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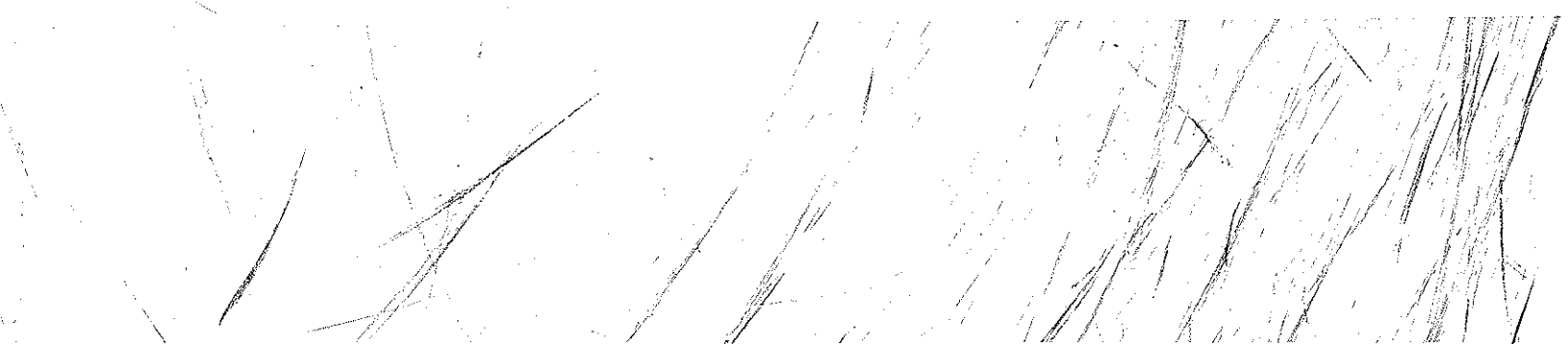

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Gleaning Lessons from Deep Ecology

ABSTRACT: *By reflecting on deep ecology, several lessons can be culled for environmental philosophy in general. The deep ecology of Arne Naess, Bill Devall, and George Sessions is appropriately characterized as a theory founded on the principles of biocentric egalitarianism and metaphysical holism. After considering each of these principles in turn, and then in relation to each other, the lesson turns out to be that the ontological foundation for environmental ethics must be nonegalitarian and polycentric.*

By reflecting on Deep Ecology,[1] we can cull a few lessons for environmental philosophy in general. Our first task is to characterize the subject matter at hand, and Deep Ecology presents a problem right away, due to the eclectic diversity of its acolytes: connections have been made between Deep Ecology and ecological science,[2] Christianity, Eastern religions, ecological feminism, new age mysticism, the forewarnings of Aldo Leopold and Rachel Carson, the poetry of Robinson Jeffers, the philosophy of Baruch Spinoza and Martin Heidegger, and more.[3]

Regrettably, this wealth of perspective proves burdensome; it is hard to see what the unique "deep ecological" converging point is of all these various bodies of thought. As one commentator has put it, "Any one who attempts to reconcile Heidegger's with Leopold's contributions to deep ecology finds the going rugged" (Oelschlaeger 1991, 304).

To avoid the complications of trying to characterize Deep Ecology through a general survey of its advocates, it will be most efficacious to simply focus on the philosophy of the original deep ecologist, Arne Naess, and two well-known parti-

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sans, Bill Devall and George Sessions. Naess is a Norwegian philosopher and naturalist who coined the term in *The Shallow and the Deep, Long-Range Ecology Movement: A Summary* (1973), which has become a sort of manifesto for the Deep-Ecology movement. Though Naess conveys a humble, nonconfrontational, Gandhi-influenced demeanor, he lambastes Western civilization for arrogant human-centeredness and a related instrumentalization and subjugation of nonhuman nature by contrasting his new "deep" environmental ethic with "shallow" (or to put it less pejoratively, "reform") environmentalism. Shallow environmentalism is simply an extension of the anthropocentric Western paradigm, because the reasons for preserving wilderness or biodiversity are inevitably couched in terms of human welfare. Shallow environmentalism falls short of valuing nonhumans apart from their use-value. Deep Ecology, in contrast, asserts that all organisms have *intrinsic* value. In this way Deep Ecology is fundamentally nonanthropocentric.

