

**EXISTENCE VALUE AND COST BENEFIT  
ANALYSIS- A THIRD VIEW**

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## **EXISTENCE VALUE AND BENEFIT-COST ANALYSIS- A THIRD VIEW**

In a recent issue of the *Journal of Policy Analysis and Management*, the issue of *existence value* was debated by Rosenthal and Nelson (1992), arguing that existence values should *not* be included in benefit-cost analysis, and Kopp (1992), arguing that they should be included. The object of this note is to focus critical attention on a proposition implicitly accepted by both sides in this debate. This is the claim embodied most overtly in the notion of *total valuation*, namely that the object of benefit-cost analysis should be to provide a complete measure of all the costs and benefits of any given proposal.

There are obvious attractions to this claim; not the least of which is the fact that the law, in the form of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) requires the courts to measure, in monetary terms, the total losses arising from various instances of pollution. CERCLA calls for an objective measure of losses, excluding any punitive element. The total valuation concept appears, at least potentially, to provide just such a measure.

For economists, pride in the power of our intellectual tools enhances the appeal of the notion of total valuation. Seemingly intangible notions such as recreational values have yielded to the subtlety of our techniques; surely, given sufficient intellectual effort, the problems of eliciting and measuring existence values will also prove soluble. This is essentially the position put forward by Kopp.

Rosenthal and Nelson accept the idea of total valuation, but wish to exclude existence values. They put forward numerous criticisms of existence value. However their central claim is put forward in the final paragraph of their article, where they state

"Although many economists are reluctant to acknowledge it, some leading members of the profession have described the practical rôle of an economist as, legitimately, that of a 'partisan advocate' for what amounts to an economic 'ideology'". The ideology to which Rosenthal-Nelson refer is that of economic efficiency, in which benefits associated with the consumption of goods and services are counted as legitimate, while considerations based on ethical or altruistic concerns are not. For further discussion of the incompatibility of such 'counter-preferential values' with benefit-cost analysis, see Brookshire, Eubanks and Sorg (1986).

I would like to put a third view. This is that the moral concerns raised by issues such as pollution of the environment can neither be adequately encompassed in categories such as existence value<sup>1</sup> nor legitimately excluded from consideration. It follows that benefit-cost analysis is inherently incomplete. Benefit cost analysis, through the efficiency criterion, can provide a useful measuring rod for comparing different bundles of market and non-market consumption goods. This measuring rod cannot be used to weigh competing moral values. Hence benefit cost analysis can provide useful information in the evaluation of a policy proposal. However, when moral and ethical considerations are involved, benefit cost analysis alone cannot provide a final answer to the question of whether society should, or should not, adopt a given proposal.

Against this view, Kopp argues, in essence, that moral values may be regarded as simply a particularly pure class of public good. As such, they may be incorporated into benefit cost analysis on the basis of Samuelsonian welfare economics. If a given state of the world is ethically unacceptable to me, it is argued, this may be regarded as a reduction in my utility comparable to some reduction in my personal consumption of

<sup>1</sup> Some elements of existence value, such as vicarious consumption, are logically consistent with the benefit cost analysis framework. I believe that vicarious consumption is empirically unimportant in most problems involving existence value.

goods and services and valued accordingly.

There are a number of difficulties with this claim. First consider the case when my ethical objections are based on altruistic concern for other members of society. An example, mentioned in the debate between Kopp and Rosenthal-Nelson is concern over auto workers who may lose their jobs as a result of import competition. When we attempt to incorporate this altruistic concern into aggregate WTP estimates, some surprising conclusions emerge. First, suppose that my altruism is universal and impartial. If I value increases in welfare equally to whomever they accrue. Then my altruism makes no difference to the benefit-cost analysis. It simply reinforces the conclusion that would have been reached anyway. Now suppose on the contrary that I am a member of an intensely parochial group that places high value on welfare gains to its own members and none at all on welfare gains accruing to anybody outside the group. It is straightforward to show (Quiggin 1992) that such concern with parochial group interests will affect benefit cost analysis. In particular it may yield an efficiency justification for purely redistributive projects benefiting parochial groups. The more one's ethical preferences deviate from universal and impartial benevolence the more influential they are.

Even more fundamental problems arise when ethical beliefs are concerned with processes rather than with end-states as in the work of Nozick. Nozick argues that government intervention is morally wrong regardless of whether it is welfare increasing. This view may be accepted or rejected, and is in fact held only by a minority. But there is no possibility of incorporating the views of that minority into a benefit cost analysis by means of some estimate of willingness to pay. To do so would be to do violence to the very ethical views that are supposedly being taken into account. Such a procedure amounts to a decision that, regardless of protestations to the contrary, all moral beliefs are simply arguments in a utility function.

