VALUES AND PREFERENCES IN NEO-CLASSICAL ENVIRONMENTAL ECONOMICS*

Russell Keat

School of Social and Political Studies
University of Edinburgh
Russell.Keat@ed.ac.uk

1 Environmental problems and market failures

For many environmental economists, working within the framework of neo-classical theory, environmental problems are best conceived as cases of `market failure' - the failure of actual markets to display the efficiency of resource allocation which `ideal' markets can be demonstrated to achieve. Hence the solution to such problems consists in removing such inefficiencies, especially those due to externalities - costs and benefits which have not been incorporated into actual market transactions. One favoured means for doing this has been the use of some form of cost-benefit analysis (CBA).

But what exactly should be included in such analyses: what are to be regarded as the relevant costs and benefits of economic decisions with environmental effects? In the early days of CBA, a relatively narrow view was taken of these, restricting them, roughly speaking, to those which in other contexts were already subject to market-pricing. But in response to claims that this procedure still failed to take into account significant aspects of the `value' people attributed to the environment, CBA came to be developed in a more extended form: the concept of externalities was broadened to include the so-called `intangible' values involved in people's aesthetic appreciation of nature, or their valuing of wilderness, of kinds of natural landscape, of the sheer existence of certain species (`existence-value'), and so on.

The example of river pollution may be used to illustrate this difference between narrow and broad conceptions of externalities. Suppose a firm discharges its waste into a river, but that further down the river another firm makes use of this water for its own productive purposes. The effect of the first firm's discharges is that the second firm has to purify the river water before using it. This is a straightforward case of market failure due to `narrow' externalities: the first firm is imposing a cost on the second, but since this cost does not register in its own calculations, CBA may be used to modify the decision that would otherwise be made, and restore efficiency.

But there may also, or instead, be people who attribute other kinds of value to the unpolluted river water: for instance, to its aesthetic or symbolic properties, or to its ability to support various species of fish or plant-life. They may regard the pollution as a desecration of nature, or as having effects that are ethically wrong or impermissible, and so on. By broadening the concept of externalities, an extended form of CBA will regard these too as relevant costs. Attempts will thus be made to put a price on them by the use of methods such as `contingent valuation' (CVM), in which people are asked how much they are willing to pay (WTP) to preserve the river in its unpolluted condition, or willing to accept (WTA) in compensation for its being polluted.

But this seemingly more environmentally-friendly form of CBA has met with considerable criticism. In a trenchant and influential critique (Sagoff 1988), Mark Sagoff has argued that, in the kind of example just noted, it is a serious error to regard these ethical or aesthetic objections to pollution as further kinds of external cost that

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can and should be entered into an extended form of CBA in the same way that straightforwardly definable economic costs are included in its previous, restricted form. For any use of CBA remains tied to the overall theoretical framework of neo-classical economics, and in particular to its concepts of efficiency and preference-satisfaction. Costs and benefits are thus characterised in terms of the extent to which individuals' preferences are satisfied, as indicated by their WTP/WTA; and in Sagoff's view, the extension of the concept of externalities to incorporate `intangibles' illicitly transforms the logically distinct category of *values* into that of *preferences*.[1]

The radical error involved here, Sagoff suggests, manifests itself in the considerable difficulties experienced by practitioners of CVM when they try to elicit answers to WTP/WTA questions. Many people simply refuse to specify any finite sum, either objecting to the very questions asked, or assigning infinite monetary values. Whilst CB analysts tend to regard such responses as indicating the need to refine their techniques, or as showing that people are behaving irrationally and/or unfairly (`strategically'), Sagoff interprets them as indicating the logical absurdity of the questions: in assimilating values and preferences, these involve what he terms a `category mistake'.

To arrive at environmental decisions in this way, he suggests, would be the equivalent of trying to decide whether a person on trial was guilty by discovering, before any evidence had been heard, what the preferences of the jury were in this regard, and then calculating the net benefits of the two possible verdicts; or deciding whether creationist science, instead of Darwinian theory, should be taught in certain schools by finding out whether there were enough pupils/parents whose preferences for this were sufficiently strong, as indicated by their WTP, to meet the costs of doing so; or determining the justifiability of the Vietnam war by finding out whether this policy produced more preference satisfaction than its alternatives, with people's moral judgments about the war being included alongside every other kind of `preference'.

