

# Population Growth and the Preservation of Wilderness: Interspecific Conflict Resolution in Environmental Ethics

*Martin Schönfeld*

Animals are neither things nor persons. They care for their well-being and seek self-preservation, yet ethicists are unsure whether or to what extent animals have valid claims on us. Neither the anthropocentric theories of classical Western morality nor the nonanthropocentric approaches in modern environmental ethics have succeeded to date in resolving conflicts of interest between humans and nonhumans. In this paper, I wish to defend an environmental ethics that occupies the middle ground between traditional anthropocentrism and fashionable egalitarianism. It seems to me that a sound normative system requires a hierarchical conception of human and nonhuman rights and should rely on a casuistry involving both anthropocentric and nonanthropocentric strategies.

Proceeding from a critical consideration of the anthropocentric dogma and its egalitarian alternative, I argue that both positions need to be abandoned (section 1). The weight of recent objections to traditional Western ethics suggests that the domain of moral consideration must be expanded beyond human boundaries. Several environmental philosophers have suggested that nonhuman rights should be taken just as seriously as human rights. I maintain that this egalitarian conception of interspecific justice is not viable. In its stead, I propose a hierarchical conception of interspecies moral standing (section 2). It seems to me that animal rights, just like human rights, are meaningful normative constructs, and that there are valid grounds for distinguishing between the two—animal rights cannot be ignored, but human rights are more important. D. VanDeVeer has devised a casuistry for such a hierarchical normative system. This casuistry, so-called two-factor egalitarianism, is useful, but its applicability is limited to clashes of interests that tend to occur in affluent nations. I suspect that interspecies conflicts that are more characteristic of the environmental problems of developing countries require different problem-solving strategies (section 3). Interspecies conflicts of the latter sort often arise from the tension between population growth and wilderness preservation. I argue that only an anthropocentric path reaches the goal of interspecific justice in these conflicts. Their resolution, I contend, requires appeals to the rights of future human generations. These appeals are shown to be compatible with the nonanthropocentric thrust of two-factor egalitarianism and combine with the latter strategy to form a coherent casuistry for environmental ethics.

## 1. A Hierarchical Alternative to Nonanthropocentric Egalitarianism

Traditionally, the beneficiaries of moral concern have been equated with actual and potential rational agents. Because human beings are the only organisms that possess the relevant features, the set of standard rational agents has been identified with the set of ordinary human beings. Several decades ago, various philosophers started to challenge this view on the basis of the contention that more complexly evolved animals, for instance, mammals and birds, are just as deserving of moral consideration as humans are.<sup>1</sup> One argument was advanced to the effect that interests are ethically relevant and that the presence of the psychological trait of having interests is independent of the presence of rationality.<sup>2</sup> A living being can possess interests, such as desires for well-being and survival, even if it is incapable of engaging in intellectual pursuits and acting contrary to its instinctive behavioral schemata. Interests can meaningfully be attributed to nonhuman and nonrational beings because their behavior is best explained by assuming that they possess a conative life. According to another argument, members of mammalian and avian species are entitled to moral consideration because their possession of a central nervous system enables them to feel pleasure and pain. Sentience, the capacity to suffer and experience enjoyment, is an ethically relevant feature.<sup>3</sup> It would be inconsistent to allow its ethical relevance, to grant that some nonhumans are sentient, and yet to exclude them from direct moral consideration. A third argument involves the claim that higher-developed animals qualify as experiencing subjects of life.<sup>4</sup> They may lack rationality and free will, but they still perceive reality from their own, unique vantage point. Such self-awareness, it is argued, is intrinsically valuable. It is misconceived to reduce the value of goal-oriented and self-aware organisms to a mere instrumental worth contingent on human wants. These arguments can be combined to form a cumulative case for the moral standing of animals, because in light of our current knowledge, it is plausible to assume that they possess all of the suggested criteria for moral standing: interests, sentience, and self-awareness.<sup>5</sup> Accordingly, many environmental philosophers and animal rights ethicists, most emphatically P. Taylor and T. Regan, conclude that the anthropocentric dogma of human superiority is fatally flawed. It should be replaced by an egalitarian conception of the rights of living beings in general, or, at the very least, by an egalitarian conception of the rights of humans and animals.<sup>6</sup>

The exclusion of nonhuman beings from direct moral consideration is arbitrary and untenable. But the egalitarian alternative is problematic, too. For one thing, no logical constraint forces anyone willing to assign moral standing to humans and nonhumans alike to assign it to humans and nonhumans equally. The question of whether an entity possesses a certain property is distinct from the question of whether the property, when possessed, can vary in magnitude or degree.<sup>7</sup> In other words, the claim that humans and at least some nonhumans have moral standing does not entail the further claim that they have moral standing *equally*. A further difficulty burdening the egalitarian position is that the equal allotment of moral

