

Preserving nature: A question of science or ethics?

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I. Introduction

The exploitation of the natural environment by humans has been occurring since the ancient times. The degree of human interference in nature was however negligible in the past, as a consequence of the small human population and its technological limitations. The advances in technology, combined with population increases have resulted in a larger degree of interference, in a sense that we are today talking about overexploitation of nature.

Overexploitation, however, can carry two different meanings. The one is that we take away from nature more than we are able to in order to sustain the human species over the long run, at least having an acceptable quality in its life. The other is that we are taking away from nature more than what we have the right to. If we accept the first meaning, then the problem is merely technical. If we accept the second meaning, the problem is one of ethics.

So what do we mean when we refer to environmental problems? What are people talking about when they express their environmental concerns? Do they claim that the ecological degradation that is now occurring is an evil, because the quality of their lives and the lives of their descendants are in perils? Or is it an evil because nature itself is in perils? Are they worried about ecological catastrophes because they will lose the opportunity to derive satisfaction from nature in the form of production goods or even from its experience, like the feelings that they have in a wilderness area? Or are they worried because they consider nature having a value of its own, and it should be allowed to continue existing in a state that will not be adversely affected by human actions? Do they face questions like: how much pollution can we accept and how many cars should we produce in order to satisfy the most? Or do they rather face questions like: is it morally right to cut down forests in order to build a new automobile factory?

One could easily see that in order to proceed in asking the first type of questions, the answer to the second one should be that man is permitted to use nature in any way he wishes. Since the technical kind of question has been asked so often, it follows quite clearly that the only way we value nature is as long as it helps us derive some utility from it. Should we conclude then that our ethics does not permit any considerations of concepts as nature rights or value independent of

human needs? I believe the answer to this question has been positive, but changes have been occurring in our time¹.

II. Humans and nature

If we look in the past, it is not difficult to see that man's relation with nature has always been one of warfare. Nature was conceived as an enemy, whom man had to fight in order to fulfill his objectives. The aim for man was to achieve domination over nature, and in this sense he could appropriate from nature whatever he could. Nature was trying to get revenge with earthquakes, floods or other catastrophes, and man had always to fight against it.

This concept of man's domination over nature was early related to the concept of man's domination over woman, who has been related to nature. Nature, and especially earth have been thought of sharing the same characteristics with women, and the concept of domination grew against both of them. This domination attitude was reinforced by the Judeo-Christianic tradition, which provided the image of a male, omnipotent God that had everything under his dominion, and He also wanted humans to become the same like He was².

Newtonian mechanics and its success in explaining natural phenomena provided the knowledge for man to understand the ways that nature works. Hence, the ground for a more aggressive manipulation of nature has been set, now that man could predict, in a mechanistic fashion, nature's responses to his actions. The technological advances that precipitated Newtonian mechanics permitted large scale exploitation, and the population growth that occurred necessitated an even heavier interference with the natural world.

The material growth that was related to this domination attitude, however, has now been proven incompatible with ecological integrity. As long as human interference has been kept in a small scale, nature had the resilience to recover damages caused by human activities. When the impact grew large, however, nature proved to lack the responses to maintain the needed degree of ecological integrity. This has led to threats in ecosystems stability and even survival. An abrupt effect of human impact on ecosystems is of course the extinction of species.

III. The utilitarian theory of value

But what is bad about a species becoming extinct? We have been always trying to dominate nature. The state is one of war, and if we kill some of its soldiers in our way, what is wrong with it? This line of thought follows directly from the notion that nature is nothing more than an instrument that has value only if man can derive satisfaction from it. If we move along this line, species have only potential value as such, and this value is usually negligible for us to care about. Nobody expects to derive any satisfaction from the Colorado squawfish, so why should we care if it becomes extinct or not?

¹The environmental movement and its beliefs is a proof of this change.

²Fritjof Capra, *The Turning Point*, 1982.

The growing concern about species extinction in our current society, however, suggests that people do not always follow the above line of thought. Hence, our ethics must have developed in a way to permit some kind of value in nature independent of the satisfaction of our needs.