Extrapolating from these examples to the environmental case, what the use of extended CBA/CVM implies is that the judgements people make about the (intangible) value of the environment, and/or about what it would be right or justifiable to do to it, are to be seen simply as statements about their individual preferences; so that, to the extent that the environment is treated in ways that are odds with these judgements, this is regarded simply as giving rise to costs or disbenefits due to the non-satisfaction of those `preferences'.

But why is a `category mistake' involved here? As Sagoff notes, following Ryle, this is "...the kind of mistake you make when you predicate of one concept another that makes no sense in relation to it" (p 94). In the kinds of cases with which he is concerned, the mistake consists in predicating of someone's judgments or beliefs concepts that make sense only when applied to their preferences or desires - an error which is further compounded by then responding to those beliefs and judgments in ways that only make sense in relation to preferences or desires.

More specifically, Sagoff claims, whereas judgments and beliefs can be said to be true or false, well or badly supported by the relevant evidence, justified or unjustified etc, so that we can appropriately ask those who make or state them to provide their reasons for them, we cannot sensibly ask how much they would be willing to pay for them (or for their being accepted, put into practice etc). This kind of question is, however, quite intelligible and appropriate in the case of people's preferences and desires; and likewise we can talk of these being stronger or weaker, more or less intense, and so on.

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[1] Sagoff links this distinction between values and preferences to further distinctions between citizens and consumers, public and private interests, and virtues and methods: for a critical discussion of these linkages, see Keat 1994.

According to Sagoff, when people make the kinds of ethical (and other value-regarding) claims about the environment which practitioners of extended CBA regard as preferences, these should be seen to involve:

> ... not desires or wants but opinions or views. They state what a person believes is right or best for the community or group as a whole. These opinions may be true or false, and we may meaningfully ask that person for the reasons that he or she holds them. But an analyst who asks how much citizens would pay to satisfy opinions that they advocate through political association commits a category mistake. The analyst asks of beliefs about objective facts a question that is appropriate only to subjective interests and desires. (p.94).

Furthermore, he suggests, this category mistake of treating judgments as if they were preferences - asking the WTP question instead of engaging with and evaluating people's reasons for their judgments - is tantamount to assessing the credibility or validity of these judgments by their proponents' willingness to pay for their being accepted or acted upon:

> The reasons people give for their views (outside the journals of economic analysis, where *argument* apparently is to be respected) are not to be counted; what counts is how much individuals will pay to satisfy their wants. Those willing to pay the most, for all intents and purposes, have the right views; theirs is the better judgment, the deeper insight, and the more informed opinion. (pp.41-2).

This is not only logically absurd, it is an error that prevents policy makers arriving at sensible decisions, since:

> Policy makers need to know which beliefs about facts are credible and which arguments about values are sound. The credibility of a belief (e.g. that the earth is round) depends on evidence and expert opinion, not the amount people are willing to bet that it is true. Nor does the soundness of an ethical argument depend on willingness to pay, although economic information, of course, may be relevant. Thus cost-benefit techniques, when they go beyond the confines of determining efficiency in the narrow sense, do not provide useful information. Rather, they confuse preference with ethical and factual judgment. (p.37).

Now although I agree that there are logical/categorial errors of some such kind at work here, I shall argue that they are not quite of the character that Sagoff suggests. They do not straightforwardly consist in treating judgments (or beliefs) as if they were preferences (or desires), which is how Sagoff presents the matter, but rather in treating judgments about what is morally right as if they were judgments about what would contribute to the well-being of the person who makes these judgments. Thus the crucial contrast is not between judgments and preferences, but between different kinds of judgment - and also, since each kind of judgment may itself operate as the basis for a certain kind of preference, between different kinds of preference.

2 Judgments, preferences and the market

One can begin by noting that, at least in their ordinary uses, some of the conceptual contrasts which Sagoff draws between `judgments' and `preferences' seem not to be correctly specified. For instance, one may talk of the intensity and/or strength of people's judgments or beliefs: these concepts are not restricted to preferences or desires. More importantly, one may talk of the *reasons* for people's preferences or desires, not confining this concept's application to judgments or beliefs. One can thus intelligibly and legitimately ask people to justify their preferences - for example, their preference for football over hockey, for philosophy over mathematics, and so on; and likewise to justify their desires for various things.

