

A Biocentrist Strikes Back

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Biocentrists are criticized (1) for being biased in favor of the human species, (2) for basing their view on an ecology that is now widely challenged, and (3) for failing to reasonably distinguish the life that they claim has intrinsic value from the animate and inanimate things that they claim lack intrinsic value. In this paper, I show how biocentrism can be defended against these three criticisms, thus permitting biocentrists to justifiably appropriate the salutation, "Let the life force (or better the ethical demands of life) be with you."

It is difficult to be a supporter of biocentrism these days with all the criticism that has come its way. First of all, biocentrists are criticized for failing to state their view in such a way that it is not biased in favor of the human species.¹ Second, they are criticized for following Aldo Leopold and basing their view on an ecology that regards ecosystems as tending toward stability and harmony — an ecology that is now widely challenged.² Third, biocentrists are criticized for failing to reasonably distinguish the life they claim has intrinsic value from the animate and inanimate things they claim lack intrinsic value.³ Accordingly, one might think that it would be best, as critics have urged, to abandon biocentrism altogether in favor a hierarchical or anthropocentric view. In this paper, however, I show that biocentrism can be defended against these three criticisms and, therefore, need not be abandoned. Specifically, I do so by developing a set of environmental principles that (1) are clearly not biased in favor of human species, (2) can adjust to changes in ecological science and (3) can reasonably distinguish what has intrinsic value from what doesn't. If I am right that biocentrists can adequately defend themselves against their critics, then the ethical demands of life will appear to be much stronger than many environmental philosophers have thought.

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¹ See William French, "Against Biospherical Egalitarianism," *Environmental Ethics* 17 (1995): pp. 39–57.

² Kristin Shrader-Frechette, "Individualism, Holism and Environmental Ethics," *Ethics and the Environment* 1 (1996): 55–69; Ned Hettinger and Bill Troop, "Refocusing Ecocentrism: Deemphasizing Stability and Defending Wildness," *Environmental Ethics*, forthcoming.

³ Frederik Kaufman, "Machines, Sentience and the Scope of Morality," *Environmental Ethics* 16 (1994): 57–70.

According to their critics, biocentrists talk a lot about the equality of species, but when they turn to the practical applications of their view, time and time again, they show their bias in favor of the human species. For example, Arne Naess defends a form of biocentrism that is committed to biospherical egalitarianism—"the equal right of [all living things] to live and bloom."⁴ Yet when Naess gets around to discussing the practical applications of his view, he says that biospherical egalitarianism only holds in principle, and he rejects any interpretation of his view suggesting that "human needs should never have priority over non-human needs."⁵ Critics see this rejection as indicative of the attempt by biocentrists to have their cake and literally eat it too.

Similarly, Paul Taylor endorses a biocentric outlook on nature with a principle of species impartiality according to which

. . . every species counts as having the same value in the sense that, regardless of what species a living thing belongs to, it is deemed to be *prima facie* deserving of equal concern and consideration on the part of moral agents. . . . Species-impartiality . . . means regarding every entity that has a good of its own [humans, animals and plants] as possessing inherent worth—the same inherent worth, since none is superior to another.⁶

Nevertheless, when Taylor gets around to discussing the practical applications of his view, he allows that we can aggress against the basic interests of (wild) animals and plants even to meet nonbasic human needs provided that it is compatible with the attitude of respect for nature and provided that no alternative way of pursuing those nonbasic human needs would involve fewer wrongs.⁷ What is difficult to comprehend here is how aggression against the basic needs of nonhumans for the sake of meeting the nonbasic needs of humans can be compatible with the equality of species. The critics of biocentrism claim that it can't.

In earlier work, I too tried to defend biocentrism, particularly, a revision of Taylor's view, against this criticism, but I now think that my defense was wanting, in part, because the environmental principles I proposed were not general enough.⁸ As formulated, my principles still made reference to humans. They were not stated in a species-neutral way, and so at least gave the impression of being biased in favor of humans. I now think that I do better.

⁴ Arne Naess, *Ecology, Community and Lifestyle: An Outline of an Ecosophy*, trans. David Rothenberg (Cambridge: Cambridge University Press, 1989), pp. 167–68.

⁵ *Ibid.*, p. 170.

⁶ Paul Taylor, *Respect for Life* (Princeton: Princeton University Press, 1986), p. 155.

⁷ *Ibid.*, pp. 276–77.

⁸ "From Biocentric Individualism to Biocentric Pluralism," *Environmental Ethics* 17 (1995): 191–207; "Reconciling Anthropocentric and Nonanthropocentric Environmental Ethics," *Environmental Values* 3 (1994): 229–44.

