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Mark Sagoff

Excerpt

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Chapter 1

Introduction

A *New Yorker* cartoon depicts a pair of Puritans in stiff collars, doublets, and cloaks leaning over the rail of the *Arbella* as it made landfall in the New World. One says, “My immediate goal is to worship God and celebrate His Creation, but long-term, I plan to get into real estate.”

The cartoon presents two visions of the natural world. On the one hand, we may regard nature as sacred, as having a value in itself, a history, autonomy, and diversity that command our appreciation and respect. On the other hand, we can regard the natural world as a storehouse of economically fungible resources to be developed for human benefit. With these two visions of nature come two conceptions of salvation. The first is personal; if one learns to commune with Nature and to study its meanings and messages, one may become more secure and decent in one’s soul.¹ The second is collective. If humanity develops natural resources efficiently over the long term, it can maximize wealth and well-being. With the advance of science and technology, humanity may escape from scarcity, and where there is no want (as the philosopher David Hume argued) there is no injustice.² An efficient economy can bring Heaven to Earth.³

F. Scott Fitzgerald wrote, “The test of a first-rate intelligence is the ability to hold two opposed ideas in the mind at the same time, and still retain the ability to function.”⁴ This book argues that an intelligent society can hold these two opposed ideas of nature or salvation in mind, balancing them as well as it may, without reducing or collapsing either into the other.

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The *New Yorker* cartoon points to an opposition or inconsistency between two ways of regarding nature – one as a source of religious inspiration, the other as an object of economic exploitation. For more than a century, environmentalism has lived within this contradiction. Historians often set the preservationist tradition of John Muir, who compared forests to cathedrals, against the Progressive tradition of Gifford Pinchot, who saw forests as sources of wood and water needed by the economy over the long run. Muir called on biblical images. “God began the reservation system in Eden,” he wrote, “and this first reserve included only one tree. Yet even so moderate a reserve was attacked.”⁵ For Pinchot, in contrast, “The first great fact about conservation is that it stands for development.”⁶ He added, “Conservation demands the welfare of this generation first, and afterward the welfare of the generations to follow.”⁷

This book elaborates the distinction between these two conceptions of the value of the natural environment. The first regards the intrinsic properties of nature as sources of reverence and obligation.⁸ Society has a duty to preserve the wonders of nature for what they are in themselves, that is, for the properties through which they appeal to moral intuitions and aesthetic judgments. Biodiversity – the variety of living things – provides the standard illustration of the glories of nature that move us to feelings of curiosity and respect. As the philosopher Ronald Dworkin points out, many of us believe that we have an obligation to protect species that goes beyond our own well-being; we “think we should admire and protect them because they are important in themselves, and not just if or because we or others want or enjoy them.”⁹

No shortages of timber loom; huge tree plantations in the Southern Hemisphere as well as enormous boreal forests in Canada and Eastern Europe assure a more-than-adequate supply.¹⁰ As economist Amartya Sen has written, we may nevertheless wish to protect old-growth forests and creatures native to them for their own qualities, not for any benefit they offer us. There would be no contradiction if a person were to say: “Our living standards are largely – or completely – unaffected by the presence or absence of spotted owls, but I strongly believe that we should not let them become extinct, for reasons that have nothing much to do with human living standards.”¹¹

People tend to express their affection for nature in religious terms. In a survey, Americans by large majorities agreed with the statement, “Because God created the natural world, it is wrong to abuse it.” Many

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of the respondents who answered this way said that they did not profess a religious faith. The anthropologists who ran this survey found that “divine creation is the closest concept American culture provides to express the sacredness of nature.”¹²

The economic goals we pursue as a society (as should be no surprise) concern the performance of the economy. The performance of an economy is usually assessed by criteria such as employment (absence of involuntary unemployment), price stability (low inflation), competitiveness, the production of more, better, and less expensive goods as technology advances, and a more equitable distribution of income.¹³ When I was a child, I remember seeing in trolley cars in Boston an advertisement in which a secretarial school promised “gd jbs w hi pa” to those who enrolled in its speedwriting classes. I have since then associated the performance of the economy with the idea of “gd jbs w hi pa.” In Chapter 4, I shall refer to a large literature in social psychology that demonstrates that people are happier in places where there is less or no involuntary unemployment, where prices are stable, and where the overall economy performs well.