In doing so, one is asking people to articulate - and then, often, to justify further - the judgments or beliefs that support their preferences or desires: it is the fact that the latter are normally based upon the former that makes such questions appropriate or intelligible. People desire things, typically, because they judge or believe them to be desirable; hence one may ask them what (in their view) makes them desirable, and then perhaps go on to question or argue with the answers they give.[2]

All this is true not only of preferences `in general', but also, and more importantly, of the specific kinds of preferences which Sagoff often has in mind (as have those economists whose views he is opposing), namely the preferences of consumers in a market economy. For although there is a tendency for neo-classical theorists to ignore or even deny this, consumers likewise typically have reasons for their preferences, and their preferences are likewise based on (in principle contestable) judgments.

For example, I might have a preference for a certain kind/make of car. This preference will typically be based on a judgment I have made about the respective merits of this car as compared with others - or at least, about these merits insofar as they are relevant given what I wish to achieve by having a car. And this judgment can be questioned, in at least two ways. First, am I justified in believing this car actually has (to a greater extent than others at the same price etc) the characteristics which, given what I want to achieve, are the relevant ones? And second, am I justified in believing that possessing an item which has these characteristics will contribute to my own well-being - and hence, *are* these correctly regarded by me as the relevant ones?

However, although consumer preferences are normally thus based on judgments, and can be questioned in these ways, it is a highly significant feature of the market - ie of the specific context in which these preferences are articulated, acted upon, responded to etc - that such questions have no role or function in how it operates (see Keat 1993). Market transactions take place without reference to the reasons for which consumers prefer what they `happen' to prefer: the market is, as it were, indifferent to these, `blind to reasons'. All that matters in the market is the fact that consumers have - and act upon - preferences, and what these preferences are for; no notice is taken of the judgments they are based upon, let alone of whether these are justifiable. In particular, consumers' access to their preferred or desired items does not depend on their being able to justify these preferences or desires to anyone - and certainly not to the producers who provide them. All that concerns the producers is the consumers' willingness (and of course ability) to pay for the items concerned.

So in the market, (consumer) preferences are, although actually based on judgments open to critical evaluation, treated or responded to as if they were not. In other words, they are treated in just the way that, according to Sagoff, judgments should not be treated: `merely' as stronger or weaker, more or less intense and - to the extent that one may talk here of evaluation - `evaluated' merely by their possessors' willingness to pay for their satisfaction. Given all this, one might be tempted to say that the market `makes category mistakes all the time'; or rather, that those who support the market as a way of making economic decisions are guilty of such mistakes.

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[2] For a useful discussion of the concept of preferences in both everyday and economic contexts, see Sheffrin 1978; on the claim that `preferences answer to reasons', see O'Neill 1993, ch.5.

That is, if Sagoff is right to regard `treating judgments as preferences' as a category mistake, and to regard the error of extended CBA as consisting in this, then the market should likewise appear objectionable since it (or its advocates) makes the same mistake. Conversely, if the market could be defended from this objection, it might then be wrong to claim that this is the error of extended CBA - so that, if extended CBA does involve a radical conceptual/categorial error, it would be of a somewhat different kind to that identified by Sagoff. It is this latter alternative that I shall now pursue: I shall try to show how the market might be rescued from Sagoff's version of the category mistake objection, in a way that will indicate how to re-define the specific nature of the error involved in the use of extended CBA.[3]

3 Markets and individual well-being

As noted at the outset, the rationale for the use of CBA (in either its narrow or extended forms) in dealing with environmental problems is that this will restore the efficiency of ideal markets. Thus for the proponent of CBA, efficiency is the key normative consideration; and it is the achievement of this by markets that is seen as their chief virtue.

But why should efficiency be regarded as a desirable feature of economic systems and decision-making procedures? Only, it may be argued, on the basis of a broadly Utilitarian ethical theory, which evaluates actions (and institutional systems of action) in terms of their contribution to aggregate individual well-being.[4] Hence the relevant justification for the market here - ie in the context of justifications for the use of CBA - is that it manages to achieve (for a given set of resources etc) a greater amount of individual well-being than any alternative economic system.[5]

Now in order to show that the (ideal) market has this virtue, a number of assumptions have to be made. Some of these concern how the institutional procedures of the market are supposed to work - for example, that consumer preferences operate as effective controls over the decisions made by producers, through competitive pressures etc. Others, of more significance in this context, concern the supposed motivations and competencies of consumers. In particular, two assumptions are crucial here: (i) that individual consumers are, generally speaking, the best judges of their own well-being, and of what may be expected to contribute to it; and (ii) that in making decisions about possible purchases, consumers are primarily concerned with their own well-being.