II

Biocentrists are well known for their commitment to the equality of species. Yet if this commitment is to be defensible, I claim that it needs to be understood by analogy with the equality of humans. Accordingly, just as we claim that humans are equal, and yet justifiably treat them differently, so too we should be able to claim that all species are equal, yet justifiably treat them differently. In human ethics, there are various interpretations that we give to human equality that allow for different treatment of humans. In ethical egoism, everyone is *equally at liberty* to pursue his or her own interests, but in this pursuit we are allowed always to prefer ourselves to others, who are understood to be like opponents in a competitive game. In libertarianism, everyone has an *equal right to liberty*; yet, although this right imposes some limits on the pursuit of self-interest, it is said to allow us to refrain from helping others in severe need. In welfare liberalism, everyone has an *equal right to welfare and to opportunity*, but these rights need not commit us to providing everyone with exactly the same resources. In socialism, everyone has an *equal right to self-development*, and although this right may commit us to providing everyone with something like the same resources, it still sanctions some degree of self-preference. Thus, just as there are various ways to interpret human equality that still allow us to treat humans differently, there can be various justifiable ways to interpret species equality that still allow species to be treated differently.

One could interpret species equality in a very strong sense, analogous to the interpretation of equality found in socialism. However, the kind of species equality that I wish to defend is more akin to the equality found in welfare liberalism or in libertarianism than to the equality found in socialism with respect to the degree of preference that it allows for oneself and the members of one's own species.⁹ I maintain that we can justify such preference, in part, on grounds of limited defense. Accordingly, I propose the following two principles, one concerning defense and one concerning nondefense, that apply to all agents who are capable of understanding and acting on them:

The principle of defense that permits actions in defense of both basic and nonbasic needs against the aggression of others, even if it necessitates killing or harming those others, unless prohibited.¹⁰

⁹ Strictly speaking, not to treat humans as superior overall to other living beings is to treat them as either equal overall, or inferior overall, to other living beings, but I am using equal overall to include both of these possibilities since neither possibility involves the domination of nonhuman nature, and, moreover, the latter possibility is an unlikely course of action for humans to take.

¹⁰ The relevant actions here can be prohibited either by the principle of nondefense or by the principle of nonaggression which I discuss subsequently.

The principle of nondefense that prohibits defending nonbasic needs against the aggression of others that is undertaken as the only way to meet basic needs, if one can reasonably expect a comparable degree of altruistic forbearance from those others.

The principle of defense allows the members of a species to defend themselves and others from harmful aggression first against their persons and the persons of others to whom they are committed or happen to care about, and second against their justifiably held property and the justifiably held property of others to whom they are committed or happen to care about.

This principle is analogous to the principle of self-defense that applies in human ethics¹¹ and permits actions in defense of oneself or other human beings against harmful human aggression. In the case of human aggression, however, it is sometimes possible to effectively defend oneself and other human beings by first suffering the aggression and then securing adequate compensation later. Because in the case of nonhuman aggression by the members of other species with which we are familiar, such an approach is unlikely to work, justifying more harmful preventive actions such as killing a rabid dog or swatting a mosquito, potentially carrying disease. There are simply more ways to effectively stop aggressive humans than there are to effectively stop aggressive nonhumans.

Yet, there is a limit to the degree of defense that is justified. Defending nonbasic needs against the aggression of others that is undertaken as the only way to meet basic needs is prohibited if you can reasonably expect a comparable degree of altruistic forbearance from those others. In the case of human ethics, we can see how this type of aggression can be justified when the poor, who have exhausted all the other means that are legitimately available to them, take from the surplus possessions of the rich just what they need to meet their basic needs. Expressed in terms of an ideal of negative liberty endorsed by libertarians, the justification for this aggression is the priority of the liberty of the poor not to be interfered with when taking from the surplus possessions of the rich what they require to meet their basic needs over the liberty of the rich not to be interfered with when using their surplus for luxury purposes.¹² Expressed in terms of an ideal of fairness endorsed by welfare liberals, the justification for this aggression is the right to welfare that the needy have against those with a surplus. Expressed in terms of an ideal of equality endorsed by socialists, the justification for this aggression is the right that everyone has to equal self-development.

The principle of nondefense is simply a species-neutral generalization of this justification for aggression that is found in human ethics. The principle of

¹¹ By human ethics, I simply mean those forms of ethics that assume, without argument, that only human beings count morally.

¹² For a detailed discussion of this argument, see my article "From Liberty to Welfare," *Ethics* 104 (1994): 64–98.

defense and the principle of nondefense together, therefore, express the grounds of limited defense for preferring oneself and the members of one's own species over other species that is consistent with the equality of species.

