THE ENVIRONMENTAL ETHICS AND POLICY BOOK

Philosophy, Ecology, Economics

SECOND EDITION

Donald VanDeVeer □ Christine Pierce
North Carolina State University

1998

Wadsworth Publishing Company
I(T)P® An International Thomson Publishing Company

Belmont, CA • Albany, NY • Bonn • Boston • Cincinnati • Detroit • Johannesburg • London • Madrid
Melbourne • Mexico City • New York • Paris • Singapore • Tokyo • Toronto • Washington

29. My account is based on C. Rogers, *On Becoming a Person* (1961); C. Rogers, *Client Centered Therapy* (1965); and Rogers, "A Theory of Therapy, Personality, and Interpersonal Relationships, as Developed in the Client Centered Framework" 3 *Psychology: A Study of a Science* 184 (S. Koch ed., 1959). For a similar account used as a critique of the lawyer–client relation, see Simon, "Homo Psychologious: Notes on a New Legal Formalism" 32 *Stan. L. Rev.* 487 (1980).
30. Rogers, note 29 *supra* at 210.
31. C. Rogers, *Client Centered Therapy* 150 (1965).
32. Rogers, note 29 *supra* at 208.
33. Rogers, note 31 *supra* at 139.
34. *Id.* at 150.
35. *Id.*
36. Rogers, note 29 *supra* at 208.
37. *Id.* at 523–24.
38. Buchanan, "Positive Economics, Welfare Economics, and Political Economy" 2 *J. L. and Econ.* 124, 127 (1959).
39. K. Arrow, *Social Choice and Individual Values* i–v (2d ed., 1963).
40. H. Macaulay and B. Yandle, *Environmental Use and the Market* 120–21 (1978).
41. Cicchetti, Freeman, Haveman, and Knetsch, "On the Economics of Mass Demonstrations: A Case Study of the November 1969 March on Washington," 61 *Am. Econ. Rev.* 719 (1971).
42. I. Kant, *Foundations of the Metaphysics of Morals* (R. Wolff, ed., L. Beck trans., 1969). I follow the interpretation of Kantian ethics of W. Sellars, *Science and Metaphysics*, chap. VII (1968) and Sellars, "*On Reasoning about Values*"17 *Am. Phil. Q.* 81 (1980).
43. See A. Macintyre, *After Virtue* 22 (1981).
44. F. Kafka, *The Trial* (rev. ed. trans. 1957). Simon (note 29 *supra*) at 524 applies this analogy to the lawyer–client relationship.
45. Simon, note 29 *supra* at 495.
46. *Id.*
47. Macintyre, note 43 *supra* at 22.
48. P. Reiff, *The Triumph of the Therapeutic: Uses of Faith after Freud* 52 (1966).
49. That public law regimes inevitably lead to tyranny seems to be the conclusion of H. Arendt, *The Human Condition* (1958); K. Popper, *The Open Society and Its Enemies* (1966); L. Strauss, *Natural Right and History* (1953). For an important criticism of this conclusion in these authors, see Holmes, "Aristippus in and out of Athens" 73 *Am. Pol. Sci. Rev.* 113 (1979).
50. H. Adams, note 1 *supra* at 476.

V.B COST–BENEFIT ANALYSIS

37. PREVIEW

> [W]e should be on our guard not to overestimate science and scientific methods when it is a question of human problems; and we should not assume that experts are the only ones who have a right to express themselves on questions affecting the organization of society.
>
> •*Albert Einstein*