Both of these assumptions may well be challenged, and often are by critics of the market (or rather, of this particular justification for it).[6] But I shall not consider such objections here, since my argument will be that even if these assumptions, and the justification for the market they are required by, are accepted, it will still turn out that the use of extended CBA involves a radical error - and hence that it is only the narrow form of CBA that

[3] It is perhaps significant here that Sagoff himself does not criticise the market for making the category mistake he attributes to extended CBA.

[4] Other possible justifications for the market - for example, in terms of its promotion of individual liberty or autonomy, or of individual property rights - are not relevant here, since they do not serve also to justify the use of CBA, whose rationale is tied to a justification for the market via aggregate individual well-being.

[5] Efficiency is more usually now defined not as maximising aggregate well-being, but as Pareto-optimality, a much `weaker' principle (see eg Buchanan 1985 ch.1). But although (even ideal) markets can only be demonstrated to be efficient in the latter sense, it is more convenient to use the less rigorous, and stronger formulation; the error I shall attribute to extended CBA would not be avoided by assuming that markets/CBA are able to achieve efficiency only in the weaker sense of Pareto-optimality.

[6] See eg O'Neill 1993 ch.5, and Sagoff 1988 ch 5. It must also be assumed that it makes sense to attach a monetary value to the various expected contributions to such well-being, so that they are `commensurable' with one another. Many criticisms of CBA have rightly focussed on the problematic nature of this assumption, but I shall put these aside: they are explored elsewhere in this volume.

could be justified. In other words, even the best that could be said for the market (including its avoidance of the Sagoffian category-mistake), and hence also for the use of CBA to deal with market failures, provides no justification for extended CBA: indeed, it is precisely this justification for the market that reveals what is erroneous about that form of CBA.

To see why this is so, one must first show why it is that, if (i) and (ii) are accepted, the market can be defended against the charge of making (Sagoff's version of) of the category mistake. There are two main points to be made here. First, if (i) is accepted, then the fact that the market `fails to respond to consumer preferences by evaluating them' (and/or the judgments they are based upon) does not matter, since no such evaluation could be expected to improve upon the judgments which consumers themselves make - ie about the likely contributions to their own well-being. So, whereas in other decision-making contexts, as Sagoff rightly notes, policy makers may well need to evaluate judgments by the relevant criteria - eg when these judgments are about `whether the earth is round', whether creationist science has any credibility etc - this is not so for the judgments made by consumers in the market.

Second, if (ii) is accepted, and consumers' judgments are primarily about the expected contribution of prospective purchases to their own well-being, it seems quite reasonable - albeit in a rough and ready way - to regard their WTP as a measure or indication of this expected contribution. This is a context in which `putting your money where your mouth is' seems an appropriate dictum. If a consumer judges one item to be better than another in this respect, being prepared to pay more for it (and hence to forego other purchases etc) seems a quite suitable test or measure of the expected benefit.

It would thus be misleading to say that a terrible conceptual error is being made here - that the credibility of the consumer's judgment is being assessed by seeing how much they are willing to pay for its realisation. Rather, the judgment has `already' been deemed to be credible (via (i) above, affirming the competence of the consumer as judge); and WTP is simply being taken as an indication of how much benefit the consumer expects to derive from the purchase. This is not an illicit way of assessing the merits of the judgment: it is a measure of the benefit (to the consumer) that the judgment (and hence also the preference based upon this) is about.

4 Individual well-being v ethical judgments

I have argued so far that, if a certain rationale for the market - along with its necessary assumptions - is accepted, there is no obvious category mistake involved in the market's `treating judgments as preferences'. This rationale consists in claiming that the (ideal) market is efficient, in the sense of maximising (for given resources) aggregate individual well-being; and it is in terms of this rationale that the use of CBA to deal with actual matket failures is itself justified by its proponents. What I shall now argue is that, given this justification for CBA - which is the best justification it *could* have, even if one regards it, and the related justification for the market, as quite weak - the use of the extended form of CBA cannot be justified; for this involves the conceptual/categorial error of treating ethical judgments as if they were judgments about the well-being of those who make them.

