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RESPONDENTS TO CONTINGENT VALUATION SURVEYS: CONSUMERS OR CITIZENS (BLAMEY, COMMON AND QUIGGIN, AJAE 39:3) — A COMMENT

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Blamey, Common and Quiggin (1995) (BCQ) suggest that responses to contingent valuation (CV) questionnaires may be framed either according to the extent of individual benefits received, or according to wider views about ethical frameworks, impacts on other people, or desired societal levels. They characterise the individual benefit approach as a consumer model, and responses indicating wider concerns as citizen preferences. Citizen value responses are held to invalidate the economic assumptions underlying the use of CV. Hence, they hypothesize that the incorporation of CV results into benefit-cost analysis is problematic.

In this comment we suggest that there are several flaws with the citizen value hypothesis. These can be grouped into arguments about the existence of citizen values based on ethical or altruistic grounds, and arguments about the identification of citizen values.

Ethical Concerns

BCQ suggest that citizen values are likely to occur where ethical concerns are involved. Yet there is no simple classification of preferences with respect to ethical concerns.

Individuals form preferences according to a background structure of ethical and moral rules. One of the consequences of preference formation is feelings of satisfaction or regret about whether preferences chosen comply with ethical frameworks (Broome 1992). Thus ethical concerns impact on everyday preferences of people. Shoppers for dolphin-safe tuna have to weigh up the feelings of satisfaction from supporting an ethical principle against the regrets about higher costs.

Ethical concerns do not make people's preferences special, for two main reasons. First, ethical concerns impact on most preferences formed (and explain why a number of preferences, such as for stolen goods, are not formed by many people). Second, the impact of ethical

concerns varies. Preferences for free-range eggs and donations to third-world charities will draw on different ethical frameworks in different ways.

As well, preferences about environmental issues are not special simply because ethical issues are involved. Health and education issues (and personal boycotts on French goods because of nuclear testing) are all examples of ethical frameworks impacting on personal choices.

The distinction made by BCQ between consumer and citizen preferences relies on an artificially narrow definition of individual preferences: those that relate only to narrow individual benefits. In fact, the role of economics is to assess the range of preferences that people hold, and these are not confined to self interested motivations, as the debate about altruism shows.

Altruism

BCQ suggest that double counting or under counting of preferences will result if people take into account the benefits of others as well as themselves (p. 270). But altruism does not cause double counting. If an action makes a person better off, then the increase in utility is a benefit. If it also makes someone else better off simply because they enjoy the first person's pleasure, then that is a further benefit. For example, if a child enjoys a birthday present, that enjoyment is a benefit. If the parents enjoy seeing the child's enjoyment, that is a further benefit. The present is purchased to supply both benefits. Similarly, many people gain a benefit from sponsoring a child in the developing world. Both the donor and recipient gain from the action.

The citizen value hypothesis of BCQ reflects a theme, common in the environmental debate, that the preferences of people as assessed by economists relate only to narrow self interest. Samuelson (1993, p. 143) comments (in relation to altruism):

Such argumentation (in Wolfgang Pauli's scathing phrase) *is not even wrong*. It is just boring, irrelevant, and in the technical sense of old-fashioned positivism "meaningless". You do not understand the logic and history of consumer demand theory - Pareto, W.E. Johnson, Slutsky, Allen-Hicks, Hotelling, Samuelson, Houthakker . . . — if you think that is its content.

BCQ have drawn too short a bow in implying that valid CV responses reflect only narrow self interest. For environmental issues many respondents display high non-use values, meaning that they prefer to see environmental entities preserved for their children's or for future generations' sake, or the for the benefit of the plants/animals themselves. Thus the concept of citizen values is meaningless in an economic context. This can be demonstrated when we turn to issues of identification.

The Referendum Model

The main justification for citizen values that BCQ use is that respondents will make different choices reflecting consumer or citizen values according to the setting. Thus respondents in a contingent valuation setting, when asked directly for their willingness to pay (WTP) for preserving an environmental asset would be likely to frame their choice as a consumer. In contrast, respondents asked whether they would support a particular tradeoff choice (as in a referendum style, dichotomous choice format) would be more likely to act as citizens.

