem was a question of moral theory.

After coming to Texas A&M in the fall of 1990, I began consciously to distance myself from self-professed activists, especially animal rights activists. For I learned that, to many of the people I was interacting with (animal scientists studying production agriculture and veterinary and medical scientists who use animals in their research, but also older forestry and rangeland people), "activists" were by definition dangerous, unscientific lunatics acting irrationally in the grip of their emotions. I found that, as soon as I was introduced as a philosopher who studies environmental ethics and animal rights, people jumped to a host of conclusions about me. Many of those conclusions turned out to be true (I vote democratic, I eat tofu, and I ride my bicycle to the office), but as soon as I raised the topic of animal rights, many in the audience would assume that I was against all hunting, all use of animals for food or fiber, and all experimentation, which I am not. I have therefore spent a great deal of time lately emphasizing the ways a critical, more philosophical approach to the animal rights issue yields different conclusions than those endorsed by many self-professed animal rights activists.

Among environmental philosophers there is a parallel tendency to equate "animal rights" and "environmental ethics" with specific views in ethical theory and/or specific accounts of what those views imply. Notoriously, it was J. Baird Callicott who, in his early paper "Animal Liberation: A Triangular Affair," appeared to delight in driving a very deep wedge between environmentalism and animal rights.[2] But the one point on which environmental philosophers reached a general consensus during the field's first decade was that both the theoretical foundations and practical implications of animal rights views were inconsistent with those of environmentalism. Because so many environmental philosophers believed that "the ecological crisis" could be averted only by adopting a non-anthropocentric value theory, there was some hope early on that animal rights philosophies would be of some use in understanding environmental ethics. Tom Regan's early essay "The Nature and Possibility of

an Environmental Ethic"[3] is an example. However, there very quickly emerged a broad-based consensus that animal rights views were no more compatible with sound environmental ethics and sound environmental policy than were anthropocentric views.

To appreciate how hegemonic this view of the animal rights/environmental ethics split has become, consider the following quotations. Under a 1984 title extending Callicott's amorous metaphor (the essay was called "Animal Liberation and Environmental Ethics: Bad Marriage, Quick Divorce") Mark Sagoff wrote:

> Environmentalists cannot be animal liberationists. Animal liberationists cannot be environmentalists. . . . moral obligations to nature cannot be enlightened or explained – one cannot even take the first step – by appealing to the rights of animals . . .[4]

More recently, Eric Katz relied on the now familiar dichotomy in advising businesses engaged in animal research on how to blunt the criticisms of animal rights activists:

> I suggest that the adoption by business of a more conscious environmentalism can serve as a defense against the animal liberation movement. This strategy may seem paradoxical: how can business defend its use of animals by advocating the protection of the environment? But the paradox disappears once we see that animal liberation and environmentalism are incompatible practical moral doctrines.[5]

I myself may have been guilty of perpetuating the perception of dichotomy. In an essay on captive breeding I wrote, very simplistically:

> From the perspective of individual sentient creatures involved in a program, captive breeding [of endangered species] is a moral atrocity.[6]

Although Callicott subsequently regretted the fulminatory rhetoric of his "Triangular Affair" piece,[7] he continues to think of animal rights and environmental ethics as incompatible. For instance, he argues for moral monism on the grounds that a pluralism embracing both animal rights and environmental ethics would be inconsistent, because

> animal rights would prohibit controlling the populations of sentient animals by means of hunting, while environmental ethics would permit it.[8]

Even Bryan Norton, whose overarching concern in *Toward Unity Among Environmentalists*, is to find points of agreement at the level of practice amid disagreement at the level of moral principle, writes as if animal rights and environmental ethics can never be reconciled. During a discussion of deep ecologists' profession of biocentric egalitarianism – the view that all organisms are equal (ostensively very similar to animal rights theorists' claim of animal [or at least vertebrate] equality) – Norton states that

> As academics, spokespersons for deep ecology have been able to avoid adopting policies on difficult, real-world cases such as elk destroying their wolf-free ranges, feral goats destroying indigenous vegetation on fragile lands, or park facilities overwhelmed by human visitors.[9]

Norton goes on to explain that equal rights for nonhuman animals is environmentally unsound because

> It can never be "fair" by human standards to kill 10 percent of an elk population because it exceeds the capacity of its range.[10]

That even a consensus-seeking pragmatist like Norton writes as if animal rights views are systematically environmentally unsound suggests just how deeply rooted is the perceived dichotomy between "environmental ethics" and "animal rights."

So the consensus claim among environmental philosophers is that environmental ethics is incompatible, both theoretically and practically, with both anthropocentric and animal rights views. This claim strikes me as multiply confused. First, to identify "environmental ethics" with specifically holistic theories, as the consensus view does, is to deny that thinkers like John Passmore, Bryan Norton, Richard Watson, and Paul Taylor are doing environmental ethics. Yet this strikes me as every bit as arbitrary as denying that environmental ethicists are "doing philosophy." Environmental ethicists should have learned not to define the opposition out of the discipline – for too long, "pure" philosophers succeeded in doing

this with "applied" ethicists in general, and with environmental ethicists in particular.

Second, even if we identified "*environmental* ethics" with holistic views, I do not think that either anthropocentric or animal rights views necessarily have environmentally hazardous implications. I think that a sufficiently enlightened anthropocentrism can ground aggressive environmental regulation. In particular, anthropocentrism can be enlightened by an ecologically informed concept of harm of others. On such a concept, no one owns, but everyone has the right to use, ecological processes which (like the hydrologic cycle, or the breeding cycle of migratory waterfowl) necessarily extend beyond the boundaries of private real property. On this view, governments may prohibit uses of land which, when broadly practiced, significantly interfere with such processes, and they may do so without compensating landowners whose activities (e.g. filling wetlands) are prohibited, on the theory that the right to use one's land in a way that harms others was never part of the bundle of rights which the landowner received in the first place. I've argued this at length in a forthcoming paper.[11] Here I want to focus instead on the other claim, that animal rights views are incompatible with environmental ethics.

Self-professed animal rights activists have, I think, contributed to the perception that animal rights views have environmentally unsound implications by truncating and radicalizing their views. Animal rights activists have very little interest in or need for being clear about what their philosophical views are and what those views do and don't imply. In political debates, it is often impossible to describe one's position fully or ineffective to do so even if one has time. "Animals are not ours to eat, wear, or experiment on" is a politically expedient slogan for someone who believes that radical reform is called for, even if that person actually believes that *some* uses are acceptable under *some* conditions. The necessity of producing sound-bite sized quotations for the news media contributes to the truncation of peoples' position statements, but also a general principle of negotiation is to begin with a position which demands more than one is ultimately willing to settle for. So animal rights activists have good reasons for their commonly espoused impatience with philosophical subtlety. The political utility of radicalization and activists' tendency to ignore philosophical subtleties are well documented in Jaspers' and Nelkin's *The Animal Rights Crusade: The Growth of a Moral Protest*.[12]

But there *is* a difference between a philosophy and a bumper sticker, and once we move beyond the political posturing and sloganeering, to a careful examination of the philosophical bases of the animal rights movement, we see that convergence is possible at the level of policy between animal rights views and the views of environmentalists. As Norton put it with regard to convergence between anthropocentrism and holism:

> Long-sighted anthropocentrists and ecocentrists tend to adopt more and more similar policies as scientific evidence is gathered, because both value systems – *and several others as well* – point toward the common-denominator objective of protecting ecological contexts.[13]

Our question, practically speaking, is whether or not an animal rights perspective is one of those "several other" value systems which can agree with ecocentrism on broad, long-range policy goals. Given his insistence that "long-sighted anthropocentrists" can agree with ecocentrists about the importance of protecting ecological contexts," it is surprising that Norton never asks whether the goals of "long-sighted animal rights activists" might also converge with those of the ecocentrists.

The Issues

As I understand it, environmental philosophers' antagonism to animal rights views grows out of their perception that the practical implications of such views would be anti-environmental in two basic ways.

1 With regard to wildlife population control the concerns are that:
   a *hunting* would be prohibited, even when it is required to preserve the integrity of an ecosystem, and
   b humans would have an obligation to prevent natural *predation* (including not restoring locally extinct predators).
2 With regard to preserving biodiversity the concerns are that:
   a it would be impermissible to kill destructive *exotics*, and

b it would be impermissible to breed members of *endangered species* in captivity.