There are two interrelated underpinnings of Deep Ecology's nonanthropocentrism. The first is the principle that all biota have *equal* intrinsic value. Naess, Devall, and Sessions use the phrases "biocentric equality," "biospherical egalitarianism," and "ecological egalitarianism" to express this principle (Naess 1973, 95; Devall and Sessions 1975, 67-69). The second is the principle that the biosphere does not consist of metaphysically discrete individuals, but ontologically-interconnected individuals comprising one unbroken whole. This is a principle of metaphysical holism, and is known through the process of "self-realization" (66-67). Therefore, we can characterize Deep Ecology as an *egalitarian* and *holistic* theory. To discover what lessons Deep Ecology has for environmental philosophy in general, let us consider each of these principles in turn, and then in relation to each other.

BIOCENTRIC EQUALITY

Biocentric equality is the view that all biota have equal intrinsic value, or, to put it another way, it denies differential valuation among living things. In this sense Deep Ecology is not merely nonanthropocentric, but *anti*-anthropocentric; in terms of moral considerability, human beings have absolutely no priority over nonhumans. Naess, Devall, and Sessions have all affirmed this way of thinking. In the words of Naess, "*the equal right to live and blossom* is an intuitively clear and obvious value axiom" (Naess 1973, 96). In the words of Devall and Sessions, "all organisms and entities in the ecosphere, as parts of the interrelated whole, are equal in intrinsic worth" (Devall and Sessions 1985, 67).

Obviously, the target of biocentric equality is Occidental anthropocentrism. In contrast to the extreme human-centeredness of mainstream Western thought, deep ecologists contend that organisms have equal intrinsic value, with the implication that no form of life (read: *Homo sapiens*) deserves more attention or carries more weight in situations of competing interests. Sessions is unequivocal in opposing any environmental philosophy which assigns differential intrinsic value to

living things, on the grounds that value hierarchies adumbrate claims of moral priority. Quoting John Rodman, Sessions warns that any differential axiology merely reinstates a "pecking order in this moral barnyard" (Sessions and Devall, 1985, 236). In the case of Whiteheadian-inspired environmental ethics (for example, Frederick Ferré's "personalistic organicism" [Ferré 1996]), which confers all biota intrinsic—as well as extrinsic—value, yet distributes intrinsic value on the basis of the intensity and quality of sentience, Sessions argues:

> The point is not whether humans in fact do have the greatest degree of sentience on this planet (although dolphins and whales might provide a counterinstance), deep ecologists argue that the degree of sentience is *irrelevant* in terms of how humans relate to the rest of Nature. And so, contemporary Whiteheadian ecological ethics does not meet the deep ecology insistence on 'ecological egalitarianism in principle.' (Sessions 1979, 18)

Unfortunately, it is difficult to see how strident axiological egalitarianism can be of any use in situations of conflicting interests. If the only type of value relevant to moral dilemmas is equivalent, then on what basis are prescriptions to be made? In the end the principle of biocentric equality renders Deep Ecology impotent as an ethical theory, since the kind of value distinctions useful in evaluating moral situations is deliberately rebuffed. It must be pointed out that Naess and Sessions claim not to be interested in ethical theory, because they believe the psychological realization of metaphysical holism, which we will come to shortly, makes ethics superfluous. (Naess: "I'm not much interested in ethics or morals. I'm interested in how we experience the world…; Sessions: "The search…is not for environmental ethics but for ecological consciousness" (quoted in Fox 1990, 219 and 225). Yet it is difficult to think Deep Ecology does not have a strong normative thrust! Unless some gradations of value are acknowledged, as in a Callicottian, Ferréan, or Rolstonian environmental ethic, the prospect for making normative judgments about environmental problems seems hopelessly bleak.