The following sections of this introductory chapter will explore how society has kept in mind two contrasting conceptions of the value of nature – one intrinsic, the other instrumental. Of course, these two ways of “valuing” the natural world may conflict. They conflict in theory or in logic. It is one thing to be committed to protect an object of nature “for its own sake”; it is another thing to judge its worth in terms of its economic consequences. These two ways of “valuing” nature sometimes – but not always – conflict in practice. Whether they conflict depends on the economic importance of what is at stake. Draconian reductions of greenhouse gas emissions may be needed to protect the natural environment but they could slow the economy. On the other hand, President G. W. Bush protected 140,000 square miles of oceanic habitat northwest of Hawaii, by far the largest marine protected area in the world. The effects on the economy, if any, were inconsequential.

This book will argue that as a matter of practice or policy, society should strive to balance these two ways of construing the value of nature, and I shall provide examples and suggestions. In many circumstances, as I shall argue, we can enjoy “gd jbs w hi pa” and still respect the sacredness of nature.¹⁴ On the other hand, we can engage each other in fruitless and futile debate about which way to care about Creation is “correct.” These ways to “value” the natural world will stymie and bollix each other if we try to place them within the same normative and

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conceptual framework – in other words, if we lack the intelligence “to hold two opposed ideas in the mind at the same time, and still retain the ability to function.”

ENVIRONMENTAL PROTECTION AND ECONOMIC GROWTH

Economists question the once-conventional wisdom “that environmental regulations impose significant costs, slow productivity growth, and thereby hinder the ability of U.S. firms to compete in international markets.”¹⁵ Many economists have observed that the economy has grown nicely during periods, particularly starting with Earth Day 1970, when efforts to protect the natural environment have been greatest. The idea that policies protecting the environment hinder economic growth – that they reduce the number of “gd jbs w hi pa” – came under attack particularly in the 1990s, when prominent economists saw environmental regulations as “not only benign in their impacts on international competitiveness, but actually as a net positive force driving private firms and the economy as a whole to become more competitive in international markets.”¹⁶ Michael Porter and Claas van der Linde wrote, “By stimulating innovation, strict environmental regulations can actually enhance competitiveness. . . . Efforts to reduce pollution and [efforts to] maximize profits share the same basic principles, including the efficient use of inputs, substitution of less expensive materials and the minimization of unneeded activities.”¹⁷

I cannot review here the vast literature that considers the extent to which the preservation of natural areas (such as old-growth forests) and the reduction of pollution help or hamper economic growth, and vice versa.¹⁸ It is fair, however, to draw four general conclusions from this literature. First, the stringency of environmental regulation, particularly with respect to pollution, often has little effect on competitiveness as long as the regulated industries are given “the ability to use new, innovative, and low-cost ways to meet discharge standards.”¹⁹ Second, the effects of environmental regulation on the economy are generally so small – while some jobs are lost, others are created – that they seem to be too inconsiderable either way to matter in terms of standard measures of economic growth. As Robert Repetto has written, “Economists who have reviewed research on the subject . . . find scant evidence that environmental regulation has had adverse effects by any of these measures.”²⁰ Third, wealthier countries can afford – and thus generally possess – cleaner environments than impoverished ones. A huge

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literature surrounds the idea of an “environmental Kuznets Curve,” which supposes that environmental concern and therefore environmental quality increase after a point as a society becomes more affluent.²¹