A preference for oneself and the members of one's own species, however, can also be justified on grounds of preservation. Accordingly, we have the following two principles that apply to all agents who are capable of understanding and acting on them:

The principle of (aggression for) preservation that permits aggression when necessary against the basic needs of others for the sake of basic needs unless prohibited.

The principle of nonaggression that prohibits aggression against the basic needs of others either (1) to meet nonbasic needs or (2) even to meet basic needs if one can reasonably expect a comparable degree of altruistic forbearance from those others.

Needs, in general, if not satisfied, lead to lacks or deficiencies with respect to various standards. The basic needs of humans, if not satisfied, lead to lacks or deficiencies with respect to a standard of a decent life. The basic needs of animals and plants, if not satisfied, lead to lacks or deficiencies with respect to a standard of a healthy life.¹³ The means necessary for meeting the basic needs of humans can vary widely from society to society. By contrast, the means necessary for meeting the basic needs of particular species of animals and plants are more invariant. Of course, while only some needs can be clearly classified as basic, and others are clearly classified as nonbasic, there still are other needs that are more difficult to classify. Yet, the fact that not every need can be clearly classified as either basic or nonbasic — as is true of a whole range of such dichotomous concepts as moral/immoral, legal/illegal, living/nonliving, human/nonhuman — should not immobilize us from acting at least with respect to clear cases.¹⁴

In human ethics, there is no principle that is strictly analogous to the principle of (aggression for) preservation. There is a principle of self-preservation in human ethics that permits actions that are necessary for meeting one's own basic needs or the basic needs of other people, even if these actions require failing to meet (through an act of omission) the basic needs of still other people. For example, we can use our resources to feed ourselves and our family, even

¹³ The difference between a standard of a decent life and a standard of a healthy life is, however, only one of degree. A standard of a decent life emphasizes the cultural and social dimensions of basic needs while a standard of a healthy life emphasizes their physical and biological dimensions.

¹⁴ Moreover, this kind of fuzziness in the application of the distinction between basic and nonbasic needs is characteristic of the application of virtually all our classificatory concepts, and so is not an objection to its usefulness.

if doing so necessitates failing to meet the basic needs of people in other countries. However, in general, we don't have a principle that allows us to aggress against (through an act of commission) the basic needs of some people in order to meet our own basic needs or the basic needs of other people to whom we are committed or happen to care about. Actually, the closest we come to permitting aggressing against the basic needs of other people in order to meet our own basic needs or the basic needs of people to whom we are committed or happen to care about is our acceptance of the outcome of life and death struggles in lifeboat cases, where no one has an antecedent right to the available resources. For example, if you had to fight off others in order to secure the last place in a lifeboat for yourself or for a member of your family, we might say that you justifiably aggressed against the basic needs of those whom you fought to meet your own basic needs or the basic needs of the member of your family.¹⁵

Nevertheless, survival requires a principle of preservation that permits aggressing against the basic needs of at least some other living things whenever doing so is necessary to meet one's own basic needs or the basic needs of others whom one happens to care about. Here there are two possibilities. The first is a principle of preservation that allows one to aggress against the basic needs of anyone to obtain basic needs. The second is the principle of preservation, given above, that allows one to aggress against the basic needs of others to fulfill basic needs, unless (when the principle of nonaggression applies) one can reasonably expect a comparable degree of altruistic forbearance from those others. The first principle does not place any limit on whom one can aggress against to satisfy basic needs, and thus it permits even cannibalism provided that it serves to meet basic needs. In contrast, the second principle (when the principle of nonaggression applies) does place a limit on whom one can aggress against to obtain basic needs by prohibiting aggression against those from whom one can reasonably expect a comparable degree of altruistic forbearance. Moreover, because those from whom one can reasonably expect a comparable degree of altruistic forbearance normally turn out to be members of one's own species, the principle of (aggression for) preservation together with its allied principle of nonaggression sanctions a certain preference for the members of one's own species.¹⁶

But is this degree of preference for the members of one's own species compatible with the equality of species? Of course, it is theoretically possible to interact with the members of one's own species on the basis of the first principle of preservation considered above—the one that permits even cannibalism as a means for meeting basic needs. In the case of humans, adopting

¹⁵ It is important to recognize here that we also have a strong obligation to prevent lifeboat cases from arising in the first place.

