Postprint

This is the accepted version of a paper published in *Environmental Values*. This paper has been peer-reviewed but does not include the final publisher proof-corrections or journal pagination.

Citation for the original published paper (version of record):

Isacs, L., Håkansson, C., Lindahl, T., Gunnarsson-Östling, U., Andersson, P. (2024) 'I didn't count "willingness to pay" as part of the value': monetary valuation through stated preference study respondents' perspective *Environmental Values*  
https://doi.org/10.1177/09632719241231509

Access to the published version may require subscription.

N.B. When citing this work, cite the original published paper.

Permanent link to this version:  
http://urn.kb.se/resolve?urn=urn:nbn:se:uu:diva-510829
A frequent justification in the literature for using stated preference methods (SP) is that they are the only methods that can capture the so-called total economic value (TEV) of environmental changes to society. Based on follow-up interviews with SP survey respondents, this paper addresses the implications of that argument by shedding light on the construction of TEV, through respondents’ perspective. It illuminates the deficiencies of willingness to pay (WTP) as a measure of value, presented as three aggregated themes considering respondents’ unintentionality, their retraction once they understood that their WTP could be decisive in cost-benefit analysis and the inherent incompleteness of WTP. We discuss why the TEV discourse persists, how it conceals rather than reveals broader notions of value and in what ways our results support the development of alternative approaches that truly endorse plurality in environmental valuation and decision making.

KEY WORDS: CBA, non-use values, non-market valuation, neoclassical economics, ecological economics, deliberation, qualitative research, ethics, performativity

1. INTRODUCTION

Despite decades of critique (e.g. Diamond and Hausman 1994; Spash 1997; Hausman 2012), stated preference methods (SPs), which rely on surveys to elicit people’s hypothetical willingness to pay (WTP) money for environmental gains, are still some of the most common methods suggested by economist for measuring non-marketed values of nature (Hanley and Czajkowski 2019). The demand for monetising nature’s value with methods like SP has even grown in recent years (Hanley and Czajkowski 2019; UN 2020) and can be expected to continue to do so with the roll-out of the concept of nature-based solutions (Van Zanten et al.
The aggregated WTP of SP respondents is meant to serve as the measure of the social benefit of environmental changes in cost-benefit analyses (CBA), which are central to the development of environmental policies in many countries (World Bank Group 2010; OECD 2018). The standard decision-rule in a CBA says that a project should be carried out only if the total benefit of the project outweighs the total cost. Thus, as persistently used for arguing that nature has much greater worth to humans than shown by market values, meaning to give it greater weight in policy assessments such as CBA (e.g. Pearce and Moran 1994), the TEV framework is well-intended. Yet the potential for completeness of WTP that TEV implies is not innocent. When using the qualifier ‘total’ one suggests that SPs, or indeed monetary valuation, can comprehend, if not all, at least the most relevant economic effects of a policy. Furthermore, as Kenter et al. (2014: 99) highlight, while values related to social and ethical concerns may be implicitly elicited by TEV-based assessments such as SPs, they are likely to be ‘both incompletely captured and poorly understood’. This points to the importance of in-depth knowledge about how TEV is constructed and the implications of its purported comprehensiveness.

This paper examines these issues through the experiences of an actor that is rarely consulted regarding WTP’s role in policy appraisal: the SP survey respondent. We interviewed seven SP respondents to explore the construction of TEV and discuss the potential implications of the ‘TEV interpretation’ of WTP when considering the perspective of respondents themselves. Based on respondents’ accounts of the connection between their WTP and the value of the environmental change they were asked about in the survey, the

---

1 Dasgupta’s review also contains some critique of SPs (e.g. Dasgupta 2021: 305), but it does not refrain from raising studies that use SPs to measure ‘accounting prices’ (Dasgupta’s version of ‘true’ social value) in CBA as ‘powerful’ examples (ibid: 338-339). In fact, and neatly fitting Spash’s (2013) classical typology as ‘new environmental pragmatism’, the review speaks of SPs as examples of that ‘In practice, estimating accounting prices involves various degrees of short cuts’ (Dasgupta 2021: 302). As such, Dasgupta precisely sanctions the continued use of SPs as instances of, as he contends, when ‘it is better to be vaguely right than precisely wrong’ (ibid: 300).

