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Ethics and the environment

The author puts forward some general moral principles that will act as a guide to action in the area of the environment.

Why is it that we can nourish a person in outer space, but we cannot feed or inoculate the children of Calcutta or Los Angeles? The usual response to this question is that, while we are competent in science and technology, we are tragically incompetent in ethics and politics. If we are incompetent in ethics, then perhaps the worst environmental pollution is mind pollution.

One measure of the degree to which our minds have been polluted is the extent to which the environmental debate is dominated by extreme positions. It is frequently a shouting match between caricatures—between romantic, uninformed, antiscientific "Greens" and unscrupulous, insensitive industrialists and developers. Proponents of both extreme positions often fail to trace the logical consequences of their ideas. Worse still, they confuse blind emotion, unanalysed claims, wishful thinking, and rhetoric with reason, evidence, and empathy. Such misguided passion merely clouds the conceptual, scientific, and ethical issues; it does not contribute either to human or to environmental well-being. If we wish to be good, we must first be wise.

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In arguing for correct priorities regarding environmental protection and sustainable human health, this article supports the ideal inherent in the celebrated WHO definition of human health, namely that health is "a state of complete physical, mental, and social well-being and not merely the absence of disease". Later, we shall see how this definition of health relates to priority needs of persons and to strong human rights to life and to bodily security. By "environment" is meant the entire collection of habitats—including all humans, all other life forms, and all living and nonliving entities and systems, from all ecosystems to the solar system—in which, with which, and with whom we humans live.

One extreme: technocratic individualism

Historically, ethics in the West—like those of John Locke—have been individualistic. In some respects, these individualistic ethics have brought an end to much human suffering. They have provided the moral and political foundation for the recognition of basic human rights for many persons; as a result, Blacks, women, and children have won recognition of their equality.

Along with economic prosperity, however, individualistic ethics have encouraged some ruthless behaviour—in the name of progress. Behaviour towards the environment, for example, has been dominated until recently by what some people call "cowboy" ethics after the American cowboys who killed the native peoples, raped the land, and nearly extinguished the bison. Contemporary technocratic individualists like Peter Drucker believe that the end—technological progress and economic expansion—always justifies the means—exploiting the earth *(1)*.

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Obviously there are many difficulties with the economics, the ethics, and the science underlying technocratic individualism. Oscar Wilde's description of a cynic also holds for the technocratic individualists—they know the price of everything and the value of nothing. Technocratic individualists fail to understand authentic ethical values because what their crude market mechanisms exclude is as important as what they include, and they exclude much. They ignore the equity of distribution of risks, costs, and benefits. They ignore the *quality* of people's preferences. They ignore the difference between utility and personal welfare. They ignore the fact that existing income distributions may be neither sustainable nor equitable in the long run, but at the same time they use these distributions as a basis for measuring progress *(2, 3)*.

Technocratic individualists err ethically not only because they use incorrect economic mechanisms to measure human progress and welfare but also because their fundamental presuppositions allow people to dominate other humans and the environment. For example, because classical market mechanisms define human welfare in terms of individual preferences as measured by monetary values, technocratic individualists who follow these mechanisms ignore distributive inequities. They also ignore the discrepancy between the ability of rich and poor persons to pay for market goods. Hence, they implicitly sanction fundamental inequities among persons and nations.

In addition, technocratic individualists also encourage rapid use of environmental resources. This is because the "net present value" of goods, for neoclassical economists, always exceeds their investment value. Therefore "rational economic man" almost always attempts to use finite planetary resources as quickly as possible. Economist E. F. Schumacher *(4)* has warned that such patterns of resource consumption indicate a way of life that can "have no permanence" or sustainability. The overconsumptive way of life of the technocratic individualists ignores the fact that world resources are part of a closed, and not an open, system. Hence it ignores the second law of thermodynamics. If developed nations, following technocratic individualism, continue to deplete nonrenewable resources and to distribute them inequitably, says Schumacher, we are all headed for economic and environmental destruction. We cannot continue living parasitically on the borrowed ecological capital of the future, capital that we shall never be able to repay.

