Holism: Revolution or Reminder?

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There are a whole lot of holistic positions in environmental ethics. Perhaps the most famous of these is Aldo Leopold's:

The 'key-log' which must be moved to release the evolutionary process for an ethic is simply this: quit thinking about decent landuse as solely an economic problem. Examine each question in terms of what is ethically and esthetically right, as well as what is economically expedient. 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.

It, of course, goes without saying that economic feasibility limits the tether of what can or cannot be done for land. It always has and it always will. The fallacy the economic determinists have tied around our collective neck, and which we now need to cast off, is the belief that economics determines all land-use. (A Sand County Almanac, pp. 224-5)

Even this down-to-earth statement has spawned different versions of eco-holism. Citations of this passage are usually limited to the sentences about integrity, stability, and beauty. Taken by themselves, those sentences can suggest that Leopold was advocating something formally akin to, although substantively the opposite (and expanded) extreme from, the position taken by "economic determinists." That is, in isolation those sentences can suggest that the contributions individuals make to the biotic community totally determine their value. Although the context in which the integrity-stability-beauty sentences occur makes clear that this is not what Leopold was advocating, this sort of all-enveloping eco-holism is what Leopold "interpreters" have sometimes advocated (e.g., J. Baird Callicott, In Defense of the Land Ethic).

Given this variety of positions covered by the "ecoholist" label, we cannot single out one philosopher's work for critical discussion, even Leopold's, and claim that we have thereby analyzed eco-holism. So, what I propose to do here is to discuss several propositions about values and the environment which can plausibly

be called holistic, even if not all environmental ethicists who call themselves holists would subscribe to all these propositions. In reviewing these propositions, our concern will be to determine whether they are defensible and whether they can serve to distinguish holism from non-holistic philosophies.

The four holistic propositions to be discussed here are:

- (A) Individuals acquire some of their value through participating in communities, including biotic communities.
- (B) Individuals acquire value only through participating in communities, including biotic communities.
- (C) Wholes, including biotic communities, can have values which are not the sum of the values of the individuals composing them.
- (D) Wholes, including biotic communities, can have values that in no way depend for their existence on a conscious, desiring, or feeling subject.

"Communities" here, and throughout this paper, refers to orders of individuals whose interests, wellbeing, development, or survival are inter-dependent. Proposition (D) advocates an objectivist position concerning values, and this may seem irrelevant to a discussion of holism. However, eco-holists typically advocate objectivist positions on values as part of their rejection of anthropocentrism. Indeed, it is their desire to find a foundation for objective values that seems to motivate these philosophers to embrace holism. Consequently, critically discussing objectivism concerning values is not irrelevant to critically discussing holism.

(A) Individuals acquire some of their value through participating in communities, including biotic communities

This is not a controversial proposition. An individual can have value as a good father, loyal friend, or adept diplomat only if he is a member of a community, since one can be a father, friend, or diplomat only if he is a member of a community. Similarly, it is a truism that individuals can have value through the roles they play in maintaining a food chain or balanced ecosystem only if they are members of biotic communities.

I know of no one who denies this holistic proposition. Even someone who maintains that the only things of intrinsic value are mental experiences, such as pleasure and pain, would have to acknowledge that some of these experiences require that the individual having them be a member of some community. Examples are the pleasures of family and friendship. Consequently, there is no obstacle to including this proposition among those composing a viable ecoholism. However, since characterizing a theory as holistic is supposed to differentiate it from others, this proposition is not an adequate characterization of holism.

(B) Individuals acquire value only through participating in communities, including biotic communities

This is a controversial thesis. It would be denied by hedonists contending that individuals can experience pleasure and pain independently of their membership in communities. It would also be denied by Kantians contending that individuals can be moral agents acting out of respect for the laws of practical reason independently of their membership in communities. Consequently, this proposition can differentiate holistic from non-holistic positions. But is this proposition defensible?

One defense against those hedonist and Kantian counter-examples would be to point out that while adults can experience and act in isolation, they would not have survived infancy if they had not been members of a community. However, non-holists would find this defense of holism irrelevant, contending that it fails to distinguish defining relations from physical dependencies.