standing leads to counterintuitive consequences. For instance, the assertion of the alleged equality of human and nonhuman moral standing implies that inflicting similar harms on humans and nonhuman beings would amount to similar wrongs. A rat possesses the ethically relevant features mentioned above: interests, sentience, and self-awareness. According to egalitarianism, then, there could not be any intrinsic moral difference between killing a rat and murdering a man. Or, suppose you see a rat and a child drowning and you can save only one: whom should you pick? An egalitarian agent choosing to rescue the child cannot do so without pangs of speciesist guilt.<sup>8</sup> Granted, that a normative system involves bizarre consequences and seemingly artificial dilemmas does not indicate its inferiority to alternative systems in principle. But it does indicate that something has gone awry when the justification of precepts does not harmonize with well-established facts. Sexism, for instance, is an inferior normative system because of its lack of such a harmony: the justification of its central precept, female oppression, depends on certain stipulated gender differences that are fictitious. Egalitarianism ails from a similar defect. The justification of its central precept, the equal moral worth of humans and nonhuman beings, depends on a claimed identity of their ethically relevant psychological capacities that has little to do with the facts.

Humans and complexly evolved animals share the ethically relevant capacities of self-awareness, sentience, and having interests. But humans can act responsibly to a significantly greater degree than animals can, and human actions are more suited to the awarding of praise and blame than animal behavior could ever be. This is not to say that animals lack features that approximate moral agency. A dog who attacks the mailman can be punished just as a teenager who does the same. In either case, involving a dog or a teenager, the punishment would serve the dual purpose of deterrence and instruction. But differences remain: evidently, in contrast to a human perpetrator, a kodiak bear who kills a hiker in the woods cannot be tried for murder. The greater mental sophistication of ordinary human adults involves the possession of additional ethically relevant capacities that animals possess only in part.

These additional capacities—rationality, free will, and empathy—are jointly constitutive of moral agency. The power of abstract thought allows one to assess the likely effects of one's behavior on oneself and others. The ability to act contrary to one's inclinations is the *sine qua non* of culpability and moral desert—without freedom, no ethics. Comprehension of and compassion for the welfare of others contributes to a fully developed ethical behavior. Ordinary humans and higher animals are sentient and self-aware beings with conative lives. Hence both qualify as moral patients. Higher animals, in addition, seem to be fully capable of displaying empathy, provided that they belong to species adapted to social lives in packs, flocks, or herds. But only humans are capable of possessing the full range of morally relevant features. Although higher animals display a limited potential for moral agency, humans, and only humans, happen to be moral agents in the full sense of the word.<sup>9</sup>

Since it is reasonable to determine the degree of an entity's moral standing by the ethically relevant capacities the entity possesses, it makes sense to attribute greater moral worth to humans than to animals. Although the ethically relevant similarities between humans and nonhuman beings refute the anthropocentric dogma, their differences undermine an egalitarian model of distributive justice. However, P. Singer, who advocates the egalitarian model, rejects the anthropocentric dogma on grounds of its implicit human bias, a bias that represents "speciesism" to him (a term intentionally modeled on "racism" and "sexism," to allege the invidious nature of such partiality). As Singer remarks, "Speciesism . . . is a prejudice or attitude of bias in favor of the interests of members of one's own species and against those of members of other species. It should be obvious that the fundamental objections to racism and sexism . . . apply equally well to speciesism."<sup>10</sup>

If Singer were right, then egalitarianism would be the only morally viable alternative to the anthropocentric dogma. But it seems to me that his denunciation of speciesism is overblown. If two species differ in ethical capacities such that the members of the one species tend to have less of them than the members of the other, then awarding moral standing to the latter while denying it to the former would be unjust. Nonetheless, it would be perfectly appropriate to award to the latter a greater amount of moral standing than to the former. We do the same, and for good reason, within our own species. Adults who are both moral patients and moral agents have more rights than neonates (who are only moral patients). As regards other species, a privileged treatment of one species would be invidiously speciesist only if it were arbitrary. But there are factual and ethically relevant differences between humans and animals that *prima facie* suggest favoring the interests of humans over those of animals.

## **2. Two-Factor Egalitarianism and Interspecies Conflicts in Affluent Nations**

One philosopher, D. VanDeVeer, devised a casuistry for the hierarchical environmental ethics proposed here.<sup>11</sup> This casuistry, so-called two-factor egalitarianism, aims to adjudicate conflicts of interests between humans and nonhumans. The first factor of two-factor egalitarianism concerns the circumstance that not all interests have the same significance. One can plausibly distinguish basic interests, such as the interest in survival, serious interests, such as the interest in health, and peripheral interests, such as the interest in play. Two-factor egalitarianism suggests a ranking of these three kinds of interests: basic interests should override serious and peripheral interests, and serious interests ought to prevail over peripheral interests. The second factor of VanDeVeer's two-factor egalitarianism concerns the circumstance that psychological capacities vary in different species. The more complex the capacities are, the greater the value of the being possessing them will be. VanDeVeer contends that the interests of a being with richer psychological capacities ought to outweigh similar interests of a being with poorer psychological capacities.