2 As Dasgupta (2021: 302, our emphasis) puts it: ‘in principle [SP] can reveal not only an amenity’s value, but also respondents’ sense of a species’ existence value – perhaps even its intrinsic value’.
study sheds new light on the severe deficiencies of WTP as an indicator of the value of environmental changes to society.

Our results may not surprise readers of *Environmental Values* and particularly Clive Spash’s work. Indeed, we triangulate recent research finding that neither SPs nor CBA are necessarily that influential in policy-making processes (see e.g. Primmer et al. 2018; Dehnhardt et al. 2022): given SP respondents’ perspective, this is hardly surprising. Yet, as we suggest, the alleged ‘totality’ of SPs warrants scrutiny not only because of what it does or does not do to decision-making directly, but because it illustrates the flaws of how value and valuation is ontologically conceived in neoclassical theory and analysis (Isacs 2021). By detailing that, we contribute to uncovering how neoclassical analysis affects reality indirectly – its performativity (Boldyrev and Svetlova 2016). We believe this is key to understanding why scientifically flawed arguments from neoclassical economics are so pervasive and persistent in environmental policy, an explanation Clive Spash recently called for (Spash 2022).

In the next section, we briefly review some of the literature that has addressed SPs from respondents’ perspective. Section 3 presents our methodology, including details about survey design, sampling, the generation of interview data and our interpretive analytical approach. In Section 4 we present the results, through a narrative and so-called data-structure, which delineates how we proceeded from coding of transcripts to the three aggregate themes that constitute our main findings. In the concluding Section 5, we relate our results to relevant research and discuss their implications.

2. PREVIOUS RESEARCH

In theory, in trying to report a WTP, people are expected to consider inputs into the formation of their preferences given their budget constraint, such as how much they care about an environmental change and how important it is compared to other issues (Diamond and Hausman 1994), and their preferences are assumed to be well-considered and coherent (Tinch et al. 2019). Conversely, they are not expected to relate their WTP to broader concerns over policy actions or the environment in general (Svedsäter 2003), because WTP is only supposed to mirror the benefit from a marginal change in the specific object of value that is studied, irrespective of how this change comes about. But that other factors influence WTP is well-known in the literature (Spash e.g. 2000; 2008a), as are other theory-practice gaps with respect to what SPs actually capture (e.g. Kahneman et al. 1999; Spash et al. 2009), and evidence of their incongruity with respect to human sociality continues to surface (Bardsley et al. 2022).

Few studies have addressed WTP from the perspective of SP respondents, and even fewer used qualitative techniques (Rakotonarivo et al. 2016; Vass et al. 2017). Early on, Schkade and Payne (1994) used verbal protocol analysis to check customary interpretations of WTP by asking respondents to verbalise their thoughts while replying to an SP questionnaire. They found that factors other than the expected economic trade-offs were frequent and significant determinants of WTP, such as cost-sharing (‘doing your fair share’) and charitable donations, and that only one per cent of the sample considered the ‘worth’ or ‘value’ of the environmental good when stating their WTP. Using group discussions alongside an SP
survey, Burgess et al. (1998: 25) found that valuing nature in monetary terms was ‘an alien idea to laypeople’, and in Clark et al. (2000), respondents experienced significant difficulties in expressing the worth of the environmental improvement in both monetary and non-monetary terms, partly because of feelings that values for nature were not commensurable with money. When told how WTP figures are typically interpreted and used in policy analysis, many of Clark et al.’s respondents expressed distress that their responses might be used in a way they had not anticipated. Similarly, Svedsäter (2003) asked respondents to think aloud while answering a standard WTP question and showed that they hardly understood its underlying rationale, not even when it was thoroughly presented to them, but tended to answer the question anyway. His respondents were concerned with what others would pay or fail to pay and seemed not to understand that the value was actually up to them. More recently, Macknight and Medvecky (2021) revealed how participants in an SP experiment struggled to conform to the logic of trade-off thinking, act on abstraction and the particular scarcities specified. Their participants seemed uncomfortable with the idea that their choices reveal their ‘true’ preferences (p.19). By contrast, in Brouwer et al (1999), who combined an SP with focus groups, a majority of the participants considered the overall approach acceptable and accurate enough to inform decision-making (but notably preferred deliberation to the SP).