¹⁶ This is true not only of humans but also of other nonhuman species with which we are familiar who are also capable of altruistic forbearance. I have added the qualification "normally" here because we know that, for example, that humans sometimes enter into a relationship of reciprocal altruism with the members of other species such as dogs and horses.

such a principle would clearly reduce the degree of predation of humans on other species, and so would be of some benefit to other species. Yet, implicit nonaggression pacts based on a reasonable expectation of a comparable degree of altruistic forbearance from fellow humans have been enormously beneficial and probably were necessary for the survival of the human species. Thus, it is difficult to see how humans can be justifiably required to forgo such benefits.¹⁷ Moreover, to require humans to extend these benefits to the members of all species would, in effect, be to require humans to be saints, and surely morality is not in the business of requiring anyone to be a saint. Given then that this greater altruism cannot be morally required, the degree of preference for the members of one's own species sanctioned by the principle of (aggression for) preservation together with its allied principle of nonaggression would be morally justified.¹⁸

Nevertheless, preference for the members of one's own species can go beyond bounds, and the bounds that are compatible with the equality of species are captured by the first requirement of the principle of nonaggression, which prohibits aggressing against basic needs for the sake of nonbasic needs.¹⁹ This requirement is needed to give substance to the claim that the members of all species are equal. One can no more consistently claim that the members of all species are equal, yet aggress against the basic needs of the members of some species whenever doing so serves one's own nonbasic or luxury needs, or the nonbasic or luxury needs of others than we can consistently claim that all humans are equal, yet aggress against the basic needs of some humans whenever doing so serves our nonbasic or luxury needs or the nonbasic or luxury needs of other humans.²⁰ Consequently, if equality of species is to mean anything, it must be the case that the basic needs of members of species are protected against

¹⁷ With respect to humans who lack the capacity for reciprocal altruism, the compassion of fellow humans and the difficulty of distinguishing them from other humans who have that capacity provide sufficient grounds for extending to them the same protections as are given to other humans. I owe this point to Mary Russo.

¹⁸ It should be pointed out that the principle of (aggression for) preservation must be implemented in a way that causes the least harm possible, which means that, other things being equal, basic needs should be met by aggressing against nonsentient living beings rather than against sentient living beings so as to avoid the pain and suffering that would otherwise be inflicted on sentient beings.

¹⁹ It should also be pointed out that the principle of (aggression for) preservation does not support an unlimited right of procreation. In fact, the theory of justice presupposed here gives priority to the basic needs of existing beings over the basic needs of future possible beings, and this priority should effectively limit (human) procreation. Nor does the principle of (aggression for) preservation allow humans to aggress against the basic needs of animals and plants even to meet their own basic needs when those needs could effectively be met by utilizing available human surplus resources.

²⁰ Of course, libertarians have claimed that we can recognize that people have equal basic rights while, in fact, failing to meet, but not aggressing against, the basic needs of other human beings. However, I have argued in "From Liberty to Welfare" that this claim is mistaken.

aggressive actions which only serve to meet nonbasic needs, as demanded by the first requirement of the principle of nonaggression.²¹ Another way to put the central claim here is to claim that equality of species rules out domination, where domination means aggressing against the basic needs of the members of some species for the sake of satisfying the nonbasic needs of the members of other species.

Finally, we need one more principle to deal with violations of the above four principles. Accordingly, I propose the principle of rectification, which requires compensation and reparation when the other principles have been violated. Obviously, this principle is somewhat vague, but for those who are willing to abide by the other four principles, it should be possible to remedy this vagueness in practice. Taken altogether, I claim, these five principles constitute a set of environmental principles that are clearly not biased in favor of the human species, and thus provide a defensible interpretation of commitment of biocentrists to the equality of species.

III

Yet, even if biocentrism can be provided with a set of environmental principles that are clearly not biased in favor of the human species, it still needs to be defended against the criticism that it is based on an ecological perspective that is now widely challenged. According to Aldo Leopold, "A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise."²² Leopold's claim has been frequently quoted and endorsed by environmental philosophers. For example, according to J. Baird Callicott, "in the last analysis, the integrity, beauty, and stability of the biotic community is the measure of right and wrong actions affecting the environment."²³ According to Holmes Rolston, "The land ethic rests on the discovery of certain values—integrity, projective creativity, life support, community—already present in ecosystems, and it imposes an obligation to act so as to maintain these."²⁴ Such environmental ethics is based on the view of natural systems as integrated, stable wholes that are either at, or moving toward, mature equilibrium states.

²¹ It should be pointed out that although the principle of nonaggression prohibits aggressing against basic needs to serve nonbasic needs, the principle of defense permits defense of nonbasic needs against aggression of others. Thus, while one cannot legitimately aggress against others to meet nonbasic needs, one can legitimately defend nonbasic needs against the aggression of others.

²² Aldo Leopold, *A Sand County Almanac* (Oxford: Oxford University Press, 1949).

²³ J. Baird Callicott, *In Defense of the Land Ethic* (Madison: University of Wisconsin Press, 1989), p. 58.

