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# Superficial citizens and sophisticated consumers: what questions do respondents to stated preference surveys really answer?

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## Abstract

Stated preference surveys have been criticised for many biases and uncertainties, including whether the “product” valued is seen symbolically or as means to “moral satisfaction”. Recently, criticism has focused on their propensity to elicit consumer valuations, in a context where citizen values are deemed more appropriate. Thus surveys have been conducted which explicitly elicit citizen values. Often these emulate the format of a referendum. It is not clear that in a referendum people would vote other than for their own best interest. Nevertheless, reflecting in citizen mode is likely to restructure people’s values. A genuinely selfless citizen would promote “the best good of all”, which is largely an aggregate of individual values, with some ill-defined communitarian supplement. Understood in these senses, values revealed from citizen-format questionnaires may better represent consumer values than consumer-format questionnaires do: they legitimise the profession of individual values, and reduce problems of protest votes and of confusion between “willingness to pay” and “willingness to play” (the valuation game).

## Introduction

Ever since the first sceptic asked an economist “How can you put a value on a beautiful sunset?”, the answer “well, you could ask people what they were willing to pay for it” has hung in the air. In a formal sense, however, the contingent valuation method (CVM) has emerged as a technique within the armoury of cost–benefit analysis over the past 50 years.

From the early days (Davis, 1963; Bohm, 1972; Randall *et al.*, 1974; Brookshire *et al.*, 1976; Price, 1978) it was recognised that the approach, for all its straightforward honesty, was beset by potential problems of understanding and of bias. Such problems were most evident for environmental goods which were not usually embodied in economic choice: as when they formed the background to everyday life (where CVM is subject to hostility bias, and rejected for ethical inappropriateness); or, contrariwise, when they were distant and exotic elements of global environment, which a respondent conceived and enjoyed *in absentia*, as a mental construct (where CVM is subject to hypothetical and part–whole biases).

This paper focuses particularly on the difficulties arising from symbolic values, moral satisfaction, protest bids, and the perceived distinction between consumer and citizen roles. It suggests that the “citizen” perspective is important, less for the different kind of value that it reveals, than for facilitating the revelation of true self-interest; and that this quantified self-interest is more useful to researchers than a hard-to-interpret “true” citizen value.

It draws partly on the results of small samples from atypical populations. These would clearly be an inadequate basis for valuing environmental resources. They do, however, adequately demonstrate weaknesses and errors that may arise from assuming that respondents actually answer the question appearing on the questionnaire.

### Ghosts at the contingent valuation banquet

The contingent valuation method has been hailed, explicitly or by implication, but in all cases misguidedly, as:

- the only way to reveal passive use values (Department of the Environment, 1991);
- the preferred way to value non-market effects in cost–benefit analysis (Mitchell & Carson, 1989);
- an alternative to cost–benefit analysis.

Despite its dominance in current environmental economics, however, it is just one among eight broad approaches to valuing environmental effects within the cost–benefit analysis framework (Price, 2003).

Moreover, its potential problems have always been recognised. For example, the question “what are you willing to pay ...?” might seem unethical, or unfamiliar to respondents. There are strategic incentives for respondents to misrepresent true willingness to pay (though interestingly Bohm (1972) found little evidence of such strategic bias).

In recent times, the literature has grown astonishingly, such that only those researching the topic full-time could hope to keep up. Much literature concerns particular applications, which blithely ignore or skip round fundamental problems. Much concerns attempts to resolve particular problems of questionnaire design and analysis. Some undermines the meaning of questionnaire responses. No short paper could review it all, and it has become traditional to confine review to what bears on the authors’ own interests. This tradition is followed here.

Among the unresolved problems are:

- protest bids, in which a stated zero willingness to pay represents ethical objection to the question;
- part–whole bias, in which the offered specific environmental good is treated as symbolic of environmental values generally;
- “purchase of moral satisfaction” (Kahneman & Knetsch, 1992), whereby the respondent signifies a desired image or self-image.

It is not difficult to find evidence in follow-up questions which reveal each of these.