In what follows, I am going to begin with, and spend the most time on, hunting. Admittedly, this is the easiest case in which to reconcile the views of animal rights activists and environmentalists, but a careful treatment of this issue sets the stage for a careful treatment of the others.

What I say about hunting will, I think, be met with skepticism by many self-professed animal rights activists. Some will suspect me of being an apologist for the wildlife managers, a philosophical hired gun. And some of what I say (more briefly) about the other three issues will be rejected out of hand by many animal activists. But everything I have to say about these issues is at least *consistent with* a full-blown animal rights philosophy, and that shows, I maintain, that the gulf between animal rights and environmental ethics has been unnecessarily exaggerated.

Therapeutic Hunting of Obligatory Management Species

When teaching the hunting issue, I find it useful to distinguish among three types of hunting in terms of the purposes hunting is taken to serve. By *therapeutic hunting* I mean hunting motivated by and designed to secure the aggregate welfare of the target species and/or the integrity of its ecosystem (I'll discuss later the question of whether the two are separable). By *subsistence* hunting I mean hunting aimed at securing food for human beings. By *sport* hunting I mean hunting aimed at maintaining religious or cultural traditions, reenacting national or evolutionary history, honing certain skills, or just securing a trophy. Many would prefer to recognize a distinction within this third category between hunting for sport and hunting as a ritual. Although there may be some important differences, I class them together because both activities serve human needs (which is what distinguishes both sport and subsistence hunting from therapeutic hunting), but needs which are less fundamental (in the sense of universal) than nutrition (which is what distinguishes subsistence hunting from both ritual and sport hunting).

Obviously these are abstract archetypes. Wildlife managers designing a hunt and hunters going into the field almost always have some composite of these three goals in mind. Inuits taking a whale are engaged in subsistence hunting, but so is a Hill Country Texan who cherishes venison. And both are engaged in sport hunting as I conceive of it: the Inuits' communal life is structured around hunting – it has great social and religious significance – but so is the Texan's insofar as he views hunting as an expression of his cultural and/or evolutionary history.

Although my typology is an abstraction, sorting out the ends hunting is supposed to serve does help us to say where the prospects for convergence lie. Significantly, the defense hunters and environmentalists most often offer in the face of criticism by animal rights activists – that it is necessary to prevent overpopulation and/or environmental degradation – clearly is a defense of *therapeutic* hunting specifically, not sport or subsistence hunting. The thesis I wish to defend here is that environmentalists and animal rights activists can agree on the moral necessity of therapeutic hunting of *obligatory management species*.

I owe the term "obligatory management species" to Ron Howard of the Texas Agricultural Extension Service, who distinguishes among "obligatory" and "permissive" management species in the following way. An *obligatory management species* is one that has a fairly regular tendency to overshoot the carrying capacity of its range, to the detriment of future generations of it and other species. A *permissive management species* is one that does not normally exhibit this tendency. Examples of obligatory management species would be ungulates (hooved mammals like white-tailed and mule deer, elk, and bison) and elephants. Examples of permissive management species would be mourning doves, cottontail rabbits, gray squirrels, bobwhite, and blue quail.[14] It is not that permissive management species do not become overpopulated. They do every year, in the straightforward sense of producing more young than their habitat can feed through the winter. But they usually do not degrade their habitat in ways that threaten future generations of their own or other species. This is what makes their management environmentally optional, or "merely *permissible*" in Ron Howard's terminology. By contrast, management of ungulates (and some other species) is environmentally necessary, or "*obligatory*" in Howard's terms.[15]

Environmental groups have taken great pains in recent years to distance themselves from animal

rights groups, fearing that the widespread perception of animal rights activists as anti-scientific romantics would rub off on them, and much of the distancing has had to do with the hunting issue. In 1990, *Audubon* magazine published an article with the scathing title "Animal Rights: Ignorance About Nature."[16] Also in 1990, the Wisconsin Greens adopted a resolution condemning Madison's Alliance for Animals for disrupting hunts in Blue Mound State Park.[17] And in 1991 a Sierra Club fundraiser said in a phone conversation that the Club was not "doing more to expose the enormous environmental damage caused by factory farming because they wanted to keep their membership as large as possible."[18]

Still, environmentalists do not uniformly support hunting. Audubon and the Sierra Club both oppose hunting in the national parks, and the Texas chapters of both clubs recently opposed a bill which opened the state's parks to recreational hunting. Texas law already allowed hunting in state parks on an *ad hoc* basis, "as sound biological management practices warrant,"[19] e.g. to deal with ungulate population irruptions. But S.B. 179, which was signed into law May 18, 1993, amended the state's Parks and Recreation Code to allow classification of state parks as "game management areas" in addition to as "recreational areas, natural areas, or historical areas."[20] According to its *State Capitol Report*, "The Sierra Club opposes any bill that will shift the burden of proof from no hunting in state parks unless 'biologically necessary', to hunting is allowed unless proven harmful to the area's resources."[21] That's not well written, but the sense is clear enough: the Sierra Club opposes allowing sport hunting on a regular basis in state parks, but it will support sport hunting in the state parks on an *ad hoc* basis, when "biologically necessary."

Sierra's and Audubon's position on hunting in national and state parks shows that the only hunting environmentalists feel *compelled* to support is "biologically necessary" hunting, that is, *therapeutic* hunting, and therapeutic hunting normally is necessary only where obligatory management species are concerned. Officially, both organizations are noncommittal on sport hunting outside of the national and Texas state parks. This mirrors a difference of opinion within the environmental community. Many environmentalists would prefer that sport hunting which is not also therapeutic be stopped, and many would prefer that natural predators be restored to levels at which human hunting is less often biologically necessary. But many environmentalists are also avid hunters who attach great ritual significance to their hunting.

So the only hunting that environmentalists feel *compelled* to support is therapeutic hunting of obligatory management species. However, the received interpretation of the animal rights/environmental ethics split would have it that animal rights activists must oppose hunting even when it is biologically necessary. When we look behind the sound-bite sized quotations and political slogans of self-professed animal rights *activists*, and examine carefully formulated animal rights *philosophies*, we see that it is *not* necessary for animal rightists to oppose environmentally sound hunting. Animal rightists can support exactly the same policy in regard to hunting which environmental groups like Audubon and the Sierra Club support in regard to the national and state parks. The easiest way to bring this out is by making the now familiar and basic philosophical distinction between an animal liberation or animal welfare view and a true animal rights view, and by beginning with the former's application to the hunting question.

Animal *Liberation* and Therapeutic Hunting

Peter Singer's 1975 book *Animal Liberation*[22] has become the Bible of the "animal rights movement." Singer wrote that book for popular consumption and in it he spoke loosely of animals having "moral rights." But all that he intended by this was that animals (or at least "higher animals," like vertebrates) have some basic moral standing and that there are right and wrong ways of treating them. In later, more philosophically rigorous work (summarized in his *Practical Ethics*, which has just been reissued[23]), he explicitly eschews the term "rights," noting that, as a utilitarian ethical theorist, not only does he deny that animals have moral rights, but in his view, neither do human beings. In *Animal Liberation* Singer was writing in the vernacular in order to make his arguments appeal to the widest variety of audiences – he did not want to tie his critiques of agriculture and animal research to his specific moral philosophy.

When ethical philosophers speak of an individual "having moral rights," they mean something much more specific than that the individual has some basic moral standing and that there are right and wrong ways of treating him or her (or it). Although there is much controversy as to the specifics, there is general agreement on this: to attribute moral rights to an individual is to assert that the individual has some kind of special moral dignity, the cash value of which is that there are certain things which cannot justifiably be done to him or her (or it) for the sake of benefit to others. For this reason, moral rights have been characterized as "trump cards" against utilitarian arguments. Utilitarian arguments are arguments based on aggregate benefits and aggregate harms. Utilitarianism is usually defined as the view that right actions maximize aggregate happiness. In principle, nothing is inherently or intrinsically wrong, according to a utilitarian; any action could be justified under some possible circumstances. One way of characterizing rights views in ethics, by contrast, is that there are some things which, regardless of the consequences, it is simply wrong to do to individuals, and that moral rights single out these things.