The practitioners of extended CBA try to include in their calculations (what they call) preferences based both on people's judgments concerning expected contributions to their own well-being, and on people's ethical judgments concerning what they regard as morally right, justifiable and so on. Two main kinds of the latter, ethical judgments may be identified: those concerning the expected contribution of the proposed course of action to the well-being of all or some of those affected by it; and those which are not, or at least not exclusively so. The most obvious cases of the latter kind are ethical judgments involving the ascription of rights. For convenience, I shall call these two kinds of ethical judgment `utilitarian' and `non-utilitarian'; but in doing so I do not wish to imply that they are necessarily - respectively - associated with, or at odds with, Utilitarianism as an ethical theory.

The inclusion of either kind of ethical judgment (or judgment-based preference) in CBA calculations is illegitimate: indeed, it is inconsistent with the only plausible rationale for the use of CBA. `Utilitarian' judgments should be excluded because, in effect, they are attempts to do the very same work that CBA is intended to do: to arrive at calculations of aggregate individual well-being. If they do this correctly, they make CBA calculations redundant; if they are then included alongside non-ethical judgments of (affected) people's own expected well-being, there will be a `double-counting' problem; and anyway, since the market-justifying rationale for CBA relies inter alia on the claim that each person is the best judge of their own well-being, such `utilitarian' judgments are likely to provide an inferior basis for the decision.

But `non-utilitarian' judgments should also be excluded, since the rationale for the use of CBA must deny their legitimacy. For if one takes these judgments seriously, they imply that CBA is not the ethically correct way of making these decisions about the environment. So the proponent of CBA must either stick to its rationale, and exclude these judgments; or accept them, and abandon the use of CBA. To try to include them `as if' they were non-ethical own-well-being judgments makes no sense either way; it would only make sense if these judgments were misinterpeted - and this is the category mistake made by the proponents of extended CBA.

To elaborate this argument, one can consider the case of rights-based judgments. I do not claim that all the ethical judgments typically made by those questioned in (extended) CB analyses of environmental issues have this character. But it seems reasonable to think that many of them do; and the argument via rights-based judgments could, I believe, be reproduced for other `non-utilitarian' judgments. For example, in a recent study of the significance of enhancing the survival prospects of various wild species in New England, 79% of the respondents endorsed the claim that "all species of wildlife have a right to live independent of any benefit or harm to people"; and a majority of these refused to give WTP answers to the usual hypothetical valuation questions (Stevens et al 1991, p.396).[7]

Now broadly speaking, the attribution of rights implies a refusal to countenance actions which, whilst they might be preferable to others in terms of net benefits, involve unacceptable damage to the interests or well-being of particular individuals or groups. To claim that people - or animals etc - have certain rights is to claim that they should never be treated in certain ways, even if the calculation of aggregative individual well-being shows that the action which has these effects would be the most beneficial one. Hence typical examples of rights-attributions imply claims such as `the (known-to-be) innocent should never be punished', `slavery can never be permitted', and so on.

Thus attributing (and enforcing) rights places limits on what would otherwise be the implications of aggregative welfare calculations. This then implies that any benefits which would result from rights-incompatible actions must be seen as having no positive ethical value: they are not to be `counted in favour' (even if they turn out to be `outweighed' by various costs), but excluded from the action-decision altogether. Applying this to the wildlife example noted above, the point is this: if these respondents' rights-attributing ethical judgments are

[7] Whilst some philosophers may dispute the legitimacy of attributing rights to non-human entities, clearly many people believe they should at least be treated `as if' this were legitimate: ie they believe there are some things that

accepted, then even if an action which led to species extinction could be shown through CBA to generate greater aggregate well-being than others which did not, this action is impermissible. None of the benefits resulting from it count for anything.

