

ENVIRONMENTAL ETHICS

AN INTRODUCTION TO ENVIRONMENTAL PHILOSOPHY



JOSEPH R. DES JARDINS

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Environmental Philosophy

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PREFACE

One winter evening several years ago I re-read Aldo Leopold's *A Sand County Almanac*. This occurred a few months after moving to rural Minnesota from suburban Philadelphia. I came upon Leopold's entry for February:

There are two spiritual dangers in not owning a farm. One is the danger of supposing that breakfast comes from the grocery, and the other that heat comes from the furnace. To avoid the first danger, one should plant a garden, preferably where there is no grocer to confuse the issue. To avoid the second, he should lay a split of good oak on the andirons, preferably where there is no furnace.

This passage struck me in a way that it never could have had I still been living in a metropolitan area. The fact that it was 27 degrees below zero outside and I was sitting in front of a roaring oak fire might have had something to do with this. I recognized that there are more than just two spiritual dangers in not owning a farm; one other concerns divorcing one's life from one's work. I realized that evening that teaching courses on environmental and ecological issues would mean more to me now, personally and professionally, than they could have in the city. This book has grown out of that commitment to redirect personal and professional attention to environmental and ecological concerns.

The primary aim of this text is simple: to provide a reasonably clear, systematic and comprehensive introduction to the philosophical issues underlying environmental and ecological controversies. These controversies, concerning such diverse issues as energy use, population growth, wilderness and species preservation, air and water pollution, resource conservation, and toxic waste disposal will determine the quality of life for both present and future generations. Indeed, human activity even threatens our planet's atmosphere and climate, the very conditions required for the survival of all life on Earth.

The tendency in our culture is to treat such issues as simply scientific, technological, or political problems. But they are much more

than this. These environmental and ecological controversies raise fundamental questions about what we as human beings value, about the kind of beings we are, about the kinds of lives we should live, about our place in nature, and about the kind of world in which we might flourish. In short, environmental problems raise fundamental questions of ethics and philosophy. This text seeks to provide students with a systematic introduction to these philosophical issues.

OVERVIEW

A significant amount of philosophically interesting and important research on environmental and ecological issues has taken place during the past decade or two. The structure of this text implicitly tells the story of how the fields of environmental ethics and environmental philosophy have been developing during that period.

Two initial chapters introduce students to the relevance of philosophy for environmental concerns and to some traditional ethical theories and principles. The following two chapters survey topics that essentially fit the “applied ethics” model. Traditional philosophical theories and methodologies are applied to environmental issues with the aim of clarification and evaluation. The applied ethics model, it seems to me, accounts for much of the early work in environmental ethics.

Philosophers soon recognized that traditional theories and principles were proving inadequate to deal with new environmental challenges. In response to these challenges, philosophers began to extend traditional concepts and principles so that they might become environmentally relevant. The next several chapters examine attempts to extend moral standing to such things as individual animals, future generations, trees, and other natural objects. Within much of this thinking, traditional theories and principles remained essentially intact, but their scope and range are extended to cover topics not previously explored by philosophers.

In recent years, many philosophers working in this field have come to believe that mere extensionism is an inadequate philosophical response to environmental issues and controversies. To many of these thinkers, traditional ethical theories and principles were part of a worldview that has been responsible for much environmental and ecological destruction. What is needed, in their eyes, is a more radical philosophical approach, an approach that includes rethinking metaphysical, epistemological, and political, as well as only ethical, concepts. At this point, the field previously identified as environmental ethics is better conceived of as environmental phi-

losophy. The final five chapters examine several of these more radical environmental and ecological philosophies. These views include: biocentricism (the view that all living things deserve moral standing); ecocentricism (the view that shifts away from traditional environmental concerns to a more holistic and ecological focus), deep ecology, social ecology, and ecofeminism.

TO STUDENTS AND TEACHERS

There are two intellectual dangers in writing a textbook like this. One is the danger of supposing that students are as motivated by and interested in abstract philosophical issues as their teachers. The other is that in pointing to the immense practical relevance of environmental ethics, one ignores or understates the importance of careful and rigorous conceptual analysis. I have tried to address these dangers in a number of ways.

Each chapter begins with one or two descriptive cases that can be used as an entry into the philosophical discussion that follows. These cases describe issues that are at the forefront of the contemporary environmental scene and implicitly raise fundamental ethical and philosophical questions. My hope is that after some directed reflection and discussion, students will see the need to address philosophical questions in their own pursuit of environmental and ecological answers. Each chapter also ends with a series of study questions that can be used either as the basis of a chapter review or as the basis of further study.

To avoid the second danger, I have tried to follow the philosophical debates far enough to provide an accurate example of how philosophers reason and how reasoning can make progress. There can be no substitute for a careful study and reading of the many primary sources that I have used in this text. But the nature of textbooks require that these debates not be so developed that students get lost in, or bored by, the detail.