Although a technical and stipulative definition of the term, this philosophical usage reflects a familiar concept. One familiar way in which appeals to individuals' rights are used in day-to-day discussions is to assert, in effect, that there is a limit to what individuals can be forced to do, or to the harm that may be inflicted upon them, for the benefit of others. So the philosophical usage of rights talk reflects the common-sense view that there are limits to what we can justifiably do to an individual for the benefit of society.

To defend the moral rights of animals would be to claim that certain ways of treating animals cannot be justified on utilitarian grounds. In the professional philosophical writings cited earlier, Peter Singer explicitly rejects rights views and adopts a utilitarian stance for dealing with our treatment of nonhuman animals. So the author of the Bible of the animal rights movement is not an animal *rights* theorist at all.

When the views of animal rights activists are understood this way, in Singer's theoretical terms, animal rights advocates opposed to hunting actually have a lot in common with wildlife managers and hunters who defend hunting as a means to minimizing suffering in wildlife populations. Both factions are appealing to the utilitarian tradition in ethics; both believe that it is permissible (at least where nonhuman animals are concerned) to sacrifice (even involuntarily) the life of one individual for the benefit of others, at least where the aggregated benefits to others clearly outweigh the costs to that individual.

Relatedly, the specific conception of happiness which defenders of therapeutic hunting apply to animals is one which Singer himself uses, at least in regard to many or most animals. Since utilitarianism is the view that right actions maximize aggregate *happiness*, it is important for utilitarians to be clear about what happiness consists in. *Hedonistic utilitarians* define happiness in terms of the presence of pleasure and the absence of pain, where both "pleasure" and "pain" are broadly construed to include not only physical pleasures and pains (e.g. those accompanying orgasms and third degree burns), but various kinds of pleasant and unpleasant psychological states (e.g. tension and nervousness, and glee and exhilaration). *Preference utilitarians* define happiness in terms of the satisfaction of preferences (conscious aims, desires, plans, projects), which can, but need not, be accompanied by pleasure.

In *Animal Liberation* Singer employed a strongly hedonistic conception of happiness. He admitted that, "to avoid speciesism," we need *not* hold that

> it is as wrong to kill a dog as it is to kill a normal human being . . . [Without being guilty of speciesism] we could still hold that, for instance, it is worse to kill a normal adult human, [or any other being] with a capacity for self-awareness, and the ability to plan for the future and have meaningful relations with others, than it is to kill a mouse, which presumably does not share all of these characteristics . . .[24]

For this reason he said that "The wrongness of killing a being is more complicated" than the wrongness of inflicting pain. Nevertheless, he there kept the question of killing "in the background," because

> in the present state of human tyranny over other species the more simple, straightforward principle of equal consideration of pain or pleasure is a sufficient basis for identifying and protesting against all the major abuses of animals that human beings practice.[25]

In *Practical Ethics*, by contrast, he devotes four chapters (almost 140 pages) to the "more complicated" question. There he stresses that, with regard to "self-conscious individuals, leading their own lives and wanting to go on living,"[26] it is implausible to say that the death of one happy individual is made up for by the birth of an equally happy individual. That is, when dealing with self-conscious beings, preference utilitarianism is more appropriate than hedonistic utilitarianism.

An easy way to clarify Singer's point is with the following example. Suppose I sneak into your bedroom tonight and, without ever disturbing your sleep, kill you (by silently releasing an odorless gas, for instance). Since you led a happy life (hopefully) and died painlessly, on a hedonistic conception of happiness, the only sense we can make of the harm I have done you is in terms of lost future opportunities for pleasure. In the case of human beings, who have complicated desires, intentions, plans, and projects,[27] this seems an inadequate accounting of the harm I've done you. For humans (and any similarly cognitively sophisticated animals) a desire-based conception of harm seems more appropriate. But, Singer argues, self-conscious beings are not replaceable. When a being with future-oriented desires dies, those desires remain unsatisfied even if another being is brought into existence and has similar desires satisfied.

Singer cites research which he says clearly shows that the great apes (chimpanzees, gorillas, and orangutans) have projects,[28] and, without saying what specific research leads him to these conclusions, that fish and chickens do not have projects,[29] but that

> A case can be made, though with varying degrees of confidence, on behalf of whales, dolphins, monkeys, dogs, cats, pigs, seals, bears, cattle, sheep and so on, perhaps even to the point at which it may include all mammals . . .[30]

Elsewhere I have characterized carefully the evidence I think shows that all mammals and birds have desires but fish do not.[31] However, I doubt that either birds or the "lower" mammals (by which I here mean mammals other than primates and cetaceans) have projects of the kind Singer is interested in, that is, desires that significantly transcend the present. Certainly the desire to go on living (which Singer mentions repeatedly as a sort of *sine qua non* of self-consciousness) constitutes a very sophisticated project. Dogs and cats almost certainly have desires that transcend the present. When a lion flushes a wildebeest in the direction of a hidden pridemate[32] (or, more prosaically, when my cat comes from the back room to where I am sitting and, having gotten my attention by jumping in my lap, leads me to the back door to be let out) it undoubtedly has a desire for something in the future. But it is a very near future about which cats and dogs are concerned. The desire to catch a prey animal here now, or even the desire to get a human being from the other room to come open the door to the outside, is not on a par with aspiring to longer life. Having the desire to go on living involves not only being self-conscious, but having concepts of life and death, and of self.

So I doubt that self-consciousness, as Singer conceives it, extends as far down "the phylogenetic scale" as Singer believes. But for present purposes, I will not try to settle this issue, for two reasons. First, the switch from hedonistic utilitarianism to preference utilitarianism would not in and of itself rule out hunting. As Singer put it, blocking the replaceability argument's application to many mammals

> raised a very large question mark over the justifiability of a great deal of killing of animals carried out by humans, even when this killing takes place painlessly and without causing suffering to other members of the animal community.[33]

But to "raise a very large question mark" is to increase the burden of proof on a justification of killing on preference utilitarian grounds; it is not to rule it out.

Second, in the following section, I will consider the application of a much stronger view – Tom Regan's rights view – to the hunting question, and there I will assume (with Regan) that all mammals have moral rights as he construes them. Since all of the obligatory management species listed above are mammals, this puts a very heavy burden of proof on the defender of therapeutic hunting. My point is that if even Regan's rights view can be used to defend therapeutic hunting of obligatory

management species, then certainly a preference utilitarian could defend it as well.

For present purposes, then, let us consider therapeutic hunting from a hedonistic utilitarian perspective. The defense is obvious. Consider the following argument:

(1) We have a moral obligation to minimize pain.
(2) In the case of obligatory management species, more pain would be caused by letting nature take its course than by conducting carefully regulated therapeutic hunts.
(3) Therefore, we are morally obligated to conduct carefully regulated therapeutic hunts of obligatory management species rather than let nature take its course.

Since premise (1) is just a (partial) restatement[34] of the hedonistic utilitarian principle, and the argument is valid, premise (2) is the obvious point of controversy. But premise (2) states an empirical claim. Thus Singer's disagreement with the hunters and wildlife managers is purely empirical. They agree at the level of moral principle; they disagree only about that principle's application in practice.

Specifically, Singer appears to believe that nonlethal means of population control are (or at least could be made) available, and that using them would minimize suffering *vis à vis* therapeutic hunting. Singer has very little to say about hunting specifically. However, in *Practical Ethics* he at one point clearly indicates that a hedonistic utilitarian could endorse hunting under some circumstances.

> The replaceability argument is severely limited in its application. It cannot justify factory farming, where animals do not have pleasant lives. Nor does it *normally* justify the killing of wild animals. A duck shot by a hunter... has probably had a pleasant life, but the shooting of a duck does not lead to its replacement by another. *Unless the duck population is at the maximum that can be sustained by the available food supply*, the killing of a duck ends a pleasant life without starting another, and is for that reason wrong on straightforward utilitarian grounds.[35]

Here Singer admits that the replaceability argument could be used to justify, not just therapeutic hunting of obligatory management species, but sport hunting of permissive management species. Ducks are not obligatory management species. Ducks do not, in the normal course of events, overshoot the carrying capacity of their habitat in ways that degrade that habitat for future generations of their own and other species. Their management is therefore environmentally permissible, but not environmentally obligatory. Nevertheless, a hedonistic utilitarian could endorse sport hunting of permissive management species when, as Singer indicates here, their populations are at or above the carrying capacity of their ranges. As noted above, permissive management species regularly overshoot the carrying capacity of their range, producing more young than their habitat can support. Where this is clearly the case, a painlessly killed individual is, in effect, replaced by an individual who survives as a result. So long as the average death ducks suffer at the hands of hunters involves as little or less pain than the average death surplus ducks would have suffered in nature, pain is minimized.