The pleasure derived from friendship is definitely

tied to being a member of a community. Since friends form a community, adequately describing this experience of pleasure involves referring to a community. On the other hand, the pleasure one derives from the warmth of a fire can be thoroughly described without reference to a community. This is the case even though the individual experiencing this pleasure would not have survived to have this experience had she not been cared for in a community while an infant. The question of whether there would be any individuals capable of hedonistic experiences (or moral agency) without communities is a different question from that of whether all values are definitively related to communities, and a negative answer to the former does not entail an affirmative answer to the latter. Consequently, the latter question, which is the issue that here divides holists and non-holists, cannot be settled by references to the former.

The following ground for proposition (B) would not fall prey to the charge of irrelevance: the value of an individual is limited to its contribution to or function in a community (or communities). This is how Leopold's claim that "a thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community" has been interpreted. If values deriving from contributions to economic communities are considered along with values deriving from contributions to the biotic community, such an interpretation could be correct. Be that as it may; do we have good reason to believe that the value of individuals is limited to their contributions to communities?

Consider the case of someone who gets a great deal of aesthetic pleasure from sitting and watching the ocean. He loves the play of light on the waves and following the coordination of sky and sea changes. The pleasure he receives from contemplating the ocean is a paradigm case of hedonistic intrinsic value; the having of such experiences makes a life hedonistically valuable; and the value the ocean has as a producer of pleasure is a paradigm case of hedonistic instrumental value. However, adequately describing these values does not require referring to a community.

It would be arbitrary to deny that this experience of pleasure or this instrumental value of what produces it are values. It would also be artificial to say that the contemplator and the sea form a community or that the aesthetic experience is valuable just because it returns the person who has it to his community refreshed and, consequently, ready to do a better job for the community. Whatever positive consequences the aesthetic experience has for the community, the pleasure is also valuable for the individual because it feels good, and that value is independent of those consequences. Also, those consequences are dependent on the positive value of the experience of pleasure, rather than *vice versa*, since it is because the pleasant experience feels good that the individual is refreshed and able to make these contributions to the community.

The idea of natural selection might seem to provide the basis for a possible response here: certain things now occasion pleasant experiences because those who had such experiences in the past were more effective contributors to biotic communities and, consequently, survived and reproduced. However, this contention is irrelevant to defending proposition (B) in the same way as the infants-need-communities defense discussed earlier. To say that finding pleasure in X is beneficial for the biotic community and that, consequently, more beings who find pleasure in X will survive and reproduce than do beings who do not find pleasure in X is different from saying (and does not entail) that X pleases because it is beneficial for the biotic community. The former refers to the reason (i.e., the cause or mechanism) why there are beings who find pleasure in X, while the latter refers to the reason why beings find pleasure in X, i.e., to what it is about X that pleases. The claim in proposition (B) would have to be the latter, not the former. That is, once again, to differentiate holism from non-holism, the former must be understood not to claim merely that individuals who experience values would not exist without communities but (also) that values cannot be adequately described without reference to communities.

We may also note that such claims of an evolutionary basis for our experiences of pleasure and pain (and other valuations) are highly speculative. It could well be that a being who had inheritable property X, which made her more fit for survival and reproduction, also had inheritable property Y, which was irrelevant for survival and reproduction. Consequently, through natural selection beings of her kind all came to have property Y, even though having property Y has no evolutionary value. An example of this may be liking colorful sunsets. Almost everybody likes such sunsets, but there does not seem to be any evolutionary value to liking colorful sunsets. Consequently, an argument that since all of us attach the same value to something, attaching that value to that thing must have had evolutionary value for our ancestors is an unsound argument. Much more than contemporary prevalence is needed to ground such a conclusion.

As a description of our current valuational experience, then, proposition (B) is false. But perhaps proposition (B) should be interpreted as a recommendation. After all, eco-holism is presented as a revolutionary break with traditional value theory. So, perhaps the proper evaluative question concerning proposition (B) is: Should we hold that the value of an individual is just its contribution to or function in a community (or communities)?