The distinctions drawn among interests are deliberately vague. VanDeVeer observes that “there is no precise way of determining which interests are basic, which serious, and which are more peripheral or how to rank interests precisely.”<sup>12</sup> Because the significance of an interest depends on its type as well as on the situation in which it emerges, a casuistry involving a more differentiated ranking of interests may be at risk of becoming too rigid. The context of an intended act, which shades the significance of the relevant interests, matters when determining the moral worth of the action. So the roughness of the distinctions drawn is appropriate. On the other hand, the second relevant factor (psychological capacities) is too vague to be useful. If the individual level of psychological capacities were as decisive as VanDeVeer suggests, then the resulting casuistry would be at odds with the standard conception of human rights. Having human rights is independent of the complexity of psychological capacities of the rights-holder, but depends instead, to some extent, on the possession of ethically relevant capacities. All humans are entitled to a basic catalogue of rights, but some humans—adults who have the capacities constitutive of moral agency—are entitled to additional rights (e.g., the rights to marry and found a family).<sup>13</sup> So we need to modify two-factor egalitarianism somewhat: the general appeal to psychological capacities should be replaced with a specific appeal to ethically relevant psychological capacities—having interests, sentience, self-awareness, the capacity for abstract thought and planning, the ability to make choices, and the ability to empathize.

Two-factor egalitarianism (in its modified version) permits the systematic resolution of interspecies conflicts. Suppose that an animal *A* and a human *H* have conflicting interests and that *A* lacks some ethically relevant capacities possessed by *H*. If the conflicting interests of *A* and *H* are of the same type—such that the conflict is between their basic interests, between their serious interests, or between their peripheral interests—then *H*'s interest will override *A*'s interest. If the interests at odds are of different types, two-factor egalitarianism suggests a calculus of conflict resolution: *H*'s basic interest ought to override *A*'s serious and peripheral interests, and *H*'s serious interest ought to override *A*'s basic and peripheral interests. The human contender should win if his basic or serious interests are at stake. But if the human interest is of a peripheral kind, then the animal's claim ought to prevail.

Instead of the sweeping condemnations of animal mistreatment that one finds in egalitarian proposals, two-factor egalitarianism offers more differentiated appraisals. Using animals for food is questionable if it involves the suffering of animals to satisfy dietary preferences (e.g., veal and paté de foie gras) or to bow to religious demands (e.g., Jewish and Islamic butchering methods). But it is acceptable, according to two-factor egalitarianism, if nutrition alternatives are difficult to obtain or if the animal in question has comparably few ethically relevant capacities. Hunting is morally problematic if done for fun. But it is not wrong if done for the sake of biodiversity or ecosystemic stability. Analogously, experimentation on animals is justified if it serves basic human interests (e.g., AIDS research with monkeys because of the similarity of simian and human strains of HIV) but reprehensible if it does not. Finally, the destruction of ecosystems is morally permissible if

done for the purpose of meeting basic human interests (e.g., in housing and food), but it is not if done for the sake of peripheral interests, such as a social preference for suburban sprawl.

Two-factor egalitarianism suggests clear-cut resolutions of the interspecies conflicts that are peculiar to affluent nations. Consider how environmental policies in Germany and the United States deal with the basic human interest in housing. Both the German city of Regensburg in Bavaria and the American city of Tampa in Florida have experienced considerable growth over the last fifty years. Their growth rates are similar: the residential areas in both cities have roughly quadrupled since 1945. In Germany, comprehensive restrictions on the development of ecologically valuable habitats or of land populated by climax communities regulate the right to build houses. Residential communities are being built on land either previously cultivated or already inhabited. Because of the existing legal constraints, no significant communities of nonhuman life have been eliminated in the postwar process of Regensburg's expansion. On the other hand, the expansion of Tampa has had a dramatic ecological impact. With few exceptions, it is legal to build residential communities in Florida on land supporting ecosystems with large amounts of biomass and high degrees of biodiversity. That Tampa continues to expand outward faster than Regensburg stems from Tampa's municipal zoning laws, which require the separation of commercial and residential districts. These laws force a continued suburban expansion and generate financial rewards for land owners, real estate agents, car dealers, and construction companies. Residents are attracted to this kind of housing because it involves financial incentives and because it epitomizes the lifestyle that American mass media prescribe to the citizen-consumers. The population density within Tampa's city limits, however, is quite low. If the current zoning laws were eliminated, the need for more housing could be met by tightening the underutilized urban infrastructure while avoiding further incursions into the periurban wilderness. The wish to build and inhabit suburban residences in this context accordingly reflects a striving for profit and a desire for luxury rather than a need for shelter. It thus represents peripheral instead of basic interests. Two-factor egalitarianism suggests that peripheral human interests ought not to override basic nonhuman interests. That the former are legally permitted to override the latter in the Florida case means that Tampa's suburban sprawl is ethically problematic.

If, as suggested here, direct moral concern ought to be extended to nonhuman claimants, then many instances of environmental degradations are analyzable as conflicts of interests between human and nonhuman moral patients. Of course, such interspecific conflicts constitute only a subset of the whole range of invidious interactions of humans with nature. But it is useful to assess human-made environmental transformations in this manner. Harms inflicted on the sentient members of mammalian and avian species are harms in a literal sense, whereas damage done to habitats and depletions of resources are "harms" in a metaphorical way. Hence a focus on interspecies conflicts is a focus on literal harms, and this permits a more straightforward application of ethical concepts than a focus on the

nonsentient and inanimate parts of the biosphere. Because mammals and birds populate the entire biosphere with the possible exception of the interiors of Antarctica and Greenland, their well-being and survival serves as a convenient ethical stand-in for many larger environmental issues.