However, in *Animal Liberation* Singer writes:

> If it is true that in special circumstances their population grows to such an extent that they damage their own environment and the prospects of their own survival, or that of other animals who share their habitat, then it may be right for humans to take some supervisory action; but obviously if we consider the interests of the animals, this action will not be to allow hunters to kill some animals, inevitably wounding others in the process, but rather to reduce the fertility of the animals.[36]

Here Singer is admitting that therapeutic hunting of obligatory management species is better than letting nature take its course, but he is arguing that there is yet a better option. Singer appears to be substituting into the above argument a different empirical premise:

(2′) By using non-lethal means of controlling populations of obligatory management species we would minimize suffering *vis à vis* both letting nature take its course and performing carefully regulated therapeutic hunts.

To reach a different conclusion:

(3′) We are morally obligated to use non-lethal means to control populations of obligatory management species.

When all of the learned dust has settled, the disagreement between the Peter Singers of the world and the self-professed advocates of animal welfare among hunters and wildlife managers boils down to an empirical controversy over the effectiveness of non-lethal wildlife population control measures. Both factions agree at the level of moral principle; they disagree over the facts.

My sense is that, at least in the current state of nonlethal wildlife population control, the defenders of hunting have it right. In a retrospective essay written for the centennial of Aldo Leopold's birth, Dale McCullough (the A. Starker Leopold Professor of Wildlife Management at Berkeley) recounted the controversy over deer management on Angel Island in the San Francisco Bay. Under pressure from the San Francisco Society for the Prevention of Cruelty to Animals, the state of California tried both relocating deer and birth control implants. In a follow-up study, McCullough found that 85% of the relocated deer had died within one year of relocation, and the birth control program was abandoned after the Society was unable to trap and implant enough females to prevent continued population growth (it was estimated that about 60 would need to be implanted). McCullough concluded that "the alternatives to shooting for control of deer populations are expensive, ineffective, and not particularly humane."[37]

For present purposes, however (for assessing convergence of environmentalists' and animal rightists' views on hunting), the point is moot, for two reasons. First, in cases where overpopulation already exists, it is not safe to let all the animals live out their natural lives. If the result of this year's breeding season is a herd already significantly over the carrying capacity of its range, then all the fertility control in the world will not prevent the kind of habitat degradation which Singer admits would justify culling some individuals.

Singer's intention, presumably, is to use fertility control to stabilize populations at sustainable levels. But even with regard to such preemptive population control, for present purposes the choice between therapeutic hunting and non-lethal means is moot. For if, as the defenders of hunting maintain, hunting is in fact the only effective method of preemptive control, then both environmentalists and the Peter Singers of the world are compelled to support therapeutic hunting. If, on the other hand, effective non-lethal means were currently available, then the Peter Singers of the world would be compelled to support the use of those means rather than therapeutic hunting. Notice, however, that in the latter case an environmentalist would have the same choice open to her. For as we noted earlier, the only hunting environmentalists feel compelled to support is "biologically necessary" hunting. But if nonlethal population control were equally effective, *hunting* would not be biologically necessary, only the disjunctive choice: hunting *or* equivalent nonlethal means. That is, an environmentalist would reach conclusion 3″:

> 3″) We are morally obligated to use *either* (a) therapeutic hunting *or* (b) biologically equivalent non-lethal means to control populations of obligatory management species.

Just as environmentalists are of two minds with regard to sport hunting which is not also therapeutic, they would be of two minds with regard to the choice between therapeutic hunting and equally effective non-lethal means.

My sense is that the contemporary situation with respect to non-lethal means of deer population management is analogous to the use of hunting as a management tool in Leopold's days. Leopold was skeptical of wildlife managers' ability to control wildlife populations through hunting. He characterized hunting as

> a crude, slow, and inaccurate tool, which needs to be supplemented by a precision instrument. The natural aggregation of lions and other predators on an overstocked range, and their natural dispersion from an understocked one, is the only precision instrument known to deer management.[38]

I think that Leopold's skepticism of game management was overblown as a result of his having witnessed the Kaibab irruption in the 1920s and similar population problems in Wisconsin during the 1940s. Decades later, during the 1970s and 1980s, the state of Wisconsin used better censusing techniques and a zone-sensitive permit system[39] to sustain harvests of still wolfless deer in numbers far

exceeding the highest yields ever achieved during Leopold's lifetime.[40] Certainly other factors were involved – there was less edge habitat in Wisconsin in the 1940s – but Leopold's dim view of game management probably resulted in large measure from his living during the early days of scientific wildlife management. Non-lethal population control is still slow and crude, and needs to be supplemented with a precision instrument (therapeutic hunting and/or natural predation).

Recognizing that effective non-lethal population control is not currently available, animal rights activists might nevertheless choose to go on opposing therapeutic hunting for political purposes. In doing so, they would be practicing brinkmanship: they would be risking disaster (from the perspective of the individual animals involved) in order to force the development of more precise non-lethal techniques of population control. There is no precise way to determine when such brinkmanship is justified, anymore than there is any precise way to determine when civil disobedience or ecosabotage is justified.[41] In both cases, a rough utilitarian calculation is relied upon: in the case of civil disobedience and sabotage, the adverse effects on public order are weighed against the likely benefit of the law breaking; in the case of brinkmanship, the risk of a disastrous outcome is weighed against the probability of a breakthrough. However, part of the classic defense of civil disobedience and sabotage is that the conscientious lawbreaker has exhausted available legal means to achieve her goal, and in the case of therapeutic hunting, I don't think that activists can plausibly claim to have done this. Just as they have successfully forced private companies (like Mary Kay Cosmetics) and government agencies (like the NIH) to investigate alternatives to animal models in scientific research and product safety testing, activists could force agencies to put more money into investigations of non-lethal population control methods. So my conclusion is that we should not practice brinkmanship in this case. Therapeutic hunting is a precision tool already available, and as advocates of animal welfare, we should push for more research into non-lethal means of population control while supplementing non-lethal means with hunting.

I do, however, think that eventually precision methods of non-lethal wildlife population control will be developed. Recently, extensive experiments with animals have validated the technique of using genetically engineered viruses to spread infertility among wild animals. By inserting part of the protein sheath from the species' sperm into a virus which spreads easily in the population and then distributing food laced with the virus, Australian researchers hope to eradicate the rabbit, an exotic which has devastated their country. Trials of a similar technique to induce *temporary* infertility in other species are now underway.[42] The public in general and animal rights activists in particular are apprehensive of biotechnologies, but I think this method should, with appropriate caution, be embraced by the animal rights movement as a very promising approach to non-lethal control of wildlife populations.

The earlier discussion of environmentalists' ambivalent attitudes towards hunting suggests that if and when effective non-lethal alternatives to therapeutic hunting become available, environmentalists will be split. For some, the availability of non-lethal alternatives will strengthen their opposition to hunting; others will regard the choice between hunting and equally effective non-lethal means as morally moot. For present purposes what is important is this: animal rights activists operating from a hedonistic utilitarian stance will be compelled to support therapeutic hunting of obligatory management species in the absence of precision, non-lethal methods of wildlife population control. Only when such methods are available must such animal rights activists oppose therapeutic hunting, and then they will oppose it only in order to embrace a more humane alternative *with the same environmental effect*.

Animal *Rights* and Therapeutic Hunting

Although Peter Singer's *Animal Liberation* has become the Bible of the animal rights movement, Tom Regan's *The Case for Animal Rights* is the best defense available to date of a true animal rights position. It is impossible to do justice to the argument of a 400 page book in a few paragraphs. In what follows I will simply summarize the conclusions Regan reaches, without trying to reproduce his arguments in detail, and without critically assessing them apart from their application to the hunting controversy. It is my view that without resolving the theoretical question of which individuals (if any) have moral rights, we can still hope to make some progress on the practical question of which hunting policy to adopt. Specifically, I argue that in the absence of effective non-lethal means of population control, therapeutic hunting of obligatory management species *can* be defended from a true animal rights perspective.