At first, how to go about answering such a question may seem paradoxical. Suppose we start with traditional standards of what we should do. Since holism is supposed to be a revolutionary break with tradition, these standards must not be holistic. Is it not to be expected, then, that holism will be found wanting when measured against them? On the other hand, to abandon these non-holistic standards and adopt holistic standards to measure the value of holism would seem to be begging the question and to yield a trivially positive valuation of holism as meeting its own standards. Fortunately, this paradox is an illusion. We can nontrivially determine whether or not we should become holists - i.e., should regard the value of individuals to be limited to their contributions to communities - by reviewing our contemporary valuational experience to determine whether it is wanting in important ways which point to adopting holism as the (only) way to overcome them. Revolutions are motivated by dissatisfactions people develop with their traditions. What dissatisfactions might motivate a revolutionary turn to holism?

The development of ecology, sociobiology, and feminist perspectives in philosophy and the behavioral and biological sciences are usually cited as motivators for adopting holism. These developments have definitely challenged conceptions of nature and humanity which emphasize and glorify independent individuals. They have led many of us to recognize a greater dependence of the individual on communities than was contained in the picture of nature and the human condition inherited from the seventeenth and eighteenth centuries. However, these developments call for adding community-based dimensions to our understanding and valuation of individuals. They do not require eliminating all but community-based dimensions.

Also, far from resolving problems, adopting propo-

sition (B) would generate severe psychological and social problems. In attempting to conform our valuations to proposition (B), we would continually have to warn ourselves that although something led to a pleasant, satisfying, or otherwise positive feeling, we must not consider it valuable unless it contributes to the well-being of some community. The prospect of thus constantly second-guessing our valuational experiences seems preposterous, if not psychologically impossible. Also, from a political perspective, the prospect of limiting the value of individuals to their contribution to a community (or communities) is frightening. We have already seen what happens when the individual is considered to be nothing more than material at the disposal of a Volk or Party; there is no reason to believe that the results would be any more acceptable if the value of individuals was totally at the disposal of biotic communities. The killing of "excess" deer, raccoons, and other threats to those species and balances preferred by ecologists is an example of what this worldview holds for us all.

These social concerns also help answer another defense of proposition (B) that might be offered: instead of applying to all values, proposition (B) contends only that the *moral* value of individuals is limited to their contributions to communities. After all, Leopold wrote of a "land ethic" not a land value theory, and eco-holism is presented as a kind of ethic rather than a general value theory.

However, as a description of contemporary moral experience, proposition (B) would be seriously in error. "Taking rights seriously," for example, has come to be a slogan for the defense of the individual against community needs, and this defense forms a large part of traditional and contemporary American morality. Considered as a recommendation for change, a morality based on proposition (B) would still have the frightening social consequences just discussed. Moral values are supposed to be overriding values; so, adopting a morality based on proposition (B) would still leave individuals at the disposal of community needs, no matter what other, lower priority value individuals might have.

Thus, the idea that the (moral) value of an individual is limited to its contribution to or function in a community (or communities) is as untenable a recommendation as a description. Therefore, even though using proposition (B) to characterize holism would differentiate holistic from non-holistic philosophies, it cannot contribute to a viable holism. (C) Wholes, including biotic communities, can have values which are not the sum of the values of the individuals composing them

This proposition refers to what are often called "organic" relations and contends that there are such relations in the area of values. Individuals can have value as interchangeable parts performing a function in the whole. It then follows that the value of the whole cannot be obtained by summing the values of the parts. Rather, the individuals acquire this sort of value through performing a function in the whole.

For example, it may be that the ecological value of wolves in an environment is to perform a predatory function in the balance of that ecosystem. It follows that any particular wolf is valuable insofar as it performs this function, and there would be no loss in this value if it was to disappear and be replaced by a similarly functional individual. Even foxes, feral dogs, or humans that could equally well perform the predatory function would be equally valuable in this regard. As far as ecological value is concerned, characteristics of individual animals - such as speed, strength, and aggressiveness - acquire value through their relevance to performing the requisite function in the whole. Consequently, the ecosystem is logically prior to this sort of value of the individuals which compose it, and the value of the ecosystem cannot be the result of summing these values of the individuals.