Thus, from previous research we know that respondents’ perspective (further) reduces SPs’ validity, defined as the degree to which they measure the theoretical construct in question (WTP). But in-depth empirical studies based on respondents’ experiences have not, to our knowledge, been done in interpretive research to explore the construction of TEV, where the main interest is not to test theoretical consistency.

3. METHODOLOGY

The empirical study was based on two main data sources: the WTP responses to an SP survey and semi-structured follow-up interviews with a sub-group of the respondents to that survey. These were collected in connection with a series of research workshops with 32 participants held in the area called ‘8-fjords’ on the Swedish west coast in September-October 2016 (see Isacs et al. 2022), where the broader aim was to explore and develop methods for describing the value of the marine coastal environment in the area. Both the survey and the interviews were tested in two pilots in Spring 2016. Below, we present the design of the survey and the interviews, the two-step sampling procedure and how we analysed our interview data. More survey material can be found in the supplementary material (S1-S2). Details about the qualitative analysis and interview transcripts may be obtained upon request from the first author.

3.1 The survey

The SP survey and its action scenario were designed according to best practice in SP literature (e.g. Johnston et al. 2017), including detailed illustrations (Figure 1) and information on the ecological status of the marine environment in the ‘8-fjords’, expected environmental improvements of proposed policies and information about the CBA decision-rule, that is, it was explained that if the value of the environmental improvement was larger
than the cost of achieving it, actions were justified (see S2). An open-ended WTP question (Håkansson 2008) was used and the payment vehicle was a yearly tax. A set of supporting questions ended the survey to evaluate the content validity (Kling et al. 2012), such as the extent to which respondents understood the survey information, considered how much they would want to pay if the scenario was for real, and were certain about their WTP.

Figure 1. The action scenario used in the stated preference survey. Left: Ecosystem status before the suggested policy intervention. Right: Improved ecosystem status showing the environmental improvements which participants were asked how much they were willing to pay for. Source: The authors. Photos in figure: Background and crustaceans, Per Moknes; Cod, Joachim S. Müller, Creative Commons; Stickleback, Ron Offermans, Creative Commons; Black goby (Gobius niger), © Biopix: JC Schou.

3.2 Sampling

Similar to much qualitative research, the primary aim was not to acquire external validity through generalisability, but to gain deeper insight into our research subject (Onwuegbuzie and Collins 2007). The initial 32 workshop participants were selected from the five municipalities around the ‘8-fjords’ area using non-random strategic sampling to include a wide range of perspectives (Onwuegbuzie and Collins 2007) from citizens in the area. When recruiting, we combined announcements in two local newspapers with snowball and convenience sampling, that is, asking persons from selected networks to suggest people potentially interested in joining and choosing individuals that were available and willing to participate (ibid.). To somewhat alleviate self-selection bias, we sought to keep the information as neutral as possible (Setälä and Herne 2014) by entitling the workshop ‘What
does the coastal environment mean to you?’, describing it as part of a research project that aimed to ‘provide input to the long-term management of the coast’ and offering a compensation of SEK 1,360 (EUR 142 in September 2016) for full-day participation including lunch.