Fourth, air and water quality have improved remarkably during the past three decades even as the economy has grown. Rivers no longer stink or catch fire; one can drink the water in most parts of the Great Lakes. Gross domestic product (GDP) increased in the United States by 187 percent between 1970 and 2004; vehicle miles traveled increased by 171 percent; energy consumption went up by 47 percent; and population grew by 40 percent. During the same period, according to an Environmental Protection Agency (EPA) report, “total emissions of the six principal air pollutants dropped by 54 percent.” These emissions include nitrogen and sulfur dioxide, ozone, particulates, carbon monoxide, and lead. Between 1990 and 1999, emissions of eighty-nine other toxic substances declined on average by 30 percent.²² On these measures, air pollution has fallen to the lowest level ever recorded in the United States.²³ Environmentalists came into power with the Clinton administration; coincidentally technological advances fueled the economy. Productivity increased and pollution per dollar of GDP fell by every measure.

I hardly mean to suggest that environmental protection coincides with economic growth; these goals may often conflict. John Muir and Gifford Pinchot battled over a plan to dam the magnificent Hetch Hetchy Valley in California to provide water for San Francisco – essential for its economic growth. Eventually society “halved the difference” by damming Hetch Hetchy but preserving the Yosemite Valley. Today the same kind of political battle rages over a desolate tract of tundra in the Arctic National Wildlife Refuge (ANWR). According to my colleague Robert Nelson, what makes the “1002 area” at ANWR valuable to environmentalists is not the few herds of caribou that frequent it – many ecologically superior places could be identified and preserved instead – but the sacrifice that is required to protect it. Ancient tribes sacrificed their best goats and sheep to their gods. In Medieval times, societies made enormous sacrifices to build cathedrals, such as Notre Dame in Paris. To protect ANWR at the cost of hundreds of billions of gallons of oil “would show the willingness of society to commit vast resources in order to construct a multi-billion dollar cathedral, a religious edifice requiring such a large sacrifice that it would stand as one of the greatest (certainly most expensive) testimonies ever made to the glory of the faith.”²⁴

The environmental faithful believe that ANWR should be protected against exploitation as a way to cleanse our souls from earthly pursuits.

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The economic faithful favor drilling because economic growth is the way to bring Heaven to Earth. A path to “halve the difference” might be to drill the oil surgically and use much of the money to invest in energy efficiency or to preserve ecologically more significant and sensitive areas elsewhere – such as rainforests. Such a compromise would indicate we are intelligent enough to function while keeping two opposed ideas in mind.

POLLUTION – TRANSGRESSION OR TRANSACTION?

The regulation of pollution draws simultaneously on two opposed philosophical beliefs. Many environmentalists among others believe that pollution represents a form of coercion – an assault upon persons and a trespass upon property. As philosopher Tibor Machan points out, the morally appropriate approach to controlling pollution “requires that pollution be punished as a legal offense that violates individual rights.”²⁵

For centuries, common law courts have followed this principle by protecting individuals as a matter of right from injuries of the sorts associated with pollution. As an English court found in 1705, if the wastes from a person’s privy percolate through his wall and into his neighbor’s cellar, for example, common law will require the polluter to cease and repair the nuisance, because he is “bound of common right to keep his wall so as his filth might not damnify his neighbor.”²⁶ Similarly, one might suppose that factories are likewise bound by common right to maintain their walls, scrubbers, filters, liners, drums, or stacks so that their emissions and effluents do not damnify their neighbors. Their neighbors can sue not just for compensating damage awards but also for injunctive relief. The plaintiff should be able to compel the defendant to cease the nuisance, not simply to pay whatever costs or damages a court may assess.²⁷

On the other hand, many environmental economists regard pollution not as an invasion or trespass but as a diseconomy, that is, a social or external cost of production which may be offset by benefits. As Larry Ruff, then an economist at EPA, argued, pollution is “an economic problem, which must be understood in economic terms.”²⁸ From this economic perspective, pollution is to be managed as a misallocation of resources – a failure of the market to allocate them to those who are willing to pay the most for them and thus (tautologically) a failure to maximize welfare. There is “a very simple way,” Ruff explained, to

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bring private costs in line with social costs. “Put a price on pollution.”²⁹ A Pollution Control Board (PCB) should place a tax on emissions. “Under such a system, anyone could emit any amount of pollution so long as he pays the price the PCB sets to approximate the marginal social cost of pollution.”³⁰