Condemning technocratic individualism and its economics of overconsumption, Schumacher says that it is "an act of violence against nature which must almost inevitably lead to violence between men".

Technocratic individualism also leads to the "tragedy of the commons" *(5)*: the tragedy

that most persons, especially within an individualistic ethical system, constantly attempt to maximize their own welfare, even at the expense of others. As a result, everyone suffers. For example, most persons in developed countries drive highly polluting private automobiles so as to maximize their efficiency and comfort. Yet the pollution and resource depletion caused by such vehicles hurt everyone. The tragedy is that very few persons will act so as to preserve what is common property, e.g., air quality *(5, 6)*.

If science and technology could solve all the problems created by technocratic individualists, there would be no tragedy of the commons. More than 40 000 people would not be dying annually of pesticide poisoning, and one-third of the world's inhabitants would not be malnourished. Likewise, if technocratic individualism gave correct ethical guidance, species would not be disappearing at the fastest rate since the beginning of time. Clearly, we need environmental ethics that are more sensitive to the full costs of planetary degradation, pollution, and resource depletion.

Another extreme: environmental holism

In 1967, an 80-ton fin whale became trapped in a Newfoundland cove after the tide went out. Farley Mowat, in *A whale for the killing*, told the story of the animal's slow and painful death. The whale succumbed to massive infection after having been shot by numerous "sportsmen". Reminiscing on the death of the animal and the humans who caused it, Mowat asked: "Who was more a beast, the sportsman or the whale?"

Environmental holists ask similar questions. They challenge the greed, callousness, and ignorance that underlie many attitudes to nature. They criticize the waste and avarice that characterize the disproportionate pollution and misuse of resources in many developed countries. Biologist Wayne Davis, for example, noted that it would take 500 people in Third-World countries to do the same damage to the environment as is done by one person in a developed country. As one contemporary Jeremiah put it: "The American way of life is a criminal act" *(7)*. Environmental holists reject the overconsumption, the neoclassical economic values, and the human-centred focus of technocratic individualism. All these factors, they say, lead to situations like the death of the Newfoundland whale and the repeated destruction of the environment. Instead, holists like Aldo Leopold *(8)* and Baird Callicott claim that we must abandon anthropocentric ethics. They believe that all beings—humans and nonhumans—deserve *equal* respect as *equal* members of the "biotic community".

Environmental holism, however, suffers from both scientific and ethical problems. The scientific problem is that while ecologists can often tell us how to solve very specific problems that are suitable for short-term empirical testing—problems like controlling vampire bats in South America *(9)*—they cannot give us a universal, predictive ecological theory that can be applied to environmental problems generally. Because they cannot, we are forced to employ largely anthropocentric criteria for environmental ethics.

One could justify horrible treatment of humans on the ground that such treatment would, for example, help solve the population problem.

An important ethical problem with environmental holism is that, although we know, through human-centred criteria, when we have damaged nature in serious ways, some damage cases are controversial. Fire, for example, can be either destructive or essential to an ecosystem. Fire cases are controversial, in part, because ecologists cannot define precisely the conditions for a healthy environment. Although obviously it is wrong for greedy, thoughtless, or selfish humans to damage the natural world, it is not clear how humans should define some holistic environmental good. Plants and ecosystems, for example, cannot experience pleasure or pain, although some animals can. Therefore we cannot know what is good for plants and ecosystems, in themselves, both because nature cannot tell us and because the environment is always changing or evolving. Hence it is not obvious, apart from human-centred concerns, that environmental holists can provide clear, justifiable, ethical directives for ecological health or even explain what a "whole" is. Are certain ecosystems—the earth, the biosphere, the solar system, communities, or populations—the "whole"? Seeking the good of different wholes requires different, even contradictory, actions.

The priority rule requires that "strong" human rights be at stake whenever persons are forced to harm other beings or habitats in order to protect themselves.

