

Implications of Ecocentric Ethics for Environmental Resource Management

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Abstract: The inspiration and application of Ecocentric Ethics to the management of natural environmental resources include: (1) Nature should not be viewed as a machine from a conservationist point of view, because it seriously underestimates the “interconnectedness” of nature. (2) In order to maintain the stability and balance of the overall ecological environment, human beings should manage and control the natural environment. However, this does not mean human-centered thinking and arbitrary use and management. Human beings are only members of the living community, not conquerors of nature. Human beings should use and manage resources with “ecological conscience”. (3) The holistic nature of Ecocentric Ethics holds that resources, whether animate or inanimate, are part of the ecological whole and cannot be divided into separate entities. The use and management of resources by human beings will definitely affect the stability of the ecological whole. Therefore, human beings must be humble and self-controlled in their interference with nature.

Keywords: Ecocentric Ethics; Environmental Management; Resource Management

Introduction

In recent years, human beings have realized that environmental damage will jeopardize the survival of human beings and are committed to maintaining the stability and balance of the earth’s ecosystems, or life-support systems. Human beings should use and manage natural resources in a rational and prudent manner in order to achieve the goal of sustainable human development.

The significance and inspiration of eco-centered ethics for environmental resource management presented in this paper can motivate human beings to respect the wholeness of nature and to live in harmony with it. On this basis, human beings must adopt an attitude of humility and self-control in the prudent use and management of natural resources.

1. Ecocentric Ethics Characteristics

Ecocentric Ethics, represented by Aldo Leopold’s (1887-1948) Land Ethics, takes a holistic viewpoint to give all ecosystem members the moral consideration and respect they deserve. Therefore, Ecocentric Ethics belongs to the ethical doctrine of holism, and its ethical characteristics are: (1) it emphasizes the value of the ecosystem as a whole, and (2) it is within the ecosystem as a whole that the roles and status of individuals can be determined. (3) The balance and stability of the ecosystem as a whole is more important than the survival of individual life. ^[1]

2. The Connotation of Ecocentric Ethics

Aldo Leopold (1887-1948) devoted his life to the integration of ecology and ethics. His A Sand County Almanac was the first book on Ecocentric Ethics.

Early Leopold, in order to maintain the resources of agriculture or animal husbandry, used to take a conservationist viewpoint and regarded predators as varmints because these animals ate up the hard-earned income from agriculture or animal husbandry. Therefore, it is hoped that these animals can be eliminated or reduced. He believes that “if the number of wolves, lions, mountain dogs, bobcats, lone beavers, skunks, and other pests could be reduced, at least we wouldn’t have to worry so much. ^[2]

Leopold later realized that the conservationist viewpoint was wrong, because if the number of wolves, lions, mountain dogs,

bobcats, beavers, weasels, and other pests were eliminated or reduced, it would result in the overpopulation of livestock and animals that people wanted to catch, destroying the original ecosystem. This may even lead to the collapse and extinction of their own populations, as well as the overpopulation of animals that exceeds the capacity of the environment, e.g., due to a lack of food.^[2]

Conservationism therefore sees nature as a machine to be manipulated by humans, a view that Leopold argues is in conflict with at least two ecological perspectives:^[3]

(1) It grossly underestimates the interconnectedness of nature. Manipulating one part of nature has obvious effects on other parts. For example, the elimination of “predators” will cause the deer population to overpopulate and destroy the ecosystem.

(2) A mechanical approach to nature is to view the earth as dead, but from an ecological point of view, the earth harbors infinite life. Later, Leopold moved away from the early conservationist view of economic efficiency and proposed the concept of “ecological conscience”, which is the reason why we cannot destroy the earth is because it has so much life that we unconsciously respect it. The concept of ecological conscience shifts the earth from having only instrumental value to having innate value that deserves our respect.

3. Concept of the Pyramid of Life

To help us understand the concept of ‘living communities’, Leopold has developed the concept of the ‘biotic pyramid’ to illustrate it. These two concepts include the important concepts of the community model and the energy model.^[1]

At the base of the pyramid is the soil, and upwards there are the plant layer, the insect layer, the bird layer, the mandibulate layer, the small carnivore layer, and up to the large carnivore layer at the top. This is also a structure connected by the food chain, i.e. the relationship between food habits. Therefore, the lower the layer, the greater the number, and the higher the layer, the smaller the number, thus forming the shape of a pyramid. Leopold believed that the pyramid appeared to be disordered and complex, but the stability of the whole system proved that it was a highly organized structure, whose function depended on the mutual aid and competition among different parts.^[1]

4. Resource Management Must Take Ethical Holism into Account

Leopold’s holism is an ethical holism, which means that the community as a whole is the object of moral consideration, but not the biological individual. Therefore, the well-being of individuals can be sacrificed in order to maintain the integrity, stability, and beauty of the whole. As to why Leopold applies ethical holism to eco-communities, the following three reasons can be cited:^[1]

(1) In making resource management decisions, ethical holism is the most practical orientation.

