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On the Demarcation Problem and the Possibility of Environmental Ethics: A Refutation of “A Refutation of Environmental Ethics”

Lars Samuelsson*

According to a popular critique of environmental ethics, the view that nature has intrinsic value faces an insurmountable demarcation problem. This critique was delivered in a particularly forceful manner two decades ago by Janna Thompson in her paper “A Refutation of Environmental Ethics.” However, the demarcation problem, albeit a real problem, is not insurmountable. Thompson’s argument draws on the claim that the possibility of environmental ethics depends on the possibility that nature can be demarcated with respect to some allegedly morally significant property or set of properties. Her own view of nature’s moral significance is equally dependent on that possibility. Therefore, if the demarcation problem were insurmountable, that would imply a refutation of her own view on nature’s moral significance as well.

I. INTRODUCTION

According to a popular critique of environmental ethics, the view that nature has intrinsic (or final) value faces an insurmountable demarcation problem. The idea is that regardless of which feature (or set of features) of nature that we think provides the basis for its value, we will either be forced to include some things as valuable that we do not wish to include (such as, perhaps, artifacts, inanimate natural entities, and human-modified “nature”) because these things share this feature, or else we will be forced to exclude some things that we do not wish to exclude (such as, perhaps, less complex nature, “ugly” nature, and human-created “nature”!) because these things do not share this feature. That is, seen from our own perspective, we will have to cast the net either too widely or too narrowly.

This critique was delivered in a particularly forceful manner two decades ago by Janna Thompson in her paper “A Refutation of Environmental Ethics.”¹ In the present paper, I argue that the demarcation problem is not insurmountable and explain why I think Thompson’s argument fails. I further argue that if the demarcation problem were insurmountable that would also imply a refutation of Thompson’s

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¹ Janna Thompson, “A Refutation of Environmental Ethics,” *Environmental Ethics* 12 (1990): 147–60. Note that Thompson herself does not use the phrase “demarcation problem.”

own view on nature's moral significance. According to Thompson, we can argue that nature is valuable "because our lives and our conception of ourselves will be enhanced—in a spiritual sense—if we learn to appreciate it for what it is and we learn how to live with it in harmony."² My argument that Thompson's view is susceptible to the demarcation problem may be relevant to other views as well. The idea of many so-called anthropocentrists is that nature—and our valuing it—may be good for us in ways that exceed mere material benefits.³

As indicated above, Thompson is not the only one to have argued against environmental ethical views by appealing to a demarcation problem. This style of argument has recurred in several writings after "A Refutation" (either in reference to that piece, or in some slightly different version), and it can also be found, though in a more restricted form, in earlier writings.⁴ I choose to focus on Thompson's account for several reasons: to my knowledge it is the earliest version of this kind of critique when it is taken to apply to all nonanthropocentric, nonsentientist environmental ethics, and not only to interest-based views,⁵ it is—as far as I can tell—as rigorous as any of its successors, it has been quite influential (it is frequently referred to and has been reprinted in anthologies), and, as I noted above, I believe that the alternative view on nature's moral significance that Thompson herself favors is subject to the same kind of critique—a point that is relevant to several more or less anthropocentric approaches to environmental ethics. All in all, I take the demarcation problem, as well as Thompson's discussion of it, to be as topical as ever.

Of course, due to the age of Thompson's paper, several environmental ethicists have already provided replies to it.⁶ Some words needed concerning how my reply

² *Ibid.*, p. 160.

³ Although I find the "centrism" terminology rather confusing (see Lars Samuelsson, *The Moral Status of Nature: Reasons to Care for the Natural World* [Saarbrücken: VDM Verlag, 2009], pp. 18–22), I use it here for the sake of convenience. *Anthropocentrism*, as I use the term, is the view that only human beings or human states have intrinsic (or final) value. Nonanthropocentrism is the denial of this view. In the context of environmental ethics, it is the view that there are nonhuman *natural* entities or states that have intrinsic (or final) value.

⁴ It has been common in discussions of interest-based environmental ethics (i.e., views according to which also some sentient/nonconscious natural entities have morally significant interests and thus moral standing), where it has often taken the form of a *reductio ad absurdum*: if we want to hold that some nonsentient natural entities have morally significant interests, then we will be forced to hold that some nonnatural things—such as cars, computers or guided missiles—have morally significant interests as well, but that view is absurd. See, e.g., W. Murray Hunt, "Are Mere *Things* Morally Considerable?" *Environmental Ethics* 2 (1980): 59–66; and R. G. Frey, *Interests and Rights: The Case against Animals* (Oxford: Clarendon Press, 1980), pp. 79–81. These writings are prior to Thompson's, but what is characteristic about her article is the transmission of the demarcation problem to non-interest-based environmental ethics.

⁵ See previous note. *Sentientism*, as I use the term, is the view that all and only sentient creatures, or some states of these creatures, have intrinsic (or final) value. Nonsentientism is the denial of this view.

⁶ See in particular Val Plumwood, "Ethics and Instrumentalism: A Response to Janna Thompson," *Environmental Ethics* 13 (1991): 139–49; Michael P. Nelson, "A Defense of Environmental Ethics: A Reply to Janna Thompson," *Environmental Ethics* 15 (1993): 245–57; and Damian Cox, "On the Value of Natural Relations," *Environmental Ethics* 19 (1997): 173–83.

differs from theirs, and in what ways I take my contribution to shed new light on the questions that Thompson's critique raises (section four). But before I attend to this task, and subsequently the task of discussing the demarcation problem (sections five to seven), there are some issues of clarification of a formal nature that have to be dealt with (section two), and we also need an account of Thompson's version of the demarcation problem (section three).