As noted earlier, it is widely agreed that markets as they exist are thought to fail in various respects. Unowned, or "commonly held," resources are overused or "exploited" (this issue is explored in detail in the next section). Some goods, such as fossil fuels, clean air, or water, are thought to be used up too quickly or in the wrong manner. Burdens are imposed on parties who do not consent to them (hence, "negative externalities"). It is often held that government intervention in certain cases is appropriate—for example, prohibiting certain activities by regulation (and perhaps criminal penalties) or placing charges on certain activities (such as through licensing or effluent charges). In some cases a government agency decides whether to undertake a project such as building a dam. If the aggregate costs were to exceed the aggregate benefit, it would be foolish to proceed. It is reasonable to claim that (1) if a policy is adopted, then the costs must not exceed the benefits. We should distinguish this claim and the following two claims from one another: (2) if a policy, P, ought to be carried out for whatever are the relevant reasons, P should be carried out in the way that maximizes benefits-minus-costs, and (3) if a policy, P, maximizes benefits minus costs, then P ought to be carried out (call this the *maximization principle*). The major controversy surrounds (3). Specifically, those who argue for the adoption of a particular policy (such as flooding a valley and building a dam) may do so as follows:

1. We (or a governmental agency) ought to do whatever maximizes benefits-minus-costs.
2. Policy P maximizes benefits-minus-costs. Hence,
3. We ought to carry out P.

Two basic questions are (1) why should we do whatever maximizes benefits-minus-costs, and (2) is it ever possible to know or reasonably believe of some (or any) policy that it maximizes benefits-minus-costs.

In late 1996 the U.S. government, is deciding (Russia has a similar problem) what to do with 52 metric tons of plutonium in the next decades; it will be highly radioactive for *thousands* of years. What is the cost of our having produced it? Can we ascertain that even now? Was it ever calculated? Do we know how in principle? Further, in a given case is it reasonable to believe that a particular policy maximizes benefits-minus-costs? The essays that follow explore these matters (for example, the proper way to think about, and deal with, pollution) and in some cases how they bear on a particular dispute.

Here we begin to lay out the Pandora's box of puzzles that arise when one sets out to identify and reassess what is presupposed by the sort of normative cost–benefit approach identified earlier—whose core is (3) that the policy that maximizes benefits-minus-costs is right and, therefore, ought to be adopted. What seems at first only a simple truism like "don't be wasteful" is not so at all; rather, the presuppositions are many, hard to unearth, entrenched, and extremely influential.

The concepts of cost and benefit are not as straightforward as is often implied. What is to count as a cost? A number of possibilities come to mind: premature death, injury, pain, (felt) frustration of preferences, or nonfulfillment of preferences—or *risk* of these occurring. Such suggestions may focus only on costs to humans. There are reasons to reject such anthropocentrism. Should we not include what economists (and many others) almost invariably exclude, such as pain or premature death to animals, or destruction of a river or forest if there is no nontrivial loss to humans? Analogously, what is to count as a benefit? Is pure life prolongation of humans a benefit (eternal life *as such* might be boring!)? Are all instances of human preference satisfaction to be weighed positively in a cost–benefit calculation? There is a tendency to equate "benefit," "good," "welfare," "satisfaction," "utility," and "preference fulfillment," but should we regard the fulfillment of "antisocial preferences" (such as sadistic, envious, jealous ones) as a benefit? As noted earlier, should not preferences be "laundered"?

Orthodox economists, perhaps in an excess of antipaternalism, antimoralism, or uncritical acceptance of moral subjectivism (an instance of egalitarianism run amok), tend not to pass judgment on existing preferences—acting as if all preferences had an equal right to be fulfilled (but consider a hunter's intense preference to maximize his or her kill of baby seals or whales, a Serbian soldier's desire to rape Bosnian women, or a resentful heterosexual Marine's desire to bash gay soldiers). If one says that some preferences do not *deserve* satisfaction (or that their fulfillment has no positive moral weight), then evaluation enters at a fundamental level, and it is inappropriate to proclaim value neutrality for any such economic theory (even if it does not insist on cardinal measures of utility). However, any theory advocating unqualified want fulfillment seems morally problematic for the reasons discussed.