Of course, the rights-based judgments may be rejected, and the action may then be judged acceptable. But one simply cannot avoid deciding whether to accept or to reject these judgments.
In particular, one cannot avoid making this decision by instead trying to include them within CBA calculations. For, in terms of the rationale for the use of CBA, they do not belong here at all: they are not judgments about the well-being of the individuals who make them, and are hence irrelevant. And from their own standpoint, the kind of calculation of net benefits made through CBA is the wrong basis for deciding these issues, and is likely to include, as benefits, what these judgments imply should not be counted. So neither party can accept these judgments' inclusion in an extended form of CBA.[8]

Hence Sagoff is right to claim, in this context at least, that "Policy makers need to know which beliefs... are credible and which arguments about values are sound" (see the passages quoted in section 1 above). An evaluation of these ethical judgments must be made for any rational decision to be taken: the only appropriate or intelligible response to such judgments is `to assess their merits'. Further, this clearly cannot be done by asking those who make them to `put a price' on them. Respondents correctly resist this request which is indeed, as Sagoff suggests, tantamount to determining the credibility of judgments by reference to their advocates' willingness (and indeed ability) to pay. The judgments cannot be priced because they do not concern the expected benefits to those who make them: they are not the kind of judgment (or preference) which is, I argued earlier, given certain assumptions, intelligibly `assessed' by WTP.

Indeed, this feature of at least some of the ethical judgments which practitioners of extended CBA try to include is itself `admitted' by many advocates of this procedure. Here I have in mind the concept of `existence-value', the most favoured way of trying to include concerns for species survival etc in an extended form of CBA. The concept has quite rightly seemed problematic to many commentators, since on the one hand its definition typically excludes the presence of any perceived benefit to individuals, yet on the other hand it is sopposed to be included in a procedure whose only intelligible rationale requires individuals to concern themselves only *with* such benefits.[9]

So ethical judgments, such as those based on rights (and those concerning `existence-value'), cannot intelligibly or consistently be included in CBA; or at least, they cannot thus be included if they are correctly understood or interpreted. The only way they `can' be included is by *mis*-interpreting them - ie by understanding them as judgments concerned with their makers' own well-being. This is the error made, as Sagoff notes (pp.89-91), in trying to put a price on ethical judgments by treating them, in effect, as statements about the benefits or

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shouldn't be permitted to be done to them, including bringing about their/their species' extinction. In any case, even the inclusion rights-based judgments restricted to humans generate problems for extended CBA.

[8] I am not implying here that Utilitarianism, as an ethical theory, entails the use of CBA, and/or that what I am calling `non-utilitarian ethical judgments' could not find a place in a suitably sophisticated version of that theory. But such a version - which in effect would be one that managed to justify the recognition of `rights' - would not be one that supported the use of CBA as the best way of arriving at ethically correct decisions.

[9] For a lucid `positive' account of existence-value, see Pearce and Turner 1990, ch.9; on the paradox here, see Aldred 1994. A related problem concerns the identification of the relevant group of people whose judgments of existence-value are to be included in the CBA calculation. One cannot employ the usual criterion of `all those whose well-being is affected', since the point about existence-value is that it is has nothing to do with such `effects'. The only plausible group might seem to be `every member of the human species', though the rationale even for this is problematic.

costs that would accrue to those who make them through becoming aware of the implementation or failure to implement the principles they espouse.

So, for example, instead of regarding the claim that it is unjust to punish the innocent as an ethical judgment that must be responded to *as* such, extended CB analysts respond by trying to measure how pleased or upset those who make it would be were their principle to be acted upon or not. The most that could be said for such bizarre attempts is that they may dimly indicate some recognition that, unless such judgments *were* concerned with their makers' own well-being, they could not be included in the CBA. But actually they are not. To justify the decision being taken by means of CBA, these judgments have to be rejected. If they are accepted, some alternative (or additional) basis for the decision must be found.

The points I have made here can be further illustrated by considering the well-known distinction between `efficiency' and `equity'. As standard discussions of welfare economics typically emphasize, demonstrating that a particular use of resources is efficient is not enough to justify it, since there are other considerations that may also be relevant, especially those of distributive justice or `equity'. It is then also noted that there may often be some `conflict' between these two desiderata, and that one may therefore have to decide `how much of one is to be sacrificed for how much of the other'.