A more troubling ethical difficulty with environmental holism is what Regan calls "environmental fascism". If one follows the environmental ethics of maximizing environmental welfare as opposed to human welfare, one thereby gives priority to the ecosystem or biosphere before individual human good. This means that massive human deaths or violations of civil rights could be justified, even required, if they would promote environmental welfare. One could justify horrible treatment of humans on the ground that such treatment would, for example, help solve the population problem. Indeed, Garrett Hardin has already given such arguments *(10)*. In his famous discussion of "lifeboat ethics", Hardin claims that developed countries are like crowded lifeboats while developing countries are like groups of people drowning in the sea. Hardin argues that the people in the lifeboats should not help the poor swimmers struggling to get aboard because that would make the lifeboats capsize. In other words, if the developing countries progress, we shall exceed the carrying capacity of the earth and plunder the planet. In his view, environmental welfare ought always to come before human welfare. But many people would regard this priority as another instance of "environmental fascism".

A third problem is that environmental holism leads to an ethical dilemma. If humans were truly equal members of the biotic community then they would have no special responsibilities and no more obligation to refrain from cheating, stealing, and killing than do other animals and plants. Heinous behaviour such as murder or torture would be morally acceptable. On the other hand if humans are not equal members of the biotic community, then they are superior to other beings and have no obligations to any nonhuman entity when its welfare conflicts with the welfare of humans. But this consequence is inconsistent with the ethics of the environmental holists. Hence environmental holism either justifies heinous human behaviour or falls into inconsistency *(11)*.

A fourth ethical difficulty is that environmental holists proclaim the ethical "interests" or the "rights" of ecosystems, plants, and animals. Yet, obviously, if all ecosystems, plants, animals, or biotic communities have interests or rights that humans are obliged to respect, then there is a problem: human obligations would multiply beyond reasonable limits. No human can reasonably or realistically respect the interests of all plants, animals, and ecosystems. This is the "multiplicity problem". If one tried to respect the rights of all living things, then it would be impossible for a consistent environmental holist even to obtain food or to destroy disease.

Environmental equity and priority principles

Despite the correctness of part of environmental holism, the view errs because it is impossible to "respect all nature." In a sense, environmental holism is incomplete because it provides no clear criteria for deciding when human interests ought to have priority over nonhuman interests. A second problem is that the environmental holists fail to recognize the responsibilities created by the "social contract" among humans. Let us examine the first problem first.

The priority problem can be addressed by using a principle from Aristotle. For Aristotle, equity requires that we treat equal beings equally. Humans and members of other species are not equal in all respects, so they should not be given equal priority when we are making decisions about the environment. There are at least four respects in which humans are unique, relative to most other species on the planet: (1) they have a special ability, in most cases, to experience pleasure or pain; (2) they have sophisticated intellectual abilities, abilities that enable them to understand the harm and good done to them, and abilities that enable them to plan and work to make the world a better place; (3) only they have a moral ability to distinguish right from wrong and to direct their actions on ethical grounds; and (4) only they share an implicit social contract with each other, a social contract grounded in reciprocity and a common conception of the good life. Because of these four unique human abilities, environmental equity justifies giving precedence to humans over other species when considering rights to life. Without such a priority principle, environmental ethics faces the multiplicity problem.

An ethical principle that could correct the incompleteness and incoherence of environmental holism is the following: "always respect all nature (plants, animals, and so on), except in cases when strong human rights are at stake" *(11)*. Dworkin defines "strong" human rights as those that are essential for human dignity, health, worth, and survival *(12)*. The right to bodily security, for example, is a "strong" human right. Other human rights, such as rights to property, are "weak" rights, because they are not essential to human dignity, health, worth and survival. Because they are weak rights, they can be overridden by considerations like the good of the community as a whole. For example, rights to private property can be overridden by the

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community's need for a road to be built through private property.

Following the strong-rights-versus-weak-rights analysis, strong human rights to life ought to come before nonhuman interests because of the uniqueness of human beings. However, the health of the environment ought to come before weak human rights,

Because we have received benefits from others in the past, we have obligations to the future.

because weak human rights protect no human good that is comparable to environmental health and survival *(11)*. In other words, the ethical priorities ought to be as follows:

1. duty to recognize strong human rights;
2. duty to protect environmental interests;
3. duty to recognize weak human rights.

