

# SUSTAINABLE DEVELOPMENT: THE ANTHROPOCENTRIC EPISTEMOLOGY

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## *Abstract*

*Commonly, the researchers sustain that as the environmental sciences is an interdisciplinary issue; it does not have an epistemology to guide our thoughts. However, it is no true. The environmental sciences do have philosophical roots, and depending on which epistemology the author embraces, the results are to be very different between each other. This work will introduce the three main streams of environmental philosophy: environmental ethics, radical ecology, and anthropocentric reformism.*

## 1. INTRODUCTION

In the relations of humans with the animals, with the flowers, with the objects of creation, there is a whole great ethic scarcely seen as yet, but which will eventually break through into light and be the corollary and the complement to human ethics...Doubtless it was first of all necessary to civilize man in relation to his fellow men...That task is already much advanced and makes progress daily. But is also necessary to civilize humans in relation to nature. There, everything remains to be done.

- Victor Hugo

Responsible environmental action requires serious reasoning about environmental issues. We need a clear grasp of the terms we use, the values we espouse, and our beliefs about what we consider morally proper to do. This chapter begins with an overview of the environmental movement, its roots, and some political and historical consequences. The reason for this beginning is that we cannot think of any environmental study without thinking about its political as well social roots, pressures, and restraints.

Next, we will enter three main trends in environmental epistemologies: environmental ethics, radical ecology, and anthropocentric reformism (Zimmerman *et al.*). These groups form specific clusters of theories, reasoning, and conclusions. Some of them are very rooted in the academic thoughts of the North, and influence the results, which are published.

Nowadays, as we can notice, the main stream, which embodies the majority of the research made, is the sustainable development epistemology. This anthropocentric view implies principally that we can economically evaluate the nature for our pleasure and for the use of the future generations too. Not

judging that is for good or not, we will introduce in this paper other points of view of looking at the nature we belong, and will someday return.

## **2. THE ENVIRONMENTAL MOVEMENT**

The environmental movement did not have a clear beginning neither a landmark. It was first and foremost a gradually awareness of the damage imposed upon the environment. The beginning was the extinction of some species. It was initiated in Europe in the 1890's where there was a movement for the conservation of some birds, which were used to adorn women's hats. These women were trying to banish the hunting of some animals by stopping selling its products. They were aware that some African and Australian species of birds were to be extinguished since it was hunted without any sense of humanity. Thousands of birds were killed in order to have their feathers exported to the metropolis. And, many "evolutionists" were not able to find some of these species anymore.

From the 1950's on emerged the "new environmental movement". Up to now, the crusade for the conservation of the nature was based on some moral as well as divine conception of the Mother Nature, the environment was in the center of the discussion. The word was preservation. The new environmentalism focused on human kind, and on the environment surrounding him. Not only the animals and the resources were to fade away, but also the human beings.

The new movement was also a political and activist one. The Earth would not be destroyed only with a radical and profound reformulation of the values and, above all, of the institutions in the industrial societies. It was necessary a confluence of publications, the tests of the nuclear age, the affluent society, the scientific knowledge, the influence of some racial political movements, and, principally, the accidents which reached a global repercussion (McCormick: 1992). These were some of the new variables, which raised up the public perceptions about the state of the world.

### **2.1. The new variables**

There was a sort of publications, which emphasized a need for a new conception to be carried on by the modern societies. Above all, these books were questioning some misleading social, economical and scientific preconceptions and non-discussed values. Some of them will be showed here in order to show the path until the new environmental paradigm began to be embodied in the behavior as well as in the process of some organizations, and countries. In 1958 John Kenneth released its "The Affluent Society", criticizing the materials needs of the post Second War society. The Earth resources would not support the new demands.

In 1962 Rachel Carson published the "Silent Spring", this book alerted for the fact that many birds would not even being born since their eggs were not hard enough to reach its cycle. The reason was that the Green Revolution produced so many insecticides that it was poisoning the crops at deadly rates. Then, by air, they were also poisoning the birds' eggs as well as the food produced. The main result of this book was that the discussion about DDT were not encircled in the academic and technical discussions only; now, it was debated on the public arena. It was not a silent crisis anymore.

In 1968 Paul Ehrlich published his "The Population Bomb". On the same token, in 1972 The Club of Rome announced in public the results of the MIT publication called "The Limits to Growth". These authors had an argument in common: the world is not able to support an increasing number of people with their needs for material resources. As time goes by, the people would be living at the most high and remote mountains on Earth since there was no place enough for them. These were neo-malthusian

conceptions aimed to reach basically the birth rates of developing countries as well as its policies.

Finally, in 1971 Barry Commoner released his “The Closing Circle”, defending that, although the affluent society and the increasing population were guilty in some aspects for the degradation of the nature, the main cause of the pollution was the so-called “defective technology”. In other words, the question was not on the growth per se but on how the growth was conducted.