Many authors, with Sagoff (1988) prominent among them, have asserted that evaluations made by individuals *as consumers* do not reflect the judgements they would make *as citizens*. Importantly in the context of this paper, Sagoff attributes different preferences in consumer and citizen contexts to sets of individual values which change with context. In fact, however, a citizen context may offer options (such as solution of a free-rider problem) which are unavailable in the individual choice context (Price, 2000). It is no surprise if different preferences are expressed, when the set of options changes. Moreover, the consumer valuations which Sagoff believes CVM to elicit are not, he also believes, importable to cost–benefit analysis. But, for related reasons, the values elicited by alternative, citizen-orientated decision processes, such as deliberative democratic forums, are even more susceptible to damaging biases (Price 1999b).

Among the proposed correctives for these perceived problems are the following two.

1. The emergence of choice experiments (Sievanen, 1992; Adamowicz, 1995) may be partly attributed to the perceived problems of symbolic values and moral satisfaction. Instead of confronting a stark choice between money and environment, the respondent face two or more packages, each of which at minimum contains a given level of an environmental good and a given level of monetary payment or reward. This approach can be traced back to the work of political scientists (e.g. Hoinville, 1971) on social preference. It represents an economic equivalent of cross-cutting in the political arena, in which packages are offered for debate which do not pit one constituency’s values against another’s, but rather offer, within each package, positive elements for every constituency (Alston & Freeman, 1975). In the consumer–citizen context, such choices move the ethos away from cash purchase, which is central to the notion of

being a consumer, and present money as just one of a number of worthwhile things to have, a framework which relates more closely to that of social choice.

2. The contingent referendum approach attempts to model social choice by casting the questionnaire in the form of a proposal which seeks democratic approval. In some European countries the referendum is a familiar format of social choice. Answering honestly may be seen as an expression of responsible citizenship, rather than of the self-interested consumership which CVM seems to encourage. (However, democratic referenda have also been subject to criticism, in relation to intensity of preference, and strategic response (Price 2000).)

### Post-CVM questions: reflecting on motivations

In order to obtain information on the processes behind a particular answer to a contingent question, it has become a frequent stratagem to ask follow-up questions, on such matters as:

- How do you see yourself? As a consumer? as a good citizen?
- Why were you not willing to pay the suggested amount of money? This often seeks to identify protest votes (Edwards & Anderson, 1987; Ovaskainen & Kniivilä, 2005).
- Why did you answer in that way? For example, asked *why* they had expressed a certain willingness to pay for *Rafflesia priceiana* (syn. *Rafflesia arnoldii*), respondents gave the following answers (Price, 2000).

**Table 1.** Reasons for expressing a passive use value for *Rafflesia*

	Reason for giving this value for the species	Number of responses
I	I knew about the importance of this species	2
II	I believe that genetic resources should be maintained intact	9
III	I suspected that this species does not really exist	6
IV	I thought you would not have asked these questions if it wasn't important	
V	I want to be seen as someone who is concerned about nature conservation	
VI	I didn't know anything about it	13

Of these, responses II, III and IV are evidently symbolic, and response V suggests a quest for moral satisfaction.

However, not all self-revelation about motives (especially in face-to-face interviews) is flattering to the respondent, and *responses* such as V may under-represent the prevalence of the *motivation* in the population.

Similarly, respondents to a question about the value of a red squirrel conservation programme clearly had loaded their interpretations with many values in addition to the cost of the squirrel's local extinction (Price, 2001).

### Consumer-orientated contingent valuation versus citizen-orientated referenda

Declared willingness to pay – or to accept compensation – for an environmental change depends on the context of choice (Knetsch, 2005). Although there has been much discussion of the distinction between responses to consumer- and citizen-orientated questionnaires, practical tests do not have a uniform finding. Curtis & McConnell (2002) found similar responses to questionnaires designed to elicit citizen and consumer responses. Wyatt (pers.comm.) also reported no significant difference between formats, when the valued object was a clean bathing beach in Greece – suggesting that the beach was considered an essentially commercial holiday experience. By contrast, Ovaskainen & Kniivilä (2005) found large and significant differences in willingness to pay extra taxes for additional conservation measures, in freely and publicly accessible forests.

Blamey (1996) explores potential sources of difference from the perspectives of psychology and social choice literature. He appears to argue that probabilities of achieving the desired outcome and having to pay for it are asymmetrically arranged in citizen and consumer formats. This *could* be the perception, but it would be realistic for the respondent to assume “no product, no payment”, equally for both formats.