Without such priorities, environmental ethics are likely to be unworkable because of the "multiplicity problem" and unethical because of "environmental fascism".

Although the duty to recognize strong human rights has priority over the duty not to harm the environment, people obviously err whenever they inflict any harm on nature purely for reasons of greed, selfishness, or insensitivity. The priority rule requires that "strong" human rights be at stake whenever persons are forced to harm other beings or habitats in order to protect themselves *(12)*. For example, large-scale disease-eradication campaigns are sometimes necessary to protect strong human rights in developing countries. Without the elimination of malaria, many persons could not exercise their strong rights to life and bodily security. Even though some eradication programmes may harm the environment, they might sometimes take precedence over the duty not to harm the environment. Of course, crude or thoughtless environmental damage is never permissible, even to protect strong human rights.

Admittedly, there are cases in which the environment is being so degraded that strong human rights are being violated. For example, the destruction of trees in certain areas has produced desertification, a degradation so severe that the desert environment is unable to support basic human needs. In cases like widespread desertification, where humans have exceeded the carrying capacity of the land, there is a conflict between the strong human rights of persons who wish to degrade the environment further and the strong human rights of future persons whose needs will not be met if there is further degradation. Such cases require "triage" ethics, ethics that direct us to seek the least overall harm and the fewest violations of strong human rights. Hence, in triage situations in which some violations of strong human rights are unavoidable, one ought not to follow the three ethical priorities listed earlier (strong human rights, the environment, weak human rights); one ought rather to follow triage ethics *(6)*.

A middle path: equity, health, and the social contract

If strong human rights are the first priority in environmental ethics, it is important to know how far such rights extend. Let us assume that, because of the social contract, all persons have equal human rights *(13, 14)*. The social contract embraces all people in all nations and all generations, and one justification for this contract is our planetary

interdependence for resources, trade, and environmental welfare. Human interdependence, across generations and across national boundaries, creates moral obligations to recognize basic human rights *(14)*. Because our actions affect other people and their actions affect us, we each have obligations to the other. These obligations mean that all human beings share a social contract and therefore that all persons, regardless of race, creed, nation, or generation, have equal rights to bodily security and to a liveable environment *(13, 15)*.

No human rights and freedoms would be possible without the right to a liveable environment. Equal protection of the law is diminished if everyone is harmed from air pollution. Equal opportunity is diminished if everyone is at risk from dirty drinking water. Equal political opportunities are diminished if persons, though prohibited from killing others outright, are allowed to kill them slowly through environmental pollution. In other words, all basic human rights presuppose a right to a liveable environment. A liveable environment is a necessary condition for recognition of all other human rights. The right to health requires that every person has a duty not to interfere with the health of other persons and therefore a duty not to make the environment unliveable. Having a liveable environment means not merely that we survive but that we have an enriched, full life with adequate educational, cultural, recreational, and spiritual opportunities.

Because all humans share a social contract and therefore have equal human rights, we must have a theory of priority needs so that, among equal beings, the more important needs of all are met before the less important needs of some. One theory of priorities is built around three classes of goods—necessity, enhancement, and luxury. Items in the first category include food, clothing, shelter, and medical care. Goods in the second class are more difficult to define but include such things as education and recreation, which enable people to express themselves and to determine their futures and thus go beyond mere survival. Luxury goods, on the other hand, are not essential to our well-being, although whether they are good or bad depends on the use to which they are put or the spirit in which they are enjoyed; they include items such as gourmet food and private automobiles *(6, 16)*. If all humans share an implicit social contract and therefore have equal rights to equal opportunity and to a liveable environment, then several consequences follow. One consequence is that some persons or countries may err in having luxury goods if, at the same time, they do nothing to help other persons or countries to meet their needs of first necessity.

Given a universal social contract among all humans, there are at least four senses in which environmental ethics must recognize equal human rights—among persons, among generations, within nations, and among nations. These relationships correspond respectively to interpersonal equity, intergenerational equity, *intra*national or regional equity, and *inter*national equity.