Thus the moral beliefs underlying existence value cannot be incorporated in benefit cost analysis. If we accept the principle of total valuation, it follows that users of benefit cost analysis are committed to an ethical code that rejects the intrusion of any ethical principle other than that of economic efficiency. This is the position put forward by Rosenthal-Nelson.

It is possible to base a moral code on the notion of efficiency<sup>2</sup>, as is suggested by Rosenthal-Nelson. But there is no reason why the study of economics compels one to adopt such a moral code, or provides any legitimate reason for doing so. To suggest that any result in positive economics can provide a basis for adherence to an efficiency ethic is to commit the fallacy, first pointed out by David Hume, of deriving 'ought' from 'is'.

An example may illustrate this point. Using standard techniques (see eg Just, Hueth and Schmitz) and observations on behavior, I can derive estimates of 'consumer surplus' for any commodity I may choose to examine - pork or pornography, coffee or cocaine<sup>3</sup>. I can also, in principle, estimate any externalities associated with the consumption of those goods, although, as has already been argued, the externality category cannot legitimately be extended to include ethical attitudes. None of this activity commits me to any moral view. In particular, it does not commit me to the moral view that policy-makers should seek to maximize aggregate consumer surplus (adjusted for external effects). I am perfectly free to compute a positive consumer surplus associated with coffee consumption and to advocate the banning of coffee on moral grounds. Similarly, I am free to conclude that negative externalities associated with the consumption of pornography are larger than the aggregate consumer surplus, but nevertheless oppose, as a violation of the First Amendment, any control or taxation of pornography.

<sup>2</sup> Or for that matter on inefficiency, as in the potlatch and the ethic of conspicuous consumption.

<sup>3</sup> All of these commodities have been the subject of morally inspired prohibitions.

Rosenthal and Nelson are to be commended for stating openly what is often implicitly assumed; that economists are, by the use of analytical tools such as consumer surplus, committed to the ethical view that consumer surplus is the sole touchstone of moral relevance. But to state this view is to make it clear that it is untenable. Consumer surplus<sup>4</sup> is a summary measure of revealed indifference over bundles of goods, and is therefore a description of observed behavior. The use of this descriptive measure has no inherent moral implications. Economists cannot be conscripted into any ideological army

The moral beliefs underlying existence value can neither be consistently incorporated within benefit cost analysis nor legitimately excluded from consideration. The only resolution of this dilemma is to abandon the idea of total valuation. Benefit-cost analysis can provide useful information on the effects of policy proposals, insofar as these effects involve changes in individual consumption of goods and services. It cannot, in general, provide an ethically compelling criterion for social choice. It is simply impossible, even in principle, to compute a dollar figure that encompasses every aspect of social welfare.

How, then, can policy proposals be evaluated? My answer is that the democratic political process provides a mechanism which, although imperfectly, takes account of a wide range of ethical views (including the desirability of increased consumer surplus), and does so more accurately than any 'objective' criterion. Benefit cost analysis can provide a useful input to this process, but cannot supplant it.

The political process makes mistakes, of course. One of them, incorporated in CERCLA, has been to direct the courts to make objective monetary measures of damages that cannot, in their nature, be objectively measured. The problem is exacerbated by the

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<sup>4</sup> I am using 'consumer surplus' as a convenient shorthand here. The argument applies equally to 'exact' equivalent and compensating variation measures.

injunction to exclude any notion of punitive damages. This implies that individuals can place a monetary value on changes in the environment independently of how they are brought about. The Exxon Valdez case provides an ideal illustration of the problems inherent in this task. Suppose that the deaths of wildlife were caused, not by the wrongful actions of a large oil company, but by a purely natural process such as a volcanic eruption. Some people would undoubtedly regret this occurrence and might be willing to pay something to mitigate the damage. But there would be few who would regard the two occurrences as comparable. It would be perfectly reasonable to oppose any intervention in the second case (implicitly estimating 'damage' at zero), while regarding the first case as a disaster involving large damages.

Society has already developed an institution designed to solve problems of this kind - the jury system. In the long term, the only way to make the CERCLA system work is to abandon the notion of objective total valuation and rely on the judgements of juries. Such judgements may be assisted by calculations of narrowly defined economic damages (for example, losses incurred by fishermen as a result of oil spills). Broader moral judgements cannot, as is claimed by Kopp, be shoehorned into the category of economic damage. But, contrary to Rosenthal and Nelson, they cannot be dismissed from consideration because they do not fit into a cost-benefit box.

The category of existence value was created because it was recognized that there was something missing from standard benefit cost calculations. Once it is accepted that benefit cost analysis can provide no more than a partial evaluation of , the need for such a category disappears. The fundamental issue is not the treatment of existence values but the implicit assumption that benefit cost analysis is, or should be, about total valuation.