

Can Environmentalists Keep Two Ideas in Mind and Still Function?

Mark Sagoff

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 commands 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. The second is collective. If humanity uses natural resources wisely over the long term, it can

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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. An efficient economy can bring Heaven to earth.

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." I argue in this essay that an intelligent society can hold these two opposed ideas of nature or salvation in mind, balancing them as well as it may, without trying to make them commensurable or reducing or collapsing either into the other.

Environmental Goals: Ethical or Economic?

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 often 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." For Pinchot, in contrast, "The first great fact about conservation is that it stands for development." He added, "Conservation demands the welfare of this generation first, and afterward the welfare of the generations to follow."

Environmentalists generally regard intrinsic properties of nature as sources of reverence and obligation. 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." Economist Amartya Sen has written, "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."

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 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.”

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. 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 speed-writing classes. I have since then associated the performance of the economy with the idea of “gd jbs w hi pa.” Research in social psychology consistently finds that people are happier in places where there is less or no involuntary employment, where prices are stable, and where the overall economy performs well.

In many circumstances, we can enjoy “gd jbs w hi pa” and respect the sacredness of nature. 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. In some instances, however, we must try to halve the difference or give up one goal for another. 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.

It is futile to debate which path leads more surely to salvation—protecting nature for its intrinsic qualities or developing nature for its economic utilities. These ways to appreciate and dedicate the natural world will stymie and bollix each other, however, if we try to place them within the same normative and conceptual framework—in other words, if we lack the intelligence to hold these two opposed ideas in 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 US firms to compete in international markets.” 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.”

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. 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 improved competitiveness as long as the regulated industries are given “the ability to use new, innovative, and low-cost ways to meet discharge standards.” Second, the effects of environmental regulation on the economy are generally gradual and small; for example, while some jobs are lost, others are created. As Robert Repetto has written, “Economists who have reviewed research on the subject . . . find scant evidence that environmental regulation has had adverse effects” on overall economic performance. Third, wealthier countries can afford—and thus possess—cleaner environments than impoverished ones. A huge literature surrounds the idea of an “environmental Kuznets Curve,” which supposes that environmental concern and therefore quality increase after a point as a society becomes more affluent.

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 US 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. Air pollution as usually measured has fallen to the lowest level ever recorded in the US.

Environmental policy has succeeded by pushing technology in ways that will allow for economic growth while improving or maintaining environmental quality. This does not require, however, that we formulate a theory that tells us how to put these goals on the same metric—a theory that makes them “com-

measurable." One can invest in all kinds of efforts to "price" intrinsic qualities of nature as if they were economic "benefits." Alternatively one can try to measure economic preferences as if they were somehow intrinsic values. To attempt to find some overarching theory—to suppose we could develop a scientific methodology to bring instrumental and intrinsic values together under one conceptual roof—is to lack the intelligence needed to keep two opposing ideas in mind at the same time while retaining the ability to function.

Pollution—Transgression or Transaction?

Two opposed philosophical beliefs—unless we are able to keep both in mind at the same time—bedevil the regulation of pollution. Many environmentalists believe that pollution represents 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."

For centuries, common law courts have followed this principle by protecting individuals as a matter of right

market to allocate them efficiently. If "efficiency" in this sense or context has something to do with economic prosperity or performance (which is by no means clear) then it relates to a goal everyone understands. In this way, the rights of persons against coercion can conflict with the need to grow the economy.

These two ideas are logically opposed; there are instances in which one cannot claim fully to honor one in principle except by breaching the other. If the courts always granted injunctive relief against pollution, few industries could operate. On the other hand, if a 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. The courts would say to any polluter "you may continue to do harm to your neighbors so long as you pay a fee for it." This is effectively to give the polluter the right 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.

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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." 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.