What harms one country harms us all. We are all passengers on "spaceship earth".

Intergenerational equity

The principle of intergenerational equity requires us to respect the rights of members of future generations, so that they have an

opportunity to live and enjoy the earth that is equal to our own. At least two important questions arise regarding the rights of future generations. How can such rights be rationally and ethically justified? Would recognition of the rights of future generations diminish the extent to which the needs of current individuals, especially the poor and socially disenfranchised, are met *(6, 17)*?

Although there are several ethical justifications for affirming the rights of future persons, the social contract is one of the best *(6)*. In other words, the intergenerational social contract requires that we owe to others in the future the same concern as we would like for ourselves. Because we have received benefits from others in the past, we have obligations to the future. This particular concept of intergenerational reciprocity—A helps B, therefore B should help C—appears to have been formulated in terms of the Japanese concept of *on*, the meaning of which is close to the Western notion of "obligation". Moreover, even if we are ignorant of our precise obligations to future persons, we should at least acknowledge their right not to have damages inflicted on them and their right not to have their important choices pre-empted. Because we share a social contract, they have rights and duties equal to our own *(6)*.

Intranational or regional equity

We must not merely refrain from imposing environmental risks on other generations; we must also distribute environmental risks equitably within our own borders. In other words, governments must guarantee their citizens equal protection from environmental risk, regardless of the geographical regions in which they reside. Within most countries of the world, environmental risk is not equitably distributed. A substantial amount of sulfate pollution, for example, is the result of emissions from coal-fired power stations extending hundreds of miles upwind.

Moreover, although there are often conflicts between recognizing the rights of present persons and those of future generations, protecting the rights of our descendants to the goods of the earth is a necessary condition for safeguarding the welfare of present persons. When the system of production "borrows" from the ecosystem, it incurs a debt to the future, a debt, for example, of pollution or resource depletion. Although this debt represents immediate savings for the producer, it adds to the living costs of the population as a whole and not merely to the problems of future generations. When workers find their medical bills and their laundry bills increased because of soot emitted from a manufacturing plant, their wages are effectively reduced and their health harmed. Especially in the case of air pollution, the poor bear most of the risks associated with environmental degradation *(6)*. Hence, protecting the rights of future generations is also an excellent way of protecting the rights of the present generation.

International equity

Not everyone recognizes the rights of either present or future persons. Currently, many persons, corporations, and countries in the world are violating the principles of international equity and ignoring the social contract. For example, many developed countries have offered African, Asian, Caribbean, and South American countries millions of dollars to take their toxic chemical wastes. Government regulations and high costs prevent such dumping in most Western countries. The World Health

Organization estimates that some 49 000 people die each year from pesticide poisoning, many in developing countries. Much of the poison comes from developed countries, which export chemicals that are banned at home. Yet if all persons share a social contract, then all have the same rights to protection and to free, informed consent *(18)*.

The fundamental moral problem, raised by the pesticide and other environmental cases, is whether principles of equal protection and the right to a liveable environment are required for all persons, regardless of the country in which they live. Typically, those who oppose principles of international equity do so because, although not wishing to see Third-World persons killed or injured by wastes from other countries, they believe that adopting a principle of international equity could jeopardize social progress. Philosophers such as Smart claim that more human suffering is caused by following principles of equal treatment than by attempting to maximize the welfare of the majority *(19)*. If one followed principles of international equity, they say, economic and social progress would be delayed for most people.

The obvious problem with the social-progress argument is that, if one focuses on the economic and social improvements of the majority of the people, then not every individual would be protected from capricious denials of justice *(19)*. Thus the social-progress argument cannot justify international inequities *(14, 18)*.

The rights of all persons, by virtue of the implicit social contract that we share, have been spelled out by the United Nations *(20)*. Essentially every person in every society and every generation is entitled to the resources needed to sustain a minimum standard of living and well-being. Moreover, the persons in countries with more resources, or those that have used a greater share of the resources, have some obligation to grant equal access to remaining resources to other countries and to other generations *(6, 16)*. The rationale for the right to equal access is based on the interdependence that establishes the social contract and the existence of universal human rights.