The theory that has shaped our current ethics is the Utilitarian Theory. Let us begin then by examining the concept of value according to the Utilitarian Theory and its economic interpretation, the Efficiency Theory. Utilitarianism is based on the assumption that individuals are trying to maximize their happiness and the satisfaction they derive from their actions. They are motivated by self-interest and they act rationally when their actions imply this kind of motivation. Actions are instrumental, in the sense that they are efforts to achieve given ends choosing from certain means. The distinction between ends and means is made in the sense that an "end" is something that enters an individual utility function, while a "means" would not be found there³. An action is then justified if the chosen means maximize the satisfaction derived from given ends. Any kind of satisfaction derived from the process of doing the action, as opposed to the value of the consequences of the action, is unimportant.

A serious objection can be raised, however, that all of our actions are not instrumental, and we can define them by different motivations than maximizing utility functions. These motivations might be expressive - the desire to act consistently with one's beliefs and moral values, regardless of the consequences of the action. There might be motivations of autonomy - the ability to take my own decisions for myself. They might be altruistic motivations⁴. In these cases, people may act rationally not in an instrumental or consequentalistic way, but incorporating in-process benefits instead. If we want to incorporate the above motivations in our theory, we need to put individual actions in more contexts than mere instrumentality permits. But let us go back to the Utilitarian and Efficiency Theories for the moment, and see what they say about nature, wilderness and species preservation.

Since things have value only when we can derive some pleasure from them, nature does not have value of its own, unless we want to expropriate something from it, and here is where the Efficiency Theory comes in to help us decide how we can derive the most out of nature - or anything of concern, while giving away the less. Cost-benefit analysis is used to justify our decisions. Serious objections can be raised opposing cost-benefit analysis, but here we will focus on one of them. This is concerned with the moral basis of it and utilitarianism in general, and this is their anthropocentrism.

According to utilitarianism, nature has only instrumental value. Hence, what we value in wilderness is a psychological factor, the feelings that we have when we face it. In no sense, however, is the need for wilderness a general need. Some people do feel diminished by the destruction of wilderness and species, but others do not. There is no value in nature as such, but only in the mental state it produces⁵.

³L. Robbins, *An Essay on the Nature and Significance of Economic Science*, 1932.

⁴Michael Taylor: *Rationality and Revolutionary Collective Action*, in *Rationality and Revolution*, ed. Michael Taylor, 1988. Especially for autonomy, see also Mark Sagoff, *The Economy of the Earth*, 1988.

⁵John Passmore, *Man's Responsibility for Nature*, 1974.

If this is the case, then whatever nature provides in the form of wilderness can be substituted. Films of nature might be sufficient, or, if not, someone might invent the "wilderness-experience machine", which permits you to derive the same satisfaction of being out in nature while sitting in your living room⁶. Would the destruction of the entire wilderness in nature be justified by the existence of such a device? Would we proceed to destroy all nature - or at least all we can without endangering our lives, if we would have substituted what nature offers us with imaginative innovations? Utilitarianism would answer yes to this question, but I feel that most of the people would find it difficult to accept such an action. And if such a machine were invented two hundred years ago, people's reaction would be more probable to coincide with utilitarian principles, than if it were invented today. Thus utilitarianism must be wrong or at least outdated somehow concerning people's values. Where then can we find a theory that will provide the arguments for the preservation of wilderness, species, and nature in general?

IV. Deep ecology

A place to look for such arguments might be the discipline of Deep Ecology. Deep Ecology is not a scientific theory, in the sense that it does not provide mere scientific assertions, but is also concerned with the values and normative implications that a scientific theory causes, in an effort to build a comprehensive philosophical theory. Deep Ecology tries to move away from the western distinction between *is* in science and *ought* in ethics. Deep ecology tries to ask all kinds of questions and provides arguments for the preservation of nature.