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." From this perspective, pollution represents a misallocation of resources—a failure of the

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." 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 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 an evil to be minimized—rather than a cost to be optimized—it is to some extent a necessary evil, since economic production requires some emissions and effluents. Accordingly, society has developed a number of ethical tests and standards that it applies to set allowable levels of pollution, to determine at least for a time how safe is safe enough, clean is clean enough, and so on. These resting points rely on ethical principles and moral intuitions that help society strike a balance between contradictory

ideas, in this case, a principled abhorrence of pollution as coercion and equally principled belief that economic growth—"gd jbs w hi pa"—is essential to social progress and welfare.

One well-known principle is the idea of *de minimis* risk. The law does not have to regulate risks that are so small they are hardly detectable. Governmental agencies such as EPA generally regard as *de minimis* a "1 in a million" increased risk of a bad outcome to a person exposed to a hazard over a seventy-year lifetime in a large population. We all take greater risks all the time without thinking about them. In this context, one may quote Lord Rothschild: "There is no point in getting into a panic about the risks of life until you have compared the risks which worry you with those that don't, but perhaps should."

Another concept useful to strike a balance between pollution control and economic growth has to do with "benchmark" and "best method" standards for various industries. If the idea is to maximize through regulation the number of lives saved (or deaths or injuries avoided), moreover, then economists advise that we will do best if we equalize the marginal cost per life saved or injury avoided across programs. We need a benchmark amount—say \$6 million—to test different regulations to see if they require society to spend more or less than that amount for each statistical life saved or death avoided. If there are significant cost differences, these have to be defended by some moral argument or reason, which often can be done, since some risks are more odious than others to society. A benchmark figure, a sort of average number, is needed, however, to assess regulations to make sure cost differences can be justified and explained.

After the Union Carbide chemical disaster in Bhopal, India, killed thousands of people, Congress enacted a statute that required firms to collect and disclose to the public data on the releases and transfers of various toxic chemicals from industrial facilities. In the Toxic Release Inventory, EPA provides an enormous database that allows members of the public to discover who is releasing what into the environment—and on that basis help to control, perhaps by shaming, industrial polluters. Lawyers may use this database to seek clients with diseases or injuries possibly attributable to an industrial polluter. This sort of liability remains the first-line defense against industrial hazards. Awards in nuisance and injury cases respond to expectations about what kinds of technology industry is morally as well as legally obliged to adopt to reduce effluents and emissions. The nature and extent of property rights are defined in legal decisions in tort—decisions determining who is liable for what and who must cease a nuisance entirely.

In many industries, initial gains to the environment are inexpensive; eventually the cost of controlling the

"next" or "incremental" unit of pollution increases. At some given state of technology, one can often find an inflection point or "knee of the curve"—a point at which the cost of controlling the next or marginal unit of pollution increases very rapidly, and returns to the environment rapidly diminish per dollar spent. One morally acceptable way to allow some pollution (for example, through "cap-and-trade" markets for pollution allowances) is to encourage or prod industry to improve its processes and technologies to move the knee of the curve—the point at which costs may go asymptotic—ever farther out along the pollution-control axis. By encouraging industries to invent environment-friendly technology we can assure environmental progress while allowing the minimum amount of pollution necessary for economic growth.

The 800-Pound Gorilla

For over thirty years, Americans engaged in making environmental policy primarily—though not exclusively—through what might be called the pattern of "legislate and litigate." Having the advantage of an outpouring of aspirational environmental statutes enacted in the 1970s, environmental organizations sued governmental agencies to force them to apply these laws. Environmental organizations staffed up with economists, scientists, lawyers, and policy analysts to represent before Congress, agencies, and the courts whatever interests those groups defined as "environmental" and therefore as their own. After playing on the political stage for thirty years, however, the zero-sum, winner-take-all, ideologically driven "legislate and litigate" strategy has run out of steam, albeit having accomplished many popular and principled gains.

In 2005, Michael Shellenberger and Ted Nordhaus, two highly respected consultants to environmental organizations, published an influential and compelling essay titled, "The Death of Environmentalism: Global Warming Politics in a Post-Environmental World." The essay observes that a meaningful and intense national and international conversation has arisen concerning the problem of energy use and global climate change. The debate over what to do about energy—how to get away from our reliance on oil and other carbon-based fuels and still run an economy—seeks a way to do two things at the same time, namely, to protect atmospheric systems and still allow economies to expand.