II. SOME PRELIMINARIES

In "A Refutation," Thompson adheres to a practice which is quite common, but which I find unfortunate. She characterizes environmental ethics as the view that some nonsentient/nonconscious natural entities and/or natural states of affairs have intrinsic value.⁷ This is unfortunate because many of those who engage in environmental ethical debates (including Thompson herself) reject this view. These writers should plausibly also count as environmental ethicists: they are philosophers doing ethics with the environment as their object of study. However, since Thompson is the main target of this article, I follow her practice nevertheless. I think that doing so, though unfortunate, makes the discussion of her argument flow more smoothly. Hence, the phrase "environmental ethics," in this article, is meant to cover any view according to which nonsentient/nonconscious nature (or some states of such nature) has intrinsic value—with one important reservation. The reservation concerns intrinsic value.

Several philosophers have quite recently argued that the distinction between intrinsic value and instrumental value actually conflates two different distinctions: one between value as a means and value as an end, and one between relational value and nonrelational value.⁸ The latter distinction is concerned with a value's supervenience base, i.e., with the properties of a valuable entity in virtue of which its value arises.⁹ A value whose supervenience base is exclusively constituted by nonrelational (i.e., intrinsic) properties is a nonrelational, or intrinsic, value. The former distinction concerns the way we value, or have reason to value, the valuable thing in question. Some things are valued for their own sake (or as ends, in one sense of "end"¹⁰), and some things (not necessarily other things) are valued for the sake of something else (or as means). A thing that is valuable for its own sake

⁷ Thompson, "A Refutation," p. 148. Note that Thompson does not restrict environmental ethics to so called holistic views, which is another both common and unfortunate practice. On Thompson's (and my) understanding of environmental ethics, views according to which (only) individual (nonsentient/nonconscious) natural entities (or some of their states) have intrinsic value count as environmental ethical views.

⁸ E.g., Christine Korsgaard, "Two Distinctions in Goodness," *Philosophical Review* 92 (1983): 169–95; John O'Neill, "The Varieties of Intrinsic Value," *The Monist* 75 (1992): 119–37; and Wlodek Rabinowicz and Toni Rønnow-Rasmussen, "A Distinction in Value: Intrinsic and For Its Own Sake," *Proceedings of the Aristotelian Society* 100 (2000): 33–49.

⁹ *Ibid.*, pp. 36–38.

¹⁰ See *ibid.*, pp. 47–48.

is sometimes said to have *final value*. The main point of being observant about the difference between intrinsic and final value is to avoid the mistake of excluding, on conceptual grounds, the possibility of there being things that are valuable for their own sake in virtue of (at least partly) relational properties. There is nothing to conceptually exclude this possibility.¹¹

While Thompson does seem to conflate these two distinctions in value,¹² it is obvious that the kind of value relevant to her critique is final value. This is the kind of (noninstrumental) value that environmental ethicists want to attribute to nature. Proponents of environmental ethics want to convince us that we should value nature *for its own sake*. Whether we should do so because of intrinsic or relational properties of nature is of less importance.¹³ Thompson herself also contrasts the kind of value that she is interested in with value as a means.¹⁴ However, like Thompson, most philosophers still use the phrase “intrinsic value” for *value for its own sake*, so even if I prefer the phrase “final value” for such value, I follow the standard practice and use “intrinsic value” in this article, for I think doing so makes the discussion of Thompson’s argument flow more smoothly. But we should bear in mind that “intrinsic value” here refers to the value a thing has *for its own sake*, and not to the value it has in virtue of nonrelational properties.

We may also note that some environmental ethicists, rather than attributing intrinsic value to nature, ascribe moral standing, or moral considerability, to it.¹⁵ Some proponents of interest-based views claim that interest bearers have moral standing, while some of their states (plausibly the states of them having their interests satisfied) have intrinsic value. However, since these environmental ethicists accept that some states of affairs in nature (i.e., that various natural entities have their interests satisfied) have intrinsic value, these views are actually comprised by Thompson’s characterization of environmental ethics (since this characterization

¹¹ As has been noted by Karen Green among others, the view that nature’s value depends at least partly on relational properties is in fact very common among environmental ethicists (Karen Green, “Two Distinctions in Environmental Goodness,” *Environmental Values* 5 [1996]: 31–46). E.g., uniqueness, naturalness, and community-belonging are all relational properties that have been held to ground or increase intrinsic (final) value in natural entities.

¹² Compare the following two passages from Thompson, “A Refutation,” p. 148: “. . . an ethic is supposed to tell us . . . what states of affairs, things, and properties are intrinsically valuable (as opposed to what is valuable as a means to an end),” and “. . . those who find intrinsic value in nature are claiming . . . that things and states which are of value are valuable for what they are in themselves and not because of their relations to us.”

¹³ See O’Neill, “Varieties,” p. 120; Katie McShane, “Why Environmental Ethics Shouldn’t Give Up on Intrinsic Value,” *Environmental Ethics* 29 (2007): 43–61; pp. 49, 54; and Lars Samuelsson, “Reasons and Values in Environmental Ethics,” *Environmental Values*, forthcoming, sec. 2. Cf. Rabinowicz and Rønnow-Rasmussen, “A Distinction,” pp. 48–49.

¹⁴ See n. 12.

¹⁵ For the difference between moral standing and intrinsic value, see Harley Cahen, “Against the Moral Considerability of Ecosystems,” reprinted in *Environmental Ethics: An Anthology*, ed. Andrew Light and Holmes Rolston, III (Oxford: Blackwell Publishers, 2003) (originally published in *Environmental Ethics* 10 [1988]: 195–216), and Rick O’Neil, “Intrinsic value, Moral Standing, and Species,” *Environmental Ethics* 19 (1997): 45–52.

includes views ascribing intrinsic value to states of affairs in nature). For the sake of convenience, I mostly ignore this distinction and write as if those who attribute moral standing to a thing also attribute intrinsic value to it. This is what Thompson does, and doing so does not affect the discussion.

I should also comment on the term *nature*. In this article, I use *nature* simply as an umbrella term for such nonsentient/nonconscious natural entities that environmental ethicists may think have intrinsic value. Since different environmental ethicists ascribe intrinsic value to different kinds of things, it is difficult to be precise about what should count as nature. I simply assume here that we all have some idea about which kinds of entities are natural entities and which are not. However, once we enter into discussions about different suggestions of criteria of intrinsic value in nature, we will automatically be exposed to different suggestions of features that are characteristic of nature, namely, the different features that have been suggested as the criterion of intrinsic value in nature.