Developed countries also have a "responsibility through complicity" because they have profited from the unsafe working conditions and the lower environmental standards typically found in developing countries. Developed countries have accepted lower inflation rates, a higher balance of trade and lower prices for goods produced in Third-World countries. These are three benefits that have been bought, at least in part, at the price of worker health hazards and environmental deterioration in other countries. Therefore, developed countries owe a debt of compensation or reparation to developing countries for the benefits they have received *(18)*. Likewise, developed countries have a "responsibility through prudence" to help other countries achieve a liveable environment. What harms one country harms us all. We are all passengers on "spaceship earth".

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What, however, if someone argued that persons in other countries have the right to bury imported hazardous wastes? In other words, what if persons question international principles of equity on grounds of consent?

The main reason why consent, or self determination, does not justify environmental degradation is that those who allegedly consent rarely have either full information about the environmental/health risk or adequate freedom to give consent. Because a worker holds a risky job, it cannot be assumed that the occupation is an expression of the worker's authentic preferences. Many people engage in certain work, not because they voluntarily choose to do so, but because they have no alternative. In many developing countries unemployement is greater than 50%, and there is neither a diversified economy nor a wide range of alternative employment opportunities nor adequate opportunity for education. The absence of all these important background conditions militates against free, informed consent to environmental and health risks. And, if so, the presupposition must be in favour of international equity, equal protection across national borders.

If we wish to be good, we must first be wise.

Conclusions

Even if it makes sense to argue for rights to a liveable environment, how might we help guarantee these rights, both nationally and internationally? Well-informed consumers, in developed nations, can send polluters and resource depleters a powerful message, a message delivered through their purses. The message is: "We won't buy goods produced by companies that waste resources or excessively pollute the environment." Throughout the world, consumers who are suitably informed and organized have the power to change "business as usual" into "sustainable business for a liveable environment." Consumers worldwide have used a boycott to prevent a multinational corporation from marketing infant formula in unethical ways in developing countries. Through national legislation, United Nations organizations, nongovernmental organizations, and education, we can use market and moral powers to achieve a liveable environment *(18)*.

Moreover, there is no need for environmental holists to oppose this anthropocentric analysis of human rights and environmental ethics. This analysis is also ecocentric, in that it recognizes the priority of duties not to harm the environment over duties to recognize "weak" human rights. Besides, any action that does irreversible or serious damage to the environment will also harm humans. If species go extinct, for example, then human health and agricultural, aesthetic, and economic interests will be harmed *(21)*. Anthropocentric and ecocentric interests are intertwined. We are all interdependent. There is a saying, among members of one of the Bantu tribes of southwest Africa, that a person should not shoot a bird resting on his own head. We humans have shot many birds on our own heads. Let us, first, protect human heads and, second, protect the birds. □

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More meat, more waste

The affluence that has accompanied industrialization in many countries has brought with it a particular problem of considerable magnitude. As incomes continue to rise in North America, Europe, Japan, and elsewhere, and among the small privileged class in many developing countries, the demand for meat, and therefore for livestock production, increases. This leads in turn to an increased demand for feed and hence the total per caput *utilization of grain rises. In Canada and the USA the* per caput *consumption of grain is approaching 1000 kg per year; of this, only about 75 kg are used directly as human food, much of the remainder being used as animal feed. By contrast, among the predominantly cereal-eating populations of developing countries the* per capita *consumption of grain (mostly for human food) is about 200 kg per year. Up to a point, livestock production is a useful and efficient way of using land that cannot be cropped for food production to provide a source of human food. However, beyond that point livestock production is a very inefficient way of utilizing the available resources. Affluence in industrialized societies has pushed livestock production in these countries far beyond the point of efficient utilization of food resources. If we are to avoid even more serious food shortages in the world as a whole this trend cannot be allowed to continue.*

— G.H. Beaton and J.M. Bengoa, eds. *Nutrition in preventive medicine.* Geneva, World Health Organization, 1976, pp. 14–15.