Deep Ecology rejects the notion of man's domination over nature, and elevates nature in a position of equal value to humans, and if its critics⁷ are correct, in a position of bigger value than humans. Deep Ecology suggests that nature has value independent of its usefulness for human purposes. The well-being of human and non-human value on earth has inherent, or else intrinsic value⁸. Biodiversity has a value of its own too, and it is also contingent to the well-being of each individual. Humans have no rights to reduce nature's richness and diversity, unless to satisfy vital needs. Humans' aim is self-realization, which will be achieved through maximizing diversity, and with maximum symbiosis with the rest of nature' elements. The individual self will realize when it experiences its inseparable aspect of the whole system wherein there are no sharp breaks between self and the other. In that sense, nature is a whole, and its value consists of something more than the aggregation of the values of its parts⁹. It is clear, of course, that human actions that are against nature's diversity are immoral and unpermissible.

⁶Richard and Val Routley: Human Chauvinism and Environmental Ethics, in Environmental Philosophy, ed. Don Mannison, Michael McRobbie and Richard Routley, 1980.

⁷I am talking here about Murray Bookchin and Social Ecology.

⁸"Intrinsic" and "inherent" are here used as synonyms, like in the texts of Deep Ecology, but we will later see that they are not.

⁹Bill Devall and George Sessions, Deep Ecology, 1985.

Deep Ecology incorporates science and ethics in a way that is unknown to the Western tradition of thought¹⁰. It has been accused, however, of inverting human domination over nature to nature's domination over humans¹¹. This seems right when one considers Deep Ecology's prescriptions for the cure of today's ecological illness, in the form of drastic reductions to the human population. Deep Ecology also sometimes seems to take the form of a puritanistic morality, rather than of an ethics and philosophical theory.

It seems fairer to accuse Deep Ecology only of ineptness articulating its principles. Let us not forget, that in order to communicate these principles, it has to speak in a language comprehensible by its audience. This language has been formed according to the Western tradition and the mechanistic analytical paradigm of the natural world. While Deep Ecology tries to persuade us to abandon this paradigm, it has to use the concepts that have been used to justify it. These concepts are embedded in the way we think that it is more than hard to understand what Deep Ecology is saying. It really takes a lot of nerves to talk today about self-realization in a way of experiencing nature, instead of analyzing and understanding it. And it is more than difficult to communicate feelings and holistic experiences in a language that has been shaped by analytical thinking. What Deep Ecology is trying to convey is that self-realization can advance in a state of symbiosis with nature, in a state of harmony in our relationship with it, and experiencing the whole in a sense somehow different than the understanding of the parts. It is in that respect that the discipline is contemplative and therapeutic.

V. Deep ecology and utilitarian theory

Let us now try to sum up, and discern the differences between utilitarianism and Deep Ecology, in an effort to find the environmental ethic that will enable us to find arguments for the preservation of nature.

It is easy to see that according to the Utilitarian Theory, nature does not possess any value unless there is some human interest. Another way to say this is that nature's value is extrinsic and it is not independent of man's perception of it. In fact, nothing can have any value independent of human perception. Non-human values are extrinsic. They could be instrumental, contributive, or inherent, but always extrinsic. Things have instrumental value as long as they bring about a state of affairs that itself has some kind of instrumental, contributive or inherent value. They have contributive value when their presence in a whole contributes to the value of the whole. They have inherent value when they are experienced by people in such a way that these experiences have intrinsic value to them¹².

It is easy to dismiss the idea that Deep Ecology would accept the notion of nature having extrinsic value. It might be a little easier to accept contributive value than instrumental or inherent, but the value of a whole consists of the aggregation of the contributive values of the

¹⁰Not in the Eastern traditions though. In fact, Deep Ecology has borrowed ideas from Eastern traditions, as it acknowledges.

¹¹I am talking of Bookchin's critiques again.

¹²Introduction on intrinsic value, in *Problems of Moral Philosophy*, ed. Paul W. Taylor, 1967.

parts when the value is extrinsic, while Deep Ecology clearly states that the value of the whole is different - actually greater - than the mere aggregation of the value of the parts.