Lastly, I want to point out that I am not attempting a defense of intrinsic value in nature. Such a defense is not necessary in order to refute Thompson's refutation. We can easily see that if we consider the range of Thompson's claim. She writes: "It should be noted that my objection to environmental ethics is not that its ideas about what is valuable are implausible. . . . Rather, if my arguments are correct, what is called environmental ethics is not properly ethics at all."¹⁶

III. THE DEMARCATION PROBLEM

Thompson identifies three formal requirements that she thinks any ethical theory must satisfy in order to qualify as an ethical theory at all:

(1) *The Requirement of Consistency*. If a thing or state of affairs is thought to be intrinsically valuable, then all things that are like it in relevant respects must also be judged to have intrinsic value. . . . In other words, if something is thought to be of value, and another thing is not, then there must be reason for believing that the differences between them justify making that judgment. . . .

(2) *The Requirement of Non-Vacuity*. The criteria for determining what things or states of affairs are intrinsically valuable must not be such so that it turns out that every thing and every state of affairs counts as equally valuable. . . .

(3) *The Decidability Requirement*. The criteria of value which an ethic offers must be such that in most cases it is possible to determine what counts as valuable and what does not. . . .¹⁷

Thompson's alleged refutation of environmental ethics consists in the claim that "proposals for an environmental ethic either fail to satisfy one or more of these formal criteria or fail to give us reason to suppose that the values they promote are intrinsic values."¹⁸

¹⁶ Thompson, "A Refutation," p. 150.

¹⁷ *Ibid.*, pp. 148–49.

¹⁸ *Ibid.*, p. 150.

In principle, I agree with Thompson's three requirements. Perhaps I would not want to commit myself to the view that a theory which fails to satisfy one of them should not count as an ethical theory at all, but I agree that such a theory would not be a reasonable ethical theory. Correctly understood, I think the requirement of consistency cannot be disputed. Indeed, I think it constitutes a prerequisite for meaningful ethical reasoning. If I say that *X* has intrinsic value because it possesses a certain property, *P*, but deny that *Y*, which also possesses *P*, has intrinsic value, then I owe you some explanation as to how this can be the case. I must point to some feature of *Y* that cancels the value, or that has the effect of undermining *P*'s ability to ground a value, or the like. In the absence of such an explanation my assignment of value is simply arbitrary, and to the extent that I accept such arbitrary ascriptions of value, I will not be able to participate in meaningful ethical reasoning.

As a condition for a reasonable ethical theory, I think that Thompson's second requirement cannot be disputed either. A theory according to which every thing and every state of affairs has equal value would certainly not be a reasonable theory. However, Thompson actually needs a stronger requirement than this one. When she discusses the view that nature has morally significant interests, for instance, her point is that if we allow that nature has such interests, then we are forced to allow that other things that lack a point of view also have such interests. Indeed, even molecules and rocks would have such interests according to Thompson, since she thinks that things can be good and bad for them in the same way as things can be good and bad for nature.¹⁹ But even granting this claim, there is no reason for an interest theorist to admit that everything has *equally* many and *equally* strong interests, and thus *equal* value. There is nothing arbitrary in claiming that a plant has more interests than a rock, and that a human being has more interests than a plant. To the contrary, this seems to be the reasonable thing to say. Things can be good and bad for a human being in many more ways than things can be good and bad for a plant or a rock—a human being can be hurt, for instance—and the interest theorist does not have to ascribe interests to states of affairs at all. Furthermore, a defender of the view that nature has morally significant interests may claim that the interests in question have to be of a certain kind in order to be morally significant. Perhaps they must be goals, in some sense. Even if the interest theorist would still be forced to include some things as bearers of morally significant interests that he or she does not wish to include (such as organs or goal-directed machines), it is just ridiculous to insist that he or she is forced to include *everything*. An insect is goal-directed in a way that a stone is not (see section five). What really is at issue here is that the interest theorist may be forced to count as intrinsically valuable things that he or she would not wish to count as intrinsically valuable, or that it would be absurd or at least completely counter-intuitive to count as intrinsically valuable (such as goal-directed war missiles). An ethic according to which such things have intrinsic value would simply not be an ethic to take seriously. I think

¹⁹ *Ibid.*, p. 153.

that we should accept even this stronger version of the second requirement (as a requirement on a reasonable ethical theory).

The decidability requirement is the most imprecise of Thompson's requirements. Decidability seems to be a matter of avoiding a kind of vagueness. If it is unclear what I refer to when I suggest a criterion of value, then my theory will come out as incomplete. I must be able to give a sufficiently plain definition of my criterion for it to be clear what I am talking about—what kind of feature I am after—and there must not be too many borderline cases. According to Thompson, “[p]robably all ethical systems will have problems with borderline cases,” but one sort of ethical system that she thinks passes the test is “an ethic which regards sentient creatures as objects of moral concern and their well-being as something that we should promote.”²⁰ So, if an ethical theory does worse than sentientism with regard to decidability, then it is in danger of not passing as a reasonable ethical theory. Perhaps this point is fair enough.

The demarcation problem arises when a theory has difficulties satisfying one or more of these three requirements. When a theory has problems with the first requirement, it has not succeeded in successfully demarcating a true criterion of intrinsic value. If a thing, *X*, is judged not to be intrinsically valuable despite the fact that it satisfies the suggested criterion (and there is no satisfactory explanation as to why an exception should be made for *X*), then, either the suggested criterion cannot really be a criterion of intrinsic value, or else we must admit that *X* is indeed intrinsically valuable. If we go with the second option, the question arises as to whether it is reasonable to ascribe intrinsic value to *X*. If we find that it is not reasonable (that *X* simply is not the kind of thing that could have intrinsic value), then our theory does not satisfy the second requirement (in its modified form), and we have not been able to demarcate a true criterion of value. If we deal with the problem by making our criterion of value so vague as to make it impossible to decide whether or not *X* satisfies it, then our theory does not meet the third requirement, and again we have not succeeded in demarcating a true criterion of value.