According to Regan, there is basically one moral right – the right not to be harmed on the grounds that doing so benefits others – and at least all normal mammals of a year or more have this basic moral right. In the preface to his most recent anthology, Gene Hargrove characterizes Regan's position as

> more narrowly focused [than Singer's,] on protecting the rights of those nonhuman entities with inherent value – those capable of being the subject of a life – which turn out to be mammals and no other forms of life.[43]

This is misleading. Regan does not deny that any non-mammalian animals have rights. Although he does explicitly restrict the reference of "animal" to "mentally normal mammals of a year or more," Regan does this to avoid the controversy over "line drawing," that is, trying to say precisely where in the phylogenetic scale and where in their ontogeny animals' mental capacities become so impoverished as to make them incapable of being subjects of a life. And Regan clearly says that he chooses mammals in order to make sure that his arguments "refer [to] individuals *well beyond* the point where anyone could reasonably 'draw the line' separating those who have the mental abilities in question from those who lack them."[44] In thus restricting the reference of "animal" he is only acknowledging that the analogical reasoning which would establish that any non-human animal has moral rights is strongest in the case of mentally normal adult mammals and becomes progressively weaker as we consider birds and then reptiles, amphibians, and vertebrate fish.

Regan defends two principles to use in deciding whom to harm where it is impossible not to harm someone who has moral rights: the miniride and worse-off principles. The *worse-off principle* applies where *non-comparable* harms are involved and it requires us to avoid harming the worse-off individual. Regan adopts the kind of desire-based conception of harm discussed earlier in relation to preference utilitarianism. Regan measures harm in terms of the degree to which an individual's capacity to form and satisfy desires has been restricted. The degree of restriction is measured in absolute, rather than relative terms. For if harm were measured relative to the individual's original capacity to form and satisfy desires, rather than in absolute terms, then death would be death wherever it occurs, but Regan reasons that although death is always the greatest harm which any individual can suffer (because it forecloses all opportunity for desire formation and satisfaction), death to a normal human being in the prime of her life is non-comparably worse than death to any non-human animal in the prime of its life, because a normal human being's capacity to form and satisfy desires is so much greater. To illustrate the use of the worse-off principle, Regan imagines that five individuals, four humans and a dog, are in a lifeboat that can support only four of them. Since death to any of the human beings would be non-comparably worse than death to the dog, the worse-off principle applies, and it requires us to avoid harming the human beings, who stand to lose the most.[45]

The *miniride* principle applies to cases where *comparable* harms are involved, and it requires us to harm the few rather than the many. Regan admits that, where it applies, this principle implies the same conclusions as the principle of utility, but he emphasizes that the reasoning is non-utilitarian: the focus is on individuals rather than the aggregate; what the miniride principle instructs us to do is to minimize the overriding of individuals' rights, rather than to maximize aggregate happiness. He says that the rights view (as Regan calls his position) advocates harming the few (at least where *comparable* harms are involved), because it respects all individuals equally. To illustrate the miniride principle's application, Regan imagines that a runaway mine train must be sent down one of two shafts, and that fifty miners would be killed by sending it down the first shaft but only one by sending it down the second. Since the harms that the various individuals in the example would suffer are comparable, the miniride principle applies, and we are obligated to send the runaway train down the second shaft.

Regan argues that the rights view calls for the total abolition of scientific research on animals, of commerical animal agriculture, and of hunting and trapping.[46] He contrasts his views to Singer's in this regard, stressing that, because he is reasoning from a rights-based theory, his conclusions are not contingent upon the facts in the same way as those of a utilitarian like Singer.

At first glance, the prospects for convergence are slim when a true animal rights position like Regan's is opposed to the position of environmentalists. For if having moral rights means that there are certain things that cannot be done to an individual for the sake of the group, and a true animal rights position extends moral rights to animals, then the basic rationale for therapeutic hunting – killing some in order that others may live – appears to be lost. As Regan puts it:

> Put affirmatively, the goal of wildlife managers should be to defend wild animals in the possession of their rights, providing them with the opportunity to live their own life, by their own lights, as best they can, spared that human predation that goes by the name of "sport." . . . If, in reply, we are told that [this] will not minimize the total amount of suffering wild animals will suffer over time, our reply should be that this cannot be the overarching goal of wildlife management, once we take the rights of animals seriously.[47]

Regan appears to be opposed even to therapeutic hunting, and his opposition appears to follow from the attribution of moral rights to the animals.

However, Regan never considers the applicability of the miniride principle to hunting. Note that in the passage quoted above, he focuses on the reasoning presented in defense of therapeutic hunting by wildlife managers. They offer an aggregative, utilitarian argument, and as a rights theorist, Regan rejects utilitarian justifications for overriding individual rights. But Regan never considers what the implications would be of applying the miniride principle to the hunting question. Given Regan's conception of harm, death harms all normal individuals of the same species equally. So if it is true that fewer animals will die if therapeutic hunting is used to regulate a wildlife population than if natural attrition is allowed to take its course, then Regan's view implies that therapeutic hunting is not only permissible but a morally mandatory expression of respect for animals' rights.

Similar conclusions could, I think, be reached about certain kinds of medical research using the worse-off principle. Consider AIDS research, for example. Given Regan's conception of harm, the harm that death from AIDS is to a normal human being is non-comparably worse than the harm that death from AIDS is to a mouse or even a chimpanzee. So the worse-off principle would, if applicable, imply that non-human lives may be sacrificed to save human beings from preventable death. Here again, however, Regan does not apply his principle.

With regard to medical research, Regan bases his abolitionist conclusion primarily on the "special consideration" that "*Risks are not morally transferable to those who do not voluntarily choose to take them,*" which, he claims, blocks the application of the worse-off principle.[48] Returning to the hunting question, Regan might similarly cite a "special consideration" which blocks the application of the miniride principle. He might claim that a violation of an individual's moral rights occurs only when a moral agent is responsible for the harm in question, and that while hunters would be responsible for the deaths of the animals they kill in a therapeutic hunt, no one would be responsible for deaths due to natural attrition. Regan and Singer both give the following reason for thinking that natural predators do no wrong when they kill. They point out that only the actions of moral agents can be evaluated as right or wrong, and that presumably only human beings are moral agents (only human beings are capable of recognizing moral principles and altering their behavior accordingly).

But when a responsible agent knowingly allows nature to take its course, is he or she not responsible by omission for the foreseeable deaths which result? Regan's answer would presumably be no, but this does not seem to me to be a plausible position. In a recent article, Dale Jamieson presents a relevant counterexample. Suppose that a boulder is rolling down a hill toward a hiker and that you can save the hiker by calling out to her. Jamieson asks, does it make the slightest difference whether the boulder was dislodged by the wind rather than by a would-be murderer? If we are not responsible for allowing nature to take its course, then although you violate the hiker's rights by failing to warn her in the latter case, in the former case you would do her no wrong. But this seems implausible.[49]

There *would*, I think, be a good reason for not culling overpopulated humans: it is possible for any normal adult human to both understand the gravity of the situation and alter his or her behavior accordingly. A human being can recognize and act on the obligation of individuals to avoid contributing to overpopulation; a deer, an elephant, or a water buffalo cannot. This gives us a reason for

being more reticent about involuntarily culling human beings in a situation of overpopulation. However, I would maintain that this is only a reason for *waiting longer* before engaging in involuntary culling, for *letting the situation get significantly worse* before one resorts to such drastic means. Even with regard to humans, it is, I submit, implausible to maintain that the numbers never count. At some point (admittedly unspecifiable in advance), some number of innocent human beings ought to be killed to prevent the foreseeable deaths of some larger number (although again, the minimum required ratio of saved to culled cannot be specified in advance).

Regan claims that the rights view calls for the total abolition of animal research and hunting, and that because he is reasoning from a rights-based theory, his conclusions are not contingent upon the facts in the same way as those of a utilitarian like Singer.[50] But the discussion in this section has suggested that a rights view cannot plausibly be insulated from the facts, and that, therefore, a true animal rights view need not rule out hunting or research *simpliciter*. Where therapeutic hunting is the only means available to prevent a large number of foreseeable deaths, a full-blown animal rights position *can* support therapeutic hunting. And where non-lethal means *are* available, the case against brinkmanship is stronger from Regan's perspective than it is from Singer's. For as I suggested earlier, the defense of brinkmanship would parallel the classic defense of conscientious lawbreaking, and that defense is in terms of a utilitarian balancing of the magnitude and likelihood of the benefits of law breaking (or brinkmanship) against the magnitude and likelihood of the harms of law breaking (or brinkmanship). Although I agree with Jamieson that "Regan's theory has serious problems" and that the remedies "would be less clearly in conflict with consequentialist morality,"[51] I think the case against brinkmanship would remain stronger with Regan. Respect for individuals' rights would seem to require greater aversion to brinkmanship than would treating individuals as receptacles for hedonic utility.