There are two major criticisms of this approach. Firstly, individuals are faced with very different incentives between a normal referendum vote and a market-based consumption choice, and different results simply reflect those changed incentives. In a market-based consumption choice, the costs and benefits accrue directly to the individual. In a referendum setting though, both incentives change. Firstly, people feel relieved of their personal income constraint and they may feel at liberty to spend on the basis of what they perceive to be a limitless public purse. Secondly, the implication of a referendum is that the results will be binding on the whole population, and for those in favour of a referendum on a preservation issue, a positive outcome provides a much larger benefit than could be enjoyed from their individual purchasing power in a market setting. Thus when BCQ (p. 268) quote Sagoff (1988) to suggest citizen values exist, they ignore the incentives that explain why people make different choices in different settings.

Having established that alternative incentives explain behavioural differences between market transactions and referendum votes, we would like to point out that a dichotomous choice CV is very unlike any referendum in Australia, but is more similar to some referendum questions in the United States. In a typical dichotomous choice question, respondents are asked (yes/no) if they would support a particular tradeoff (such as paying \$10 to preserve an area of rainforest). To impart realism for items normally provided by governments, payment mechanisms such as increased government charges are often used. In the forests study quoted in BCQ, the tradeoff for preservation was increases in timber prices and government charges.

Such a mechanism is not dissimilar to the normal consumption choices facing individuals where the price is set and individuals simply have to make the choice about whether or not to purchase. People in Australia are very accustomed to facing established tradeoff positions rather than constructing their WTP bids. For these reasons, the dichotomous choice format often provides the most realistic scenarios to respondents. Thus a referendum style, dichotomous choice CV does not imply (as BCQ do) that respondents face the same incentives that they would in a normal referendum setting. If the BCQ hypothesis is correct, people faced with market research surveys (would you buy this

new toothpaste at \$2 a tube?) are likely to respond as citizens rather than consumers.

Problems of Identification

There are a number of practical difficulties with the identification of citizen values. These include recognition problems (how do we know that expressed views are citizen values and are not tainted with individual consumption preferences?), cognition problems (do religious and nationalistic motives count as a part of citizen values?), and measurement problems (how do you measure the intensity of citizen values held by each individual?).

BCQ argue that “. . . the task of attempting to distinguish between citizen and consumer models is fundamentally misguided” (p. 273) yet they still make the attempt. However, their approach to identification is flawed. In their analysis of the RAC Forests CV data, an explanation of the log (odds) of accepting a WTP offer (WTP variable) is sought. This is the dependant variable. Two types of independent variables are used to provide this explanation;

- consumer variables (income and price)
- citizen variables (attitudes to the environment).

They propose that the superior explanatory power of a model including both types of variables compared to the RAC model including only consumer variables shows the validity of their citizen value hypothesis. However, the citizen values are clearly not ‘independent’. They are essentially expressions of the same factors that drive the willingness to pay variable. The ethical frameworks that guide individual preference formation also guide the opinions and attitudes that people hold. For example, a respondent who favours government spending more on the environment is also likely to be in favour of forest protection options in a CV questionnaire.

BCQ state that the similarity between attitudinal responses and the predictions of support is “the most striking result” of their analysis (p. 280). Yet it is absolutely predictable *a priori*. Nor is it surprising that the model including citizen as well as consumer variables as independent variables provides a much stronger fit than when only consumer variables are included. Indeed, if it did not, the CV questionnaire would have to be considered with suspicion. Attitudinal questions such as the citizen variables are usually included in CV questionnaires in order to provide a consistency check on WTP responses. They provide an albeit weak check on validity.

The inclusion of citizen variables in the model results in a mis-specification because of the spurious nature of the relationship being estimated. The parameter estimates are thus likely to be unreliable. An analogy would be the estimation of the number of chickens in a flock using the number of eggs laid as an independent variable. Which came

first, the chicken or the egg? Or which came first, the WTP response or the attitude to the environment? Hence, it is appropriate to estimate:

$$\begin{aligned} \text{Environmental attitude} &= f(\text{income, age, sex. . .}) \text{ AND} \\ \text{log odds WTP} &= g(\text{income, age, sex. . .}). \end{aligned}$$

The composite equation of BCQ is further mis-specified by the inclusion of two environmental attitude variables (citizen variables) as independent variables. It is likely that these variables would be closely correlated and that multicollinearity would result.

In conclusion, we sympathise with the direction of BCQ in emphasising the role of underlying attitudes and ethics for preference formation. However we reject their citizen value hypothesis with the associated implications about the narrow self interested preferences as captured by economic analysis. As well, we reject their attempts to identify such citizen values by treating attitudinal responses as independent of WTP responses.

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