²⁴ Holmes Rolston, III, *Environmental Ethics* (Philadelphia: Temple University Press, 1988), p. 288.

Recently, however, ecologists have come to challenge this view.²⁵ The more radical challengers argue that change and disturbance are the norm and that natural environments do not even typically tend toward balanced, stable, and integrated states. On the large scale, this view is evidenced by glacial and climatic changes that show little recurring pattern and ensure that over the long term, natural environments will remain in constant flux. Margaret Davis writes:

For the last 50 years or 500, or 1,000—as long as anyone would claim for “ecological time”—there has never been an interval when temperature was in a steady state with symmetrical fluctuations about a mean. . . . Only on the longest time scale, 100,000 years, is there a tendency toward cyclical variation, and the cycles are asymmetrical, with a mean much different from today.²⁶

On a smaller scale, this view is evidenced by fires, storms, floods, droughts, invasions of exotic species, and many other factors that continually modify natural environments in ways that do not create repeating patterns of return to the same equilibrium states. “Nature,” claims Donald Worster, “is fundamentally erratic, discontinuous and unpredictable. It is full of seemingly random events that elude models of how things are supposed to work.”²⁷ Obviously, this “ecology of disequilibrium” contrasts sharply with the “ecology of equilibrium” endorsed by Leopold.

What then are the implications for environmental ethics of these contrasting views of ecology? Clearly, the basic concern of environmental ethics is to determine the prerogatives of and constraints on moral agents in their relationship with other living beings, that is, what moral agents are permitted to do, and what they are not permitted to do with respect to other living beings.²⁸ Now the environmental principles that I set out above are just such an attempt to determine these prerogatives and constraints. The prerogatives, as captured by the principle of defense and the principle of (aggression for) preservation, specify when moral agents can justifiably pursue their own interests and the interests of those whom they care about. The constraints, as captured by the principle of nondefense and the principle of nonaggression, specify the justifiable constraints on moral agents in their pursuit of their own interests and the interests of those whom

²⁵ Daniel Botkin, *Discordant Harmonies* (New York: Oxford University Press, 1990) and David Ehrenfeld, “Ecosystem Health and Ecological Theories,” in Robert Costanza, Bryant Norton, and Benjamin Haskell, eds., *Ecosystem Health* (Washington, D.C.: Island Press, 1992); R. P. McIntosh, *The Background of Ecology: Concepts and Theory* (New York: Cambridge University Press, 1985).

²⁶ Margaret Bryan Davis, “Climatic Instability, Time Lags, and Community Disequilibrium,” in Hared Diamond and Ted J. Case, eds., *Community Ecology* (New York: Harper and Row, 1986), p. 269.

²⁷ Donald Worster, “The Ecology of Order and Chaos,” *Environmental History Review* 14 (1990): 13.

²⁸ For the purposes of this paper, by *moral agent* I simply mean “agents that are capable of understanding and acting on principles like my environmental principles.”

they care about. Accordingly, as long as moral agents do not exceed these prerogatives or fail to observe these constraints, they will have behaved morally with respect to other living beings, including individual species, ecosystems, and the whole biotic community.

Of course, these principles do require a specification of the basic needs of living beings. Although establishing such a specification with respect to species and members of species may not be very difficult, it is certainly more difficult to do with respect to ecosystems and the whole biotic community, if it can be done at all. Moreover, it is just here that the difference between the ecology of equilibrium and the ecology of disequilibrium comes into play. Thus, if the ecology of disequilibrium is true, then normally no specific course of development is good for ecosystems or the whole biotic community, and, hence, in many cases, they cannot be benefited or harmed by the actions of moral agents. Hoping to avoid this conclusion, Callicott notes that human-caused perturbations of the environment such as industrial forestry and agriculture, the elimination of large predators, and drift-net fishing are far more frequent, widespread, and regularly occurring than are nonhuman-caused perturbations.²⁹ Accordingly, he offers a revised maxim for a land ethic: A thing is right when it tends to disturb the biotic community only at normal spatial and temporal scales. It is wrong when it tends otherwise.³⁰ But if the biotic community does not tend toward any equilibrium, as the ecology of disequilibrium maintains, and Callicott grants this point at least for the sake of argument, then it is difficult to see how normal perturbations can somehow be better for the biotic community than abnormal perturbations. To the contrary, it would seem that the biotic community would just be different under normal perturbations than under abnormal perturbations, not better off.