For the follow-up interviews, we then used a mix of typical case (gender, middle age, a positive WTP), extreme case (younger, a WTP of zero) and convenience sampling (our time restraints and their availability) based on the 32 workshop participants’ survey answers (see S1). Of the seven selected interviewees, six were thus largely representative for the WTP sample as a whole and one had the less typical WTP of zero, but all had various backgrounds (Table 1).

All participants gave their informed consent. For the sake of anonymity, all details that could reveal the identity of participants have been excluded in the reporting of the study.

Table 1. Participant data.

<table>
<thead>
<tr>
<th>Part. No.</th>
<th>Gender</th>
<th>Age</th>
<th>Self-reported occupation</th>
<th>Willingness to pay</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>Male</td>
<td>62</td>
<td>Work within marine tourism</td>
<td>200</td>
</tr>
<tr>
<td>P2</td>
<td>Female</td>
<td>49</td>
<td>Small business owner</td>
<td>100</td>
</tr>
<tr>
<td>P3</td>
<td>Female</td>
<td>47</td>
<td>Farmer; angler</td>
<td>500</td>
</tr>
<tr>
<td>P4</td>
<td>Male</td>
<td>71</td>
<td>Citizen</td>
<td>200</td>
</tr>
<tr>
<td>P5</td>
<td>Female</td>
<td>47</td>
<td>Angler</td>
<td>100</td>
</tr>
<tr>
<td>P6</td>
<td>Male</td>
<td>25</td>
<td>Student</td>
<td>100</td>
</tr>
<tr>
<td>P7</td>
<td>Female</td>
<td>66</td>
<td>Retired</td>
<td>None</td>
</tr>
</tbody>
</table>

3.3 **Semi-structured interviews**

The interviews took place over the phone one month after the workshop. As semi-structured, the interview questions were predefined but open to certain changes, such as forms of questioning and follow-up questions (Kvale 1996). An interview guide served to ensure that essentially the same information was obtained from all interviewees. Table 2 shows the interview questions (Q1-Q10) in focus in this study. While some initial questions addressed the entirety of the workshop, the majority focused on the SP survey as a means to capture the value of the environmental change presented in the survey’s action scenario. To enable the participants’ own perspectives on key phenomena to emerge and prevent them from becoming sensitised to the research issue, we made sure to keep the sequence of questions (Corley and Gioia 2004). For example, the term ‘value’ was initially not mentioned when referring to WTP or the value of the environmental change but instead referred to as ‘how important’ or ‘how valuable’ they considered the environmental change to be to them (Q1-Q2)³. Then, when addressing the concept of value more specifically, we also posed leading questions, such as Q3 where we asked whether they thought their WTP could be ‘a measure of value’. To strive for disambiguation in the later analysis, we constantly posed clarification questions (Kvale 1996).

---

³ The ‘importance, worth or usefulness of something’ is how ‘value’ is defined by the Oxford dictionary.
### Table 2. Interview guide and interview questions.