Animal interests in ecologically significant interspecies conflicts tend to be all of the same type. Pollution, waste, and the degradation of biotopes threaten nonhuman populations whose trophic niches depend on the integrity of their habitats. Survival and well-being are at stake for them, hence their interests are always basic. But in highly industrialized countries, at least, human interests motivating environmental transformations tend to be of different kinds. Sometimes they concern basic needs, but more characteristically, they are about the satisfaction of peripheral desires. Affluent nations, whose per capita gross national product (GNP) is seventeen times that in developing countries, constitute 22 percent of the world's population, command 85 percent of the world's wealth, and use 88 percent of its resources. That these societies consume a disproportionate share of resources (and produce a corresponding amount of waste and pollutants) is not due to sheer self-preservation. Ecological transformations and resource depletions in and by affluent nations tend to occur for reasons of luxury, profit, and consumerism. Because of the variability of human interests in first-world interspecies conflicts, two-factor egalitarianism emerges as a useful casuistry. Here, in the affluent nations, it can be employed to devise constructive and sensible environmental policies.

But the limits of this casuistry become visible when we apply it to clashes of interests that predominantly arise in developing countries. There, human interests tend to be identical with nonhuman interests, and people and animals often compete for resources for the same reasons: food, survival, and shelter. Rapid population growth in these regions exacerbates the conflicts. Impoverished human populations are forced to exploit natural resources at unsustainable levels for the sake of meeting basic needs. According to two-factor egalitarianism, the end is justified if the human need is significant enough, and conflicts involving basic and serious interests are adjudicated always in favor of those with superior ethically relevant capacities. So the humans, in these conflicts, always win. But something has gone wrong here. Even if we assume that human interests ought to prevail if existential needs are at stake, the problematic long-term results of such conflict resolutions raise questions. It is misguided to endorse destructive environmental transformations as long as the perpetrators are destitute and needy, especially when such transformations tend to make the perpetrators or their offspring worse off in the long run. Two-factor egalitarianism accordingly fails to explain why unsustainable types of development that occur in poor regions of the world are ethically problematic. Another problem-solving strategy is needed here.

### **3. Interspecies Conflicts in Developing Nations**

Imagine the following scenario. Suppose that the population of a third-world country such as Tanzania keeps on growing and that the uncontrolled growth impoverishes the nation to the extent that hunger and

starvation become likely threats. Suppose, further, that a future Tanzanian government decides to make a radical effort to protect its people from these threats: it opens national parks to development, has its forests cleared, and sells the timber and the animal populations off to the highest foreign bidders. The monies earned will subsidize endeavors to convert the former parklands to fields and rangeland for the sake of maximizing domestic food production.

In terms of population growth, the country in question is a typical example of a developing nation. Tanzania has a land area of 945,090 square kilometers and a current average population density of 33 people per square kilometer (a projected 54 people per square kilometer in 2025).<sup>14</sup> Only 3 percent of its land is currently arable. In light of its annual population growth rate of 2.5 percent (which is, actually, not particularly high as developing countries go), its current population of 31 million will balloon to 51 million in twenty-five years. (This projection presupposes that AIDS will not significantly lower the growth rate. Although millions of people have succumbed to the pandemic, the annual increase in births in these regions continues to exceed the annual increase in deaths due to the growing number of AIDS victims.) Demographic warning signs suggest that the projected growth pattern should be taken seriously: 21 percent of its population is under fifteen years of age, 13 percent of women aged fifteen to nineteen give live births each year, and only 20 percent of women aged fifteen to forty-nine use contraception.<sup>15</sup> So the population is likely to increase.

In terms of wilderness preservation, Tanzania is an interesting—indeed, an inspiring—case. In contrast to sub-Saharan nations that destroyed their natural assets and now suffer the consequences (such as Ethiopia) or subequatorial nations engaged in an ongoing effort to devastate their land (such as Madagascar), Tanzania has chosen a different route. Permanent pastures (savannah) make up 40 percent, and forests and woodlands 38 percent of the land area. Significant parts of the savannah and forest lands are protected as wilderness preserves and national parks, of which Serengeti National Park, with a size of 14,763 square kilometers, is by far the largest and probably the best known. The Tanzanian network of parks and preserves protects an indigenous mammalian fauna that consists of some of the most widely recognized species in the world. A child living in the United States, Japan, or Russia will not necessarily know what mammalian species populate her backyard, but she will probably be familiar with most of the great mammals of Tanzania: lions and leopards; antelopes, gazelles, impalas, and zebras; rhinos, hippos, and elephants; wildebeests, buffalos, and giraffes; gibbon monkeys, baboons, and chimpanzees. She will also be familiar with mammals that used to live there but have been driven to extinction in the region, such as gorillas.<sup>16</sup>