I know of no value theory or moral philosophy with which proposition (C), as interpreted thus far, is incompatible. Consequently, as interpreted so far, proposition (C) will not help to distinguish holistic from non-holistic positions. However, we can make proposition (C) more distinctive by amending its interpretation to include either of the following claims: individuals have only such organic values, or such organic values should be given priority over other, non-holistic values of individuals.

The first of these claims has already been discussed and rejected. The second could serve to distinguish holistic from non-holistic value theories: holistic theories could be characterized as not only acknowledging the existence of organic value relations but as also contending that such holistic values should be given priority in directing our actions. Someone who holds that the goal of morality is to maximize the happiness of individuals can still acknowledge that individuals have some of their value through their contributions to communities. However, when a conflict arises between maximizing the happiness of individuals and sustaining the community, the individualist will give priority to protecting the happiness of the individuals, even though that involves sacrificing the community. The holist would invert this priority. For example, in a situation where a herd of deer threatened to disrupt an established ecosystem and the only options were preserving the system at the deer's expense or *vice versa*, holists would tend to favor killing deer in order to maintain an ecological balance, while non-holists would favor changing and managing the environment to provide a quality life for the deer.

Since the sorts of individuals that have been considered morally most important - i.e., rational, human, sentient, or living beings - all require communities in order to flourish or even to survive, all moral thinkers must consider the maintenance of communities when determining how to ensure the well-being of these individuals. Sacrificing some individual interests in order to support a community and thereby maximize the over-all quality of existence for individuals can be necessary. Pollution controls are an example. But acknowledging this is compatible with denying that one is a holist, since supporting the community is valued only as a means to improving the condition of individuals. On the other hand, holists, giving priority to the maintenance of communities, could call for sacrificing individual interests to maintain a community regardless of whether this led to enhanced quality of existence for individuals. For example, a holist could favor permanent reductions in the numbers and standard of living of rational or sentient beings in an environment in order to preserve the native ecosystem of that area.

Though distinctive, this "priority holism" has its drawbacks. Giving priority to community needs over individual interests again raises frightening political spectres. Priority for the community also seems arbitrary. If one holds that community needs should be met because communities are necessary for increasing the happiness of individuals, a readily acceptable endpoint of justification has been reached, "Happiness" is a positive, evaluative term, and happiness is a condition we all (normally) desire. However, that individuals should be sacrificed in order to meet community needs does not provide a satisfying end-point of justification. "Continuing community existence" is not a positive, evaluative term, nor is such continued existence a condition we all (normally) desire. The demise of such communities as the Third Reich and ghettos has been widely hoped for and sought.

Thus, although giving priority to community needs over individual interests can serve to distinguish holistic from non-holistic philosophies, that such a priority is defensible is doubtful. These doubts lead to questions about the origin of the value of the whole itself. Especially in an holistic approach where the value of the whole is not identical to the sum of the values of its parts, the value of the whole remains undetermined even after the value of individuals due to their performing functions within that whole has been determined. Individuals can have functional value for a whole that is itself of no value, as in the case of the parts of a machine that could still work but is now obsolete. Sometimes individuals can be good, in the sense of functional, even though the whole is considered bad, as in the case of the good Mafia soldier. Thus, even after the value of individuals due to their performing functions in a biotic community has been determined, the question of the value of the biotic community itself remains.

This may seem a peculiar question; isn't the preservation of biotic communities - especially, the biotic community - an obvious good? However, the value of biotic communities is obvious because we presume that these communities are necessary for our continuing existence, for the continuing existence of rational beings in general, for happiness, or for some other individual good. But that avenue of justification is closed to the holist who gives lower priority to individual goods. From the priority-holist perspective, biotic communities are supposed to have value which does not derive from their contribution to individual survival or flourishing. So, from this perspective "What is the value of biotic communities, including the biotic community?" is a significant, open question. What is peculiar from this perspective is not thinking the question is open; what is peculiar is that from this perspective it may have no satisfying, non-arbitrary answer. If not through enhancing the lives of individuals, how can biotic communities be of value? This lack of a satisfying, nonarbitrary answer could mean that there is some logical blunder in posing the question, or it could mean that there is some logical blunder in giving priority to community needs over individual interests. Further discussion of this matter belongs under the next heading.