Similarly, in many cases little is said about the *relation between beliefs and preferences* (as if preferences were like itches unconnected with cognition). However, it is clear that one's preferences are heavily dependent (sometimes causally and sometimes conceptually) on one's beliefs. Compare preferences for and against slavery, polygamy, the use of DDT, the killing of whales, or Oedipus's preference for Jocasta when he believed, and when he did not believe, Jocasta to be his mother. If preferences (such as for destroying all Jews, keeping women barefoot and pregnant, "nuking" the latest enemy) are based on irrational beliefs (Jews are vermin; women rightly are property of males—God's designated "helpmates" for men; retaliation by the enemy would be minor), it is not at all clear why satisfaction of such preferences is a benefit to be weighed positively in some cost–benefit calculations. Thus, aside from the fact that only effects on humans are given weight in the calculations, it seems doubtful that all instances of preference fulfillment should be conceptualized as benefits. If so, why maximize them? Further, it is not obvious that all harms to humans ("costs") can be viewed as frustration of wants. When urban children suffer brain damage (and consequent retardation) from exposure to lead (from our use of leaded gasoline), what preference of the child is frustrated? Suppose the child is only a year old. If acid rain destroys many of our forests, is there no cost if and when people do not care, and we come to prefer plastic trees (as a result of indoctrination or not missing what we never experienced)?

A different, competing analysis of welfare–illfare, benefit–cost, gain–loss is presented in terms of promoting or subverting the *interests* of a person or other organism—in terms of what is *in the interest* of, or subversive of, a being. When one takes into account children, the comatose, or the severely retarded—as philosophers and social theorists sometimes forget to do, it is especially clear that *what people want* and *what is in their interest* only overlap. Those who identify benefit with want satisfaction need to give reasons for rejecting a competing analysis of benefit. The person on the street probably believes that cost–benefit techniques are aimed at promoting welfare, but arguably want satisfaction and the promotion of welfare are not the same thing.

Even if it were unproblematic that benefit equals want satisfaction, it is questionable whether all benefits (so understood) can be identified and measured. There is no established market in some goods. Thus, economists infer by indirect means how much people ("consumers") "value" a good or a service ('value' in economics often means 'prefer' in English). There are two main approaches to determining value: (1) determine which packages of goods people are willing and able to pay for if there is a market for them, and (2) ask people direct or indirect questions. Consider (1) first. What people are *willing* to pay is, in part, a function of how much they are *able* to pay. If willingness to pay for safety devices in a car is the criterion, then one may believe that the rich value their lives more than the poor value theirs. Should we believe as much? Suppose Jones is out of work and starving on Monday and then takes a highly risky job on Tuesday (washing windows on the fifth floor). He may "demand" only a modest premium to compensate for the extra risk to his life (suppose he could have had the first-floor job for a slightly smaller salary). Should we infer that the value of Jones's life is small—or that he does not value it much? According to another approach, the value (or "economic value"?) of a person's life is equivalent to his or her forgone earnings. Perhaps this is a suitable criterion for determining how much compensation should be made to a person's estate when that person is wrongfully killed. As a measure of the value of that person's life or the amount of money that should be spent to prevent premature death, a monetary measure seems dubious. Happenstance affects earnings (as do preferences for leisure time and moral convictions). Would Shaquille O'Neal's life be worth less if there were no market for basketball players? Is a ditchdigger's life at age 21 worth less than that of a 21-year-old computer wizard?

Years ago the Ford Motor Company did a cost–benefit analysis on the policy of adding certain devices to its cars in order to prevent the gas tanks from rupturing. One of the prospective benefits was saving a certain number of lives. How valuable is one life? Can a life rationally be assigned a monetary value? Ford figured $200,000 (for 1971!) as the cost of a death. Presumably, this figure largely reflects costs to others; only $10,000 of the amount was designated as the cost (value?) of the victim's pain and suffering. Why not $50,000 or $100,000? Is the benefit of preserving a life equal to the cost of avoiding the death (which is assumed to be a function of wages forgone)? Of course, the figure that is assigned here directly affects the outcome of the cost–benefit calculation and the ultimate policy determination. We note here the obvious questions that arise about the reasonableness of assigning monetary values to certain "goods and bads." There are important questions about the way "cost" and "benefit" are conceptualized, problems in attempting to identify all the costs and benefits, and difficulties in rationally assigning a monetary measure to many costs and benefits—even when one takes an anthropocentric approach. Avoiding complexities, however, can have a high price. Our cost–benefit calculations would be comparatively simpler if we did not count the well-being of children or the severely retarded.

