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# "Summary of article by Elizabeth Anderson: Cost-Benefit Analysis, Safety, and Environmental Quality"

In this chapter I examine the application of cost-benefit analysis to public policies concerning the protection of human life and environmental quality. I will argue that these goods are not properly regarded as mere commodities. By regarding them only as commodity values, cost-benefit analysis fails to consider the proper roles they occupy in public life. [190]

## COST-BENEFIT ANALYSIS AS A FORM OF COMMODIFICATION

Cost-benefit analysis rests on two claims. First, public policies should maximize efficiency. A policy is Pareto efficient if it can improve the wellbeing of at least one individual without leaving anyone worse off. A potential Pareto improvement is reached if enough welfare is generated so that winners could potentially compensate losers and still be made better off. This gives rise to several questions: "Why maximize efficiency and not welfare?...Why maximize potential rather than actual Pareto improvements?...Why ignore the distribution of gains from public policies?" [190-91] Economists have yet to answer these questions in a satisfactory way.

Secondly, welfare should be measured by an individual's compensating variation, i.e., the maximum that she will pay to bring about a project she favors, or the minimum she will accept to put up with a project she opposes. Cost-benefit analysis assumes that the best policy will maximize the sum of the compensating variations of all members of society. Thus, applying the rules of the market via cost-benefit analysis results in the selection of potentially Pareto efficient policies that (hypothetically) have society's consent.

Cost-benefit analysis imitates the market, evaluating health and environmental benefits by studying how much money individuals would trade for commodified versions of these goods: the prices paid for access to private parks are used to measure the value of national parks; the higher wages for hazardous jobs are said to measure the value of increased risks of death. This approach treats health, safety, and environmental quality as commodities in three ways: it measures their value as determined in market transactions for privately appropriated goods; it reduces them to cash equivalents, treating them as substitutable with other commodity bundles that have the same price; and it assumes that market norms and private preferences, rather than ideals, needs, or principles, should shape public policy.

## AUTONOMY, LABOR MARKETS, AND THE VALUE OF LIFE

Cost-benefit analysts argue that if we are to behave rationally, we must assign a cash value to risks to life. Distrusting survey responses on such questions, most economists prefer to infer individuals' valuations from the tradeoffs between safety and money they actually make in the marketplace -- particularly as seen in the wage differentials between more and less hazardous jobs. In a competitive equilibrium, with labor mobility and full information, wage differentials would measure "revealed preferences" for safety.

In practice, the results of such studies have been inconsistent, with estimates of the value of a life ranging from $15,000 to $10,000,000. Yet even if the studies were consistent, the significance of the result would be in doubt. Wage differentials, in reality, do not represent the result of free, informed, autonomous consent to differing risks. Labor mobility is hampered by the need for on-the-job learning, the desire to protect seniority benefits, nontransferability of skills, and other factors. Autonomous decision making is inhibited by lack of information, and by hierarchical work relations. Particularly for those with families to support, job choices are not made on an egoistic basis, expressing solely personal attitudes toward risk:

> The opportunity to earn a living is not merely another commodity, like a toaster. It is both a need and a responsibility. To the extent that workers' choices reflect this view, wage differentials do not represent the cash values people place on their lives; rather, they reflect the risks people feel obliged to accept so as to discharge their responsibilities. [199]

Nor is there a single meaning to risk, even assuming the other problems could be solved. Risks undertaken voluntarily, for worthy ends, are viewed quite differently from involuntary risks; few workers report that extra pay alone makes them accept additional risks calmly. Risks to life and health often involve ethical considerations, not simply consumer choices about wants and money. It is appropriate to say that people should be able to make their own choices about the value of different risks; it is mistaken to think that all such choices can be expressed through market relations. The choice to accept a particular job at a particular wage does not imply agreement that the accompanying risks are acceptable, fair, or legitimate consequences of employment.

"Cost-benefit analysis therefore does not supply an adequate framework for evaluating public policies that involve risks to human life." [203]

## THE VALUE OF THE ENVIRONMENT

Some environmental goods have explicit market values. For others, values can often be inferred from the prices people pay for similar environmental amenities. Assigning such prices, however, assumes that the values people place on the environment in their roles as producers and consumers are the only relevant considerations. This approach treats the environment as a commodity by assigning it only an instrumental value in promoting human welfare. While environmental goods do have instrumental values, many people also feel that they have other, intrinsic values -- the goal of preservation of species, ecosystems, pristine wildernesses, etc., is at least in part independent of any resulting use values for humans.

Some economists have claimed that the existence of markets for art and for nature resorts shows that people can place a price on aesthetic values. These markets, however, express only the value assigned to private appropriation and consumption of aesthetic goods. Beliefs about public policy, or preservation of a valued heritage, are not reflected in private market prices. "Because we value some environmental goods in higher ways than we value pure commodities, they are not indifferently substitutable for the latter." [208] For this reason, the potential economic value of private exploitation of national parks, for example, is not relevant to public policy decisions. Understanding the differing categories of valuation makes sense out of some otherwise puzzling empirical results. For example, in a survey asking people how much they would demand in compensation for power plant pollution in the Southwest, more than half the respondents rejected the terms of the question or demanded infinite compensation; they interpreted the question as proposing a bribe, not making an inquiry into their values.

People often value environmental goods in different ways than they value commodities, involving public ideals and principles rather than prices. Just as with risks to human life, cost-benefit analysis fails as a framework for public policy decisions about the environment.

## TOWARD DEMOCRATIC ALTERNATIVES TO COST-BENEFIT ANALYSIS

Supporters of cost-benefit analysis consider it a way to make political institutions more responsive to citizens' values. However, in the case of safety, health, and the environment, citizens' values could be better reflected through democratic institutions, rather than through calculations that mimic the market and its effects. Democratic institutions provide the social conditions of autonomy that people need to express their own values, particularly those related to nonmarket social relations.

One example of a democratic institution is the worker-management model, in which workers have the freedom to determine what risks they will assume, without having to obey orders from people who do not have their interests in mind. Additionally, this approach promotes environmental protection because workers live in or near the communities in which they work, and are likely to suffer from workplace pollution. Though it has not been implemented on a large scale in the United States, the worker-management model has been used in many small cooperatives; certain aspects of worker management have been applied more broadly in other countries, such as Germany.

Democratic participation is the best method for exercising collective autonomy and providing a means for expression of concerns about social relations that the market can not address. Practical implementation problems may arise when large groups are involved, as in the case of global environmental problems in particular. Representative democracy is useful for groups too large for direct participation, but also introduces problems of its own.

Participants in the policy formation process will, of course, need to consult experts to gather facts about potential negative and positive consequences of alternative policy proposals. But these facts are best presented qualitatively, in terms deemed relevant by the participants. The willingness-to-pay measure of value must be rejected. In fact, no context-independent, global consequentialist formula for identifying and aggregating costs and benefits is generally valid...

There is no reason to think ordinary people are any less capable of correcting their mathematical errors after dialogue with others than are technocrats. If, after dialogue with others, ordinary people's judgments do not conform to consequentialist standards of rationality, this is evidence not that ordinary people are irrational but that consequentialism itself fails to do justice to the diversity of people's values. Our task is not to refine a technocratic standard of rationality alien to people's concerns, but to empower people to speak and act for themselves. [215-216]