Law professors often use the case of *Boomer vs. Atlantic Cement Company* (1970) to illustrate the conflict that arises between the belief that pollution represents (1) an invasion of person and property that should be enjoined as a matter of common right or (2) a social or external cost of production acceptable if it creates compensating benefits.³¹ The named plaintiff, a small-scale farmer, enjoyed the tranquillity of his rural estate near Albany, New York. When an immense cement plant located nearby, he and some neighbors sued to enjoin it “from emitting dust and raw materials” that reached their land.³² To the extent that the cement plant, by covering the surrounding farms with fumes and dust, made them uninhabitable, this case is structurally similar to the one involving the percolating privy in England. In England, the court required the polluter to stop the nuisance. In New York, the court called for damages instead. Why should comity between neighbors be treated any differently in America than in England?

The New York Court of Appeals noted “the large disparity in economic consequences of the nuisance and of the injunction.” The nuisance consisted in the inability of a few small landowners to enjoy the peace and tranquillity of their rural estates. An injunction would require the closure of Atlantic Cement Company, which represented a \$450 million investment, employed 300 people, and was the most important contributor to the tax base of the county, supporting its schools, social services, and so on. The judge found, moreover, that no technological fix would relieve the conflict between the property rights of the plaintiffs and the economic needs of the community. He wrote that “techniques to eliminate dust and other annoying by-products of cement making are unlikely to be developed by any research the defendant can undertake.” The case confronted two squarely opposed social principles or goals: first, the enforcement of property rights against invasion and, second, the economic well-being of the community.

These two ideas are logically opposed; one cannot claim fully to honor one in principle except by breaching the other. If the courts always granted injunctive relief against pollution, then few industries could operate. Nearly every industrial activity produces some emission or effluent; therefore society could not prohibit all pollution without

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bringing the economy to a screeching halt. On the other hand, if an industrial polluter had only to pay damages in nuisance cases, it could take possession of any property it wanted simply by making it uninhabitable and compensating the property owner at whatever pittance a court-appointed appraiser says it is worth. As a dissenting judge complained, "It is the same as saying to the cement company, you may continue to do harm to your neighbors so long as you pay a fee for it."³³

To give injunctive relief in nuisance cases may be to forfeit wealth for the sake of principle. To deny injunctive relief, however, is to give private entities the power of eminent domain. The trick is to keep both goals (protecting rights and promoting prosperity) in mind without collapsing them or reducing one to the other. Society can function – it can be intelligent – if it is able to act case by case in ways that acknowledge the separate legitimacy of each of these opposing ideas.

THE ROLE OF PUBLIC LAW IN CONTROLLING POLLUTION

On Earth Day in 1970, environmentalism emerged in part as a populist movement which enlisted lower-middle-class mothers concerned for the health of their children.³⁴ Stories about hazardous wastes buried in urban neighborhoods, rivers that caught fire, a blowout of an oil well off the coast of Santa Barbara, accidents in chemical production facilities, and other incidents excited populist resentments that erupted in understandable moral outrage. Rachel Carson's *Silent Spring* (1962), among many other studies, described the destruction of wildlife by pesticides and demonstrated how negligent the nation had become in protecting its natural and ecological heritage. Americans agonized over cities filling with smog, species becoming extinct, wildlife disappearing, oil spills, fish kills, detergents foaming in rivers and lakes, beach closings, and any number of horrors which led them to regard pollution as a menace gone out of control.

When the astronauts returned from the moon with pictures showing North America covered with clouds of pollution, Americans felt ashamed as well as afraid. The political response to the poisoning of neighborhoods, the destruction of wildlife, and the fouling of the water and air did not depend on a calculation of how these moral failures affected the economy. Rather, Congress acted to reduce environmental pollution and degradation in the same spirit it acted to end child labor; establish civil rights; improve unconscionable conditions in sweatshops, company towns, and mines; set a maximum workday and a minimum

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wage; relieve the suffering of the very poor; provide some form of public health care; combat discrimination; and establish other programs to vindicate the nation's claim to being a caring, compassionate, law-abiding community.