Indeed, Deep Ecology denies the anthropocentrism that inhabits utilitarianism, and accepts that nature has intrinsic value, or else value independent of human perception of it. There is more than one idea of understanding the concept of intrinsic value by philosophers¹³, and things might get more than complicated in the philosophical conversation. What matters here, however, is if Deep Ecology, by endorsing the principle of intrinsic value in nature, can develop an ethical approach towards the environment that will lead to the preservation of ecological integrity and of nature as such. Under an approach like this, ecological stability, integrity and diversity have intrinsic value, and they have to be enhanced and preserved. Is this ethic then likely to achieve the preservation of ecological integrity?¹⁴

It seems unrealistic to talk today about intrinsic value in nature and trying to preclude human actions based on these grounds¹⁵. We live in a society that is full of economic considerations and relations, and it seems extremely inappropriate and romantic to talk about nature as independent of economic values, especially in the world of limited resources where we live. The society of abundance that existed in the past has now become the society of scarcity, and every time we want to talk about nature, we also have to talk about what is yours and what is mine and about how much you are going to have to pay me if you want to get what is mine¹⁶, and so on. It is hard to expect that we will somehow escape our appropriation concerns and accept leaving nature in peace, without trying to gain something from it. Our way of living is related to utilitarianism and we cannot simply deny our anthropocentric systems of belief for the sake of nature. What Deep Ecology provides us with, is an ethic that is too far removed from human attitudes, feelings and ways of life¹⁷. This remoteness from human concerns might lead to the inapplicability of such an ethic to human attitudes¹⁸.

What is needed is more of an approach that will not be so remote from human concerns, but will leave the space open for appeals to them, when our aim is to prevent ecological deterioration. An approach like this would not have to necessarily accept the existence of intrinsic value in nature, but it could focus on the relationship between humans and nature, and the harmony which they could achieve in these relationships. Thus we should not enhance nature because of its intrinsic value, but because of the self-realization we can achieve living in harmony with nature, in a state of symbiosis. The change in ethics that is needed is not necessarily one of intrinsic value of nature, but one of intrinsic value in our relationship with nature. We should learn to value nature

¹³Taylor mentions five of these ideas, which I will not bother to repeat here.

¹⁴This question is also asked by Janna L. Thompson: *Preservation of Wilderness and the Good Life*, in *Environmental Philosophy*, ed. Elliot and Gare, 1983.

¹⁵This is also Thompson's answer, who later searches for an environmental ethic in the works of Herbert Marcuse, and especially in Marcuse's *One Dimensional Man*.

¹⁶Carol M. Rose: *Environmental Faust Succumbs to Temptations of Economic Mephistopheles*, or, *Value by any Other Name is Preference*, *Michigan Law Review*, Vol. 87, May 1989.

¹⁷Of course I am talking about present attitudes, feelings and ways of life.

¹⁸Thompson, *Preservation of Wilderness*.

because of the mental harmony our relationship with it enables us to achieve, and not as an abstract analytical concept.

To value nature because of our relationship with it is something different than to value nature because it has intrinsic value. It is also something different from valuing nature because it can provide us with material goods. Is it also something different from valuing nature because of the mental state it can help us achieve? If we proceed to nature preservation only because we can experience feelings caused by its presence, why should we oppose to the "wilderness-experience machine" or to any kind of substitute for it? If nature's value lies in our psyche, why should we consider the need for ecological integrity a general need, and not a fashion that comes and goes with the passing of time? And how can we convince people that they should appreciate this relationship with nature, if this relationship is expressed as a psychological factor?

A way to proceed might be to convince people that living in harmony, or in symbiosis with nature is the right thing to do. But resting on assertions like this, we do not make too much of a progress in persuading people about the rightness of our ideas. Others can always assert that dominating nature is the right thing to do. The conversation will then be degraded to the level of moral indoctrination. In order to make a persuasive case for nature preservation, we have to advance the conversation beyond the realm of normative ethics. This can be done if we realize the way that our living with nature relates to our living in our society. The critique of our behavior towards nature has to become contingent to a social critique.