(2) The epistemological holism of ecology implies an ethical holism. This means that we can only understand ecosystems from a holistic and functional perspective. Therefore, the functional community model provides the basis for ethical holism. That is, ecological understanding provides the grounds for giving moral consideration to the whole.

(3) Ethical holism recognizes the metaphysical reality of the ecological whole, and the metaphysical holism implicit in the organismic model provides the basis for ethical holism. In the organismic model, Leopold argues that the earth itself is like an existing and real living being, worthy of our moral consideration.

5. The Holistic Character of Ecocentric Ethics

Ecology is the scientific foundation of Ecocentric Ethics. Based on the holistic view of ecology, Ecocentric Ethics is also characterized by holism. The so-called holism simply means that “the whole is more than the sum of its parts”. In the following, we will introduce metaphysical holism, methodological or epistemological holism, ethical holism, and their meanings:^[1]

(1) Morphological Integration Theory

Metaphysical holism is concerned with what exists and what is real. Here, the whole is considered to be real, and possibly more real than the parts. That is, “the whole is more than the sum of its parts”. Thus, an ecosystem exists independently of its constituent elements and transcends the sum of those elements. Therefore, ecosystems have a moral status and have their own “right” to be considered morally.

(2) Methodological or epistemological holism

The focus of this section is on how to understand and recognize phenomena. In ecology, it is correct to understand the phenomena of ecosystems from a holistic perspective, rather than from the perspective of their components. The community model, for example, provides a holistic view of the methodology. In the community model, the function of an organism to the whole ecosystem is used to understand its “niche” in the ecosystem.

(3) Ethical holism:

This holistic theory suggests that we should extend the object of moral consideration to the whole. That is, the ecosystem itself

has a moral status and is worthy of moral consideration. For example, Leopold uses the living community as the object of moral consideration, and he believes that any action that preserves the integrity, stability, and beauty of the living community is a right action, but that any action that preserves the integrity, stability, and beauty of the living community is a wrong action, which is an example of extending moral consideration to the whole.

6. The Object of Moral Consideration is the Ecological Whole

Leopold believes that “Dali ethics” is an extension of ethics, and Leopold believes that “earth ethics” is the extension of the community of life to include soil, water, plants, and animals, or collectively, the earth. Earth ethics is the moral status of the community of life as an object of moral consideration, and all behavior must be based on the well-being of the community of life. [5]

Therefore, any act that preserves the integrity, stability, and beauty of the living community is a right act, otherwise it is a wrong act. Therefore, morality is not about the individual, but about the whole. [1]

Leopold believes that human beings should manage and control animal populations (including hunting and killing animals) in order to maintain the stability and balance of the overall ecological environment. Without violating the overall stability and balance, animals can even be regarded as resources for human use. [5]

Although humans can utilize natural resources as resources, humans are only one of the members of the community of life and not the conquerors of nature; therefore, humans must face nature and environmental resources with an “ecological conscience.” Leopold proposes the following general ethical code: [1]

(1) Because the ecosystem is a highly organized structure and very complex. Therefore, our priority is to preserve the diversity of all life forms, because even ecologists do not fully understand how this complex system works.

(2) Human beings must have a humble and self-controlled attitude towards disturbances in nature. The earth has the ability to adjust itself to minor human disturbances. However, violent interference will bring disaster to mankind.

(3) Native plants and animals are the most suitable organisms for the local area. The introduction of exotic species will definitely jeopardize the integrity and stability of the original system and lead to an ecological crisis.

Conclusion

Ecocentric Ethics inspired by the natural environment resource management, including the following:

(1) Nature cannot be viewed as a machine from a conservationist point of view, and a mechanical approach to nature can be adopted, because it seriously underestimates the “interconnectedness” of nature. From an ecological point of view, the earth harbors infinite life.

(2) In order to maintain the stability and balance of the overall ecological environment, human beings should manage and control the natural environment communities. However, this does not mean “anthropocentric” thinking and arbitrary use and management. Leopold believed that human beings are only members of the living community, not conquerors of nature. Human beings should use and manage resources with “ecological conscience”.

(3) The holistic nature of Ecocentric Ethics, which holds that resources, whether animate or inanimate, are part of the ecological whole and cannot be divided into separate entities. The use and management of resources by human beings will definitely affect the stability of the ecological whole. The ecosystem is a highly organized structure and is very complex. Therefore, human beings must be humble and self-controlled in their interference with nature. The earth has the ability to self-regulate in the case of minor human disturbances. However, a drastic interference will bring disaster to human beings.

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