Boomer vs. Atlantic Cement Company played in the New York courts from 1967 to 1970, at the time Congress was considering major amendments to the Clean Air Act. Those who testified at congressional hearings looked over their shoulders at the *Boomer* courts and noted the role of pollution control technology in defining property rights. One witness said:

The [*Boomer Appeals*] Court discussed the state of the art and said they could not foresee any improvement in the future. I think this is a step in the wrong direction. I think the courts and the legislators have to provide inducements to industry to see that there will be improvements in the state of technology and such inducements have to be written into the law.³⁵

Between 1969 and 1978, Congress enacted eight major pollution control statutes as part of a wave of environmental legislation that responded to the moral aspirations of American society. These aspirations centered on four normative issues. The first responds to popular sympathy for or empathy with the victim of pollution: the worker, neighbor, homemaker, or child who is injured or dies as a result of exposure to a toxic substance in the workplace or in the environment. The second concerns the protection of rights. Traditional forms of private law – that is, remedies for tort including nuisance – remain the first-line defense against pollution. Since it is often hard to match plaintiffs with defendants in cases of mass torts, public law has to supplement private law. A statute regulating pollution can be understood as a socially efficient way to control the kind of assault or trespass that traditionally finds its remedy in common law.

Third, Americans are concerned about pollution for cultural and patriotic reasons quite apart from the dangers that, from a scientific point of view, pollutants may pose to individuals. Americans are committed to the idea that America is and ought to remain beautiful. Smog-filled air, polluted rivers, dead lakes, and fouled land offend our cultural values and sense of national dignity and pride. Fourth, while markets may help consumers to form and to satisfy personal preferences, democratic political institutions allow citizens to deliberate together to choose common goals and aspirations that they could not achieve or even conceive alone.

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Society regards and should regard pollution in the typical case as a social evil to be minimized, not as a social cost to be optimized. Like any trespass, pollution has to be understood primarily as a moral failure, not as a market failure. Pollution is to be treated as an ethical problem and not primarily as an economic one. At the same time, if society were oblivious to the economic costs of pollution control, it could cause industry to cease; jobs would become scarce and inflation rampant.

In 1970, Congress amended the Clean Air Act to set standards for air pollutants to assure an “adequate margin of safety” to protect the public health. With respect to “hazardous” pollutants, Congress required an “ample” margin of safety. The moral basis of pollution control law is so obvious, as Maureen Cropper and Wallace Oates observe, that “the cornerstones of federal environmental policy in the United States,” such as the Clean Air and Clean Water Acts, “explicitly prohibited the weighing of benefits against costs in the setting of environmental standards.”³⁶

Even if statutory law explicitly prohibits the weighing of benefits against costs, it cannot become cost-oblivious because at some point society must recognize the law of diminishing returns. Policies undertaken to eliminate small risks, moreover, often create greater risks of other kinds. Commentators on all sides asked “how safe is safe enough?” This question implicitly inquires how we can function as a society while keeping in mind two goals – the right of individuals to be free of coercion and the need of the community to secure the advantages of overall economic growth.

HOW SAFE IS SAFE ENOUGH?

If pollution-control law were to pursue only moral and not economic objectives – if it intended purely to prohibit trespass and to protect public safety and health – agency actions could become “cost-oblivious.”³⁷ If regulations are oblivious to costs, they may slow or impair the growth of the economy on which social well-being or the standard of living primarily depends. Everyone will suffer on balance as a result. Accordingly, it is important to identify “resting points” or “stopping points” – levels of pollution that are acceptable given the costs of further reductions and the burden of those costs on the overall economy.

How has environmental regulation managed to keep two opposed ideas in mind at the same time, that is, both to reduce coercion and at the same time to accommodate growth? Environmental policy at its best (which may not be typical) has recognized that even if pollution is