Together with these publications, a series of nuclear tests as well as of accidents occurred all over the world. There was a substantive connection between the disarmament and the environmental protests. They both sought a control over the technology in the industrial society. The first nuclear test happened in 1949 made by the ex-URSS. Then, many of them proceeded, but with the nuclear precipitation far away from the Bikini Islands, reaching the Japanese ship called Maru 5 and killing one of its crew; the bell ringed: technology could harm the environment without a proper control of it, there is no frontiers. In 1963, URSS, United States and Great Britain signed the first international nuclear treaty –banning atmosphere tests.

In 1952, London was covered with polluted smog. The Clean Air Act was signed in 1956. In 1966, in Aberdeen, Scotland, a mountain of residues fell over a village, killing many of the people there. In 1967, the oil tanker Torrey Canyon accidentally released its cargo into water. Even with all the efforts to dilute the oil, the chemical material used spread it more and more. In 1969, the Union Oil Company, in California, had another oil accident. Then, in the 70’s the population and the animals in Japan were intoxicated by mercury in Minamata due to factory disposals. The main conclusion was that the pollution results in human costs too. These and many other accidents called the public attention; it was becoming impossible to pollute without paying.

The social movements also reached its momentum. The 50’ and the 60’s were covered with an activist cloud. In 1968, France, Germany and Spain were facing the students protesting on the streets. They were questioning the legitimacy of the institutions; to put it simply, they were basically anti-establishment, with any connotation that it might have. As the racial prejudice and the Vietnam War appeared to be a symptom of a disease in the system, so was the environmental degradation. The hippies were returning to the nature and to the untouched areas.

With this entire effervescent scenario, in 1972, the first international conference on environment was held in Stockholm: The United Nations Conference on the Human Environment. The representatives could not turn their deaf ears for the problem. Finally the environment was on the agenda, so it was then a political issue. The Non-Governmental Organizations blossomed. Even though many private organizations still have their own green seal or some environmental norm, from this point on it was a public perception and requirement principally in the rich states. International organizations such as the World Bank and the Food and Agriculture Organization reconsidered the way they were advising many countries. The field of environmental studies was full of financial resources since each country should present its own view of what its environmental problem really was as well as to present its solution.

### **3. THE ENVIRONMENTAL FIELD OF STUDIES – THE THREE EPISTEMOLOGIES**

To think clearly about the values we associate with the environment we need to distinguish *who* values from *what* is valued. The value of something depends on human consciousness in the sense that, beyond the purely instrumental response that we associate with the animals, only human beings can ascribe and determine value. Anthropocentrism is often taken to be the view that only human beings have moral standing or that it is only the interests of human beings that in the end matters (Connelly and Graham, 1999). But it is not true. As we will see below, there are many authors

discussing the implications of the human interpretation of nature while there are others who notice the intrinsic value of all beings, living or not. The three epistemologies below are considered according to the seminal work of Zimmerman (1998), it must be clear that even within one of the branches, there are many points of disagreement in some affirmations between some authors. But, I will just introduce the main characteristic of each one.

### **3.1. The Environmental Ethics**

In 1973, at the Fifteen World Congress of Philosophy in Bulgaria, an Australian philosopher, Richard Sylvan, addressed his colleagues with a question: “Is there a need for a new, an Environmental Ethics? (Zimmerman, 1998), Then, the floodgates were opened. The main argument of this new ethic is that progress could only be made in ending the ecological crisis by challenging anthropocentric ethical norms and extending moral considerability to nonhuman beings. Just as today one is morally obligated to refrain from abusing or killing humans, so tomorrow one may be morally and legally obligated to refrain from abusing or killing many kinds of living beings. There are two major approaches for this line of argument: the holistic and the individualistic ones.

The holistic one analyses the environment as a wholly, including human beings. It is basically represented by the “land ethics”, from Aldo Leopold and J. Baird Callicott. The land ethic changes the role of *Homo Sapiens* from conqueror of the land community to plain member and citizen of it. It implies respect for his fellow-members and also for the community as such.

The individualistic one is the movement of animal liberation/rights, which broke new ground in moral philosophy by taking a step beyond the species barrier. It can be regarded as only the first step toward a more encompassing environmental ethic oriented to all living things severally or individually. They created an analogy for sexism, calling the anthropocentric prejudice toward the animals “speciesism”. The outstanding authors are Peter Singer and Tom Regan.

### **3.2. The Radical Ecology**

This group is represented by three major trends: Deep Ecology, Ecofeminism and Social Ecology; they agree in two very basic conceptions. First they claim that their analyses disclose the conceptual, attitudinal, social, political, and cultural origins of the ecological crisis. Secondly they argue that only a revolution or a cultural paradigm shift can save the planet. But they disagree on the roots of the environmental crisis.