Although certain populations of the species mentioned dwell in protected areas, their long-term survival is threatened by the side effects of the rapid human population growth. Poaching, the invasion, degradation, and transformation of the species habitats—all of this jeopardizes the long-term survival of these nonhuman populations. Tanzanian law prohibits the building of new settlements within park boundaries but cannot discourage

the demographic changes in the areas adjacent to the preserves. Altered land uses of these neighboring areas reduce their viability as ecological buffer zones and thus threaten the stability of the biodiversity within the park boundaries. That Tanzania is one of the poorest countries in the world and that its economy depends primarily on agriculture aggravates these problems. It is anyone's guess whether the Tanzanian combination of low per capita income, high birth rate, and exploitable natural resources will lead to a crisis of the grim proportions in the scenario outlined above. The scenario presupposes a causal connection between high birth rate and low per capita income. J. Raikka points out that the assumption of such a connection, albeit widely accepted, is not uncontroversial.<sup>17</sup> Still, regardless of whether D. A. Ahlburg and other critics of this assumption are right, it is never good policy to ignore the worst and expect the best.<sup>18</sup>

Applied to the scenario just described, two-factor egalitarianism suggests that a future Tanzanian government would not only be morally permitted, but actually be morally *required*, to convert the wilderness areas of the Serengeti and/or other national parks to different land uses should continued population pressure demand it. Given that human lives are at stake here, such a drastic policy can be viewed as a justifiable crisis response to a crisis situation. But two-factor egalitarianism does not explain how the scenario, forcing such drastic decisions, could be avoided in the first place. It adjudicates the conflict only when it is too late, when there would be only losers. The animals would lose because they would die. The Tanzanians would lose because they would survive at the expense of their natural resources and their environmental heritage. And humankind in general would lose, because our world would become a duller, uglier, and more crowded place. The United Nations has identified the Serengeti as a World Heritage Site, and we can assume that well-informed citizens abroad would prefer the preservation of the Serengeti. Because of an international interest in the preservation of the Serengeti—just as there is regarding the preservation of the Amazon jungle, the Great Barrier reef, or the Grand Canyon—the conflict involved in the envisioned scenario turns out to be a confrontation among three, not between two, claimants. The animal populations of the Serengeti, the citizens of Tanzania, and humankind in general are all interest holders. The clash of interests is a trilateral conflict.

How are the interests in the trilateral conflict to be weighed? Do they constitute rights? The local human interest, for one, amounts to a right. Humans possess a fundamental and unalienable right to life. If a future demographic and economic crisis would force Tanzanians to eliminate their wilderness areas, it would be unjust to prevent them from doing so. Then there is the interest of the local nonhumans. Once again, it amounts to a right. The individual members of the indigenous animal populations are moral patients, and their desires for self-preservation and well-being carry positive moral weight. Because the animals depend on the integrity of their habitats, the preservation of the latter is necessary to meet the needs of the former. Our *prima facie* duty to respect nonhuman sentient lives thus translates into the obligation to preserve the wilderness they inhabit. Finally, there is humankind. The presumed global human interest in the continued

preservation of the parklands and their animal populations does not constitute a human right in any meaningful sense. The transformation of a region within a country's borders is a prerogative of national sovereignty. Furthermore, human rights come in degrees: at their core are negative rights (such as the right to life) that impose duties of noninterference on others. Positive rights or the rights to certain goods (such as education) impose duties of providing services on others. In contrast to negative human rights, positive human rights are not transnational entitlements, because they exist only within a national framework. The global interest in the preservation of the Serengeti and other wilderness areas in Tanzania involves the claim by the international community to the nationally provided service of managing the Serengeti's protection. But this claim is not an entitlement that present and future Tanzanian governments owe to humankind.

#### **4. Future Generations and Wilderness Preservation**

The previous consideration of the imagined worst-case scenario makes it clear that the global human interest in the preservation of wilderness does not amount to a right. But this does not mean that there are no rights of humankind worth speaking of. One positive right, admittedly of a rather special sort, remains relevant: the right of future human generations to an unspoiled planet.<sup>19</sup> Although not a legal right (future generations, for the simple reason of their present nonexistence, cannot sue us), it is a moral claim worthy of consideration. One could view it as the universal moral correlative of the national institution of social security. The moral essence of institutionalized social security is a just generational exchange. Our labor does and should support present elderly beneficiaries because they, when younger, had done the same for the previous generation, and we, when older, expect to become the beneficiaries of the labor performed by the next generation. In the just generational exchange of social security, the previously working generation benefits from the efforts of the currently working generation, and the currently working generation expects to benefit from the efforts of the next working generation. The notion of the rights of future generations reverses the sequence of benefactor and beneficiary. Here, the present generation benefits from the efforts of the past generations, and the future generation will benefit from the efforts of the present generation. We owe our well-being partly to past generations, whose positive efforts in terms of social, economic, technological, medical, and scientific achievements are benefiting us. We also benefit from their negative efforts, that is, from the things our ancestors had refrained from doing: our lives would be worse if they had depleted resources to a greater extent and degraded the environment to a more dangerous level. Analogously, our children's well-being will partly depend on our present efforts. Should we neglect to engage in such efforts despite our ability to do so, then we would deprive our children and their descendants from goods that we currently enjoy. I take it as evident that our children would then have a right to blame us.