Shellenberger and Nordhaus identify the reasons that the environmental community has failed significantly to enter, direct, or influence this conversation—the reasons "that modern environmentalism is no longer capable of dealing with the world's most serious ecological crisis." According to these authors, environmentalists have engaged in a branding exercise to

capture the problem in terms of its own narrow expertise. These commentators argue that the environmental leadership defeats itself by seeking foundation and government support to develop scientific methods to “value” environmental goods and to craft techniques, such as cap-and-trade strategies, mileage standards, and carbon sequestration, and sell them “to legislators through a variety of tactics, such as lobbying, third-party allies, research reports, advertising, and public relations.” Thus, “environmental leaders are like generals fighting the last war—in particular the war they fought and won for basic environmental protections more than 30 years ago.”

Shellenberger and Nordhaus argue that the environmental movement makes itself irrelevant by seizing on climate change as a narrow environmental problem—branding it as its own professional bailiwick—instead of joining with many other constituencies who understand that it is also or that it is primarily a geopolitical problem, a trade problem, a problem of industrial and transportation policy, and a military problem insofar as nuclear energy can lead to nuclear weapons and oil fields become battlegrounds. “The carbon threat from China and other developing countries drives home the point that a whole series of major policies not traditionally defined as ‘environmental,’ from industrial policy to trade policy, will be needed to deal with global warming.”

The problem of global climate change cannot be approached as one of measuring and balancing values, that is, as a traditional problem of cost-benefit analysis. Unfortunately, conservation biologists and ecological and environmental economists nevertheless often try to develop methodologies to measure “willingness to pay” for this or that environmental good; as a result, the necessary conversation about global climate change eludes them and passes them by. Consequently, the interesting long-term research has moved away from academic departments of environmental studies, economics, and conservation biology and toward recently-created centers for the study of energy policy and climate change. These centers are populated not by ecologists or by environmental or ecological economists. They are mostly staffed by physicists and engineers.

In a recent article, *New York Times* columnist Thomas L. Friedman argues that the only way to bring energy efficiency and clean energy production down to prices that China and other developing countries can afford “is by mobilizing free-market capitalism.” As a result, environmentalists must cease to identify the enemy as economic growth and the capitalism that underlies it. According to Friedman, “To a degree, the market is already at work on this project—because some venture capitalists and companies understand that cleantech is going to be the next great global industry.”

Rather than to think in terms of “cutting back,” Friedman argues, we must envision “a new cornucopia of abundance for the next generation by inventing a whole new industry.”

The conceptual framework of environmentalism, which draws largely from the vocabulary of economics and ecology, has produced many successes over the last thirty years. It is now exhausted. The vocabulary of “valuation”—which now brings ecologists and economists together to speculate about the “benefits” of environmental protection—has become particularly suffocating. Lost in surveys of “willingness to pay” and in conjectures about the economic value of nature’s services are the two overall goals that should now guide environmental policy—to protect the natural world, in this instance, atmospheric systems, and to assure the strength of the economy.

Environmentalists must join others in trying to build a society that still functions while it keeps two ideas in mind—the idea of protecting the natural world and the idea of expanding the economy to produce “good jobs with no pain.” Environmentalists must relinquish a conceptual framework that seeks to measure every value as a “cost” or “benefit” or a framework that sees affluence and technology as the problem and not also as the solution. Those who came on the *Arbella* and on later conveyances to America had both a religious and an economic mission; the problem has always been to respect both kinds of commitments and not to confuse or to conflate them. Our moral or spiritual obligation today as environmentalists is to protect the basic functioning of the natural world. The economic mission is to organize market forces to this end.

Mark Sagoff
Interim Director
Institute for Philosophy and Public Policy
School of Public Policy
University of Maryland
msagoff@umd.edu

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