In the following discussion, a common-sense approach is adopted to the question: why *should* monetary valuations differ in the consumer and citizen contexts?

### **Cognitive altruism**

Altruism is much discussed in the wider literature of economics, but the terminology is not well agreed. I will use the term “cognitive altruism” to mean that a respondent casts himself or herself, naïvely perhaps, as a kind of citizen cost–benefit analyst. Such a person would give a higher value to a project by making judgements about, and including, the benefits it offers to fellow-citizens. Explicitly, one might say “there is this much value to me, and I must increase that value in proportion to however-many-people receive benefit, and with regard to how my personal valuation stands in relation to an average value – if only I knew these things!” The informational requirements – knowing how typical one’s valuation is likely to be, knowing how many people are affected – are onerous. They lie beyond an individual’s capacity, being data that even professional cost–benefit analysts struggle to gather.

Moreover, empirical evidence shows that this can hardly be what is in people’s minds. To scale up personal values to those for the whole community would mean multiplying personal values by thousands or even millions. Yet the multiple between consumer and citizen valuations is typically much more modest – two-fold in Ovaskainen & Kniivilä (2005).

But if respondents scale up benefits to themselves by the supposed affected population, they should also scale up the cost to themselves, because everybody will pay the *same tax* as well as receive the *same benefit*. If they consider everyone to be like themselves, there should be no difference of result between consumer and citizen formats: a worthwhile individual cost for the individual’s benefit, scaled up by the relevant population, is a worthwhile community cost for the community’s benefit. Respondents can handle this judgement by knowing no more than “an unknown number of people are affected” and “I believe myself to be typical of these people”.

“What am I willing to pay for the satisfaction of all humanity?” is not at all the same question as “What should each individual sacrifice for his or her own satisfaction, according to my judgement?”

Brookshire *et al.* (1976) argue that those who believe they will enjoy a higher-than-average benefit have an incentive to exaggerate willingness to pay fees or taxes: the cost will fall equally on all, but this group will receive a great-than-average share of the benefit. However, this will be so equally in consumer and citizen formats, unless citizens, but not consumers, make self-denying adjustments to allow for their atypically high valuations. (Similarly, consumers believing themselves to enjoy a lower-than-average benefit have an incentive to understate true willingness to pay. In practice Brookshire *et al.* found no evidence of the bimodal distribution of willingness to pay that would result from such strategic bidding.)

### **The warm glow of moral satisfaction: affective altruism**

Cognitive altruism (except that which merely scales up costs and benefits to oneself) neither is intrinsically very plausible, nor does it tally well with experimental results. By contrast, the satisfaction derived from favouring some community proposal is a matter of common experience, and common report (9% of the assessed value of wetland conservation was explicitly attributed to this cause (Price, 1999a)). To value a warm glow requires no

calculation of how extensively the advantages of the proposal will be experienced: it is just something I experience myself, within the bounds of my current understanding of how widely benefits will be shared. The warm glow has sometimes been attributed to interdependent utility functions: the pleasure you derive from something, really adds to my pleasure. Yet the warm glow of moral satisfaction remains an individual value: it would really exist, even if the subject of the warm glow (other people's pleasure) was never in practice fulfilled, but not *known* to be unfulfilled. It shares this feature with the option value of conservation.

Warm glows may be stimulated and given legitimacy by a citizen format of question. *It is right and proper to feel good about the well-being of the whole society: yes, I recognise within myself that aspect of being a good citizen; I shall give that feeling full scope to express itself ....*

Now there is no reason why a sophisticated consumer could not recognise this warm glow as a personal value, which makes one's own life pleasanter. But even such a one might respond to a direct injunction to consider "solely your own welfare" as being an explicit directive from the interviewer to filter out such warm-glow sensations.

### **Sophisticated consumers: the demeaning view of self**

Take the following "consumer" questionnaire format (Ovaskainen & Kniivilä, 2005). The preamble included the direction "Consider the pros and cons of the alternatives solely from the point of view of your own welfare." The following question asked: "Would you personally be willing to pay FIM X yearly as an extra tax ...." At the most extreme, such a format could be read with the subtext "Consider your own narrow-minded, self-interested pleasure" or even "Do you wish other people to consider you as a narrow-minded, self-interested pleasure seeker? If so, please take this question seriously, and answer with a big value." (And it should be said that some CVM formats emphasise more strongly than this one did, the individualistic element of purchase of an environmental product.)