So the third interest involved in the trilateral conflict emerges as a right after all, albeit of a different sort than one might expect. Currently, the

wildlands of Tanzania are protected, and be it from afar or be it up close, we are enjoying these magnificent biomes as a good. Whether the Serengeti and other parks will be preserved in the future (and whether Tanzania will remain capable of continuing to preserve them) depends in large measure on our policy choices in the present. Making the wrong choices now will victimize those who come after us. Our descendants have a moral right to an unspoiled Serengeti, Mikumi, and Kilimanjaro as goods to which they will be just as entitled when they exist as we are now.

The global interest is a right of the future with regard to the present. The rights of future generations are not directed to possible or actual Tanzanian governments but instead to the current generation of humankind. Nonetheless, Tanzania remains the holder of a right; it is not the bearer of a duty with respect to the rights of the future. If the envisioned crisis happened, the elimination of the wildlands would be morally defensible. So humankind owes it to its future generations, and by implication, to the present generation in Tanzania to prevent the trilateral conflict from breaking out in the first place. It must help Tanzania decrease its population growth rate and achieve more sustainable types of development to make the continued protection of its wilderness feasible.

Despite a body of literature that goes back at least three decades, the notion of obligations to future generations is not yet beyond dispute. Hence some clarifications are in order before we can gather up our results. The moral status of future generations is often considered puzzling. Three issues, in particular, may be confusing: the nonexistence of moral claimants; the obscure content of their claims; and the paradox of a population control for the sake of future generations that deprives some of them of their right to life.

How is it possible to have claims and not exist? Consider a will. We respect the wishes stated in a will as claims on us although its author had formulated them in the past and is now deceased. Hence a claim can oblige us in one time interval even if the claim has been made during a different time interval and the two time intervals do not overlap. The nonexistence of claimants does not entail the nonexistence of claims. What makes the appeal to future generations compelling is that their eventual existence is a virtual certainty. Barring the physical destruction of the planet Earth, there will be future human generations for some time to come, regardless of what we choose to do. Even in a general dieback, an ecological collapse, or a nuclear winter, some humans would survive. We do not know who, how, and how many they will be, but we can safely assume *that* they will be.

How do we know what our descendants will want? Future generations will differ from us just as we differ from our ancestors. But future generations are our offspring and will accordingly be human. The postmodern gloss on cultural differences, incommensurate cultural viewpoints, and the intractable uniqueness of "the other" may sound intriguing, but it obscures a simple fact: the cultural, physiological, and historical latitude of human wants is defined by certain constant outer boundaries. As long as humans are oxygen breathers with a mammalian respiratory system, they will have a need for clean air. As long as humans must consume a minimum of 2,000

calories per day in the form of nutrients derived from the environment, they will have a preference for the absence of pollutants in their food. And as long as they have legs, they will want to roam; as long as they have a sense of beauty, they will appreciate unique and magnificent wildernesses; and as long as they are humane, they will cherish life and biodiversity. Thus, although we are ignorant of the specific content of their claims on us, it is sensible to expect that their needs and preferences will resemble ours and that they will appreciate an unspoiled and diverse planetary habitat just as we do now.

If future generations are entitled to wilderness, however, and if the preservation of wilderness requires population control, how will such control benefit future generations when some possible people will not be born because of demographic policies and thus be deprived of their right to life? This intriguing paradox involves the following considerations:

1. To respect the rights of possible future generations to a healthy planet involves the obligations to manage resource exploitation, to preserve biodiversity, to protect wilderness areas, to leave sufficient living spaces, and to keep air, water, and land comparatively clean.
2. The obligations mentioned in (1) can be met only if population growth is curbed, which would otherwise jeopardize the prospect of a healthy planet.
3. Curbing population growth means that humans who could be born will not be born.
4. Humans who could be born but are not born are deprived of their right to life.
5. Hence, curbing population growth violates the rights of at least some possible future generations.

Evidently, (1) and (2) contradict (5). The culprit responsible for this confusion is (4). Its truth content depends on an implicit metaphysical stipulation, that is, that humans have rights regardless of whether they are born or not—in other words, humans are rights-holders not only as embodied persons but also as immortal souls. If this were true, then (5) would indeed follow. Some souls who wished to be born would be thwarted in their hopes for embodiment and would thus be deprived of their right to life. Obviously, this stipulation is unverifiable. Because it depends on an unjustified tacit assumption, (4) begs a question. Hence we can disregard (4); (5) is false, and the confusion dissolves. Note that this resolution does not suggest that moral patience begins only with the actual birth of the claimant. If we apply the previously identified criteria for the moral standing (interests, sentience, and self-awareness) to human development, then one could arguably identify a fetus in the third trimester as a moral patient. Whether embryos at earlier stages of development qualify as moral patients on the basis of these criteria is doubtful. The normative upshot of such considerations is that the family planning strategies of development aid organizations ought to refrain from encouraging late-pregnancy abortions (which they do anyway). On the other hand, strategies emphasizing contraception are not only uncontroversial but also compatible with obligations to future generations.