For this reason, not all people who claim to advocate deep ecology embrace biocentric equality. The Australian philosopher Warwick Fox has argued that the leveling axiology of orthodox Deep Ecology ought to be scrapped. Fox notes that if all organisms really are of equal intrinsic worth, the deep ecological doctrinaire might just as well eat veal as vegetables (Fox 1984, 198). In reality, Fox predicts, deep ecologists probably tend to be vegetarians, because—in Alan Watts's memorable words—"cows scream louder than carrots" (Fox 1984, 198). Orthodox Deep Ecology, Fox declares,

> does itself a disservice by employing a definition of anthropocentrism which is so overly exclusive that it condemns more or less *any* theory of value that attempts to guide 'realistic praxis'… Unless deep ecologists take up this challenge and employ a workable definition of anthropocentrism, they may well become known as the advocates of 'Procrustean Ethics' as they attempt to fit all organisms to the same dimensions of intrinsic value. (Fox 1984, 198-199)

Fox, of course, does not want to be known as a Procrustean Ethicist, and ends up arguing for a position which abandons biocentric equality and alternatively

asserts that all biota *have* intrinsic value, but are not *equal* in intrinsic value.[4] Thus, although Fox has identified himself as a deep ecologist in the past, his deep ecology is certainly not orthodox Deep Ecology.[5] In fact, Fox's environmental philosophy is closer to Ferré than Sessions.

In a focused effort to avoid any vestige of a human-oriented value-system, Naess continues to resist any gradation or differentiation of intrinsic value among organisms. In response to Fox, Naess says that *some* intrinsic values *may* differ, but not the kind he talks about. He and Fox, says Naess, "probably do not speak about the same intrinsic view" (Naess 1984, 202). Naess reiterates his fundamental intuition that "living beings have a right, or an intrinsic or inherent value, or value in themselves, that is *the same* for all of them" (202).

For an environmental ethic to have any efficacy, it must make discriminations in value between biota. In Bryan Norton's words, "The 120,000th elk cannot be treated equally with one of the last California condors—not, at least, on a reasonable *environmental* ethic" (Norton 1991, 224). In short, the very possibility of environmental ethics is predicated on the possibility of a *nonegalitarian* value-theory.

EXPANSIONARY HOLISM

When Odysseus finally returns to Ithaka after his twenty-year absence, he finds his household filled by irreligious and dishonorable suitors, courting his wife Penélopê, and consuming his estate. With tactical skill (and the help of grey-eyed Athena), Odysseus slaughters all one hundred of them. Then his son Telémakhos and a faithful herdsman, before mutilating the infidel goat-herder, string up a rope and lynch twelve maids whose ignominy was sneaking off with suitors late at night. As Homer told:

> So now in turn each woman thrust her head
> into a noose and swung, yanked high in air,
> to perish there most piteously.
> Their feet danced for a little, but not long. (Fitzgerald 1963, 424)

This is the passage Aldo Leopold alludes to at the beginning of his most famous bit of writing, *The Land Ethic* (Leopold 1987, 201-226). His point in evoking Homer is not to appall us with thoughts of the young womens' horrible experience, but to point out that in antiquity the hanging was perfectly acceptable, while now repugnant to us. Moral considerability did not extend to the slaves; their place in the moral order is below Odysseus and the gods. As private property, they are of no intrinsic worth of their own but only extrinsic worth for Odysseus. Killing them for disrespecting the moral order of the cosmos was not merely acceptable, it was even laudable.

Leopold's original contribution to ecophilosophy was to argue that as moral considerability has expanded to include previously excluded groups (e.g., blacks

and women), it should be further expanded to include the land (biosphere) as a whole. Entire ecosystems, Leopold hypothesized, have moral considerability. In making this claim Leopold is widely considered to be the founder of *holistic* (or ecosystemic) environmental philosophy.