To summarize our discussion of proposition (C), individuals do acquire value through functioning within a whole, and, therefore, the value of the whole cannot be limited to summing the values of the individuals which it contains. However, acknowledging this does not serve to differentiate holistic from non-holistic theories. Giving priority to community needs over individual interests could serve to distinguish holistic from nonholistic philosophies. Unfortunately, that priority opens the door to the same sorts of frightening social consequences which could follow from proposition B. Also, how to justify such a priority is difficult to see, since such justification cannot refer to the value of the community for individuals. These difficulties raise doubts about how a whole such as a biotic community can have a value which does not derive from its contribution to the survival or flourishing of individuals.

(D) Wholes, including biotic communities, can have values that in no way depend for their existence on a conscious, desiring, or feeling subject

When something has value, it is because of some property, capacity, or relation the thing has. Eagles may have value because they are strong and graceful, because they can soar so high and can survive in forbidding terrain, or because they symbolize dominance and freedom for us. Sometimes we may not be readily aware of what it is about something that leads to its having value. "I don't know why eagles are so fascinating; I just know that they are" is a readily intelligible statement. Still, we expect that there is something, perhaps many things, about eagles that leads a person making such a statement to find that eagles have the value "fascinating."

In this way we ordinarily find the value of things in the things themselves. But matters are not so simple. Two people can agree that something has the same characteristic yet find the thing has different values precisely because it has that characteristic. That eagles are highly efficient predators may make them fascinating for one person but frightening for another. This suggests that the value of things does not lie in the things themselves. It suggests that the values things have depend on the reactions of valuing subjects to them. Hence, the proposition that wholes, such as ecosystems lacking conscious, desiring, or feeling subjects, can have value independent of subjects is a controversial one. (For convenience, we will henceforth use "subjects" to refer to conscious, desiring, or feeling subjects.)

Contemporary theories of valuational language emphasize that when we use such language, we are not (merely) describing things but (also) trying to influence attitudes and behavior (usually of other people). When we extol the virtues, beauty, or other value of eagles to other people, we are trying to awaken in them a positive attitude toward these birds and, depending on the situation, perhaps trying to convince them to do something for eagles. As one analyst would have it, saying "Eagles are good" is to be analyzed (roughly) as "I approve of eagles; do so as well" (Charles Stevenson, Ethics and Language). If these influence theories are basically sound - and the evidence for them is impressive - then things cannot have value independent of subjects, because valuational language contains a reference to influenceable subjects.

Still, it might be argued that this is a conclusion about the use of valuational language by subjects. It need not apply to values themselves. Using the words "hot" and "cold" ordinarily presupposes the feelings of a subject, but these words also refer to objective energy states of what is experienced to be hot or cold. The same could be true of valuational terms. Although saying that eagles are majestic may presuppose the existence of subjects, it does not follow that majesty is not an objective value eagles have, i.e., a value they have regardless of the existence of subjects.

Furthermore, some valuations do not so obviously presuppose the existence of a subject. For example, a soil stratum near my vacation home provides a good source of nutrients for certain plants growing there. That the stratum is "good" means that it has ample amounts of the nutrients those plants require to flourish and reproduce, is accessible to those plants, and is, therefore, making a positive contribution to the plants' wellbeing. In such cases, to be of value is to be functional or to make a contribution, and this does not presuppose the existence of subjects. The nutrient-bearing soil stratum is important for those plants whether or not a subject cares about this or is even aware of it.

Once again, things are not so simple. Although such functional valuations are readily intelligible and common, they differ from paradigmatic valuations – such as moral and prudential valuations – in logically significant ways. For instance, that a soil stratum is good for certain plants does not of itself provide direction for what subjects should do. The plants which thrive on the nutrients from this stratum may have been artificially introduced varieties which are choking out less hearty, native species. Thus, this stratum may not be contributing to the integrity, stability, and beauty of the local biotic community. So, if our goal is ecological preservation, we may view this stratum as bad and something we need to counteract, even though – and, indeed, precisely because – it is functionally good for certain plants.