We can now gather the results of our analysis. In light of our knowledge about the inner lives and physiological constitution of higher-developed animals, it is scandalous, evil, and ignorant to bar them from moral consideration. The anthropocentric dogma belongs in the dustbin of history. However, unless we are willing to treat animals as equals with regard to the moral force of their claims on us (and open up whole new dimensions of bizarre philosophical problems), we must embrace a hierarchical normative system in which human rights override animal rights. In order to implement such a system as an environmental ethics, we can make good use of two-factor egalitarianism. But this casuistry is best suited to the context in which it originates: the extravagant prosperity of a nation whose people constitute less than 5 percent of the world population and produce more than 30 percent of the planetary garbage. Here, environmental degradations for frivolous reasons are sufficiently common that the casuistry (with its injunction against thwarting basic nonhuman desires for frivolous reasons) could significantly improve environmental policies. Because environmental degradations in developing countries often happen for existential rather than frivolous reasons, two-factor egalitarianism must be supplemented in these contexts with appeals to the rights of future generations. Unfettered population growth poses the greatest environmental danger to the rights of actual nonhuman beings and to the rights of future human generations. Therefore, a major ethical obligation of humankind is the comprehensive and sustained implementation of global measures to reduce population growth rates.

The experiences of aid organizations show that the endeavor to curb global population growth is not as daunting as it may seem. According to surveys in more than fifty low-income countries, women in almost all the countries surveyed are bearing more offspring than they intend; and wherever women have said they want fewer children and family planning has been made available, fertility has fallen. A country's degree of poverty, with its attendant threats on the preservation of wilderness, is strongly correlated to the size of its birth rate. The inverse connection of prosperity and offspring has traditionally been interpreted to mean that an increase in per capita income is essential to the decrease of the population growth rate: one first needs to make a country rich before its fertility can go down. But the actual demographic transitions in the recent past paint a different picture. A high fertility rate frequently impedes a nation's capacity for increasing its wealth, and lowering this rate makes it easier to raise the per capita income. Invasive birth control measures modeled on the family planning policies of the People's Republic of China in the 1970s and 1980s are in most cases unnecessary. The mere availability of contraceptives can make a vast difference in averting the triple menace of overpopulation, impoverishment, and wilderness destruction. In this context, the affluent nations must meet two challenges: to pay more taxes, and to resist religious fundamentalism. Global population control costs money, which can only come from taxing prosperous societies. But the actual taxpayer cost would be negligible on the individual level—less than \$5 per person per year. Second, national leaders ought not to cave in to the demands of religious groups. In the 1980s, the

Reagan administration, catering to fundamentalist Christian voters, barred U.S. aid organizations from family planning efforts in developing nations by threatening to terminate their federal funding if they disseminated information about contraception. In the Philippines, the implementation of family planning policies has been less successful than in South Korea (which used to be as poor and fertile as the Philippines in 1960), because the internal politics of the Philippines are dominated by the Christian clergy. It is not easy to honor our obligations to future generations, to acknowledge the rights of nonhuman beings, and to preserve the great wildernesses of Earth. But we can begin by supporting the relevant demographic strategies.<sup>20</sup>

### Notes

- <sup>1</sup> For stylistic reasons, I will use the word "animals" frequently in this essay to refer to a specific group of animals, not to animals in general. Unless explicitly noted, all references to "animals" refer to complexly evolved, higher-developed animals, such as mammalian and avian vertebrates.
- <sup>2</sup> See Joel Feinberg, "The Rights of Animals and Unborn Generations," in William Blackstone, ed., *Philosophy and Environmental Crisis* (Athens, Ga.: University of Georgia Press, 1974), 43–68.
- <sup>3</sup> See Peter Singer, *Animal Liberation*, 2nd ed. (New York: New York Review, 1990), 7–25 (originally published 1975). Compare also his "A Utilitarian Defense of Animal Liberation," in Louis P. Pojman, ed., *Environmental Ethics* (Belmont, Calif.: Wadsworth, 1998), 39–45.
- <sup>4</sup> See Tom Regan, *The Case for Animal Rights* (Berkeley and Los Angeles: University of California Press, 1983), 25–33; compare also his "The Radical Egalitarian Case for Animal Rights," in Pojman, *Environmental Ethics*, 46–51.
- <sup>5</sup> Numerous environmental philosophers have proposed the acceptance not only of higher-developed animals, but also of organisms in general as objects of direct moral concern. A well-known argument in support of this stance has been advanced by Paul W. Taylor in his "The Ethics of Respect for Nature," *Environmental Ethics* 3 (1981): 197–218. Because organisms can be conceived as teleological centers of life, as directly organized systems that have a good of their own, they are valuable in their own right and deserving of respect. For a fully developed version of the argument, see Taylor's *Respect for Nature: A Theory of Environmental Ethics* (Princeton, N.J.: Princeton University Press, 1986), chaps. 2 and 3.
- <sup>6</sup> For an egalitarian conception of the rights of living beings in general, see Taylor, "Are Humans Superior to Animals and Plants?" *Environmental Ethics* 6 (1984): 149–60. For an egalitarian conception of the rights of humans and animals, see Regan, "The Radical Egalitarian Case for Animal Rights," 50.
- <sup>7</sup> This flaw in the egalitarian position was first suggested by Donald VanDeVeer. See his "Interspecific Justice and Intrinsic Value," *Electronic Journal of Analytic Philosophy* 3 (1995), 11–17 <<http://www.phil.indiana.edu/ejap/>>.
- <sup>8</sup> See Martin Schönfeld, "Who or What Has Moral Standing?" *American Philosophical Quarterly* 29 (1992): 353–61, esp. 357–58.
- <sup>9</sup> In *Respect for Nature*, 129–32, Taylor argues against the alleged superiority of humans on the basis that many nonhuman species have capacities that humans lack: "there is the flight of the birds, the speed of a cheetah, the power of photosynthesis in the leaves of plants, the craftsmanship of spiders spinning their webs, the agility of a monkey in the tree tops. Why are not these to be taken as signs of their superiority over us?" For a detailed criticism of this argument, see Schönfeld, "Who or What Has Moral Standing?" 357–58. For a summary and appraisal of this debate, compare Louis P. Pojman, *Global Environmental Ethics* (London and Toronto: Mayfield, 1999), 186–96.
- <sup>10</sup> See Singer, *Animal Liberation*, 6.