Deep ecologists often cite Leopold as a major inspiration in their own thinking. For Devall and Sessions,

> Leopold's ideas are truly subversive and constitute a landmark in the development of the biocentric position. Conservationists have paid lip service to Leopold's outlook, but until recently, only a few other ecologists seem to have grasped the full impact of the radical nature of Leopold's ecological conscience. (Devall and Sessions 1985, 86)

Some deep ecologists (notably, Devall, Sessions, and Fox) elaborate Leopold's holism by arguing for a breakdown of the ontological boundaries between self and other. This breakdown is achieved through the process of *self-realization*. As Fox says: "It is the idea that we can make no firm ontological divide in reality between the human and the non-human realms... to the extent that we perceive boundaries, we fall short of deep ecological consciousness" (Fox 1984, 196). The ontological boundaries of the self are extended outward, including more and more of the lifeworld in the self. Thus, this particular formulation of metaphysical holism can be correctly thought of as "expansionary" holism. According to expansionary holism, there is in reality only one big Self, the lifeworld. (You might have heard someone say, "the Earth is my body.")

When ontological boundaries are overcome, one realizes nature's interests are one's own interests. Devall and Sessions believe that "if we harm the rest of Nature then we are harming ourselves. There are no boundaries and everything is interrelated" (Devall and Sessions 1985, 68). John Seed, an Australian environmental activist, nicely illustrates this attitude: "'I am protecting the rain forest' develops into 'I am part of the rain forest protecting myself.' I am that part of the rain forest recently emerged into thinking... the change is a spiritual one, thinking like a mountain, sometimes referred to as 'deep ecology'" (quoted in Devall and Sessions 1985, 199). Since the rainforest is part of him, he has the moral obligation to look after its welfare. The rainforest's well-being is indistinguishable from his well-being, so its needs become Seed's needs.

As noble as these intentions are, the project of expanding the small egoistic self to the big ecological Self is founded on untenable assumptions. For example, in the case of activist Seed, Val Plumwood has pointed out that there is nothing to guarantee that the needs of the rainforest should become Seed's needs: why should not Seed's needs become the needs of the rainforest (Plumwood 1993, 178)? Or why should not the needs of unemployed loggers become the needs of Seed and the forest? Even while acknowledging the insights of scientific ecology, the unemployed logger is likely to prioritize the need to feed and cloth his children over the need for ecosystemic integrity and stability.

There are real conflicts of interest between constituent members of larger wholes, and expansionary holism does not adequately recognize the reality of

these conflicts. In the political arena, the expansionary holist is forced into the uncomfortable position of implying that anyone in disagreement does not in fact *understand* what is for their own best interest. Instead of approaching a conflict with the mien "I realize your interests are different from my interests, so here we have a real conflict of interest that we need to resolve," the expansionary holist approaches the situation, tacitly or overtly, as: "I know what your real interests are, and here we have a conflict because you don't seem to understand what those interests are." I seriously doubt anyone concerned with ecological issues would want to convey this attitude, but in practical terms, this is what expansionary holism implies.

The upshot is that metaphysical holism, as conceived in the process of self-realization, is an inadequate model for adjudicating conflicts of interest.

FRICTION BETWEEN BIOCENTRIC EQUALITY AND METAPHYSICAL HOLISM

Notwithstanding the intractable political problems posed by expansionary-type holism, holism is in fact totally inconsistent with biocentric equality. Sadly, there is no way to realize both ideals; the distribution of equal intrinsic value to all individual organisms is indefensible in light of real ecosystemic function. Innumerable and irresolvable conflicts exist between the ability of individuals to flourish to old age, and the integrity and stability of ecosystemic wholes. The welfare of the whole entails the premature death of individuals.

The problem of feral goats (*Capra hircus*) and feral pigs (*Sus scrofa*) in the Galápagos and Hawaiian Archipelagos provides clear-cut examples. The Galápagos island of Pinta was free of introduced mammals until 1959, when a fisherman set loose three goats (one male and two females) for the purpose of providing fresh meat on future trips. By 1970 the goat population on Pinta was between five and ten thousand. In that short time the effects on native flora were astonishing: four species of endemic plants were no longer found on the island (*Alternanthera flavicoma*, *A. nudicaulis*, *Gossypium baradense*, and *Ipomoea habeliana*); five species (one endemic) were substantially reduced in abundance; six species of trees and shrubs (four endemic) were absent in the heavily populated southernmost reaches (Eckhardt 1972, 588). (On Española, ten species of plants have disappeared since the arrival of goats [588]). Feral pigs not only damage vegetation, they dig up and eat the eggs of tortoises (*Geochelone elephantopus*), marine and land iguanas (*Amblyrhynchus cristatus* and *Conolophus cristatus*), and Pacific green turtles (*Chelonia mydas agassizi* [Loope et al., 1988, 276]).

