Democracy and valuation: A reply to Schläpfer (2016)

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Abstract

This paper is a critical appraisal of Schläpfer's (2016) proposal of a Democratic Valuation (DV) methodology to value public goods. While we appreciate attempts to address the shortcomings of conventional stated preference techniques, we have some reservations regarding DV. Our paper critically reviews the following characteristics of the proposed methodology: i) referendum format as decision-making mechanism, ii) single-dimensionality in the description of the policy issue to be valued, and iii) preference formation through provision of detailed information. Finally, we 'calibrate' Democratic Valuation against another alternative to conventional stated preference approaches, namely Deliberative Monetary Valuation (DMV). We argue that DMV addresses many of Schläpfer's concerns regarding stated preference techniques and at the same time avoids some of the problems generated by DV.

Keywords: Stated preferences, deliberative monetary valuation, majority voting, public goods

1. Introduction

Economic valuation of the environment has received a substantial amount of criticism from many different perspectives over the last two to three decades (e.g., Gómez-Baggethun and Ruiz Pérez, 2011; Kallis et al., 2013; McCauley, 2006; Sagoff, 1988; Sen, 1995; Spash, 2008; Vatn, 2009). One result of this has been the development of numerous alternative valuation approaches that make use of the advantages of deliberation (Brown et al., 1995; Dietz et al., 2009; Kenter et al., 2015; Lo and Spash, 2013; MacMillan et al., 2006; Wilson and Howarth, 2002; Zografos and Howarth, 2008). In a recent paper, Schläpfer (2016) proposed a new valuation approach, which he calls Democratic Valuation (DV). DV uses the so-called finance referendum as a blueprint and is based on the idea that citizens are to choose between realistic scenarios regarding the provision of single-dimensional public services. Majority voting is the

'decision rule' in DV and average willingness to pay (WTP) for a unit of the public good in question can be calculated by dividing the costs of the most-favoured scenario by the quantity of the good.

In this paper, we offer a critical appraisal of the DV approach. More specifically, we start by critically discussing the approach's premises, i.e., Schläpfer's critique of conventional stated preferences (SP) methods (section 2). In section 3 we then focus on his alternative approach itself and criticise a number of its tenets. Doing that, we argue that deliberative monetary valuation (DMV), which has been developed over the last 15-20 years and already found some application of valuation studies, is much better suited to close the gaps identified by Schläpfer. In section 4, we offer a brief conclusion.

2. The premises

Schläpfer's (2016) argument in favour of DV is based on a multi-issue criticism of conventional SP approaches. Specifically, he makes three major points:

- SP do not provide information about majority preferences;
- Additively aggregated individual WTPs are a less democratic preference aggregation mechanism than majority voting and violates the 'one-person-one-vote' principle;
- Counterfactual scenarios applied in SP surveys and individual tax increases as payment vehicle invite strategic behaviour.

Also, the author seems to implicitly reduce the application of SP surveys to their being part of cost-benefit analysis (CBA), thus effectively excluding other valuation contexts. This last point generally relaxes Schläpfer's criticism, as much of it is mainly applicable to SP when it is used in decision-support contexts (CBA). In other contexts, such as demonstration of relative values and awareness raising (see, e.g., Costanza et al., 2014, Table 1), strategic behaviour and the alleged violation of democratic principles are less relevant because i) precision is less crucial and ii) the incentive for strategic behaviour is less pronounced.

Nonetheless, since CBA is an important field of application of conventional economic valuation methods, we would like to examine the three points made by Schläpfer in some more detail.

The first and second points are, in fact, closely interrelated. Regarding the claim that SP does not provide information about majority preferences, we wonder why it should. Economic valuation is not meant to be a democratic decision-making mechanism. In fact, even CBA is

only a decision-support tool which necessitates the addition of further information, especially non-economic (i.e., non-utilitarian) arguments (cf. Spangenberg and Settele, 2016). So, Schläpfer seems to criticise SP for not fulfilling a function it is not meant to fulfil. In addition to that, and here we come to the second point of his criticism, the diagnosis that SP is undemocratic is debatable. Our argument here is that majority voting, while being an established democratic institution, effectively excludes the preferences of up to half the population (the so-called 'tyranny of the majority' (Mill, 1859)), since it is binary: the decision is based on a yes-no dichotomy, with no intermediate evaluation possible. Meanwhile, SP or, more generally, the additive aggregation of individual WTP, is not binary in that sense, but includes information about the *intensity* of preferences. Thus, at least if corrected for income disparity among the respondents, aggregated WTP can be viewed as adding some additional information about a population's preferences as compared with majority voting.[1] This is, of course, a violation of the 'one-person-one-vote' principle, but it might be asked why a person who is almost indifferent between, say, Donald Trump and Ted Cruz,[2] should count exactly as much as a person who is decidedly against one of the two.