Contrast this with the direction given in the "citizen" questionnaire format: "Consider the pros and cons of the alternatives as a citizen from the point of view of your own welfare as well as the whole society." The question asked "If [the conservation measure] caused you an extra yearly tax of FIM X, would you vote for preservation?" Could the subtext be "In your role as a good citizen, taking account (as no doubt you do) of the broad welfare of your fellow-citizens, would you vote ..."? Use of the words "citizen", "society" and "vote" shift emphasis from a context of pursuing individual self-interest, to one of acting for the good of the community: "Do you wish other people to consider you as a public-spirited, responsible citizen? If so, please take this question seriously, and answer with a big value."

This difference of formats, then, may not only distinguish an individual's roles in society, but offer a different way of looking at him- or herself, or the kind of person he or she wishes to be seen as. It would not be surprising if such differences in the invited self-perception changed people's "willingness to *play* [the game of valuation]". To accept playing the game might entail acceptance of whatever picture of self it is, that the questionnaire format leads towards. The citizen format seems to present, for most people, a more attractive self-image, and so is likely to be acceptable more frequently. And indeed, Ovaskainen & Kniivilä (2005) found a much lower proportion of protest votes among respondents to the citizen format question.

### **Sophisticated consumers: the degraded product**

Even if respondents are prepared to volunteer some willingness to pay for a proposal in consumer format, the format may make the product seem less worth paying for. Willis (1994) records a mean stated willingness to pay for entrance to Durham Cathedral (a World Heritage Site) of £0.45 per head. Yet at that time the mean *voluntary* donation was £0.48 per head. By



contrast, the expectation is that voluntary donations would understate true willingness to pay, because of the free-rider problem (Price, 1994). The explanation may be that a cathedral to which entrance is free is *a more valuable product* than one that is treated as a market product. Some things lend themselves to the consumer ethos less than others do.

Focusing respondents' attention on individual benefit from public proposals similarly may make them seem a less valuable product than one presented as a shared resource.

Why would anyone vote in a referendum for something other than their own interest? It seems to be widely assumed that in referendum format respondents will choose altruistically (however defined). But why should they? In real-world referenda, do people do anything different from voting for their own interest? That self-interest may include the pleasure derived from the well-being of cherished others, and pleasure derived from seeing justice prevail, and avoiding the bad feeling of acting badly by other people: it is self-interest nonetheless. Why would *voters* wish to be less happy than they might be, any more than *consumers* would?

Why would we *want* them to vote against their own interest?

### **In praise of self-interest**

Customary critiques of CVM, and even of cost-benefit analysis, often take it for granted that self-interest is an abhorrent propensity, vigorously to be excluded from evaluative processes. By contrast, Adam Smith (1776), a founding parent of modern economics, famously believed that pursuit of self-interest within a free market would, by the guidance of an "invisible hand", achieve the best good of all. Environmental economics identifies why the invisible hand of the market fails (particularly, through the existence of externalities), seeks values for what is not valued through the market, and (sometimes) tries to co-opt the invisible hand by creating markets for what is not traditionally marketed (Mantau *et al.*, 2001; Pagiola *et al.*, 2002).

Seen in this sense, the evaluator's task is, precisely, to elicit self-interested consumer values, that may stand on the same ground as existing market prices, which themselves are formed by the exercise of self-interest. Environmental economists generally acknowledge the virtue of everyone determining values for themselves, and recognise that, if the economic valuation system is abandoned, other modes of choice must be substituted: these themselves are not immune to distortion and unequal exercise of power – indeed, the citizen values revealed and debated in the forum of deliberative democracy suffer many of the problems that arise in interpreting CVM (Price, 1999b, 2000).

Such a perspective may be unacceptable to those who cherish a more socialised concept of choice. However, the perspective presented here does not deny that people are concerned about the well-being of others. It just asserts that such a concern is internalised in their own well-being: this is a quite adequate basis on which to create a caring community – and possibly a more reliable basis than one which requires people to act against their own interest (Price, in process). Within this perspective, warm glows are part of consumer values, as much as of citizen ones.