Nevertheless, even if the ecology of disequilibrium is true, and normally no specific course of development is good for ecosystems or the whole biotic community, it will still be the case that the actions of moral agents can significantly harm or benefit particular species or their members, and thus this possible effect of their actions has to be taken into account in assessing the morality of those actions. By contrast, if the ecology of equilibrium is true, then ecosystems and the whole biotic community can frequently be benefited or harmed by the actions of moral agents. But given that, in many cases, we seem to lack the knowledge of when this benefit or harm obtains, it follows that, in these cases, only the impact we have on particular species or their members can be taken into account in assessing the morality of our actions.³¹ Thus, it turns out that irrespective of whether an ecology of disequilibrium or an ecology of

²⁹ J. Baird Callicott, "Do Deconstructive Ecology and Sociobiology Undermine Leopold's Land Ethic?" *Environmental Ethics* 18 (1996): 369.

³⁰ *Ibid.*, p. 372.

³¹ To some extent, it was the difficulty ecologists had in specifying when ecosystems were in equilibrium that led them to endorse the ecology of disequilibrium.

equilibrium is true, in many cases, the same considerations would be taken into account in assessing the morality of the actions of moral agents. In time, the debate between these two ecological perspectives may well be resolved, but however it is resolved, it should leave the defensibility, if not the application, of biocentrism unaffected.

IV

Yet, even if their view is unaffected by the debate between the ecology of equilibrium and the ecology of disequilibrium, biocentrists still need to reasonably distinguish the life that they claim has intrinsic value from the animate and inanimate things that they claim lack intrinsic value. In order to do so, it is useful to get clear about what it means to claim that life of a certain sort has intrinsic value which inanimate and some animate things lack.

Here we need to distinguish at least two notions of intrinsic value. According to the first notion of intrinsic value, to say that *X* has intrinsic value is to say that *X* is good as an end for some agent *Y* as opposed to saying that *X* has instrumental value, which is to say that *X* is good as a means for some agent *Y*. According to the second notion of intrinsic value, to say that *X* has intrinsic value is to say that the good of *X* ought to constrain the way that others use *X* in pursuing their own interests.³² While the first notion of intrinsic value is the more familiar one, it is the second notion of intrinsic value that is more useful in this context. Thus, to say that certain living beings have intrinsic value is to say that the good of those living beings ought to constrain the way that others use them in pursuing their own interests. The actual constraints that are operative in this regard, I claim, are given by the above environmental principles.

Critics of biocentrism, however, can accept this analysis of intrinsic value. What they question is how biocentrists can reasonably distinguish the life they claim has intrinsic value from the animate and inanimate things they claim lack intrinsic value. In particular, these critics claim that biocentrists cannot reasonably distinguish the living things they claim have intrinsic value from machines and from various other kinds of living things, such as hearts and kidneys, which they claim lack intrinsic value. Since critics point out that machines, hearts, and kidneys can all be benefited and harmed, why should they not also have intrinsic value? Of course, if biocentrists were to allow that all these things have intrinsic value that would be the *reductio ad absurdum* of their position. Accordingly, biocentrists need to provide some way of reasonably distinguishing what they claim has intrinsic value from what they claim lacks intrinsic value.

Biocentrists have responded to this challenge in various ways. Paul Taylor

³² There is no opposing sense of "instrumental value" here.

claims that in addition to being capable of being benefited or harmed, a being must have a good of its own in order to have intrinsic value.³³ Taylor claims that machines and such living things as hearts and kidneys do not have a good of their own because their good is derived from the good of living beings whose good is not so derived.³⁴ Laurence Johnson responds in a similar, but more expansive, way, claiming that moral subjects are living systems in a persistent state of low entropy sustained by metabolic processes for accumulating energy whose organic unity and self-identity is maintained in equilibrium by homeostatic feedback processes.³⁵ Gary Varner takes a different approach, claiming that what characterizes living beings which have intrinsic value is that the capacities of these living beings arose by a process of natural selection.³⁶ According to Nicholas Agar, who builds on Varner's account, it is having capabilities that arose by natural selection together with having certain representational goals that characterize living beings that have intrinsic value.³⁷ In my earlier work, I argued that Taylor's account was a reasonable way of distinguishing what has intrinsic value from what doesn't, but now I have my doubts.³⁸

The problem with all of these accounts, as I now see it, is that they all involve a derivation of "values" from "facts" in such a way that we can always ask why these "facts" and not others are the grounds for the derivation.³⁹ Of course, animal liberationists, who hold that only sentient beings have intrinsic value, and most people, who I would say are anthropocentrists and hold that only humans or, more generally, rational beings have intrinsic value, face the same problem. But is there any way out of this problem? I think that there is.

To begin with, we need to recall that the basic concern of environmental ethics is to determine the prerogatives of and constraints on moral agents in their relationship with other living beings. The prerogatives specify the ways

³³ Taylor, *Respect for Nature*, pp. 68–71 and p. 17.