Scrambling Positions on Hunting

A critical look at the philosophical foundations of the animal rights movement shows that an individual genuinely concerned with animal welfare, and even one who attributes moral rights to non-human animals, can support the only kind of hunting environmentalists feel compelled to support, namely therapeutic hunting of obligatory management species.

A critical look at the hunting issue also scrambles the soundbyte-sized positions portrayed in the media. Animal rights activists tend to condemn hunters for being unsportsmanlike, and they tend to condemn management aimed at achieving maximum sustainable yield (MSY) and/or trophy bucks. However, when it comes to designing an actual therapeutic hunt, some animal welfare and animal rights views ought, arguably, to endorse the same management principles that are appropriate to trophy hunting and/or MSY, and the ideal therapeutic hunt would be anything but sportsmanlike. On the latter point, consider that various unsportsmanlike practices would be conducive to killing specific categories of animals as quickly and painlessly as possible. In the ideal therapeutic hunt, deer would be lured to bait stations near blinds from which sharpshooters with high caliber, automatic weapons would be able to kill them selectively and quickly. This is hardly a paradigm of sportsmanlike hunting, but it is, arguably, the ideal which serious animal welfarists should advocate.

The former point, about management principles, cannot be made without a brief discussion of wildlife management principles. For ecologists, the carrying capacity of a deer range is the maximum number of deer the habitat will support on a sustained basis. Wildlife managers, in contrast, have tended to think of carrying capacity in terms of MSY (maximum sustainable yield). To avoid confusion, Dale McCullough advocates calling the former the *K carrying capacity* of the range, the latter its *I carrying capacity*.[52] Deer respond to higher population densities by producing fewer fawns (reabsorption of fetuses becomes more common and twins less common), and denser populations are more susceptible to disease and malnutrition. Consequently, maximum yearly recruitment (addition of new adults) occurs well short of K carrying capacity. Management for MSY therefore requires maintenance of deer populations substantially below K-carrying capacity, where recruitment rates are highest.

The significance is this. Average individual welfare arguably is higher in populations at I carrying

capacity than in populations at K carrying capacity, as evidenced both by more fawns surviving and in higher average weights and reduced parasitism and malnutrition among adults. Only a version of utilitarianism which placed preeminent emphasis on the sheer number of animals in the field would find management at K carrying capacity attractive. But McCullough's model suggests that MSY is achieved short of K carrying capacity, where individual welfare is higher. The ironic result that when hunters are harvesting the maximum number of animals, they see fewer afield and expend more effort per kill, has occasioned tension between wildlife managers and hunters.[53] Here is an opportunity for further convergence between pro- and anti-hunting forces. The policy positions of sport hunters educated to accept management at I carrying capacity for the sake of MSY will converge with those of animal welfare advocates educated to see that MSY management maximizes average individual welfare.

Perhaps more surprising is the fact that management practices which produce the best trophy bucks are arguably more consistent with Regan's rights view than is either management for MSY or K carrying capacity. The largest racks occur on older (4 to 6 years), heavier bucks, and heavier animals have to eat more to maintain themselves. So managing a deer herd to produce the best trophy bucks means sustaining fewer total deer and having fewer "hunting opportunities." As one how-to manual for East Texas deer managers puts it:

> On heavily hunted deer ranges, 90 percent of all the bucks are harvested before they reach four years old. Under these conditions deer do not live long enough to become trophy animals ... When managing for maximum quality [read: a preferred trophy], the forked-antlered buck harvest must be at least 30–50 percent less than when managing for maximum harvest.[54]

That is, to produce the best trophy bucks on a range, the population must be maintained below MSY, and this must be accomplished by killing more does and spike bucks[55] and fewer fork-antlered bucks.[56] Although the sex ratio of animals killed changes, by maintaining the population below I carrying capacity and MSY, fewer animals are killed yearly. Here is an opportunity for convergence between the views of trophy hunters and animal rights activists who think like Tom Regan. The miniride principle implies that it is better to manage herds in ways that minimize killing. The trophy management principles just described do just this, by emphasizing the taking of does and maintenance of the population below MSY. But enlightened trophy hunters will accept this – the manual just cited is designed to get hunters to stop thinking that good trophy management means buck-only hunting.

It would also be possible to endorse the trophy improvement strategy over MSY management from a hedonistic utilitarian perspective. Assuming that on average death is death in hedonistic terms, however it occurs (whether from starvation or human or natural predation), the trophy improvement strategy would minimize pain *vis à vis* the other two management strategies. (Although managing a population at K carrying capacity would involve less hunting than at I carrying capacity, at K carrying capacity total mortality is greatest.)[57]

One further point needs to be emphasized. I defined an obligatory management species as one with "a fairly regular tendency to overshoot the carrying capacity of its range," but this does not mean that obligatory management species *always* need to be hunted. If that were so, then it would not make sense to limit hunting in parks to situations in which hunting becomes "biologically necessary." As McCullough points out:

> Most wildlife biologists and managers can point to situations where deer populations have not been hunted yet do not fluctuate greatly or cause damage to vegetation. Certainly deer reach overpopulation status in some park situations, but the surprising thing is how many parks containing deer populations have no problem.[58]

From an animal welfare or animal rights perspective, the presumption is against hunting. With regard to obligatory management species, it is not unusual for this presumption to be met, although this is not always the case. Ungulates are the classic example of obligatory management species, but even among them there are important variations. In climax-adapted ungulates (like bison, bighorn sheep, mountain goats, muskox, and caribou) the magnifying effects of time lags in vegetation damage are less severe than in subclimax ungulates

(like deer, pronghorn antelope, and moose).[59] So the burden of proof necessary to justify therapeutic hunting is more likely to be met with some ungulates (e.g. deer and moose) than others (e.g. mountain goats or bighorn sheep). The parallel point with regard to permissive management species is that although they do not degrade their habitats on anything like a regular basis, they *can* under certain circumstances, and in those circumstances animal rights views can support hunting of them.

Endangered Species, Exotics, and Natural Predators

I said that I would spend most of my time on the hunting issue because a careful treatment of it sets the stage for my treatment of the other issues mentioned earlier: captive breeding of endangered species, removal of exotics, and natural predation. The received view has it that animal rights philosophies have environmentally unsound implications on each of these issues. Environmentalists recognize prima facie duties to remove exotics, to reintroduce locally extinct predators to their former ranges, and to captive breed critically endangered species. My thesis in this section is that a more critical understanding of animal rights philosophies shows how an animal rights activist could recognize each of these prima facie duties on one or the other of two closely related grounds: duties to future generations of animals and/or duties to future generations of human beings.

Let me begin with the latter ground. Singer and Regan both emphasize the formal moral equality of human and (some) non-human animals. Yet, as I had occasion to point out in previous sections, both think hierarchically in the last analysis. For that reason, scientists and agriculturalists who say that, "For an animal rightist, human and animal lives are strictly equal," or "According to animal rights philosophies, 'a rat is a pig is a dog is a boy'," are committing the same intellectual sin they so love to charge animal rights activists with. For they are attacking animal rights philosophies without having troubled to read any of the relevant professional literature (or, if they have read anything it is only *Animal Liberation*, and they have not read it with careful attention to the philosophical arguments). This is every bit as intellectually irresponsible as a follower of Peter Singer refusing to inform himself about the empirical realities of scientific experimentation or animal agriculture. Singer *clearly* states that it is *not* speciesist to hold that killing a normal adult human is as morally serious as killing a mouse,[60] and Regan *clearly* says that death is a greater harm to a normal adult human than it is to any non-human animal. No fair reading of Singer's *Animal Liberation* (let alone his *Practical Ethics*) or Regan's *The Case for Animal Rights* could yield scientists' common, fundamental misunderstanding of their views.