<table>
<thead>
<tr>
<th>Main interview question</th>
<th>Follow-up question</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Q1:</strong> The question about how much you were willing to pay, do you remember what you thought about when you answered that question?</td>
<td><strong>Q3:</strong> Could it be a measure of value – a measure of how valuable an environmental improvement is to you?</td>
</tr>
<tr>
<td><strong>Q2:</strong> What does the figure you stated signify, would you say?</td>
<td><strong>Q5:</strong> What do you think this means?</td>
</tr>
<tr>
<td><strong>Q4:</strong> Now I want to ask about a specific piece of information we gave in the survey just before the question on whether you were willing to pay or not. The information text read as follows:</td>
<td><strong>Q6:</strong> What is meant by ‘the value’ here, do you think?</td>
</tr>
<tr>
<td>‘Suppose the environmental improvement in the scenario of the survey is funded through a tax increase and that the money is placed so that it cannot be used for anything else. If the value of the environmental improvement is larger than the cost of achieving it, the improvement is considered as justified.’</td>
<td><strong>Q7:</strong> Is your willingness to pay, that is, the figure you stated, part of the value?</td>
</tr>
<tr>
<td>Did you notice that information when you read the survey? (IF YES) What did it mean to you?</td>
<td><strong>Q8:</strong> I will now tell you briefly about how surveys like these might be used:</td>
</tr>
<tr>
<td></td>
<td>- People are asked just the way you were about how much they are willing to pay e.g. in extra tax per month for an environmental improvement.</td>
</tr>
<tr>
<td></td>
<td>- Then, all estimated bids are added up, and a mean value is calculated and multiplied by the number of people who would be affected by the tax. Finally, this is compared to what it costs to realise the environmental improvement.</td>
</tr>
<tr>
<td></td>
<td>- If the results of this are positive, i.e. if the sum of all willingnesses to pay is larger than the cost, the environmental improvement is considered worthwhile.</td>
</tr>
<tr>
<td>Do you understand? Do you have any questions? What do you think of this method?</td>
<td><strong>Q9:</strong> If the result is negative and the cost is larger than the value, the environmental improvement is not considered worthwhile. What do you think about that?</td>
</tr>
<tr>
<td></td>
<td><strong>Q10:</strong> If you had known how your survey answers would be used, do you think you would have answered differently?</td>
</tr>
</tbody>
</table>

#### 3.4 Analysis of interview data

We used a data-driven analytical approach (Braun and Clarke 2006); starting from the perspective of respondents, we moved between closeness and distance to the research material to explore how respondents construct and understand a predefined theoretical construct such as WTP. In that sense our approach can be regarded as abductive (Danermark et al. 2018). As such, it was also interpretive, since we focused less on the frequency of measurable occurrences of a phenomenon (Gioia et al. 2013).

The analytic process was similar to constant comparison (Eisenhardt et al. 2016), meaning continuously moving back and forth between raw data (the interview transcripts), noted codes and themes and emerging conceptual claims to acquire data reduction. Drawing on Saldaña (2016), the coding was carried out in five broad cycles using a mix of methods. Initial coding line-by-line (Cycle 1-3) identified a variety of phenomena in the data relating to people’s perception of what WTP was and was not, their view on the link between WTP and the ‘value’ of the environmental improvement, whether or not their beliefs and behaviours confirmed standard economic theory, and their views on the effectiveness and legitimacy of
the SP approach. We then assembled categories of codes into themes (Cycle 4) and explored relationships between them (Braun and Clarke 2006). The final coding (Cycle 5) involved careful reflection, integration of categories and emerging patterns, exploring a ‘bigger picture’ and suggested meanings beyond what was directly said (Saldaña 2016) and, in turn, what this said about the ‘TEV interpretation’ of WTP from the perspective of the respondents. To ensure trustworthiness, we used peer debriefing by engaging two researchers not involved in the initial part of the study to assess the plausibility of emerging conclusions (Corley and Gioia 2004).

In organising the results, we drew upon the Gioia methodology (Gioia and Thomas 1996) for presenting analyses of qualitative data and data-to-theory connections. It delineates categories of themes from the data in two steps, from codes to themes to aggregated themes, and visualises this in a figure called ‘data-structure’ (see Figure 2) where the experiences of the interviewees are kept in the foreground through in-vivo excerpts (i.e. language used by the interviewees) (Gioia et al. 2013). The data-structure is then supported by a table with evidence containing more extensive excerpts of representative quotations for each theme and corresponding codes (see Appendix 1, Table A1).

3.5 Limitations

Before we go on, we will address a few general concerns regarding our methodology. Although we strived for depth and rich descriptions, as often, our sampling processes could not realistically aim to maximise the number of perspectives on the research issue (the reader might for example find that our interviewees had relatively strong pro-environmental values, although in a Swedish context they are probably more common than not), and it is possible we did not reach thematic saturation. Resource constraints limited this. Yet, even if the extent to which our findings would appear in a large-scale SP survey cannot be determined by a study like this, we believe they are useful for gaining deeper insights into the ambiguities around typical interpretations of SP studies and so speak of larger issues because they are specific (cf. Frandsen and Kärreman 2016).