If functional values can exist independently of subjects and if functional valuations are not made in order to influence the attitudes or behavior of subjects, then it is a truism that such values and valuations cannot by themselves direct how subjects should act. Such independent "values" could only be matters of fact which subjects may need to take into account in determining how to accomplish their goals. We can describe this situation in terms of a dilemma concerning supposedly objective values: either values depend on subjects for their existence, since (at least part of) what they essentially are involves influencing subjects, or they do not depend on subjects for their existence, but then they cannot by themselves direct how subjects should behave (see L. W. Sumner, The Foundations of Moral Rights). In the first case values will not be objective; in the second they will not be values - at least they will not be values for subjects. They will be functional capacities or relations, i.e., matters of fact, and calling them "values," in addition to calling them "capacities" or "relations," will add nothing, unless the directive use of "value" is illegitimately sneaked in. Lacking that directive dimension for subjects is a particularly serious matter if, as is the case with holistic environmental ethics, such independent values are supposed to provide an objective foundation for ethical imperatives about how subjects should behave.

Another obstacle in the way of using functional values as an objective basis for ethics is that these values are not intrinsically tied to making the world a better place. Things that are morally good are so because they contribute to making the world a better place than it would be without them. For instance, being considerate of the well-being of others is morally a good thing because it helps make the world a better place, a closer approximation to a morally ideal world, a world of mutual respect and without avoidable suffering. But unless one presumes that whatever is is ideal – a presumption which would eliminate the need for moral concern altogether – functional values are not determined by contributions made to making the world a better place. X can be good for Y even though the world

would be a better place without Y, as in the case of the destructive plants noted earlier.

Lacking this essential tie to an ideal which is characteristic of ethical values, functional values cannot provide an objective basis for ethics. Functional values, i.e., capacities and relations, take on ethical significance only when a subject determines that what they are functional for will (or will not) contribute to making the world a better place. A subject is needed to make this determination, because ideas of a better world are ideas held by subjects. This dependence of functional values on subjects for their moral value is the case even when what something is functional for is preserving the integrity, stability, and beauty of the biotic community. Since we instinctively value life and fear death, we unquestioningly accept that what supports the biotic community makes the world a better place. But in the case of someone who is painfully ill without hope of cure, we can recognize that death is a blessing whose coming will make things better. So the case could be with life in general, in which case those things that support the biotic community would not contribute to making the world a better place and, consequently, would not be morally good. Thus, although functional values provide information which is important for realizing moral goods, they do not by themselves - even where the functional values concern supporting the biotic community - provide an objective basis for ethics.

Someone might object that, nonetheless, from the perspective of the survival and flourishing of those things for which X is functionally good, X is contributing to a better world. From the perspective of the plants mentioned earlier, the nutrient-bearing stratum is contributing to a better world precisely because it functions to support the survival and reproduction of those plants. Consequently, there is an essential relation between being functionally good and contributing to a better world: for something to be functionally good, there must be a perspective from which it contributes to a better world, viz., the perspective of that for which it is functional.

However, since the things in question here are not conscious, desiring, or feeling, they have no perspective. We often use mental language when referring to plants (and machines): for example, we say that the plant is "searching" for water or that the tree is "clinging tenaciously" to the face of the mountain. But such terminology is (as far as we can tell) purely figurative. Plants do not have feelings, desires, commitments, goals, ideals, or any other mental life. They survive or they do not; they thrive or they do not; they thrive or they do not; they reproduce or they do not: but these conditions are not preferred, desired, sought, feared, or lamented, nor are they otherwise the object of some plant experience and valuation. Consequently, things that are functionally good for plants are so without contributing to what the plants project as a better world.

One last rebuttal might still be offered here: since plants are alive, what they are includes the projection of a proper condition. To be alive is to be able to do certain things, and a plant that is unhealthy, barely able to survive, stunted, etc. is falling short of that proper condition, while a plant that is healthy, thriving, and fulfilling its potential is in that proper condition. Consequently, those things that are functionally valuable for plants fulfilling their potential as living beings are contributing to making the world a better place, where "better" refers to a world in which living beings are healthy, thriving, and otherwise in a condition to do the things that living beings are supposed to do just because they are alive.