³⁴ One might wonder whether, on Taylor's view, the theist's belief that human goodness has its source and exemplar in the goodness of God renders it impossible for the theist to reasonably hold that humans have a good of their own. Exploring this issue, however, would take us too far afield. Moreover, I hope to provide a characterization of what has intrinsic value that makes it easier to resolve this issue.

³⁵ Laurence Johnson, *A Morally Deep World* (New York: Cambridge University Press, 1991), chap. 6. Johnson adapts this definition from Kenneth Sayre, *Cybernetics and the Philosophy of Mind* (New York: Humanities, 1996). See also Lawrence Johnson, "Toward the Moral Considerability of Species and Ecosystems," *Environmental Ethics* 14 (1992): 147–57.

³⁶ Gary Varner, "Biological Functions and Biological Interests," *Southern Journal of Philosophy* 27 (1990): 251–70.

³⁷ Nicholas Agar, "Valuing Species and Valuing Individuals," *Environmental Ethics* 17 (1995): 397–415.

³⁸ For this earlier argument, see "From Biocentric Individualism to Biocentric Pluralism."

³⁹ I am not objecting here to all attempts to derive, or better ground "values" on "facts" but just to the arbitrariness that seems to characterize the one under consideration. For a discussion of what good derivations or groundings of values would look like, see Kurt Baier, *The Rational and the Moral Order* (Chicago: Open Court, 1995), chap. 1.

that moral agents can justifiably harm other living beings (the principles of defense and preservation) while the constraints specify the ways that moral agents cannot justifiably harm other living beings (the principles of nondefense and nonaggression). Moreover, when moral agents recognize beings as having intrinsic value, they simply recognize that these constraints apply to their interactions with them.

It is important to notice that the constraints specifying ways that moral agents should not harm other living beings are simply requirements that, under certain conditions, moral agents should leave other living beings alone, that is, not interfere with them. They are not requirements that moral agents do anything for other living beings. To generally require that moral agents do something (beneficial) for other living beings (except when rectification is required) is to require much more of them. It entails positive obligations to benefit other living beings, not just negative obligations not to harm them by interfering with them. In general, this would be to demand too much from moral agents, in effect, requiring them to be saints, and, as we have noted before, morality is not in the business of requiring moral agents to be saints. Accordingly, the general obligation of noninterference that moral agents have with respect to other living beings is fixed not so much by the nature of those other living beings (although they must be capable of being benefited and harmed in some non-derivative way), but rather by what constraints or requirements can be reasonably imposed on moral agents. Accordingly, we can see that those who benefit from the obligations that can be reasonably imposed on moral agents must have a certain independence to their lives; they must be able to get along on their own, without the help of others. In other words, they must have a good of their own.⁴⁰

Some living things, such as hearts and kidneys, don't have a good of their own in this sense, and, therefore, they won't benefit from simply being left alone. For example, hearts and kidneys require a certain kind of sustaining environment, and to demand that moral agents provide that kind of environment, when it is contrary to their interest to do so, is to impose a significantly demanding requirement on them. Of course, there is no problem when the heart or kidney is healthy and one's own, because in that case, one would almost surely want to preserve one's own heart or kidney. But when one's heart or kidney is diseased, or not one's own, one is under no positive moral obligation to preserve it as such.⁴¹ That would be to ask too much of moral agents. As a

⁴⁰ One notable exception to the requirement of independence are some species and subspecies of domesticated animals who have been made into beings who are dependent for their survival on humans. I contend that because of their historic interaction with these domesticated animals, humans have acquired a positive obligation to care for these animals provided certain mutually beneficial arrangements can be maintained. Such domestic animals also have intrinsic value (i.e., their good ought to constrain how others use them), but the reasons for their having this value derive from the way that they have been deprived of their independence by humans.

⁴¹ Moreover, to recognize a positive obligation to preserve living things, such as hearts and kidneys, also puts one in conflict with one's own good if it is the case that one's own heart or kidney is diseased or the good of other living beings if their hearts or kidneys are diseased.

moral agent, one's only general obligation to all living beings is simply not to interfere with them as specified by the principles of nondefense and nonaggression. But it is assumed here that the living beings who are standardly covered by these principles actually will benefit from such noninterference and, hence, that they do not additionally require for their survival positive support from moral agents who have no obligation to provide it.⁴² It is such living beings who have intrinsic value; it is such living beings whose good ought to constrain the way that moral agents pursue their own interests.⁴³

The same holds true for machines. It is not good for them to be left alone. They too need a sustaining environment. Yet moral agents are not under any positive obligation to provide such an environment. The only obligation moral agents have in this regard is an obligation, under certain conditions, not to interfere with beings who would benefit from such noninterference. To require that moral agents do more would be to require that moral agents do too much, since morality does not require that moral agents do more than can be reasonably expected of them.