THE MATTER OF CONSENT

In law and in common sense, whether another (voluntarily and knowingly) consents to the imposition of a "harm" is thought morally significant in deciding on the permissibility or desirability of generating the harm. The surgeon and the mugger may make similar "incisions," perhaps with similar results, but we view the unconsented-to cutting as wrong, and the one to which there is consent as acceptable. It is striking that, in some discussions defending cost–benefit analysis (in contrast, see the Leonard and Zeckhauser, Essay 39), little attention is paid to whether those who are harmed, or subjected to risks, consent or not. It is clear that (more or less) voluntary smoking results in great harms (on average and in the aggregate) to smokers. A cost–benefit analysis of smoking (or alcohol usage) might (we conjecture) suggest strongly that the practice fails to maximize benefits-minus-costs. It is natural to wonder, however, whether the burdens on the smokers (aside from associated "indirect" burdens on nonsmokers) should be counted as a cost in a cost–benefit calculation. At the least, we raise the question of whether *imposed* costs and *voluntarily absorbed* costs should be viewed similarly. As the issue is often discussed elsewhere, this distinction tends to be ignored.

THE MAXIMIZATION PRINCIPLE

Although an analyst may purport to identify only costs and benefits (and, thus, remain "untainted" by ethical commitments) and not subscribe to the maximization principle (we ought to do whatever maximizes benefits-minus-costs), further questions arise for anyone who accepts the (normative) maximization principle. If the prior difficulties cannot be overcome, the principle may be inapplicable. Also, the principle seems subject to the well-known difficulties with the principle of utility; on one construal, "maximize benefits-minus-costs" is just the principle of utility. (Except that the classic utilitarians Jeremy Bentham and John Stuart Mill were not anthropocentric in their conception of "cost" and "benefit." Both explicitly maintained that the suffering of animals must be given weight in deciding what to do.) The main objection to be noted here concerns whether a policy of maximizing the balance of benefits over costs is defensible when it gives no direct weight to how those benefits and costs are distributed among the relevant population.

The policy that maximizes benefits-minus-costs may make some individuals worse off.

Thus, adopting the policy may not be an efficient step in the sense of making a Pareto improvement (see the preceding Preview for an explanation). The gains to the "winners," however, may outweigh the losses to the losers. If so, it would be possible in principle for the gainers to *compensate* the losers—thus, making the latter "nonlosers" (no worse off). The costs of making the transfer (information costs, and so on) may make full compensation impossible. If, however, full compensation were made, a Pareto improvement would occur, there would be no losers on balance, and an injustice could not be claimed—namely, that some suffered an unconsented to, on balance, harm. (Note, however, that some might be relatively, if not absolutely, worse off—on one "objective" measure, at least.) Some economists and others, however, believe a "potential compensation principle" (or potential Pareto criterion) is satisfactory: The results of a policy must make full compensation *possible,* but the compensation need not be paid. This view is puzzling. To accept the potential compensation principle is to set aside an intuitively attractive feature of the strict Pareto principle (that no one will lose), one that sidesteps important moral objections based on considerations of justice. If salesperson A "steals" salesperson B's $5,000 car, and as a result earns an extra $50,000 a year, perhaps A could compensate B for his or her losses. If A does not, B has ground for serious moral complaint. We do not pursue the point here, but there may be ground for complaint *even if* compensation is made (assuming it can be).