Here again it is easy to be misled. Since we, too, are living beings and have strong instinctual preferences for living things (perhaps because seeing others unhealthy and dying reminds us of our own vulnerability and mortality), we naturally view a world filled with healthy, thriving living things to be a better world. It is easy to project this valuation into the plants themselves, so that a plant's fulfilling its potential for growth and reproduction is good for the plant itself. However, that is not the case. As living beings plants are capable of doing certain things and proceed to do them to the extent that their environments permit. It is neither better nor worse for a plant that its environment provides what it needs to actualize more or fewer of these capabilities. It is neither better nor worse for the plant that it grows a great deal or barely at all, that it reproduces or not, even that it continues to live or dies. Plants simply do what their genes direct and their environments permit. Again, it is subjects who find plants fulfilling their potential better than their falling short of this - and who sometimes "spiritualize" plants by projecting these valuations of them into them.

A third significant, logical difference between moral values and functional values is that moral values cannot be reduced to descriptions, while functional values can be. Since saying that something is morally valuable includes both trying to influence the attitudes and behavior of subjects and also relating what is being evaluated to a projected better world, the significance of a moral valuation cannot be reduced to a description of the thing. Things are considered morally valuable because of what they are, but not only because of what they are. They acquire moral value in situations where their properties, capacities, and relations are felt to be relevant to creating (what the evaluator feels is) a better world and in which mentioning this is felt to be relevant to creating that better world.

On the other hand, functional valuations can be reduced to descriptions. For instance, "Sandy soil is good for shore pines" is adequately analyzed as "Sandy soil has properties X, Y, and Z, and shore pines grow tall, have large numbers of thick, glossy needles, and reproduce in soils which have those properties." Just what is included in something's being functionally valuable will vary from situation to situation, but in all situations, something's being functionally valuable is just its having the properties, capacities, or relations needed to perform the function in question.

This sort of irreducibility is such a widely-accepted characteristic of paradigmatic values that the lack of it in the case of functional values suggests that functional valuations might properly be considered bogus valuations. Again, our native tendencies to speak of plants "wanting to" survive and reproduce and to presume that plants surviving and reproducing are good things can explain why we find using valuational language to refer to functional capacities and relations so natural and uncontroversial. (Similar things can be said about our uncritical projection of mental lives into machines and our use of valuational language to refer to functional capacities and relations concerning them.) However, this explanation also indicates that such usage is based on metaphor and a presumptive valuation which cannot be reduced to a description and is being made by a subject.

Functional values were the most likely candidate for being objective. Since we have had to conclude that they are either not objective or not actually values, it would seem that we must conclude that there likely are no objective values and that the assertion of objective values cannot be part of a viable holism (or any other sort of ethic or value theory). A consequence of this conclusion is that giving priority to community needs over individual interests, as discussed in the previous section, cannot be justified. Since communities are not subjects, the value they have derives from individuals. Therefore, any priority given to communities, including biotic communities, must come from individuals. A socalled priority of community needs over individual interests is actually a priority individuals give to fulfilling individual interests which depend on meeting community needs over fulfilling other individual interests. So, while individuals may sometimes be valued for the contributions they make to preserving communities, the value of communities always depends on their contributions to fulfilling the interests of individuals.

Conclusion

Among the four propositions considered in this paper, we have found two which can contribute to a holistic environmental ethic: individuals acquire some of their value through participating in communities, including biotic communities, and wholes, including biotic communities, can have values which are not the sum of the values of the individuals composing them. However, accepting these propositions does not represent a revolutionary break distinguishing holism from traditional value theories or ethics. On the other hand, the holistic propositions we considered which would clearly differentiate holism from (at least some) traditional value theories and ethics are unacceptable. Consequently, if the propositions we have discussed fairly represent what goes under the name of "holism," then rather than being a new kind of ethic, a viable ethical holism will make its contribution by emphasizing the communal elements of traditional ethics which have sometimes been neglected in glorifications of the individual. This would not be an inconsiderable contribution, philosophically, socially, or environmentally.

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