Thompson claims that no environmental ethical theory meets all three requirements. How are we supposed to understand this claim? It is obvious that she does not think that an environmental ethic is logically impossible, since she writes:

Although I cannot rule out the possibility that someone might someday state a criterion of value which would include in its scope all and only those things and states that environmental ethicists want included and which would satisfy the formal requirements of ethics, it seems to me to be unlikely.²¹

But it is equally obvious that she does not think that she needs to go through all the different suggestions for criteria for intrinsic value that have been posed by various environmental ethicists, since she does not do so. Instead she discusses one

²⁰ *Ibid.*, p. 149.

²¹ *Ibid.*, p. 158.

such suggestion—the possession of interests—at great length, and then briefly goes through what I guess she takes to be the most interesting remaining suggestions and argues that they can be dismissed for similar reasons. I suppose she thinks that all initially plausible candidates for criteria of intrinsic value in nature that one could come up with are sufficiently similar for it to be possible to draw the conclusion that, very likely, *each* such candidate will fail for similar reasons (i.e., because it is susceptible to a demarcation problem).

I do two things to show that Thompson is wrong. First (in section five), I argue that the candidate which she puts most effort into dismissing—the possession of interests—is not nearly as easily dismissed as she thinks. Even if one may perhaps still—after my discussion—question that this candidate can ultimately be used to ground an environmental ethic that meets Thompson’s requirements, the fact that it is not nearly as easy to dismiss as she thinks should cast severe doubts on her claim that *all other* candidates—which she does not put equal effort into dismissing—could be repudiated at one sweep. Second (in section six), I argue that there simply has to be some way to (descriptively) demarcate nature, even if we may not be entirely certain about what way that is. A feature or set of features that demarcates natural entities from other things may or may not be morally significant. That question cannot be settled by Thompson’s line of reasoning. But before I get on with these tasks, I briefly consider some other replies to Thompson.

IV. OTHER REPLIES TO THOMPSON

Although I take the demarcation problem to constitute the main ingredient of Thompson’s critique of environmental ethics, it is not the only issue that she raises for such views. Yet, this article is restricted to dealing with this problem. Some of the other issues are dealt with in the responses to Thompson that I mention in this section.²²

What is characteristic about my reply to Thompson is that I largely accept her preconditions—most importantly her three requirements on an ethical theory—and argue that the kinds of environmental ethics that she criticizes can be defended even provided that we accept these preconditions. Both Val Plumwood (who to my knowing was the first philosopher to respond to Thompson) and Michael P. Nelson, in their respective replies, argue that if these requirements are correct, then Thompson’s own sentientist view (as well as other versions of sentientism/anthropocentrism) also fall prey to them.²³ Plumwood’s conclusion seems to be that Thompson’s requirements therefore have to be flawed (but she did not explicitly identify these assumed flaws).²⁴ Nelson, on the other hand, draws the conclusion

²² For some particularly good points in reply to Thompson, see Plumwood, “Ethics and Instrumentalism,” pp. 144–45.

²³ *Ibid.*, pp. 143, 147–48; and Nelson, “A Defense,” pp. 249, 252–53.

²⁴ Plumwood, “Ethics and Instrumentalism,” pp. 143, 145.

that Thompson's own view is indeed indefensible, but argues that there is at least one environmental ethic—the land ethic, in J. Baird Callicott's version—that satisfies Thompson's requirements. Since Nelson's focus is on the land ethic, he does not “attempt the reparation and defense of those theories which Thompson discredits.”²⁵ That is precisely what I attempt. An important difference between Nelson and myself is that I believe that the kind of sentientism (or “point-of-view centered ethic,” as Nelson puts it) that Thompson defends is indeed defensible. If a nonanthropocentric nonsentientist environmental ethic is correct, then it is merely a complement to such an ethic, and not a substitute for it. This is not the place to defend this claim, however.²⁶

Like Nelson, Damian Cox also defends a version of environmental ethics that Thompson has not dealt with. He argues for a shift of focus from nature's value to the value of certain of our relations with nature.²⁷ While I find the suggestion that some such relations are valuable worth considering, I think Cox complies too much with Thompson by abandoning the possibility of establishing intrinsic value in nature itself. As I argue in this article, Thompson has not succeeded in showing that this enterprise is impossible.

In my opinion, Thompson's three requirements are in principle correct, but her argument to the effect that these requirements reveal an insurmountable demarcation problem for environmental ethics fails. I believe that Thompson's own view, as well as some of the versions of environmental ethics that she criticizes, can satisfy these requirements, and I take this to be the most important difference between my reply and the other replies to Thompson.

V. POSSESSING INTERESTS—A POSSIBLE CRITERION OF INTRINSIC VALUE?

The clearest example of Thompson's line of reasoning is to be found in her argumentation against interest-based views, which I have mentioned above. This example also suggests how far an argument which appeals to a demarcation problem can take us in criticizing an ethical theory, and it illuminates the role that I think the demarcation problem should be assigned in ethical reasoning. As we have seen, Thompson believes that if we ascribe intrinsic value to nonsentient/nonconscious organisms on account of their possessing interests, then, in order to satisfy the requirement of consistency, we have to ascribe intrinsic value to virtually anything (since virtually anything can be said to possess interests in this sense). I indicated how this reasoning is flawed by pointing out that the interest theorist may pose qualifications on the interests that he or she takes to be morally significant. Nevertheless, it may be that there are no such qualifications that can do the job, i.e., that can give us a

²⁵ Nelson, “A Defense,” p. 246.

²⁶ For my views on these matters, see Samuelsson, *The Moral Status of Nature*.

²⁷ Cox, “Natural Relations,” p. 180.

concept of interests that could be used to establish the moral considerability (or intrinsic value) of precisely those (natural) entities that the interest theorist wants to ascribe it to. If so, a theory grounding moral considerability on the possession of interests cannot meet Thompson's second requirement in its modified form, no matter how the concept of interests is understood. It is this claim that we need to evaluate.