Although fair-minded scientists and agriculturalists will find this inegalitarian aspect of Singer's and Regan's views comforting, no doubt many animal rights activists will reject it. But this is not a point about which animal rights activists need be apologetic. Any workable ethics will recognize *some* hierarchies. Albert Schweitzer is renowned for assiduously refusing to prioritize forms of life and their various interests, maintaining that

> Whenever I in any way sacrifice or injure life, I am not within the sphere of the ethical, but I become guilty, whether it be egoistically guilty for the sake of maintaining my own existence or welfare, or unegoistically guilty for the sake of maintaining a greater number of other existences or their welfare.[61]

Here Schweitzer clearly says that even killing in self preservation incurs guilt. Yet he also admits that "The necessity to destroy and to injure life is imposed upon me" at every step,[62] implying that we cannot help but incur guilt all the time. Elsewhere he appears to contradict himself, saying that "Whenever I injure life of any sort, I must be quite clear whether it is necessary. Beyond the unavoidable, I must never go,"[63] suggesting that "unavoidable" or "necessary" injuries are permissible. It may be that Schweitzer's point was one with which I agree, namely that any adverse impact on the interests of any organism (even a disease microbe) introduces some evil into the world. If this were the meaning of the former passage, then it would be consistent with the latter passage, because (as any utilitarian will admit) the production of some evil can be justified by the preservation or production of good. Speaking in terms of unavoidable guilt is a confusing way of making this point, however. Probably Schweitzer's overarching aim

was to urge people, in very dramatic terms, to take more seriously decisions involving injury or death to living things of any species. With that laudable goal I agree. But Schweitzer's own talk about the necessity of injury and death[64] gives the lie to any practically useful ethics entirely free of hierarchies. Any workable ethics must recognize some hierarchy of interests, and from this a hierarchy of life forms follows, if it turns out (as I think it does[65]) that only some forms of life have the favored kinds of interests.

The point of this digression on moral hierarchies is this: if

(1) we have a general duty to preserve the integrity of ecosystems as the necessary context in which future generations of humans can pursue their most important interests,
(2) these interests are of overriding moral importance, and
(3) safeguarding future generations' pursuit of these interests requires us to remove exotics, breed endangered species, and reintroduce predators,

then long-sighted anthropocentrists and animal rights activists can agree that these things should be done (or at least that there is a presumptive, prima facie duty to do these things).

Bryan Norton has offered an anthropocentric defense of the duty to preserve natural variety which leads fairly naturally to the three prima facie duties in question. Norton's argument

> recognizes the crucial role of creative, self-organizing systems in supporting human economic, recreational, aesthetic, and spiritual values. Because self-organizing systems maintain a degree of stable functioning across time, they provide a sufficiently stable context to which human individuals and cultures can adapt their practices.[66]

Norton doubts that adequate indicators of ecosystemic health are currently available, because of the "centrality and intransigence of scaling problems,"[67] but he stresses the general importance of total diversity – a combination of within-habitat diversity and cross-habitat diversity[68] – and the preservation of normal rates of change in environmental systems.[69] He therefore unpacks the duty to preserve natural variety in terms of preserving (or, where necessary, restoring) the integrity of ecosystems. He says that

> An ecosystem has maintained its integrity . . . if it retains (1) the total diversity of the system – the sum total of the species and associations that have held sway historically – and (2) the systematic organization which maintains that diversity, including, especially, the system's multiple layers of complexity through time.[70]

Preserving "the sum total of the species and associations that have held sway historically" will sometimes require captive breeding of critically endangered species, sometimes it will require us to remove exotics, and sometimes it will require us to reintroduce locally extinct predators.

If future generations of human beings can only fulfill their most important interests against a background of relatively intact ecosystems, then relatively intact ecosystems we must preserve. And if, as environmentalists claim, preserving relatively intact ecosystems necessarily involves (some) breeding of endangered species, (some) removal of exotics, and allowing (some) natural predation, then animal rights activists who acknowledge the primacy of humans' most important interests can agree with both long-sighted anthropocentrists and environmentalists that we have prima facie duties to do these things.

I said that animal rights activists could also recognize prima facie duties to breed critically endangered species, remove exotics, and reintroduce predators as duties to future generations of *animals* and I will end by very briefly outlining how this is so. If human flourishing requires a relatively stable ecological context, then so too, presumably, does the flourishing of the nonhuman animals with which Singer and Regan are concerned. Norton's point about ecological integrity is not (or not just) that intact ecosystems are storehouses of resources useful to future generations of humans. If they were only that, then nontechnological creatures like deer and owls would not need intact ecosystems. But Norton's point is that total diversity is crucial to the dynamic stability of ecosystems through time. Certainly some species (e.g. coyotes and raccoons) are opportunistic and can thrive in newly disturbed ecosystems. Others (e.g. beaver) must disturb ecosystems to survive at all. But only if a patchwork of habitats in various stages of succession is maintained in every region will the needs of such species

be met, for cross-habitat diversity provides the species on which these animals' lives depend. Although any one species may require a specific habitat to survive, in the long haul, all species depend on an ecological background of cross-habitat diversity. So without invoking the interests of future generations of humans, an animal rights activist could defend captive breeding, removal of exotics, and reintroduction of predators where these are necessary to preserve the ecological background conditions on which future generations of animals will depend.

Notes

1 It was a demonstration in response to Texas A&M's decision, in early 1991, to remove "sexual orientation" from the list of protected categories in its official anti-discrimination policy. The sign said: "Straight but not narrow." (I wish I could say I made it up, but someone handed it to me!)
2 J. Baird Callicott, "Animal Liberation: A Triangular Affair," *Environmental Ethics* 2 (1980), pp. 311–38; reprinted in Callicott, *In Defense of the Land Ethic* (Albany: SUNY Press, 1989).
3 Tom Regan, "The Nature and Possibility of an Environmental Ethic," *Environmental Ethics* 3 (1981), pp. 19–34.
4 Mark Sagoff, "Animal Liberation and Environmental Ethics: Bad Marriage, Quick Divorce," *Osgood Hall Law Journal* 22 (1984), pp. 297–307, at pp. 304, 306.
5 Eric Katz, "Defending the Use of Animals by Business: Animal Liberation and Environmental Ethics," in W. Michael Hoffman, Robert Frederick, and Edward S. Petry, Jr., eds., *Business, Ethics, and the Environment: The Public Policy Debate* (New York: Quorum Books, 1990), pp. 223–32, at p. 224.
6 Gary E. Varner and Martha C. Monroe, "Ethical Perspectives on Captive Breeding: Is it For the Birds?" *Endangered Species UPDATE*, Vol. 8, No. 1 (November 1990), pp. 27–9, at p. 28.
7 J. Baird Callicott, "Animal Liberation and Environmental Ethics: Back Together Again," in *In Defense of the Land Ethic* (Albany: SUNY Press, 1989), pp. 49–59.
8 Abstract of "Moral Monism in Environmental Ethics Defended," presented to the Central Division Meeting of the American Philosophical Association, April 24, 1993. *Proceedings and Addresses of the American Philosophical Association*, Vol. 66 (1993), No. 6, p. 69.
9 Bryan Norton, *Toward Unity Among Environmentalists* (New York: Oxford University Press, 1991), p. 222.
10 Ibid., p. 223.
11 Gary E. Varner, "Environmental Law and the Eclipse of Land as Private Property," in Frederick Ferré and Peter Hartel, eds., *Ethics and Environmental Policy: Theory Meets Practice* (Athens, GA: University of Georgia Press, 1994) pp. 142–60.
12 James M. Jasper and Dorothy Nelkin, *The Animal Rights Crusade: The Growth of a Moral Protest* (New York: Free Press, 1992).
13 Norton, *Toward Unity Among Environmentalists*, p. 246, emphasis added.
14 Ron Howard, personal communication dated 18 June 1992.
15 It might be preferable to speak in terms of "necessary" and "optional" rather than "obligatory" and "permissible," because Howard's labels are intended to be descriptive, rather than normative. Also, note the qualification, in the penultimate section of this paper, that even among obligatory management species, hunting is not *always* necessary to prevent environmental damage.
16 "Animal Rights: Ignorance About Nature," *Audubon*, November 1990.
17 Julie A. Smith, "Wisconsin Greens Support Hunting – The Alliance Wonders Why?" *The Alliance News*, Vol. 8, No. 1 (February, 1991), pp. 1, 7.
18 Marian Bean, "Environmental Groups and Animal Rights," *The Alliance News*, Vol. 8, No. 1 (February, 1991), p. 6.
19 Title 5 (Hunting and Fishing), §62.062(a).
20 S.B. 179, Section 1; Texas Code, Title 2 (Parks and Recreational Areas), §13.001(b).
21 Lone Star Chapter of the Sierra Club, *State Capitol Report*, Vol. 10, No. 5 (May 1, 1993), p. 2.
22 Peter Singer, *Animal Liberation*, second edition (New York: Avon, 1990).
23 Peter Singer, *Practical Ethics*, second edition (Cambridge: Cambridge University Press, 1993). Hereafter, *Practical Ethics*.
24 *Animal Liberation*, pp. 18–19.
25 Ibid., p. 17.
26 Ibid., p. 125.
27 There are subtle but important differences among these terms. See Michael R. Bratman's treatment in his *Intentions, Plans, and Practical Reason* (Cambridge: Harvard University Press, 1987).
28 *Practical Ethics*, pp. 111–16, 118, and 132.
29 Ibid., pp. 95, 133.
30 Ibid., p. 132.
31 Gary Varner, "Localizing Desire," chapter two of *In Nature's Interests? Interests, Animal Rights, and Environmental Ethics*, (New York: Oxford University Press, 1998), pp. 26–54.