VI. Social ecology

Let us begin here by rethinking what our views of nature have led us to, and see how these views are refuted by recent scientific developments. According to the Darwinian paradigm, the evolutionary process is a fight in nature, and the mechanism of natural selection permits the survival only of the most powerful competitor. Humans have considered themselves at the pinnacle of this evolutionary process, and hence they had the right to dominate the less advanced products of this process. These ideas, that our species is of higher value than this of anything else, have converged with the Judeo-Christian tradition, anthropocentric itself, to assign an ontological or metaphysical superiority to humans. In other words, humans are the only ones of value on earth and everything else can be used as an instrument by them, since they are the almost perfect end of evolution¹⁹.

The science of ecology has seriously undermined this belief of human uniqueness²⁰. It has helped us understand that we are not substantially different from the other products of evolution, and that we have not been here since the dawn of time, neither will we stay here till the end of it. Our existence depends crucially on our natural environment, and only through the interrelations between us and nature we have been able to develop and exist. And if we become extinct, or to put it in a better way, when we become extinct, the earth will develop new schemes of life. These

¹⁹Ibid., for some of the ideas presented in this paragraph.

²⁰Modern Physics has also undermined the distinction between subject and object, pointing to a more holistic view of the natural world, deprived of mechanistic relations.

views of ecology can help us drop the arrogance that has led to our aggressive behavior towards nature, and realize our place in the natural world.

The views about domination over nature have been incorporated in our attitudes, and it is more than difficult for someone that has grown in the Western society to integrate the changes in scientific reality that ecology²¹ has provided into his system of values and social attitudes. The way that we chase happiness and self-fulfillment is one of pursuing material goods, and our desire for them seems insatiable. We always want more and somehow better goods and products, and this has led to a state of growth that is in conflict with ecological integrity. The pursuit of happiness in our society is related to the destruction of nature and the incessant acquisition of material goods. Our societal structure and technological-industrial state is a result of this attitude.

It follows quite clearly that a change in societal values is a precondition to a change in environmental values. People have to think differently about societal relations and their own place in the society before they can think differently about their place on earth. It also seems that a positive feedback may occur between these two areas of concern. A quest for new ways of self-fulfillment beyond material gains can lead to a quest for new relationships with nature. And a quest for a new relationship with nature can lead to a new conception of symbiotic living with our natural environment, which will reinforce our efforts to live in harmony within the human society.

It has been alleged that our attitude towards the environment can be changed without a radical change in our societal structure and our societal values. This is a claim that can be easily dismissed, since our societal structure, and namely the technological-industrial state, with its emphasis on material growth, continuously puts us in conflicts with nature. Both capitalism, with its tendency for economic and material growth, and socialism, with its tendency to heavy industrialization and central planning, will inevitably come in conflicts with the natural environment, by trying to overcome its limits.

What is needed then, is for man to cut on material growth and accept that the ways that has looked for happiness and self-fulfillment are not satisfactory any more. He can then start considering a change in societal structure through a change in societal relations. He might realize that he can achieve self-realization in a society of smaller scale enterprises, not focused on material growth, but on the growth of spiritual and more esoteric qualities. A societal structure that can occur is one of small scale, decentralized communities, grounded on an attitude of respect for their members and not an attitude of competitive fights. The priority of this society will not be material growth, but spiritual improvement. Ecological concepts can help towards this pattern, and a decentralized society like the above will not come in conflicts with nature so often.

What it has been argued here is that a social critique is contingent to a critique of environmental ethics, and that a change in societal structure is probably a precondition to a change in our attitudes towards nature. The social-Darwinists of the past and our industrial-technological

²¹And modern Physics.

civilization have led us to a society where there are more than a lot of group interests that result in the domination of a group by another. If we want to change our environmental attitudes, we have to realize that we cannot isolate ecological from societal problems, and that the kind of societal transformation that will be required to avoid catastrophic social decline is unlikely to be achieved in a world plagued by racism, sexism, xenophobia and hideous poverty. These too are environmental problems and building a sustainable world means tackling them also²².