What is common to almost all interest theorists is that they take the relevant interests to be goals.²⁸ Departing from this fact, Harley Cahen has provided a powerful argument against the moral considerability of ecosystems.²⁹ But his line of reasoning also paves the way for the *possibility* that the possession of interests could be a criterion of moral considerability (or, to speak with Thompson, intrinsic value) of living organisms, and thus for the view that all (but only) living organisms are morally considerable (a view that also counts as an environmental ethic, on Thompson's understanding of the phrase). First, Cahen concludes, with Thompson and others, that if the interest theorist does not qualify the interests that he or she takes to be morally significant, then he or she will indeed have to ascribe such interests to a lot of things to which he or she does not want to ascribe interests. Second, Cahen argues that the most promising way to make such a qualification is to identify the relevant interests with goals, and he provides the account of goal-directedness (borrowed from Larry Wright) that he takes to be the best candidate for singling out the "right kind" of interests:

A system is goal-directed, Wright contends, only if it behaves as it does just because that is the type of behavior that tends to bring about that type of goal. Formally, behavior *B* occurs for the sake of goal-state *G* if "(i) *B* tends to bring about *G*," and "(ii) *B* occurs because (i.e. is brought about by the fact that) it tends to bring about *G*." The key condition is (ii). Some machines, say guided missiles, meet it, for a machine may *B* because it is designed to *B*, and it may be designed to *B*, in turn, because *B* tends to bring about some *G* desired by the designer. Organisms meet it, too, because of the way that natural selection operates. The fitness of an organism usually depends on how appropriate its behavior is—that is, the extent to which it does the sort of thing (say, *B*) that tends to help that kind of organism survive and reproduce. If the disposition to *B* is heritable, organisms whose tendency to *B* helps make them fit will leave descendants that tend to *B*. Those descendants are disposed to *B*, then, in part because *B* is an appropriate type of behavior.³⁰

²⁸ This is true also of the interest theorist that Thompson discusses, Paul Taylor (see Taylor, *Respect for Nature: A Theory of Environmental Ethics* [Princeton: Princeton University Press, 1986], p. 119). See Cahen, "Against the Moral Considerability," p. 117, for an account of other interest theorists' claims concerning goal-directedness.

²⁹ *Ibid.* It is important to note that Cahen's argument is an argument against the *moral considerability* (i.e., the *moral standing*) of ecosystems, and not against the *intrinsic value* of ecosystems. His conclusion is that ecosystems cannot have morally significant interests; his argument says nothing about whether ecosystems can have other properties that could provide the basis for intrinsic value.

³⁰ *Ibid.*, p. 118.

Third, Cahen argues that ecosystems do not have goals, but that what appear to be their goals are simply by-products of the goals of the organisms which they contain. The reason is that neither natural selection nor anything that could fill the same function operates on the level of ecosystems. While the occurrence of a certain behavior of an organism is typically explained in terms of how that behavior has benefited (contributed to bringing about desirable goal-states for) its ancestors, no such explanation is available in the case of ecosystems (if we are to believe current science). A “behavior” of an ecosystem has not been “brought about by the fact that” it tends to bring about a certain state.

Let us suppose that Cahen is correct. Which conclusions can we draw about the prospects of interest-based environmental ethics from his account? We can draw at least the following two conclusions: (1) if interest theorists want to maintain that ecosystems have morally significant interests, they need to come up with some alternative account of morally significant interests that can satisfy Thompson’s three requirements (where the second one, as I have explained, must be understood in its modified form). We have good reasons to doubt that this is possible. Goal-directedness seems to be the only plausible candidate for identifying nonconscious/nonsentient interests of a sort that is not possessed by entities of the “wrong kind” (artifacts, dead material, etc.). It is hard to see what could take its place. (2) For an interest-based environmental ethic to come out as plausible, it must provide a convincing way to exclude goal-directed machines, such as guided missiles, from having morally significant interests (i.e., it must find a way to satisfy Thompson’s second requirement in its modified form).

One suggestion implicit in many interest-based approaches to environmental ethics is that an interest has to be autonomous in order to count as morally significant: that it has to be, in some sense, the entity’s own.³¹ While at least many of the goals of an organism are not given to it by somebody else, the goals of a machine are given to it by its constructors. Thus, identifying morally significant interests with autonomous goals may be a way to meet Thompson’s second requirement (in its modified form). Thompson is not impressed by this suggestion, however. She has provided a line of reasoning that seems to imply that there is a sense in which the goals of at least some machines can indeed be said to be autonomous:

Although it is true that we think that the purpose of a machine is to serve a human need, the matter is really not so simple, for machines, because of their structure, have a potential, a way of doing things, of their own, and in order to accomplish their purposes people often have to conform to the ways of the machine. In fact, it is frequently the case that people have to redefine their goals or are caused to discover new ones as a consequence of realizing the potential of a machine or in the course of adapting themselves to it.³²

³¹ E.g., James D. Heffernan, “The Land Ethic: A Critical Appraisal,” *Environmental Ethics* 4 (1982): 242; and Taylor, *Respect for Nature*, pp. 123–24. See also Cahen, “Against the Moral Considerability,” p. 117.

³² Thompson, “A Refutation,” pp. 153–54.

However, even if such “new goals” could be construed as the machine’s goals (and not just our goals) in Wright’s sense, I think they can still be consistently considered nonautonomous. Instead of focusing on the goals themselves, we could focus on the features of the machine by virtue of which it tends to bring about these goals. (Such a focus seems reasonable, since what we first and foremost “give” a machine are certain features. The *result* of giving it these features is that it tends to bring about certain goals.) We can claim that a goal of an object is autonomous only if the features by virtue of which it tends to bring about this goal are not “given” to it by some (other) intentional subject, such as a human being. Now, all features of human-made machines are given to them by humans, even features that were not intended by these humans, so that a human-made machine cannot have autonomous goals (on this understanding of the phrase).