32 See the anecdote reported by Donald Griffin, *Animal Minds* (Chicago: University of Chicago Press, 1992), pp. 64–5.
33 *Practical Ethics*, p. 132.
34 Sans the (possibly incoherent) obligation to maximize simultaneously two variables (minimize pain *and* maximize pleasure).
35 *Practical Ethics*, pp. 133–4, emphasis added.
36 *Animal Liberation*, p. 234. Two points about this argument. First, with regard to obligatory management species, it is not just "in special circumstances" that a population of animals "grows to such an extent that they damage their own environment and the prospects of their own survival, or that of other animals who share their habitat." The regularity with which this happens with obligatory management species is what separates them from permissive management species. Second, the choice is not simply between "allow[ing] hunters to kill some animals, inevitably wounding others in the process" and "reduc[ing] the fertility of the animals" by non-lethal means. Hunting regulations could be radically changed to minimize the wounding of animals. For instance, hunting could (in principle) be confined to bait stations with nearby blinds, from which hunters with high calibre, automatic weapons and telescopic sights would kill habituated animals in a selective way (e.g. only does and sicker animals).
37 Dale McCullough, "North American Deer Ecology: Fifty Years Later," in Thomas Tanner, ed., *Aldo Leopold: The Man and His Legacy* (Ankeny, Iowa: Soil Conservation Society of America, 1987), pp. 115–22, at p. 121.
38 "Report to American Wildlife Institute on the Utah and Oregon Wildlife Units," quoted in Susan Flader, *Thinking Like a Mountain: Aldo Leopold and the Evolution of an Ecological Attitude toward Deer, Wolves, and Forests* (Lincoln: University of Nebraska Press, 1978), p. 176.
39 Described in William Creed et al., "Harvest Management: The Wisconsin Experience," in Lowell K. Halls, ed., *White-Tailed Deer: Ecology and Management* (Harrisburg, Pennsylvania: Stackpole Books, 1984), pp. 211–42.
40 In Leopold's time, it was unusual to harvest over 40,000 animals a year. By the middle 1980s, by contrast, Wisconsin was consistently harvesting over a quarter of a million deer annually. Wisconsin Department of Natural Resources, *Wisconsin Game and Fur Harvest Summary, 1930–1986* (Madison, Wisconsin, 1987), pp. 3–4.
41 Here I am employing Michael Martin's analysis of conscientious law breaking, in "Ecosabotage and Civil Disobedience," *Environmental Ethics* 12 (1990), pp. 291–310, and adapting it to the case of brinkmanship.
42 Malcolm W. Browne, "New Animal Vaccines Spread Like Diseases," *New York Times*, 11 November 1991, pp. B5, B7.
43 Eugene C. Hargrove, "Preface," *The Animal Rights/Environmental Ethics Debate: The Environmental Perspective*, p. x. See also Callicott's review of Regan's book, *Environmental Ethics 7* (1985), pp. 365–72.
44 Tom Regan, *The Case For Animal Rights* (Berkeley, CA: University of California Press, 1983), p. 78 (emphasis in original).
45 Ibid., pp. 285–6.
46 The phrase "*commercial* animal agriculture" is Regan's. It is not obvious why the qualification "commercial" is included.
47 Regan, *Case for Animal Rights*, p. 357.
48 Regan, *Case for Animal Rights*, pp. 322 and 377, emphasis in original.
49 Dale Jamieson, "Rights, Justice, and Duties to Provide Assistance," *Ethics* 100 (1990), pp. 349–62, at pp. 351ff.
50 Regan, *Case for Animal Rights*, section 6.4.
51 Jamieson, "Rights, Justice, and Duties to Provide Assistance," pp. 349, 362.
52 Dale McCullough, *The George Reserve Deer Herd: Population Ecology of a K-Selected Species* (Ann Arbor: University of Michigan Press, 1979).
53 McCullough, "Lessons from the George Reserve," pp. 219–22.
54 Gary E. Spencer, *Piney Woods Deer Management*, Texas Parks & Wildlife Department bulletin #7000–88 (February 1983), pp. 29, 32.
55 In bad years or on an already overstocked range, spike bucks (bucks 18 months or older with unforked antlers) are the result of poor nutrition rather than genetic "inferiority." But under good conditions such as those obtaining at or below 1 carrying capacity, bucks who produce spikes as year-lings will never achieve the same degree of antler development as fork-antlered yearlings.
56 McCullough argues that management for MSY simultaneously maximized trophy buck production in the George Reserve. While agreeing that average rack size is correlated with average weight, McCullough denies that heavier bucks must be older: "Record bucks were produced not at high densities, which have the oldest individuals, but rather at the lowest densities . . . having the youngest age structure in both the population and the kill" ("Lessons from the George Reserve," p. 234). But this makes it unclear why he says, earlier in the same article, that "It is ironic that those opposing hunting are most incensed by trophy hunting . . . a practice that assures that the fewest deer will die from gunshots" (p. 230). By his own account, maintaining the population at 1 carrying capacity involves the *most* animals dying from gunshots.

57 Notice, however, that a single-minded emphasis on eliminating pain would seem to imply that hunting a population of sentient creatures to extinction would be a good thing, since this would prevent an infinite amount of pain. Arthur Schopenhauer, the German pessimist philosopher who placed a premium on the elimination of suffering, advocated extinction of the human race on this ground. Although the hedonistic utilitarian principle as usually formulated involves potentially inconsistent goals (minimizing pain *and* maximizing pleasure), it is therefore preferable to a negative utilitarian principle of minimize pain, simpliciter.
58 McCullough, "Lessons from the George Reserve," pp. 239–40.
59 McCullough, *The George Reserve Deer Herd*, pp. 160 and 172.
60 *Animal Liberation*, p. 17–18, quoted above. See also *Practical Ethics*, ch. three.
61 Albert Schweitzer, *The Philosophy of Civilization* (New York: Macmillan, 1955), p. 325.
62 Ibid., p. 316.
63 Ibid., p. 318.
64 Unanalyzed, the notion of "necessity" is of very little help, however. See Susan Finsen, "On Moderation," in Marc Bekoff and Dale Jamieson, eds., *Interpretation and Explanation in the Study of Animal Behavior*, vol. 2 (Boulder: University of Colorado Press, 1990), pp. 394–419.
65 See generally, my *In Nature's Interests? Interests, Animal Rights, and Environmental Ethics*, (New York: Oxford University Press, 1998).
66 Bryan Norton, "A New Paradigm for Environmental Management," in Robert Costanza and Bryan Norton, eds., *Ecosystem Health: New Goals for Environmental Management* (Washington, DC: Island Press, 1992), pp. 23–41, at p. 24.
67 Ibid., p. 34.
68 Bryan Norton, *Why Preserve Natural Variety?* (Princeton, NJ: Princeton University Press, 1987).
69 Norton, *Toward Unity Among Environmentalists*.
70 "A New Paradigm for Environmental Management," p. 26.