I have not always been successful in my own teaching at balancing a relevant introduction to the issues with an in-depth analysis. Without a clear context to motivate the need to know, students often get lost in philosophical analysis. On the other hand, without depth students can become convinced too easily that they now know all the answers. Class time spent providing context, of course, takes away from time spent developing analysis; time spent following through on the debates prevents the forest from being seen for all the trees.

This text was written to address that tension. I suspect that for many teachers, the text will provide a context and introduction

allowing class time to be used for fuller development of selected issues. This might be accomplished in a number of ways: by reading classic or contemporary primary sources; by studying more empirical resources like the *Worldwatch* publications; by using some of the many excellent videos on environmental topics that are now available; by addressing the claims of more activist groups ranging from the Sierra Club to Earth First!. However individual instructors choose to develop their own courses, I hope that this text can provide a context to ensure that students remain as connected to the important philosophical issues as they so often are to the practical environmental ones.

ACKNOWLEDGMENTS

Like all textbook writers, I owe my greatest debts to those thinkers who are doing the original research in this field. I have tried to acknowledge their work at every turn, but if I have missed someone I hope this general acknowledgment will suffice.

The reviewers who read this text for Wadsworth provided thorough, insightful, and tremendously helpful advice. I must especially acknowledge Claudia Card of the University of Wisconsin at Madison, Arthur Millman of the University of Massachusetts at Boston, and Ellen R. Klein of the University of North Florida. While their advice improved this text immeasurably, the usual disclaimers of responsibility apply. My thanks also to: Ned Hettinger, College of Charleston; Dale Jamieson, University of Colorado, Boulder; Donald C. Lee, University of New Mexico; Joan L. McGregor, Arizona State University; and Charles Taliaferro, Saint Olaf College.

My students at The College of St. Benedict and St. John's University worked through early versions of this text. We were all students in those classes, and their comments helped substantively as well as pedagogically. The College of St. Benedict, through the office of the Dean, Dolores Super, provided financial support for research during the writing of this book. Heidi Heintz, my student research assistant, also contributed in many ways. Finally, everyone associated with Wadsworth Publishing proved once again why they are simply the best textbook publishers around. Thanks especially to Ken King for his enthusiasm for this project.

One morning this summer, while driving through the countryside, my four-year-old son asked, "Daddy, what are trees good for?" Sensing a precious moment of parenthood, I began gently to explain that as living things they don't need to be good *for* anything, but that trees do provide homes to many living things, that they make

and clean the air that we breathe, that they can be majestic and beautiful. "But daddy, I'm a scientist and I know more than you because you forgot the most important thing. Trees are good for climbing."

I hope that I have not missed too many other such obvious truths in writing this text, which I dedicate to Michael and Matthew.

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PART

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BASIC CONCEPTS

Ethics, Science, and the Environment

CASE ONE

Technological Solutions

Just after midnight on March 24, 1989, the oil tanker *Exxon Valdez* ran aground in Prince William Sound near Valdez, Alaska. Over the next few days, about 11 million gallons of oil poured out of its tanks, creating the worst oil spill ever in U.S. coastal waters. The oil killed tens of thousands of birds, hundreds of sea otters, and uncountable fish and other sea life. Hundreds of miles of shoreline were covered with oil, threatening the health and livelihood of local residents.

As part of the attempt to clean up this spill, workers used pressurized hot water to remove some of the tarlike oil covering the shoreline. The hot water softened oil that had been thickened by the cold Alaskan temperatures, making its removal from the rocks and sand easier. Pressurized hot water cleaners appeared to be a helpful solution to one small aspect of the cleanup. Unfortunately, few people considered the effects that hot water might have on microscopic and other life-forms that live among the rocks and sand of the shoreline. Few recognized at first that these life-forms, which contribute both to the biological decomposition of the oil and to the re-emergence of plant and animal life, would be killed when sprayed by hot water.¹

On the opposite side of the earth, the agricultural lands bordering Egypt's Nile River had been subjected to annual flooding for as long as humans have lived in this area. Although these floods brought needed water for the crops, the extent, timing, and length of the flood could neither be predicted nor controlled. Erratic and unpredictable flooding was something that farmers had lived with for millennia. All this ended in the 1960s with the construction of the Aswan Dam.

The dam was built to supply hydroelectric power, and to provide irrigation and flood control. In many ways, these goals have been met. For example, many crops survived severe droughts in the early 1970s because of the water available from the dam. However, the dam has also created a multitude of environmental problems never envisioned by its original designers.