In 1971 an eradication program began on Pinta, and by 1977 about forty thousand goats had been killed (Hamann 1979, 219). The last goat was eliminated in 1986 (Loope et al., 1988, 275). The goats had caused severe damage to a thick peat layer on the northern slope, soil erosion, and the permanent disappearance of some

plant species (Hamann 1979, 232). Overall, though, as a direct result of eliminating goats, the flora of Pinta is showing clear signs of rapid regeneration (234).

In Hawaii feral goats and pigs cause similar ecological damage. Feral pigs, which weigh two hundred pounds or more, push over entire trees in order to rip open and eat them (Burdick 1944, 55). This not only kills the trees and causes soil erosion but creates pools of standing water in which the malarial mosquito (*Culex quinquefasciatus*) breeds (Loope et al., 1988, 276). In order to head off further damage, eradication programs for feral mammals have also been instituted in Hawaii. The eradication of goats in Hawaii Volcanoes and Haleakela National Parks includes the building of fences, organized hunts with helicopters and dogs, and releasing radio-collared goats to help locate wild flocks (Stone and Keith 1987, 277-279). In Hawaii Volcanoes National Park, around seventy thousand goats were killed between 1920 and 1970 (Loope et al., 1988, 276). Pigs are also regularly hunted and killed (Stone and Keith 1987, 279-280; Burdick 1994, 55).

The point is that in both Galápagos and Hawaii, feral goats and pigs must be killed in order to ward off the extinction of other species, species which are necessary for the overall integrity and stability of these delicate tropical island ecosystems. (In North America hunting elk and deer is often cited as an ecologically beneficial practice, because it controls overpopulation in wolf-free ranges.) In an ecosystem the flourishing of some species is incompatible with the flourishing of other species, and the flourishing of all species is also incompatible with the health of the entire ecosystem. How is the egalitarian holist going to recognize the intrinsic value and right to flourish of individual *Capra hircus* and *Ipomoea habeliana*, or *Sus scrofa* and *Geochelone elephantopus*?

It is impossible. In the last analysis, the principle of biocentric equality is inconsistent with metaphysical holism. Regard for ecosystemic wholes requires treating individuals differently, since individuals of different species have unequal ecosystemic utility (or disutility). Value differs accordingly. The inclusion of both principles of biocentric equality and metaphysical holism in an ethical theory produces a discordant friction. One principle must be abandoned.

CONCLUSION

Any ethic—including an environmental one—presupposes an ontology of selfhood. Adjudication of moral interests depends upon metaphysical and axiological assumptions about which things are selves and how much value different types of selves have.

Accordingly, the mechanistic worldview which has dominated the Modern[6] period of Western culture is founded on the presupposition that only human beings are selves, and hence only human beings have moral value. All nonhumans are insensate automata—albeit extremely complex automata. On a larger scale, Nature is one superlative mega-machine. Johannes Kepler exemplified this attitude at the beginning of the seventeenth century when he wrote: "I am much occupied with

the investigation of physical causes. My aim is to show that the celestial machine is to be likened not to a divine organism but rather to a clockwork" (quoted in Oelschlaeger 1991, 77). As Kepler, Bacon, Galileo, Harvey, Hobbes, Descartes, Newton, and others believed, all corporeal bodies operate predictably according to strict casual laws; all natural phenomena can be described in terms of inert matter in motion. Nature itself is devoid of any intrinsic value or purpose.

Deep ecologists are right to excoriate the Modern view of nature, since the practical outcome of Mechanism has been the instrumentalization of nature. Organisms are biomachines, and qua machines, the only value fauna, flora, fungi, protista, prokaryotae, and inanimate matter have is use-value for humankind. In other words, the nonhuman world has only instrumental value. The more natural resources are used by humans, the more value nature has—a Lockean notion[7] which has not surprisingly become the favorite mantra of the Wise Use Movement.[8] The importance of Deep Ecology, in my estimation, is the repudiation of the mechanical view of nature and the realization that nonhumans have value above and beyond use-value for humans.