To maximize benefits-minus-costs without compensating losers looks suspiciously like merely maximizing total net utility. Uncompensated losses look like "market failures" or negative externalities. A supposed attraction of cost–benefit analysis is that it helps to eliminate or reduce such externalities. Pure maximization policies (regardless of what is to be maximized, such as GNP, utility, wealth, or benefits-minus-costs) seem to give no direct weight to concerns about how benefits and costs are distributed. This seems morally intolerable.

Perhaps, however, a coupling (somehow) of cost–benefit analysis and principles of just distribution may be more attractive. If so, one may have to surrender the unqualified maximization principle. Further, one may have to drop the pervasive metaethical assumption seemingly made by many environmental economists that "the proper use of environmental resources is more a matter of economics than of morals."[1] This last assumption is plausible only if one accepts the maximization principle and the assumption that one can measure *all* the relevant benefits and costs. These claims cannot, however, be decided without careful inquiry.

Matters are not all this simple, of course. The claims that some "environmentalists," philosophers, and scientists have proposed as guidelines for use in making environmental decisions (maxims such as "Nature knows best," "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community," "Maximize utility" [again], "Preserve endangered species," "Everything has a right to exist") seem to be too vague and indeterminate to be analytic truisms, or otherwise objectionable. The essays that follow address the attractions of efficiency and cost–benefit considerations—as well as the persistent reservations about their use (especially as grounds for *policy selection*—as opposed to their use to foster cheap implementation of an already selected policy such as cost-effectiveness).

To speak at length of these matters is not to talk directly of rain forests, blue whales, acid rain, marshlands, or estuaries; rather, it is to explore grounds for choices that will determine the destiny of such entities as well as that of humans. If one is concerned with the fate of our planet, to ignore such matters is to choose to be a naive environmentalist.

In the first selection that follows (Essay 38), by Steven Kelman, "Cost–Benefit Analysis: An

Ethical Critique," apart from considering questions about the anthropocentric nature of cost–benefit analysis, argues that a policy might be right even if it does *not* maximize benefits-minus-costs. Further, he questions the attempt to assign monetary values to nonmarketed benefits and costs. In short, Kelman's critique is important and provocative. Herman Leonard and Richard Zeckhauser in "Cost–Benefit Analysis Defended" then respond (Essay 39) to some of the current criticisms of cost–benefit analysis. In particular, they argue that such analysis is sensitive to distributional effects and need not be arbitrary in the assignment of monetary values. Their conflict with Kelman's view is not always direct, but the two essays are instructive.

An important and instructive case in point with regard to the determination of cost and benefits, and the practical use made of such procedures is found in the manner in which nations standardly make judgments about their own economic well-being. To those who are unaware of the extent to which our standard indexes of economic health or improvement fail to register serious environmental degradation, Robert Repetto's investigation "Earth in the Balance Sheet" (Essay 41) may have the impact of a cold shower. The brighter side is that with the development of more appropriate measures, nations may become more aware of "what on earth they are doing," develop new measures, and cease treating the nonhuman world as being of little consequence, a mere static backdrop to human activities.

Donald Brown, in "Ethics, Science, and Environmental Regulation" (Essay 42), attends to the way in which pressure to quantify costs and benefits may bias policy decisions. He notes that in the United States the legislative response to complex policy problems is to create a regulatory agency staffed with scientists, economists, engineers, and lawyers. Given general legislative guidelines, much public policy gets determined in administrative rule making by such agencies, agencies that often have considerable discretion. A standard model is for the agency to be given a *decision rule* and then have "experts" supply the relevant facts needed to infer policy conclusions.[2] Brown notes difficulties in isolating facts; indeed, *which* facts are taken as relevant or important is commonly a by-product of certain evaluations, whether or not this is made explicit, and whether or not the intended "isolator" is aware of it.