Although flooding was a major problem, it also fertilized these lands by depositing a layer of silt, washed away salts that built up in the soil, and helped remove snails that spread the parasitic disease schistosomiasis. As a result of the dam, this agricultural land now must be treated with costly chemical fertilizers. Salinization is slowly destroying the productivity of much of the land, and the incidence of schistosomiasis infections has risen steadily. Furthermore, the silt that was once spread across the land by floods now is building up in the waters of Lake Nasser behind the dam. The lake is slowly filling up with mud rather than water. Downriver, the Nile has so eroded its riverbed that smaller dams, bridges, and shorelines are being undermined. The increased erosion is due to the lack of sediment now in the Nile's waters. The lack of sediment also means that the Nile delta is eroding as well, allowing sea water to advance inland and destroy the productivity of other agricultural land. Since the river no longer deposits this nutrient-rich silt into the Mediterranean Sea, marine life around the Nile delta has been so depleted that Egypt's sardine, mackerel, shrimp, and lobster industries have been devastated. Finally, when a rare earthquake struck the Aswan area in 1981, some geologists suggested that the very weight of Lake Nasser itself was responsible.

1.1 INTRODUCTION

As we approach the twenty-first century, it is fair to say that human beings face environmental challenges unprecedented in the history of this planet. Largely through human activity, life on earth faces the greatest mass extinctions since the end of the dinosaur age 65 million

years ago. Some estimates suggest over a hundred species each day are becoming extinct and that this rate could double or triple within the next few decades.² The natural resources that sustain life on this planet—air, water, and soil—are being polluted or depleted at alarming rates. Human population growth is increasing exponentially. The 1990 world population of 5.5 billion people will increase by a billion people (nearly a 20 percent increase) within ten years. The prospects for continued degradation and depletion of natural resources multiply with this population growth. Toxic wastes that will plague future generations continue to accumulate around the world. The world's wilderness areas, its forests, wetlands, mountains, and grasslands are being developed, paved, drained, burned, and overgrazed out of existence. With the destruction of the ozone layer and the potential for a "greenhouse" effect, human activity threatens the very atmosphere and climate of the planet itself.

Although the pessimists among us might despair at this reality, many others look to science and technology for solutions. If only we could engineer more efficient solar panels, or harness the energy potential of geothermal, wind, or tidal power. If only we could develop alternatives to the internal combustion engine. If only we could master cold fusion. If only we could develop more productive and sustainable agricultural technologies. If only we could arrange economic incentives to discourage pollution.

For many people in our culture, and especially for many in policy-making positions, science and technology offer the only hope for solving environmental problems. Because environmental problems often involve highly technical matters, it is only reasonable to turn to experts in these technical areas for answers. Furthermore, since science offers objective and factual answers in an area where emotions run high and controversies abound, science seems an obvious candidate from which to seek help with environmental concerns.

Unfortunately, turning to science with the optimistic hope for a quick fix is not very different from the pessimistic attitude. Each involves individual citizens relinquishing the authority to make decisions about their world. Although it is tempting to turn to science and technology in the hope for a quick fix, environmental challenges are neither exclusively nor even primarily problems of science and technology. Environmental issues raise fundamental questions about what we as human beings value, about the kind of beings we are, about the kinds of lives we should live, about our place in nature, and about the kind of world in which we might flourish. In short, environmental problems raise fundamental questions of ethics and philosophy. Reliance on science or technology (or

even economics or the law) without also considering the ethical and philosophical issues can raise as many problems as it solves. Leaving environmental decisions to the “experts” in science and technology does not mean that these decisions will be objective and value-neutral; it only means that the values that do decide the issue will be the values these experts themselves hold.

This text provides an introduction to the many ways in which philosophical ethics can contribute to the creation of a sane and judicious environmental policy. Environmental issues raise fundamental questions about how we should live. Such questions are philosophical and ethical questions, and need to be addressed in a philosophically sophisticated way. Another assumption is that environmental policy ought to be decided in the political arena and not in scientific laboratories, corporate boardrooms, or government bureaucracies. A further goal of this text is to empower citizens to become full participants in these crucial public policy debates. Familiarity with the philosophical issues involved in these debates is a necessary first step in this direction.

1.2 SCIENCE WITHOUT ETHICS

As the cases that begin this chapter suggest, people take risks when they treat environmental problems merely as technical problems awaiting solution from some specialized discipline. In part this is because the dimensions of environmental issues are seldom limited to the specific boundaries of any one particular discipline. It is impossible to find an important environmental issue that does not cross boundaries between the sciences, economics, public policy, law, medicine, engineering, and so forth. Building the Aswan Dam and confronting the resulting problems, for example, has involved engineering, geology, agriculture, marine biology, medicine, chemistry, economics, politics, anthropology, and law. But it is equally impossible to find an environmental issue that does not raise basic questions of value. Approaching any serious environmental issue with the hope of discovering a technical “quick fix” guarantees only a narrow and parochial understanding of what is at stake. History testifies to the dangers inherent in this approach. Too often past technological or scientific “solutions” have resulted in as many new problems as they have solved.

But the danger in overreliance on science and technology extends beyond this simple point of technological complexity. Science is not as value-neutral as many assume. A very deep belief in our culture, so deep and unexamined that it takes on the dimensions of a cultural myth, views science as the ultimate authority on questions of