There is a particular class of benefit, shared with others, that may be termed a *communitarian* value. For example, I value a free national health service not just because it provides health care for me (which I could achieve by private health insurance), but because I value the fact that everyone else has the same access as I do myself. This is a preferred state even to knowing that everyone else had private health insurance, because its provision is an expression of togetherness. A sedate lady hymn-writer (Larcom, 1931), living in the USA at the time of that country's rapid capitalist expansion, expressed the view in these surprisingly seditious lines.



I learnt it in the meadow path,  
I learnt it on the mountain stairs:  
the best things any mortal hath  
are those which every mortal shares.

The grass is softer to my tread  
because it rests unnumbered feet;  
sweeter to me the wild rose red  
because she makes the whole world sweet.

Wealth won by others' poverty?  
Not such be mine! let me be blessed  
only in what they share with me  
and what I share with all the rest.

Perhaps these lines were admitted to the hymn book only because the compilers failed to understand their full economic meaning. It is not just a hymn in praise of public goods, but one repudiating the factor shares produced by the market.

But this care for community, too, becomes internalised as an individual value: again our personal well-being depends on the well-being of others. Do we teach such an attitude to our children? If yes, why? Presumably because we believe, from experience or from discourse, that concern for others is both rewarding for self, and creates motivations by which the objectives of a democratic society may be achieved. (I doubt that this can be an original thought, and I take this opportunity to apologise to those philosophers and political theorists of the past whose works I have not had time to read and to honour with a reference. I particularly suspect that John Stuart Mill would have been here before.)

It is essential, then, to avoid assembling a value for a proposal which merely looks at the countable benefits it delivers, without considering the *framework* of provision. With that, the critics of cost–benefit analysis would agree.

### **Constituting a legitimate cost–benefit analysis**

How, then, should a cost–benefit analysis be constructed, bearing in mind the discussion above?

Firstly, the relevant willingness to pay is that *of* the individual respondent *for* that individual respondent's perceived benefit. According to McConnell, (1997), no altruistic assessment of benefits accruing to others is required, nor is it desirable.

... genuinely altruistic values impart no utility except whatever is directly experienced by the ultimate beneficiary: it is circuitous and inaccurate (and contrary to the spirit of neo-classical economics) to evaluate them by reference to a third party's assessment of their importance (Price, 1997).

And

... such altruism, while morally praiseworthy, represents no additional benefit: it merely double-counts values accruing to other contemporaries and to future generations, which a well-constructed cost–benefit analysis would account for by other, more reliable means. (Price, 2005)

As it happens, affective altruism may not be a problem in practice: when explicitly offered the option, no-one in a survey of willingness to pay for conservation claimed anything identifiable as an affective altruistic motive (Price, 1999a). One may doubt whether such a pure motive would actually exist, even if it was declared. As it happens, too, it does not matter if respondents engage in cognitive altruism, provided

- they take account of costs as well as benefits accruing to others, and
- they project to others the same valuation that they ascribe to themselves.

Although we do not need, and do not wish, respondents to be altruistic, if their altruism takes the above (reasonable) form, their responses can be interpreted as though they were the respondent's individual valuation. A representative sample of the population provides the required unbiased estimate of individual values. This remains the case, even if some respondents treat the valuation individualistically, and others engage in cognitive altruism. What *is* problematical are incorporated judgements, that other people's values will be in some systematic way different from one's own. The poet William Wordsworth (1844), in his conservative later years, wrote:

The imperfectly educated classes are not likely to draw much good from rare visits to the [Lake District of England] ... [and] the humbler ranks of society are not, and cannot be, in a state to gain material benefit from this beautiful region.

We would not, I think, wish to reflect such elitist judgements in a cost–benefit analysis. There is no need for them. In properly designed and representative surveys, each segment of society has the opportunity to represent its own interest. The format of the questionnaire should encourage respondents to do so.