In spite of Deep Ecology's noteworthy accomplishments, I hesitate to call myself a deep ecologist, in the orthodox sense I have outlined, for four overlapping reasons. First, in reaction against our culture's radical anthropocentrism, Deep Ecology goes too far the other way in denying *any* difference in value among biota. The result is that the possibility of all ethical decision making is precluded.

Second, while it is certain that we need ideals to aim at (even if there is no chance of achieving them), I think Deep Ecology's theme of holism (namely the expansionary holism of self-realization) is overly optimistic and ignores the reality of politics. In a synthesis of all individuals to one great ecological Self, multitudinous and disparate interests magically become unified. Unfortunately the path to this utopia is foggy and dark, because it is dubious *true* interests could ever be agreed upon. In situations where conflicts of interest arise, usually individuals or groups of individuals who claim to represent "the true interests of the whole" are ridiculed as egoists and self-servers by those with opposing claims. Expansionary holism is an inadequate model for politics, and politics is an integral part of environmental ethics.

However, that political and ecological wholes are comprised of discrete entities with incompatible and competing interests does not mean that there necessarily must be more than one ethical system. Ideally, one ethical system should handle the moral considerability of all concerned organisms. As several ecophilosophers have pointed out, to be coherent, environmental ethics must not be pluralistic.[9]

Third, in order to affirm the ontological interconnectedness of human and nonhuman organisms with each other and with the nonliving environment, it is not essential to embrace the thorough-going holism of self-realization. As Richard Sylvan notes in his caustic but brilliant critique of Deep Ecology, the recognition

that individuals are not absolutely discrete but interconnected does not entail the conclusion that all relations are internal and in reality no individuals exist:

> ...it is quite unnecessary to go the full metaphysical distance to extreme holism, to the shocker that there are no separate things in the world, no wilderness to traverse or for Muir to save. A much less drastic holism suffices for these purposes. (1985, 10)

Fourth, Deep Ecology suffers from its concomitant yet incompatible themes of equality and holism. If holism is to be genuinely affirmed, egalitarianism must be forsworn. This is one of the basic tenets of J. Baird Callicott's environmental philosophy. In his words, "The land ethic manifestly does not accord equal moral worth to each and every member of the biotic community" (Callicott 1980, 327).

To sum up, the contribution of Deep Ecology to environmental philosophy is the recognition that nonhumans have intrinsic value. But a workable environmental *ethic* can be founded on neither biocentric equality nor thoroughgoing holism. To have an ethic, we need an ontology which recognizes gradations of intrinsic value between different organisms (most pointedly, between humans and nonhumans). In addition, we need an ontology which recognizes that ecosystems are wholes comprised of interconnected individual organisms with often incompatible and competing interests. The lesson is that the ontological foundation for environmental ethics must be *nonegalitarian* and *polycentric*.

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NOTES

1. I will use capital letters to distinguish the specific environmental philosophy, deep ecology, from the generic use connoting any nonhuman-centered environmental philosophy.
2. On the connections between deep ecology and scientific ecology, see Golley 1987, 45-55.
3. For a sampling of these and other connections see Devall and Sessions 1985, Chapter 6.
4. This is because *richness of experience* differs. See Fox 1984, 198. On this point Fox agrees with Whiteheadian ("organismic") environmental ethics.
5. To mark the difference, Fox now calls his theory "transpersonal ecology." Vide *Toward a transpersonal ecology*. Alan Wittbecker (1986, 261-270) also defends a "deep ecological" position, but claims his deep ecology is "anthropometric." This ambiguity of the term "deep ecology" is the sort of difficulty that curses the strategy of trying to characterize its salient features through a general gloss of the literature.
6. *Modern* refers to the period of the Western tradition beginning with the Renaissance, continuing through the Enlightenment, and extending (roughly) to the present.
7. See Locke, "Of Property," in Morgan (ed.) 1992.
8. See Baum 1991 and Knox 1990.
9. See Ferré 1996 and Callicott 1990.

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