- <sup>11</sup> See Donald VanDeVeer, "Interspecific Justice," in D. VanDeVeer and Christine Pierce, eds., *The Environmental Ethics and Policy Book*, 2nd ed. (Belmont, Calif.: Wadsworth, 1998), 109–23. The article first appeared in *Inquiry* 22 (1979): 55–70.
- <sup>12</sup> See VanDeVeer, "Interspecific Justice," 119.
- <sup>13</sup> According to Article 2.1 of the *Universal Declaration of Human Rights*, "Everyone is entitled to all the rights and freedoms set forth in this Declaration, without distinction of any kind. . . ." Nonetheless, the declared universal entitlement of all people to all rights is qualified in Article 16.1: "Men and women of full age . . . have the right to marry and to found a family."
- <sup>14</sup> See the website of the United Nations Population Information Network (UN POPIN) at <<http://www.undp.org/popin/#reg>>. Tanzania's population density is low compared with that of such heavily urbanized nations as the Netherlands, which has an average of 1,198 people per square kilometer. Tanzania's economy is primarily agricultural, and 79 percent of the citizens live in rural areas.
- <sup>15</sup> See the UN POPIN website. To put the Tanzania data in perspective, consider the corresponding figures for the Democratic Republic of Congo (Zaire), which experiences even faster population growth, and France, whose population is almost stable. The Congo population of 49 million will reach 105.7 million in 2025; France's current population of 58.8 million will reach 64.2 million by the same date. The Congo has an annual growth rate of 3.2 percent; France's growth rate is 0.3 percent. In the Congo, 47 percent of the population is under fifteen years of age (France: 19 percent); 17 percent of women aged fifteen to nineteen give live births each year (France: 1 percent); and 8 percent of women aged fifteen to forty-nine use contraception (France: 68 percent).
- <sup>16</sup> Tanzania used to be home to both western lowland gorillas (*gorilla gorilla*) and mountain gorillas (*gorilla berengeii*). Western gorillas (about 10,000–35,000 free living; 550 in captivity worldwide) still live in the adjacent Democratic Republic of Congo and are scattered through a number of other countries in the region. The last surviving mountain gorillas (approximately 620 free living, zero in captivity) exist in a 285-square-kilometer region of rainforests bordering Rwanda, Uganda, and Zaire.
- <sup>17</sup> See Juha Räikkä, "Problems in Population Theory," *Journal of Social Philosophy* 31.4, 406.
- <sup>18</sup> See Dennis A. Ahlburg, "Population Growth and Poverty," in R. Cassen et al., *Population and Development: Old Debates, New Conclusions* (New Brunswick, N.J.: Transaction, 1994), 124–47.
- <sup>19</sup> Martin Golding, in his "Limited Obligations to Future Generations," in Pojman, *Environmental Ethics*, 284, suggests that one ought to exclude our most immediate descendants (our children, grandchildren, and great-grandchildren) from the notion of future obligations. For our purposes, it is unnecessary to stipulate that a future generation qualifies as such only if the lifespan of its members does not overlap with ours; it is sufficient to assume that a future generation is a generation not yet born at present.
- <sup>20</sup> Data about the UN survey, the connections between fertility and prosperity, the cost of a global population control effort, and the comparison of Korea and the Philippines are from Malcom Potts, "The Unmet Need for Family Planning," *Scientific American* 282.1 (January 2000): 90–93. The demographic transitions of South Korea and the Philippines are instructive examples. In 1960, South Korea and the Philippines had been moderate-income countries, and families in both countries averaged about six children. In the subsequent four decades, contraceptives had become easily accessible in South Korea but remained difficult to get in the Philippines. By 1998, South Korea had decreased its fertility to 1.7 and had become rich, with a per capita income of \$10,550, whereas the Philippines continued to languish at a fertility of 3.7 and remained poor, with a per capita income of \$1,200. South Korea now has a greater ability than the Philippines to manage its natural resources and to protect its remaining wilderness areas.