It might be thought that there are possible counterexamples to this claim. Suppose a human-made machine is altered by some nonhuman cause—say, by being struck by lightning—in such a way that it comes to possess a new behavior, which tends to bring about a new goal. Would that not be an autonomous goal? The answer is that it would not even be a goal, in Wright’s sense, for the following reason.

Part of the reason why some machines (e.g., guided missiles) count as goal-directed, is that they have the behavior that they have (let us again call it B) *because* this behavior tends to bring about a certain state G . The designer of the machine has given it B for the reason that B tends to bring about G . Thus, the fact that B tends to bring about G is what *explains* that the machine has B . But if no one had designed the machine for the purpose of having G brought about, then G would be merely accidental, and not a goal (on Wright’s account). If the machine in our example has come to possess a new behavior (B_N) because it has been struck by lightning, then the state (S) that B_N tends to bring about is not really a goal, since the fact that B_N tends to bring about S does *not* explain that the machine has B_N (it is not the case that the machine has B_N *because* B_N tends to bring about S). The fact that the machine has B_N is simply explained by the fact that it was struck by lightning. But what if we (humans) come to find S desirable, and choose to construct the next generation of machines of this kind in such a way that they possess B_N ? Would S not then become a goal of such a new machine? Yes, but then S would not be an *autonomous* goal of that machine, since the feature by virtue of which the machine tends to bring about S would have been given to it by us (even if we had not invented this feature, but rather discovered it as a result of the fortunate accident that one of the machine’s predecessors was struck by lightning).

For a *real goal* of a machine to be *autonomous*, the role of the designer would have to be replaced by some other mechanism that could play a similar role (perhaps some mechanism that resembles natural selection). As far as I know, there are no machines to date upon which any such mechanism operates. But if in the future there are such machines, then it would perhaps not be absurd to attribute to them morally significant interests. In any case, the conclusion is that if an “interest” of a machine is autonomous, then it cannot (at present, at least) be a goal, and if an

“interest” of a machine is a goal, then it cannot be autonomous (since it is a goal by virtue of the very fact that someone has designed the machine for a particular purpose). So it seems as if we have here a notion of interests—autonomous goals—that is applicable only to living organisms. And if some other things—that we do not want to include among the morally considerable entities—could be said to possess such interests, we cannot exclude the possibility that we can find a way to modify our notion of interests in such a way as to exclude these things, or that these things can, after all, be (reasonably) held to be morally considerable.

Provided that we accept the above reasoning, the demarcation problem has forced us to give up the idea that ecosystems can possess morally significant interests, and to specify our notion of interests considerably. However, the demarcation problem can only take us this far. The question that remains is a normative one: “Are the interests that spring from autonomous goals morally significant?” There may certainly be reasons for doubting that they are; for instance, these interests are very different from the conscious/sentient interests that we normally take to be morally significant.³³ The demarcation problem can help us see this, but it cannot by itself show that an interest-based view according to which also nonsentient/nonconscious organisms have morally significant interests is wrong—let alone that it is not a proper ethic at all! Such a view can indeed meet all three of Thompson’s requirements on an ethical theory (even the second one in its modified form): (1) it is consistent: it takes all things that possess autonomous goals to be morally considerable. (2) It is non-vacuous (and does not assign moral considerability to anything that its adherents do not want to assign it to): it assigns moral considerability to all and only living organisms. (3) It satisfies the requirement of decidability: we decide whether a thing is morally considerable by investigating whether it has autonomous goals. In light of the present evidence, I take the set of things with autonomous goals to be identical to the set consisting of all, but only, living organisms.

I have chosen to focus on the possession of interests as a possible candidate for a criterion of intrinsic value in nature since that is the candidate which Thompson herself devotes most space to discussing. I certainly do not think that every reader will be persuaded by my argument that the possession of interests—understood as autonomous goals—could ultimately be used to ground an environmental ethic that meets Thompson’s three requirements. But I hope, and believe, that this is not necessary in order to refute her refutation. As I noted earlier, Thompson seems to think that all initially plausible candidates for criterion of intrinsic value in nature that one could come up with are sufficiently similar for it to be possible to draw the conclusion that, very likely, each such candidate will fail for similar reasons. I think Thompson’s line of reasoning should be understood as follows: since it is so obvious that the possession of interests cannot be used to ground an environmental ethic that meets her three requirements on an ethical theory, and since every other

³³This is roughly my own reason for rejecting interest-based environmental ethics. See Samuelsson, *The Moral Status of Nature*, chap. 4.

suggestion will face the same difficulties for analogous reasons, it is also obvious that any such suggestion will fail to overcome the demarcation problem. But, at the very least, my discussion above should have shown that it is *not* obvious that the possession of interests cannot be used to ground an environmental ethic that meets Thompson's three requirements. It is, in fact, far from obvious.

This possibility should cast severe doubts on Thompson's claim that *all other* candidates—which she does not put equal effort into dismissing—could be repudiated at one sweep. Indeed, Thompson's application of her three requirements to other versions of environmental ethics is no more convincing than her application of them to interests-based views. When she discusses complexity, integrity, naturalness, and so on, as candidates for a criterion of intrinsic value, she adopts unsophisticated interpretations of these features and then argues that they all fall prey to her three requirements.³⁴ As in the case of interests, at least some of these candidates (as well as others) can be (and have been) refined in such a way that an ethical theory which bases the intrinsic value of nature on some of them can meet Thompson's requirements.³⁵ The question that remains is, of course, whether we have reason to believe that any of these criteria are morally significant. But that is a different question, related to how plausible the proposed ethic is, and not to whether it is a proper ethic at all.