The other theme mentioned repeatedly in Schläpfer's paper is counterfactuality of scenarios and strategic behaviour.[3] Here, we see a need for two qualifications of this critique. First, while the assessment of counterfactual scenarios in SP is indeed unsatisfactory, it is also inevitable: the goal of SP is *ex ante* evaluation of changes in the quality or quantity of some public good. Since our clairvoyant abilities are rather limited and the public goods in question often quite complex (think of biodiversity or public health), both the actual results of a given policy scenario and its costs are necessarily and unavoidably uncertain. So, there is no choice between 'counterfactual' and 'realistic' scenarios, but only between different degrees of counterfactuality. Second, while strategic behaviour is problematic for SP (cf. Mitchell and Carson, 1989, chap. 7), economic experiments indicate that it is generally not as pronounced a problem as neoclassical theory's predictions might suggest (Ledyard, 1997; see also Interis, 2014; Horowitz et al., 2013). Furthermore, survey design can help to alleviate the problem, e.g., a dichotomous choice format rather than open-ended WTP question (Carson and Groves,

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[1] Of course, the information about societal preferences provided by economic valuation is far from perfect, as it is WTP, not utility, that is aggregated. Unless all people derive the same marginal utility from money (a strong assumption), aggregated WTP is only an imperfect proxy for aggregated utility. Furthermore, this imperfect proxy necessitates taking into account differences in income, e.g., by means of equity weighting (Anthoff et al., 2009).

[2] At the time of writing Donald Trump and Ted Cruz were presidential candidates for the Republican Party in the US primary election 2016. Both were very controversial.

[3] What kind of strategic behaviour is meant is not entirely clear, as the author only refers to 'strategic answering' and 'strategic responses' without explicitly defining the terms. We assume that he means free-riding and similar phenomena.

2007). Together, these insights suggest that Schläpfer's criticism of SP for employing counterfactual scenarios and provoking strategic behaviour may be too harsh.

3. Critical comments on the Democratic Valuation proposal

In previous section, we discussed some of the premises used by Schläpfer (2016). We argued that his criticism of conventional SP methods might be misplaced and overly harsh. Nonetheless, we agree that standard applications of economic valuation are problematic for numerous reasons. Therefore, it is worthwhile to take a closer look at the alternative approach to valuation proposed by Schläpfer (despite our being sceptical about the specific starting point he chose for its development).

We certainly embrace his insistence on 'realistic' scenarios[4] as well as the emphasis put on preference formation and the provision of comprehensive information regarding the (environmental) public good that is to be valued. Also, Democratic Valuation is another contribution to the important debate on the so-called consumer-citizen dichotomy (e.g., Sagoff, 1988; Sen, 1995; Soma and Vatn, 2014), which has yet to be resolved. Nonetheless, by and large we are rather sceptical about the potential of DV.

Some critical issues regarding DV have already been implicitly mentioned in the last section, especially the binariness of majority voting and the effective exclusion of the preferences of up to half the relevant population, as well as the counterfactuality of scenarios as a result of inherent uncertainty about the future. In what follows, we focus on three points that in our view require additional attention (and which we consider major flaws of Schläpfer's proposal):

1. The referendum format is a decision-making mechanism, not a valuation method.
2. The single-dimensionality condition severely restricts the applicability of DV.
3. In the proposed form, DV underestimates the importance of preference formation in a way similar to conventional SP.

Referendum format

Schläpfer calls his proposal Democratic Valuation (DV). However, we wonder whether its interpretation as a valuation method is sensible. Being based on the referendum format, DV is more of a decision-making mechanism, especially so because of Schläpfer's insistence on

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[4] Note, however, that it is not necessarily new—see the emphasis on consenquentiality in SP surveys expressed, e.g., by Carson and Groves (2007).

'true policy alternatives' (p. 38) to be evaluated. Valuation results are usually a supporting tool for decision-making processes and can be used, e.g., in cost-benefit analysis to determine the efficiency of a project. However, in DV, after the majority of citizens have chosen which policy alternative they prefer, there is no rationale for deriving 'values' from these choices. Since Schläpfer insists that the policy alternatives be 'true' and described comprehensively and realistically with respect to consequences and costs, the choice between them amounts to making a decision. The only thing that might be lacking for DV to be a true decision-making mechanism is preceding public discussion of the issue at stake.[5] Deriving willingness-to-pay (WTP) estimates for the policy alternatives is putting the cart in front of the horse. Especially so since the idea that the 'expenditures per unit of the public service at the median preferred aggregate expenditure level may be called the population's "marginal political WTP"' (p. 38) is implicitly based on the assumption that the relationship between the quantity of the 'public service' and WTP is linear, which is not likely to be the case very often. But if this is so, then the transferability and generalisability of the results of DV is at least questionable. Thus, it can only be used for the specific set of policy alternatives between which respondents are asked choose—and the only remaining rationale for deriving values from these choices, i.e., the transfer to different policy alternatives/contexts, disappears.