Now although this formulation of the problem may not be entirely satisfactory, it is at least preferable to any attempt to incorporate equity into an extended CBA by `putting a price' on the judgments made by those who believe in it: by asking them, that is, how much they are WTP to see their principle realised. For this would be to obliterate the distinctiveness of the principles of efficiency and equity themselves - transforming the judgments people make about the latter into elements to be included in determining the former. The resolution of conflicts between efficiency and equity cannot take place *within* the procedure of CBA, since they are essentially conflicts between the ethical considerations which provide that procedure with its rationale, and others which are potentially at odds with them.

The same applies to conflicts between the outcomes of properly conducted CB analyses of environmental issues - ie those which restrict themselves to individuals' judgments or preferences concerning their own well-being - and (at least many of) the ethical judgments which those and other individuals may make about the environment. The resolution of these conflicts must take place outwith the procedure of CBA - as Sagoff suggests, in the political realm where people operate as `citizens'. To include such judgments within an extended form of CBA is, at best, a case of killing them with kindness.

5 Preferences, value-judgments and subjectivism

Two objections might be made to the overall argument I have presented here. The first is that I have illicitly assumed throughout that neo-classical theory in general, and the use of CBA in particular, are committed to a conception of efficiency understood in terms of (aggregate) individual welfare or well-being, and hence also to a conception of preferences as concerning what people see as contributing to their own well-being. But this, it may be objected, is not the only way in which the concept of preferences - and hence of efficiency - either can be or actually is interpreted by neo-classical economists. Instead, a more `abstract' meaning may be given to this concept: agents may be said to prefer something simply in the sense that they would choose it in preference to other things, without any specification of the grounds for this choice. Preferences may in fact be based on any number of different grounds, including not only the agents' expected well-being but also various ethical principles, values, `commitments' and so on. But such differences are ignored at this abstract level of conceptualization.[10]

My response to this objection is that whilst it points to a perfectly intelligible interpretation of the concept of preferences, its employment denudes the related concept of efficiency of any prima facie ethical significance: it is no longer at all clear why the achievement of efficiency - in particular, through the use of CBA to address market failures - should be seen as being ethically desirable. Efficiency, defined by reference to this abstract conception of preferences, becomes a purely technical concept dissociated from its only remotely plausible ethical rationale, namely the promotion of aggregative individual well-being. The connection is lost because the preferences being satisfied are no longer restricted to those concerning the agents' own well-being: they may have any basis whatsoever.

To put this response in a somewhat different way: whilst the abstract conception of preferences may be useful for certain purposes within neo-classical analytical-explanatory theory, it is far from so in welfare extensions or applications of this theory, of which CBA is a central case, and where questions about the ethical significance or value of efficiency (and hence preference-satisfaction) are crucial. CBA is intended to improve efficiency: the only coherent (even if flawed) ethical rationale for this depends on the increased degree of preference satisfaction consisting in improved levels of individual well-being, and hence CBA cannot plausibly be conducted on the basis of this purely abstract conception of preferences.

The second objection will require more extensive treatment. It is that, like Sagoff, I have illicitly assumed throughout that it is possible to evaluate the ethical judgments that people make about environmental issues, and hence that what I have presented as the `appropriate response' to them, ie to engage rationally with the justifications that may be offered for them (rather than to put a price on them etc) is one that can be made. But suppose that this is not so - that there is no way of rationally evaluating such judgments, which are thoroughly subjective and do no more than express the preferences of those who make them. Wouldn't it then be quite appropriate, indeed necessary, to `respond' to them as the proponents of extended CBA do, ie to treat them simply *as* preferences, just as the market does with consumer preferences?

As Sagoff notes, this subjectivist view of ethical judgments is not only a widespread feature of contemporary culture, but is also adopted by many neo-classical economists themselves (along with members of the Austrian School, such as Hayek: see Sagoff, pp40-42; also Plant 1989 and Roy 1989). As meta-ethical sceptics, they deny the possibility of any rational justification for ethical judgments. This is not just a denial that such judgments can be conclusively proved or established beyond any reasonable doubt. Rather, it involves claiming that there is no way of supporting any one judgment as against another: all are `equally valid' as it is sometimes put, though only because none have any such `validity' at all. More specifically, as subjectivists, they claim that saying `X is right' is the equivalent of saying `I like or prefer X', and so on - and no rational justification can be given for these `ethical preferences'.[11]

Now it might seem that a subjectivist account of values supports the assimilation of ethical judgments to personal preferences which Sagoff criticises as a category mistake: indeed, that it can only legitimately be

[10] On the dangers of ignoring the distinction between self-interest and commitment through the use of this abstract conception of preferences, see Sen 1977; cf Aldred 1994.