The objection may be envisaged, that such a valuation, made in the spirit of cost–benefit analysis, takes no account of the values people hold and wish to express as citizens. Yet why need it do so? *What should the good citizen desire, except the satisfaction of the needs felt by the individuals constituting the community?* If an additional value inheres in this good citizen's desire, then it can only be rightly attached to what would, in any case, be the preferred outcome in an appropriate cost–benefit analysis. In fact, the closest we can get to cognitive altruism is a kind of quasi-true-altruism, in which we make a periodic contract with ourselves to accept the results of cost–benefit analysis, even when they are against our interest and we intuitively prefer another outcome. But such a citizen's value has the same magnitude, irrespective of the actual outcome of the evaluation, and so does not weigh in favour of any particular proposal.

Obversely, if what is seen as “good citizenship” entails anything different from concern for the well-being of all who constitute the community, it is in fact self-serving *bad* citizenship. It may lead to defence of special interests, and excessive expenditure of resources.

Thus the elicitation of self-interest, understood in this embracing sense, is the duty of the responsible researcher: *that* self-interest and no more.

It is not denied that shared projects have value to the community, on top of the utilities the project is designed to deliver. These are however values that may be felt and anticipated by respondents, and incorporated in their individual valuations of the community projects. The real difficulty is a subtler one. Bread is not a public good, but I would be happier if I knew that it was provided to the world community in sufficient quantity. Now cost–benefit analysis should work on a level playing field, and its opportunity costs should therefore also include a mark-up for the communitarian values of any *alternative* means of disbursing funds. This is a possible reason for *excluding* some communitarian values: not that they are *unreal*, but that they are *pervasive*. Here, the opportunity cost of project finance is relevant: if the project is financed from taxes, would any private expenditure forgone involve not only forgone benefits measured at market prices, but also forgone communitarian values not measured at all? Perhaps it would not be so, but the question ought to be asked.

If people take broadly self-interested decisions, whatever the format of questionnaire may be, then the need is to elicit that self-interest *fully*, but not *in excess*. Contingent referenda, as to a citizen, are to be preferred to classical contingent valuation, precisely because they enable the citizen to respond genuinely as a self-interested consumer. And to respond free from the fear

of the interviewer's (perhaps imagined) disapproval of self-interest, and from the corrosive aftermath of self-censure. In this context, protest bids are also likely to be less prevalent (Ovaskainen & Kniivilä, 2005).

By contrast, the consumer format may demean the respondents' self-image, and degrade the perceived value of the offered product. And, if the consumer format is "successful" in persuading respondents to ignore that part of their personal utility which derives from the utility of others, it becomes an incomplete assessment of personal utility: instead of avoiding double-counting of altruistically declared values as intended, it promotes under-counting of self-satisfying warm glows.

The citizen referendum format may for this reason elicit consumers' values more accurately than the consumer format does, and estimate consumers' values better than it does citizens' values (the greater part of which may illusory and valueless, as they are commonly understood).

However, the project to be valued should not be given special status. Citizen-orientated questionnaires may induce a more reflective attitude to communitarian values, and create genuine values that did not exist before. But, in doing so, they make respondents unrepresentative of the whole relevant population, the great majority of whom have not been stimulated into this more reflective state. Thus respondents' values cannot legitimately be scaled up to the whole population (Price 1999a).

Moreover, the questionnaire may create a symbolic response, such that an excessive proportion of the portfolio of warm glow and communitarian values is attached to the proposal being valued: an individual's feelings about nature conservation for example, and about warm glow and communitarian values, load onto the particular proposal, temporarily, because this is the only opportunity offered to express such feelings. The revealed willingness to pay (taxes) may then express moral satisfaction about "acting rightly" or "caring about the proper things".

But truly virtuous moral satisfaction is not a function of a *particular* choice, but rather of *any* choice that maximises well-being in general. Moral satisfaction is a legitimate utility, but its annexation by a particular questionnaire response is not. Indeed "moral *self*-satisfaction – that is, satisfaction with self rather than with morality – is an anti-communitarian attitude, likely to be obstructive to the best satisfaction of the community's wishes.

It may even be that only a strictly limited amount of well-being can be derived from warm glows: thus denial of the opportunity to realise one potential source of warm glows may merely displace the warm glow to another project. In this case the fulfilment of a particular project may offer no addition to the total of warm glow values.