VI. ON DEMARCATING NATURE

I am not suggesting that the demarcation problem is not a problem at all. I believe it is. It points toward a real issue that most ethical theories need to deal with. A sentientist theory must for instance deal with the moral status of nonsentient human beings, such as some comatose or severely brain-damaged persons. A theory that refuses such persons direct moral importance may appear appalling, but if we want to include them in the set of morally considerable entities we have to modify the criterion, sentience, and perhaps be forced also to include things that we do not wish to include. However, for most theories the demarcation problem is not insurmountable in the sense that it alone refutes the theory in question. What it does is to force the adherents of the theory to specify their criteria of value, to meet objections, to discuss borderline cases, and to make their theory clearer. When a theory has great difficulties facing up to this challenge, other arguments can be used in combination with the demarcation problem to refute it, or to make it come out as implausible. In some cases—perhaps in the case of interest-based views ascribing morally significant interests to ecosystems—it may be that the

³⁴ Thompson, "A Refutation," pp. 156–58.

³⁵ In Samuelsson, *The Moral Status of Nature*, chap. 5, I suggest complexity (in a certain sense) and indispensability (to all moral agents) as criteria of intrinsic value in nature. I also argue that these criteria escape the demarcation problem. See also Plumwood, "Ethics and Instrumentalism," pp. 143–44; and Robert Elliot, "Intrinsic Value, Environmental Obligation and Naturalness," *The Monist* 75 (1992): 152.

demarcation problem, more or less by itself, can defeat a theory, but, as we have seen, Thompson has given us no reason to believe that this is the case with respect to every environmental ethical theory.

I think Thompson's way of applying her requirements reveals a misrepresentation of the way that we undertake much of our reasoning about what is valuable. Usually, we do not have clear criteria of intrinsic value, on which we then base our value judgments. Rather, our vague conceptions of such criteria are based on what value judgments we are willing to accept. Those of us whose moral intuitions tell us that nature has intrinsic value plausibly have some vague ideas regarding what it is about nature that makes us think that it is intrinsically valuable. Perhaps we find it aesthetically attractive, and/or think that it has a special kind of complexity and/or morally significant interests, or what have you. In any case, our intuitions first and foremost concern "the thing," nature, and not the feature or features in virtue of which the thing may be taken to have intrinsic value. There is something about this thing that makes it seem *special*—we are certain about that—but we may not be certain about exactly what it is. I am not here making the question-begging claim that we cannot be wrong with respect to our intuitions regarding what has intrinsic value. There may be all kinds of explanations of our intuitions that are compatible with these intuitions being wrong. The point is that we can be certain that there is *some way* to demarcate the things that we take to be intrinsically valuable because under normal circumstances we have no problem identifying these things, and hence they have to possess some feature (or set of features) in virtue of which we take them to be special, and which separates them from things that we do not take to be special. The question is whether this feature (or set of features) really is morally significant (or whether it actually grounds an intrinsic value).³⁶

Nature arouses evaluative responses in those who find it valuable, and my suggestion is that a large part of the explanation of why these people find nature valuable often is that it arouses such responses in them (I do not find it likely that most people who value nature do so as a result of theoretical reasoning, for instance). To the extent that these people are philosophically inclined, they will not be satisfied with this answer, but will go on to investigate what it is about nature that makes it arouse these responses. Some of them will come to believe that their responses are unwarranted, as far as they are taken to be responses to an actual value (or to a property or set of properties in virtue of which an actual value is supposed to arise), while others will reach the conclusion that nature is indeed valuable. Suppose that someone in the second group believes that nature is valuable because it possesses interests. Suppose then that we succeed in convincing this person that a

³⁶ Even in the case of one of the most uncontroversial candidates for a morally considerable entity, a human being, it is difficult to be certain about what it is, exactly, that makes it morally considerable. Is it sentience, consciousness, rationality, the possession of some sort of interests etc.? This is a question that philosophers disagree deeply about, but they hardly ever disagree about whether human beings are morally considerable in the first place. That is, they share the intuition that human beings are morally considerable, but they provide different answers as to why that is.

car has interests in the very same sense that nature has interests. How might this person respond? One way to respond would be to give up the idea that nature is intrinsically valuable (and come to believe, for instance, that the feature or set of features of nature in virtue of which it seems *special*, is some feature or set of features of nature in virtue of which it (merely) *appears* to have interests in a way that artifacts do not). Another response would be to admit that having interests cannot be the feature in virtue of which nature has value, and try to modify this criterion or look for some other criterion. A very odd response would be to come to believe that cars have intrinsic value in the same way as nature has intrinsic value. But an even odder response would be to come to believe that cars cannot be demarcated from nature; that they are of the same kind. The reason why this response would be so odd is that we simply know that cars and nature are not of the same kind. There must be some feature that (descriptively) distinguishes natural entities from cars (and other nonnatural objects), and whatever feature that is, it may or may not be morally significant. We may not know what feature that is—perhaps it is very complex—but, as I have explained above, I actually think that environmental ethicists have identified several such features.

To sum up, we do not have to worry about whether it is theoretically possible to (descriptively) demarcate nature; it just has to be. The real worry should be about whether (some of) the features demarcating nature from other things are morally significant, and this is the kind of question that much of the environmental ethical debate is concerned with. The biggest challenge that environmental ethicists face, on my view, is the challenge of providing reasons to believe that the features which they take to make nature intrinsically valuable really do make it intrinsically valuable. However, this is not the challenge that Thompson raises. Her claim is not merely that the environmental ethical theories so far developed are wrong—that the criteria which they identify are not morally significant—but that they are not proper ethical theories at all.

VII. THE DEMARCATATION PROBLEM STRIKES BACK

Thompson's argument draws on the claim that the possibility of environmental ethics depends on the possibility of demarcating nature with respect to some alleged morally significant property, or set of properties. But Thompson's own view on nature's moral significance is equally dependent on that possibility. After her "refutation" of environmental ethics, Thompson writes:

Fortunately, there is another possibility. We might be able to argue that something [nature] is valuable and therefore ought to be preserved because our lives and our conception of ourselves will be enhanced—in a spiritual sense—if we learn to appreciate it for what it is and we learn how to live with it in harmony.³⁷

³⁷ Thompson, "A Refutation," p. 160.