[11] It is often assumed or argued by such economists that scepticism or subjectivism is required or entailed by the doctrine of value-freedom, to which they are strongly committed. But as I have argued elsewhere (see Keat 1981 ch.2) this is quite mistaken: to claim that value-judgments should be excluded from science does not entail that the latter cannot be rationally justified; and it is the irrelevance of the former to descriptive and explanatory enquiry, not their irrationality, that justifies their exclusion. See also Norton 1994.

regarded as such if subjectivism itself is rejected. If this were so, then the defence of any alternative to extended CBA as the way to make environmental decisions would require the defence of a non-subjectivist, non-sceptical meta-ethics. But whilst I believe that there is little to be said for subjectivism, I shall argue that it anyway provides no support for extended CBA, and that the category mistake in the form that I have characterised it - mistakenly interpreting ethical judgments as judgments of individuals' own well-being - remains one even if subjectivism is accepted.

The subjectivist denies that any rationally defensible grounds can be given for ethical judgments. But it does not follow from this that no distinction can be made between someone's `preferring' some state of affairs because they regard it as ethically superior (for example, the continued existence of a species or some of its members), and their preferring it because of its expected contribution to their own well-being. This differentiation continues to exist, whatever view is taken about the possibility of justifying the respective grounds for these preferences. So even if, as the subjectivist maintains, the ethically-based preference is a `mere' preference in the sense that it cannot be justified, its nature *as* an ethically-based preference remains; and the same is true of own-well-being-based preferences.

That is, although for the subjectivist both judgments about what is ethically right and judgments about one's own well-being are equally unjustifiable or subjective (since they involve judgments of value), and hence are (mere) `preferences' in this subjectivist sense, it does not follow that they are both `preferences' in the different sense of indicating what the person concerned wishes to achieve for their own well-being. Consequently, also, the various further differences between these kinds of preferences noted in earlier sections are not removed or obliterated by the adoption of subjectivism: ethically-based preferences cannot be `priced', cannot coherently be included alongside own-well-being preferences in an extended CBA calculus, and so on.

Hence the need in environmental policy-making to decide whether these ethical judgments are to be accepted - and hence what significance if any to attach to own-well-being judgments - still exists, whether one is a subjectivist or not. All that subjectivism tells us is that this decision cannot itself be made for any good reason. But this unpleasant fact - were it to be one, which I doubt - cannot be circumvented by trying to include ethical judgments in a procedure which, if it has any coherent theoretical rationale at all, requires their exclusion, and which, were those judgments to be accepted, must itself be rejected.

The point that is being made here can be brought out in another way by returning to the `abstract' conception of preferences noted earlier in this section. The subjectivist may initially find this an attractive conception, since it determinedly ignores any differences between the grounds for various preferences: in particular, between those referring to expected contributions to the agents' own well-being, and those referring to ethical principles etc. But this attractiveness is illusory. For, as I argued earlier, whilst the abstraction may be justifiable for analytical-explanatory purposes, it is not so for ethical ones, where the differences of grounds may prove crucial; and this is so whether or not, as the subjectivist maintains, there is no way of rationally evaluating these grounds. Subjectivism does not justify the use of this abstract conception of preferences in welfare contexts: it simply denies that ethically-based preferences can be evaluated.

Nor should it be thought that the use of CBA is supported by subjectivism because it avoids one having to make the kind of judgment which, according to the subjectivist, cannot be rationally made: that CBA, since it is an objective, `value-free' procedure, enables (environmental) decisions to be made in a thoroughly scientific way that avoids problematic ethical judgments. For although it may be possible to make the calculations required by CBA in a value-free manner, the adoption of this particular means for making decisions clearly itself depends on the espousal of some ethical principle - specifically, I have argued, concerning the maximization of aggregative individual well-being. But this must itself, according to subjectivism, be rationally unjustifiable, no better or worse than any alternative such principle. Thus the decision whether to adopt CBA still has to be made, albeit irrationally: CBA fares no better, on subjectivist assumptions, than any other basis for decision-making. Subjectivism cannot help one avoid the unavoidable nor, in the case of extended CBA, help justify the unjustifiable.

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