The Deep Ecology defends that one of the roots of the environmental crisis is the anthropocentrism: the view that humans alone are the origins and measure of all value. It is major a philosophical split between the anthropocentric industrial-pollution wing and the ecocentric wing in environmentalism during the 60's founded by the Norwegian ecophilosopher Arne Naess. Naess proposes that the international green movement for social change be thought of as basically comprising three movements: (1) the peace movement, (2) the social justice movement, and (3) the ecology movement. This line strongly supports sustainability for all societies, but sustainability in the ecologically wide sense of protecting “the full richness and diversity of life forms on the planet”, it is beneath human dignity, Naess claims, “to aspire to less” (Zimmerman, 1998:177).

The Ecofeminism believes that the major root of the ecological crisis is patriarchy: an oppressive social structure that justifies the exploitation of women and nature because it regards both as

somehow inferior to men. This field emerged in the 1970's as part of the women's liberation movement, and the term was introduced by Françoise d'Eaubonne in 1974. Caroline Merchant (Doyle, 1998) identifies four positions in this field: liberal feminism, Marxist feminism, cultural feminism, and social feminism. Each one analyses the relationship men x women, men x nature.

The Social Ecology or also called Eco-anarchism asserts that the principal root of the ecological crisis is social hierarchy. Authoritarian social structures allow some people to dominate others and also to despoil, and needless harm nonhuman beings. Just as Arne Naess is readily identified with Deep Ecology, so Murray Bookchin is the public face of Social Ecology.

### **3.3. The Anthropocentric Reformism**

This third field argues that the root of our environmental problems is not anthropocentric and patriarchal attitudes, nor the institutions and practices that embody them, nor the moral obtuseness that prevents people from discerning the moral considerability or inherent value of nonhuman beings. Rather, air and water pollution, the wasteful use of natural resources, and other environmental harmful practices stem from ignorance, greed, illegal behavior, and shortsightedness. There is no need at all for any kind of revolutionary cultural and political changes or for alterations in human-centered moral theory. There is a need only for a sustainable use of nature by humans, for a sustainable development. This field is represented basically by three branches of arguments, depending on the level of the government presence and influence in the market.

The first one is the Free-market environmentalism, which applies to the environment issues the general principle that good of all can be promoted through the unrestricted operation of the market economy. They maintain that clearly defined property rights are the best assurance of optimal environmental decision making. The main authors are Terry L. Anderson and Donald R. Leal.

The second one is the Green-market environmentalism, which proposes a market-based approach that differs considerably from that of free market. The reason in his view is that enterprises have an economic incentive to reduce expenditures and gain a competitive advantage by externalizing costs as environmental damage. So there must be some administrative regulation and government planning. Besides some public taxes. It is basically represented by Paul Hawken.

Finally, the last one is the Liberal environmentalism. It rejects the idea that unrestrained marked activity can solve ecological problems and contends that significant government regulatory activity is necessary to prevent environmental damage while respecting the human rights and maintaining justice. It is best exemplified by the publications of the Worldwatch Institute, and its director Lester Brown, which focuses on expanded government regulatory activity and more effective international agreements.

## **4. CONCLUSION**

This paper was meant to present to the reader a brief introduction to the environmental epistemology. The main reason for this is that many of the researchers do not pay the real attention to the importance of its philosophical basis or thoughts – and of the political reasons for them too. There are some guidelines, which support our studies, and, even more, that can improve our conceptions.

It must be said that the presentation here was not exhaustive. Some of the theories represented above extend far beyond the lines drawn here. For additional articles, the reader should begin consulting the journal *Environmental Ethics*.

## 5. REFERENCES

Connelly, J. and Smith, G. (1999), *Politics and the environment. From theory to practice*, Routledge, New York.

Doyle, T. and McEarchern, D. (1998), *Environment and Politics*, Routledge, New York.

Goodpaster, K. E. and Sayre, K.M. (1979), *Ethics & Problems of the 21<sup>st</sup> Century*, University of Notre Dame Press, Notre Dame, Indiana.

McCormick, J. (1992), *Rumo ao paraíso – A história do movimento ambientalista*, Relume-Dumará, Rio de Janeiro.

Rolston, H. (1999), *Environmental Ethics. Duties to and values in the natural world*, Temple University Press, Philadelphia.

Singer, P. (1998), *Ética Prática*, Editora Martins Fontes, São Paulo.

Zimmerman, E. et al. (1998) *Environmental philosophy. From animal rights to radical ecology*. 2<sup>nd</sup> ed. Prentice-Hall, Inc, New Jersey.