Nevertheless, there is a further problem with machines, beyond their need for positive support, that undercuts the very possibility of moral agents having any obligations toward them. It is that, unlike living things, including hearts and kidneys, machines cannot be benefited and harmed except derivatively through their ability to serve the (instrumental) purposes of their creators or owners. Of course, we do say that a car needs an oil change or a fill up. Yet meeting such needs doesn't really benefit the car. Rather it usually benefits the owner of the car who is thereby provided with a more reliable means of transportation. Suppose the owner of the car wants to turn it into a work of modern art by judiciously applying a sledgehammer to it. Is the car thereby harmed? It is not clear that it is. Rather the car now serves the artistic needs of its owner and possibly others, thereby benefiting them in a new way. Moreover, in this new role, the car no longer needs oil changes and fill ups.⁴⁴

Of course, it is possible that machines could be constructed that are so self-sufficient and independent that it would make sense to talk about them as being benefited and harmed in their own right and as having a good of their own. We clearly have already been exposed to such machines in science fiction, the

However, this line of thought only shows that granting such a positive obligation leads to a *reducio ad absurdum* of the biocentrist's position. The qualification "as such" is added to allow for the possibility that one may have a obligation to preserve a particular heart or kidney if one should happen to have a obligation to preserve the person whose heart or kidney it is.

⁴² In the case of some species and subspecies of domesticated animals, however, there is a conditional obligation to provide positive support. See n. 41.

⁴³ It would be interesting to explore how this moral framework applies to disputed moral problems like abortion and euthanasia. My hope is that all disputants would find this moral framework acceptable and that the framework will also provide additional resources for resolving these problems.

⁴⁴ For further discussion, see Johnson, *A Morally Deep World*, p. 76.

creation of them in real life seems only to be a matter of time. At the moment, however, the machines that we actually deal with cannot be benefited or harmed except derivatively through their ability to serve the purposes of their creators or owners. As a consequence, the moral constraints of the principles of nondefense and nonaggression does not apply to them.

Accordingly, I have specified the class of those who have intrinsic value not primarily in terms of the factual characteristics of those who have it (although they must be capable of being benefited and harmed in a nonderivative sense), but rather in terms of what constraints or requirements can reasonably be imposed on moral agents in this regard.⁴⁵ This class is not a derivation of “values” from “facts” or of “ought” from “is” in which one can ask why these facts and not some others support the derivation. Rather it is a derivation of “values” from “values” or of “ought” from “ought” in which the necessity of the derivation can be displayed.

We can more clearly display this derivation as a two-step argument. First, we need a set of premises that limits the requirements of morality:

- (1a) The requirements of morality are not among the requirements that it is unreasonable to impose on moral agents.
- (2a) It is unreasonable to impose on moral agents a positive obligation to benefit all things capable of being benefited and harmed (which is required to extend intrinsic value to living things, such as hearts and kidneys, and to any machines that qualify).
- (3a) A positive obligation to benefit all things capable of being benefited and harmed is not a requirement of morality.

Second, we need a set of premises stating what the requirements of morality are:

- (1b) Morality imposes reasonable requirements on moral agents.
- (2b) The principles of defense, nondefense, preservation, nonaggression, and rectification, unlike the other alternatives, are reasonable to impose on all moral agents.
- (3b) The principles of defense, nondefense, preservation, nonaggression, and rectification are requirements of morality.

⁴⁵ Even the requirement that those who can be benefited or harmed in a nonderivative way must have a certain independence to their lives or a good of their own is, on my account, derived from what we can reasonably expect of moral agents.

Because the basic premises of this two-step argument—(1a) and (1b)—are widely accepted as fundamental characterizations of morality, and (1b), in fact, is the contrapositive of (1a), I think that the conclusions (3a) and (3b) can be seen to clearly follow.⁴⁶

Of course, a fuller statement of this two-step argument requires an elaboration of the considerations that I have advanced in this paper. Nevertheless, I think that I have said enough to indicate how biocentrists can meet the three basic criticisms that have been raised against them by providing a set of environmental principles that (1) are clearly not biased in favor of human species, (2) can adjust to changes in ecological science, and (3) can reasonably distinguish what has intrinsic value from what doesn't. By showing how biocentrists can strike back and answer these criticisms, I think that I have also provided grounds for allowing biocentrists to justifiably appropriate the salutation, "Let the life force (or better the ethical demands of life) be with you."

⁴⁶ For further discussion of these two fundamental characterizations of morality (1a) and (1b), see "From Liberty to Welfare."