To avoid any supercharge of altruistic, warm glow and communitarian values that might be induced, while also avoiding the demeaning and degrading influences of a narrowly self-interested format, the willingness to pay question should be phrased somewhat as follows: "Please only consider your own viewpoint and wishes about this issue. We shall be asking a cross-section of the population similar questions, so they will have the opportunity to represent their own interests." This, while emphasising the communal nature of the decision process, defines relatively clearly the individual's role within it.

Further, the format of choice experiments, in which nothing is headlined as the "moral, environmentally and socially responsible choice", is to be preferred to a questionnaire in which only one (community) project is proposed, with saving of (the individual's) money the only alternative.

The objective of the referendum format is to elicit a value for use in cost-benefit analysis. Consonant with other values entered in cost-benefit analysis, the mean willingness to pay is the appropriate value. The median willingness to pay is a guide, should anyone want

it, to the maximum tax that could be proposed in support of the project, without the project's being rejected in a referendum. It has no particular relevance to cost-benefit analysis.

## Conclusions

Consumers are not just mindless graspers after instant and personal gratification. Their behaviour, in life decisions and in markets and in responding to questionnaires, shows they are more sophisticated than that. Their own gratification includes what arises from anticipating the gratification of others, and this, arguably, is both part of what they are willing to pay for, and a genuine addition, which cost-benefit analysis should include, to the well-being of a caring community. If this is *not* part of what consumers are willing to pay for, then no addition should be made to the values which other consumers experience for themselves: these values should be included in cost-benefit analysis directly, rather than through the vicarious estimation of fellow-consumers.

On the other hand, the superficiality of citizens *acting as citizens* lies firstly in their supposing that it is their task alone, to represent the interests of the community. It is ingenuous of citizens to suppose that they have the knowledge to judge benefits to the whole beneficiary community. Those who consciously and obdurately act as such citizens, by guessing at the values which other people hold, introduce unnecessary inaccuracies to the evaluation of public proposals. It is superficial also to suppose that in expressing moral self-satisfaction, one is seeking satisfaction of the community's moral needs.

The ethos of western politics at the end of the twentieth century made a virtue of the individual's pursuit of self-interest. But markets and quasi-markets have delivered externalities and injustice. We need to be careful not to accelerate the counter-swing of the pendulum by decrying individuals' estimation of values accruing to themselves. If individual consumers are sophisticated enough to know their real values, we should encourage them to divulge such values. In this way, we can help to construct the outcome that a sophisticated and generous-spirited citizen would desire: the best good of all.

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## References

- Adamowicz, W.L. 1995. Alternative valuation techniques: a comparison and movement to a synthesis. In: Willis, K.G. and Corkindale, J. (eds), *Environmental Valuation: New Directions*. CAB International, Wallingford, pp.160-77.
- Alston, R.M. & Freeman, D.M. 1975. The natural resources decision-maker as political and economic man: towards a synthesis. *Journal of Environmental Management* 3, 167-183.
- Blamey, R.K. 1996. Citizens, consumers and contingent valuation: clarification and the expression of citizen values and issue-opinions. In Adamowicz, W.L., Boxall, P.C., Luckert, M.K., Phillips, W.E. & White, W.A. (eds). *Forestry, Economics and the Environment*. CAB International, Wallingford, pp.103-33.
- Bohm, P. 1972. Estimating demand for public goods: an experiment. *European Economic Review* 3, 111-30.
- Brookshire, D.S., Ives, B.C. & Schulze, W.D. 1976. The valuation of aesthetic preferences, *Journal of Environmental Economics and Management* 3, 325-46.