Let us call the feature of a thing having this effect on our lives if we appreciate it for what it is *F*. The context of the quoted passage makes it clear that the “something” that Thompson has in mind is nature, or natural entities. Of course, she may hold that things other than nature possess *F*, but she cannot possibly mean that all things, or even most things, do (cf. her second requirement on an ethical theory). In order to see that, we must bear in mind that Thompson here is trying to develop an alternative to environmental ethics, i.e., a view that can give nature an ethical importance similar in strength to that which is given to it by nonanthropocentric, nonsentientist environmental ethics (although, in the case of Thompson’s view, this moral importance is indirect).³⁸ If there are too many different sorts of things that possess *F*, then her alternative will not accomplish this task, since it will fail to give nature the special place in ethics that it sets out to give it.

If Thompson’s claim about the connection between nature and the value of our lives is correct, then there must be something about nature that explains this connection, i.e., that makes it the case that appreciating nature for what it is enhances our lives and our conception of ourselves. That is to say, nature must have some distinguishing property, or set of properties, in virtue of which it possesses *F* (otherwise the fact that appreciating nature for what it is has this effect on our lives would be simply mysterious, and the claim that appreciating it for what it is has this effect on our lives would come out as completely arbitrary). This situation makes *F* perfectly analogous to value, and just like value, *F* must also satisfy Thompson’s three requirements.

(1) The assignments of *F* must be consistent: it cannot be the case that of two things with the exact same properties, only one has *F*. That would make *F* both arbitrary and inexplicable. This requirement should be as evident in the case of *F* as in the case of intrinsic value.

(2) The criteria of *F* must not be such so that it turns out that every thing and every state of affairs has *F* (or so that it turns out that some things to which we do not want to ascribe *F* [or to which it would be absurd to ascribe *F*] have *F*).

(3) The criteria of *F* which an ethic offers must be such that in most cases it is possible to determine what has *F* and what does not (the reasons are the same as in the case of value).

Consequently, the very same demarcation problem arises in the case of *F* as in the case of intrinsic value, and it is precisely as pressing in this new case. The reason is that every candidate for a criterion of *F* could equally well be posed as a candidate for a criterion of intrinsic value, and vice versa (they are all candidates for criterion of moral significance, but in one case the moral significance is taken to be direct, and in the other case indirect). If it is impossible to find criteria of intrinsic value in nature that could work, then it is also impossible to find criteria

³⁸ Thompson has developed this view in more detail in “Preservation of Wilderness and the Good Life,” in *Environmental Philosophy: A Collection of Readings*, ed. Robert Elliot and Arran Gare (University Park: Pennsylvania State University Press, 1983).

of *F* in nature that could work. We would either have to include, as bearers of *F*, things that we do not wish to include (like, perhaps, artifacts and human-modified nature), or else we would have to exclude, as bearers of *F*, things that we do not wish to exclude (such as, perhaps, less complex, or less beautiful nature).

There is a reply to this challenge implicit in Thompson's discussion: while *F* can depend on nature's relations to us, intrinsic value cannot.³⁹ But as I explained at the beginning of this article, there is nothing to conceptually exclude the possibility of relational properties giving rise to intrinsic value (in the sense of "intrinsic value" that is relevant here, *final value*).⁴⁰ We cannot assume without argument that *F*, but not intrinsic value, may depend on relational properties.⁴¹ Furthermore, when Thompson discusses our relations to nature, she repeatedly points to properties which are characteristic of nature, but which are not relational. For instance, she writes that "[a] wilderness is a coherent natural system with an identity of its own."⁴² Why *could* not this property provide a criterion of intrinsic value that escapes the demarcation problem? Thompson also writes: "If to appreciate nature properly, it must be appreciated for what it is, then presumably no substitute for wilderness will be adequate."⁴³ But to appreciate nature for what it is is to appreciate it for at least some of the very features in virtue of which it is nature. If no substitute is available, these features (at least some combination of them) must be unique to nature, and if so they are not susceptible to a demarcation problem. Such features are precisely the kind of features that environmental ethicists take to make nature intrinsically valuable.

Fortunately, for Thompson, the demarcation problem is no more insurmountable with regard to *F* than it is with regard to intrinsic value. Suppose we could find no way to demarcate nature from, say, complex artifacts, with respect to the features in virtue of which nature could be thought to possess *F*. Then, according to Thompson's line of argument, we would have to say either that complex artifacts possess *F*, or that nature lacks it. But whatever we think about Thompson's suggestion that valuing nature for what it is contributes to the good life, this cannot be a refutation of that view.⁴⁴ The reason is the same as in the case of intrinsic value:

³⁹ See also *ibid.*, p. 93.

⁴⁰ This is true also of relations in which nature stands to us. See, e.g., Robert Elliot, "Instrumental Value in Nature as a Basis for the Intrinsic Value of Nature as a Whole," *Environmental Ethics* 27 (2005): 43–56, and Samuelsson, *The Moral Status of Nature*, pp. 174–96.

⁴¹ See also Thompson's article "Environment as Cultural Heritage," *Environmental Ethics* 22 (2000): 241–58, where she argues that we have reasons to care for nature for the sake of our predecessors, because of their relations to it. But there is nothing to conceptually exclude the possibility that we may have reasons to care for nature for *its own sake* because of our predecessors' relations to it. See Samuelsson, "Reasons and Values," sec. 2, for some remarks on how to determine whether a value is intrinsic (final) or nonintrinsic (nonfinal).

⁴² Thompson, "Preservation of Wilderness," p. 94.

⁴³ *Ibid.*, p. 96.

⁴⁴ But if she is right, why not say that nature, because of this extraordinary feature, has intrinsic value?

surely there *are* differences between nature and complex artifacts that *could* be such that valuing the one contributes to the good life, while valuing the other does not, even if it is difficult to put the finger on precisely what these differences are. Whether Thompson's suggestion about the connection between valuing nature and the good life is correct is a substantive question that we can argue about, and not a question that can be settled simply by suggesting that there *cannot* be any relevant differences between nature and complex artifacts. There obviously can be—and we should say the very same thing about the suggestion that nature has intrinsic value.


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