He observes that an environmental impact statement might consider protection of an elk habitat—but why not that of the skunk or coyote? Further, identifying aesthetic deterioration is difficult given the seeming lack of objective criteria for identifying such. There is little doubt, however, that there *are* such losses (compare the enormous resources spent to "beautify" yards and houses). There is, however, a problem about how to recognize and measure them. Brown insists that the desire to maximize efficiency, commonly presupposed by economists, in turn presupposes the utilitarian ethic; the latter is seldom explicitly discussed or defended, however, when the focus is on specific policy questions. The adequacy of the utilitarian view is by no means self-evident. It is not obvious, we add, that many (by no means all, and we not say "most") economists are highly aware of the rich and thoroughgoing criticisms of the utilitarian view that have been produced in this past century.[3] The assumption that we maximize costs-minus-benefits is subject to such objections; it is suspect in ways noted in this and the prior sections. Brown maintains that lobbyists for "regulatory reform" frequently demand (1) mandatory cost–benefit analysis, (2) a presumption against regulation in the absence of a high degree of certainty, and (3) a reduction of relevant factors to quantitative forms that then can be "objectively" compared. Brown goes on to enumerate and analyze what he takes to be several other sources of the distortion of values that is introduced by technical analysis; we leave these to the reader.

NOTES

1. Robert and Nancy Dorfman, eds., *Economics of the Environment* (New York: Norton, 1972), p. XL.
2. On this matter see both the later discussion by Brown and also the material in the "Introduction to Ethical Theory" in 1.1 to 1.3.
3. We note the troubling fact that the desirability of efficiency is thought to derive from the fact it is a means to increasing human want fulfillment. The desirability of the latter in all cases is hardly obvious since (1) it ignores the well-being of all other species (except derivatively), and (2) wants may be, arguably, irrational, such as the desire to torture for the fun of it. So, Nobel Prizes aside, why worry about the difficulty of formulating a feasible social welfare function based solely on human wants? And why be tempted by the notion that whatever is efficient is right?

38. Cost–Benefit Analysis: An Ethical Critique

Steven Kelman

At the broadest and vaguest level, cost–benefit analysis may be regarded simply as systematic thinking about decision-making. Who can oppose, economists sometimes ask, efforts to think in a systematic way about the consequences of different courses of action? The alternative, it would appear, is unexamined decision-making. But defining cost-benefit analysis so simply leaves it with few implications for actual regulatory decision-making. Presumably, therefore, those who urge regulators to make greater use of the technique have a more extensive prescription in mind. I assume here that their prescription includes the following views:

1. There exists a strong presumption that an act should not be undertaken unless its benefits outweigh its costs.
2. In order to determine whether benefits outweigh costs, it is desirable to attempt to express all benefits and costs in a common scale or denominator, so that they can be compared with each other, even when some benefits and costs are not traded on markets and hence have no established dollar values.
3. Getting decision-makers to make more use of cost–benefit techniques is important enough to warrant both the expense required to gather the data for improved cost–benefit estimation and the political efforts needed to give the activity higher priority compared to other activities, also valuable in and of themselves.

My focus is on cost–benefit analysis as applied to environmental, safety, and health regulation. In that context, I examine each of the above propositions from the perspective of formal ethical theory, that is, the study of what actions it is morally right to undertake. My conclusions are:

1. In areas of environmental, safety, and health regulation, there may be many instances where a certain decision might be right even though its benefits do not outweigh its costs.
2. There are good reasons to oppose efforts to put dollar values on nonmarketed benefits and costs.
3. Given the relative frequency of occasions in the areas of environmental, safety, and health regulation where one would not wish to use a benefits-outweigh-costs test as a decision rule, and given the reasons to oppose the monetizing of nonmarketed benefits or costs that is a prerequisite for cost-benefit analysis, it is not justifiable to devote major resources to the generation of data for cost–benefit calculations or to undertake efforts to "spread the gospel" of cost–benefit analysis further.

I

How do we decide whether a given action is morally right or wrong and hence, assuming the desire to act morally, why it should be undertaken

Regulation (Jan., Feb. 1981), pp. 74–82. Reprinted by permission of the American Enterprise Institute for Public Policy Research, Washington, DC.