Single-dimensionality

The second principle of DV states that '[t]he policy issue is defined in terms of a single category of public service such that the respondents' preferences over alternative quantities can be reasonably assumed to be single-peaked' (p. 39). This is an extremely problematic assumption, as it decisively limits the applicability of DV. Despite Schläpfer's own remark that his proposal is supposed to help 'resolving trade-offs' (p. 41), this is exactly what it cannot do. 'Single-dimensional issues' are issues in which no trade-offs arise, which are indeed quite rare in the relevant areas, be it environmental policy,[6] health policy or the general provision of public goods. The basic rationale for economic valuation of the environment, by whatever means/methods, is that it helps to evaluate trade-offs. But if single-dimensionality of the issues under investigation is a prerequisite for the application of a valuation method, the usefulness of this method is questionable at least.

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[5] This reflects the contention of the theory of deliberative democracy that democracy is 'government by discussion' (see Sen, 2010), which also underlies deliberative monetary valuation (DMV), to be discussed briefly further in the text.

[6] See, for instance, the extensive literature on ecosystem service trade-offs (e.g., Bennett et al., 2009; Howe et al., 2014; Ruijs et al., 2015)

Preference formation

If we understood the DV proposal right, it is based on individual preference formation. Respondents are provided with extensive amounts of information on the policy alternatives they are meant to choose from, but they study this information individually, without an opportunity to ask questions, discuss etc. In this respect, DV is similar to conventional SP approaches. However, the latter have been rightly criticised for implicitly or explicitly assuming that people either have pre-formed preferences for even quite abstract issues, such as complex land-use changes, even though these go well beyond their everyday experience (Czajkowski et al., 2015; Lienhoop and Völker, 2016)—or they are assumed to be able to form preferences in private on the basis of information material provided within the survey. Both assumptions are debatable, and the growing literature on deliberative monetary valuation (DMV) suggests that preference formation is an inherently social, dynamic process, from which the conclusion has been reached that discussions with others and the opportunity to ask questions are decisive for preference formation (Dietz et al., 2009; Lienhoop et al., 2015; MacMillan et al., 2006; Völker and Lienhoop, 2016). While DV emphasises the provision of 'external information' in balanced proportion (with respect to the perspectives of different interest groups/stakeholders), it seems to underestimate the importance of the social processes of preference formation, especially in cognitively demanding contexts such as environmental or health policies. Here, DMV offers a viable alternative. It is a combination of WTP elicitation, mostly by means of conventional SP questionnaires, with deliberative elements (discussion workshops), in which participants are supposed to form and refine their preferences before these can be elicited. For an overview about the theory and application of DMV, see Bunse et al. (2015).

4. Final remarks

In our view DMV is a more promising approach than DV, not least because of its relatively higher theoretical maturity. While helping to overcome some flaws of conventional SP methods, DMV addresses many of the concerns mentioned by Schläpfer (2016) and at the same time avoids some of the problems generated by DV. Due to the personal atmosphere and direct contact between facilitators and participants in DMV group meetings, it is possible to carefully explain the purpose of the valuation task to respondents. From our experience of facilitating such meetings we can say that participants take the exercise very seriously. Although we have no hard evidence for this, we are confident that strategic behaviour in the form of free-riding is less likely to occur in a group-based setting than in standard SP

administered through web-based surveys or conventional data collection modes.[7] Furthermore, DMV offers an ideal setting for preference formation. In addition to detailed information provision—as suggested in DV—DMV also provides opportunities to discuss the issue at stake and time to think. All these aspects—sufficient information, discussion and time for reflection—are important prerequisites for rational preference formation (see also Habermas, 1981). Finally, the group discussions in DMV generate arguments for and against policy options and provide a detailed insight into *why* respondents value an environmental change with a certain intensity. Providing policy makers with this additional information is highly useful in supporting their decisions. Binary choices through majority voting lack such information on people's motivations. Thus, DMV seems to be a step into the right direction in the quest to combine 'the best of both worlds' (Spash, 2007, p. 691) of deliberative democracy and welfare economics (see also Bartkowski and Lienhoop, 2016).

Acknowledgements

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[7] Similarly, it was emphasised by Elster (1983, p. 36) that rational discussion in deliberative settings has the potential to reduce the incentives for strategic behaviour by, e.g., making the stakes clear to the participants.

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