A discipline that provides the social critique, while being aware of ecological problems, is Social Ecology. Social Ecology starts by questioning capitalism and the industrial-technological state of affairs it brings along, and claims that it has led to societal injustice. Our authoritative, hierarchical society, full of oppressing relations between groups, cannot be justified on the grounds of human values like freedom and justice. We have to destroy this structure and proceed to an anti-hierarchical, anti-authoritative and decentralized communal society. Social Ecology is rooted in anarchistic ideals and enhances the image of an anarcho-communistic society that will enable individual selves to realize and live in harmony with each other, providing the ground for a harmonious symbiosis with nature as well.

Social Ecology does provide the social critique that seems necessary for the advance of nature preservation values, but does nothing more than asserting us in an optimistic way that its envisioned society will incorporate these values. Even if we accept that societal change is a precondition to a change in environmental attitudes, we cannot be sure that the desired attitudes will evolve in Social Ecology's paradigm. Since, however, an effort to predict human behavior in a hypothetical society carries any kind of conversation in the realm of pure metaphysical assertions, I prefer to leave the ground open for practice to show if social ecologists are right in their assertion, if of course we ever achieve the state of society that they praise.

VII. Conclusion

Hence, we have found some kind of social critique that we needed, but what does Social Ecology has to say about nature as such? How does it relate to Deep Ecology's ideals about self-realization and symbiosis with nature? Social Ecology prompts us to enchant not only an abstract image of "Nature" *that often reflects our own systems of power, hierarchy, and domination*²³- but rather human beings, the human mind, and the human spirit²⁴. What we see here is a clear anthropocentrism, which is evident in its societal critique in general. How can we relate this anthropocentrism to the ecocentrism of Deep Ecology?

Let us remember here that we have seen that nature does not have to have intrinsic value in order to be valued by humans, but it can be valued for the relationship that has with humans. The intrinsic value lies in this special relationship, and if we accept this view, it seems easy to achieve

²²Paul and Anne Ehrlich, editorial in *Buzzworm: The Environmental Journal*, May/Apr 1990.

²³Emphasis in the original

²⁴Murray Bookchin, *Social Ecology Versus Deep Ecology*, *Socialistic Review*, (1988?).

ecological integrity. Hence, while we have not completely abandoned ecocentrism, we have not come onto a pure anthropocentrism. We can say that we now have an anthropo-relevant theory²⁵.

It is obvious that a theory of societal critique has to be anthropocentric in order to have a substance. But a theory of environmental ethics does not necessarily has to be of the same way, since its object is not humans, but humans and nature combined. It remains to see if our anthropo-relevant theory is compatible or not with Social Ecology's anthropocentrism.

A claim can be made here that Social Ecology is not merely anthropocentric, but anthropo-relevant as well. An assertion like this might seems obvious and ridiculous to make, but it helps us discern a similarity between the two theories. Just like our theory is concerned about humans and nature, Social Ecology is concerned about humans and society. These two theories are contingent in the sense that a societal critique can be provided by Social Ecology to change the way we think about our societal values and ourselves within the society, and an environmental ethics theory can then advance the conversation to the level of thinking about ourselves not as parts of the society of humans, but as parts of the society of nature. The claim that self-realization within our species is a precondition for self-realization within nature can be the link that connects these two theories, that might in this way be thought of referring to two different levels. These two levels are not, however, isolated, but interact in a way that attitudes in the one level are reflected in the other one. Thus *our societal relations are reflected to our relations towards nature, and our relations towards nature are reflected to our societal relations*. This conclusion is nothing more than the claim that has been reiterated since the first line of this paper, but it is also the claim that its truth is very rarely recognized in any kind of conversation about the environment and our relations with it. Let us just hope that this truth will be more widely accepted in the future, as it has already started to, if of course we really want to seriously try and save what is valuable in this planet²⁶.

²⁵I owe this term to Tony McGann.

²⁶It is *you*, reader, that after all have to decide what to value or not!