- Clark, J., Burgess, J. & Harrison, C.M. 2000. "I struggled with this money business": respondents' perspectives on contingent valuation. *Ecological Economics* 33, 45-62.
- Curtis, J.A. & McConnell, K.E. 2002. The citizen versus consumer hypothesis: evidence from a contingent valuation survey. *Australian Journal of Agricultural and Resource Economics* 46, 69-83.
- Davis, R. 1963. Recreation planning as an economic problem. *Natural Resources Journal* 3, 239-49.
- Edwards, S.F. & Anderson, G.D. 1987. Overlooked biases in contingent valuation surveys: some considerations. *Land Economics* 63, 168-78.
- Hoinville, G. 1971. Evaluating community preferences. *Environment and Planning A* 3, 33-50.
- Kahneman, D. & Knetsch, J.L. 1992. Valuing public goods: the purchase of moral satisfaction. *Journal of Environmental Economics and Management* 22, 57-70.
- Knetsch, J.L. 2005. Behavioral economics and sustainable forest management. In: Kant, S. & Berry, A.L. (eds), *Sustainability, Economics and Natural Resources: Economics of Sustainable Forest Management*. Springer, Amsterdam, pp.91-103.
- Larcom, L. 1931. I learned it in the meadow path. In: Anon. (ed.). *Songs of Praise*. Oxford University Press, p.199.
- Mantau, U., Merlo, M., Sekot, W. & Welcker, B. 2001. *Recreational and Environmental Markets for Forest Enterprises: a New Approach towards Marketability of Public Goods*. CAB International, Wallingford. 558 pp.
- McConnell, K.E. 1997. Does altruism undermine existence value? *Journal of Environmental Economics and Management* 32, 22-37.
- Mitchell, R.C. & Carson, R.T. 1989. *Using Surveys to Value Goods: the Contingent Valuation Method*. Resources for the Future, Washington. 488 pp.
- Ovaskainen, V. & Kniivilä, M., 2005. Consumer versus citizen preferences: evidence on the role of question framing. *Australian Journal of Agricultural and Resource Economics* 49, 379-94.
- Pagiola, S., Bishop, J. & Landell-Mills, N. (eds) 2002. *Selling Forest Environmental Services: Market-based Mechanisms for Conservation and Development*. Earthscan, London. 299 pp.
- Price, C. 1978. *Landscape Economics*. Macmillan, London. 168 pp.
- Price, C. 1994. Donations, charges and willingness to pay. *Landscape Research* 19 (1) 9-12.
- Price, C. 1997. Valuing biodiversity: what, how and by whom? *Scottish Forestry* 51, 134-42.
- Price, C. 1999a. Contingent valuation and retrograde information bias. In: Roper, C.S. & Park, A. (eds). *The Living Forest: Non-market Benefits of Forestry*. HMSO, London, pp.37-44.
- Price, C. 1999b. Stated and revealed preference analysis. In Helles, F., Holten-Andersen, P. & Wichmann, L. (eds), *Multiple Use of Forests and Other Natural Resources*. Kluwer, Dordrecht, pp.46-65.
- Price, C. 2000. Valuation of unpriced products: contingent valuation, cost-benefit analysis and participatory democracy. *Land Use Policy* 17 187-96.
- Price, C. 2001. Exact values and vague products? Contingent valuation and passive use value. In Sievanen, T., C.C. Konijnendijk, L. Langner & K. Nilsson (eds). *Forest and Social Services – the Role of Research*. *Research Paper* 815 of Finnish Forest Research Institute, Vantaa, Finland, pp.205-17.
- Price, C. 2003. Quantifying the aesthetic benefits of urban forestry. *Urban Forestry and Urban Greening* 1, 123-33.
- Price, C. 2005. How far can cost-benefit analysis be extended? *Silva Carelica* 50, 10-21.

- Price, C. in review. Sustainable forest management, pecuniary externalities and invisible stakeholders. *Forest Policy and Economics*.
- Randall, A., Ives, B. & Eastman, C. 1974. Bidding games for evaluation of aesthetic environmental improvements. *Journal of Environmental Economics and Management* 1, 132-49.
- Sagoff, M. 1988. *The Economy of the Earth*. Cambridge University Press. 271 pp.
- Sievänen, T., Pouta, E. & Ovaskainen, V. 1992. Problems of measuring recreational value. *Scandinavian Forest Economics* 33, 231-43.
- Smith, A. 1776. *An Inquiry into the Nature and Causes of the Wealth of Nations*. Harmondsworth: Penguin, 1986. 537 pp.
- Willis, K.G. 1994. Paying for heritage: what price for Durham Cathedral? *Journal of Environmental Management* 37, 267-77.
- Wordsworth, W. 1844, quoted in Kay, G. 2002. *Access for Countryside Walking*. Staffordshire University Press, Stoke-on-Trent. 259 pp.