Also, although the interviews were conducted in an exploratory manner to develop knowledge together with the informants, we also analysed data afterwards. Final research accounts authored solely by the researchers risk becoming distorted and decontextualised, which raises ethical dilemmas (Hargreaves 2008). A quality check against some interviewer biases is then that informants dare to speak freely and contest the interviewer during the interview (Kvale 1996). We think this applies in our case, as shown by several of the selected quotations in the paper and Appendix 1, but recognise that it is possible that our participants do not wholly share the final perspectives we offer.
<table>
<thead>
<tr>
<th>Quote no.</th>
<th>Code</th>
<th>Theme</th>
<th>Aggregate theme</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 2. Data structure.
4. RESULTS

We identified three main aggregate themes in the interviewees’ responses: 1) **Unintentionality**, 2) **Retraction** and 3) **Incompleteness**. Below we interpret the results along these themes and present our findings with a narrative (i.e. the text below) and a data-structure (Figure 2). In the narrative the interview questions are referred to as Q1-Q10 (see Table 2). Numbered quotes refer to those in Figure 2, if not otherwise stated.

4.1 **Unintentionality**

Initially, the interview data caused mainly ambiguity. On one hand, many interviewees reasoned in terms indicating that their WTP was both well-considered and fairly consistent with the theory behind SP. Several considered their budget constraints, as the theory requires, said WTP depends on ‘understanding’, ‘knowledge’ or ‘what you get for the money’ and seemed to mean it somehow measured how valuable the environmental change was to them. In fact, three interviewees even argued that the link between WTP and ‘the value’ was self-evident; P5 said WTP ‘is about the value, how we value our environment and our oceans, of course’; P7, who bid a WTP of zero in the survey due to too low a pension, claimed ‘the value of a healthy environment can very well be measured in money terms’, adding, unprompted, that this was mirrored in house prices in the area. On the other hand, five of the interviewees’ WTP bids were clearly arbitrary. In answering Q1, P3, for instance, laughed and said ‘To be honest, I thought I had to put down a figure to be able to advance in the [survey] system’, and P4 hesitantly said ‘I just plucked a figure out of the air that wouldn’t feel too burdensome.’.

When reading them the survey information text about the CBA decision-rule and asking what they thought ‘the value’ of the environmental improvement meant in that information (Q4-Q7), several interviewees also seemed to contradict themselves. Those who had previously talked about WTP in terms of worth, even ‘value’, were then against equating WTP with ‘the value of the environmental improvement’. For example, P7, who just had claimed ‘the value of a healthy environment’ is monetisable, reacted to Q6 by claiming the value ‘can’t be measured in money’ and then added ‘Who would estimate the value? Is it we who live here, or what?’. Similarly, P4 seemed puzzled when Q4 was posed and asked, unprompted, if ‘the value’ was measured in ‘kronor and öre’ (‘pounds and pence’), adding ‘There are methods for that, I presume’. When P3, after having said ‘the value’ depended upon ‘how important this specific environmental improvement is’, got a follow-up question about how she thought this could be appraised, she laughed, and said ‘Well, hahaha, who am I to know that? But there are people researching such things…’.

In short, it seems it had not even occurred to the interviewees that ‘the value’ in this context was meant to be equated with their WTP. This finding was further confirmed by the fact P1 and P5, who at the end of the interview said they had heard about the CBA approach, in no way signalled they understood that they had basically just been part of one. P1 also said it was obvious that ‘the value is not just a money issue, of course’, and P2 and P4 explicitly claimed WTP and the value were ‘two different things’ – P2 even said she ‘didn’t count WTP as part of the value’, as the value meant ‘the worth to us in other ways’.

Based on these findings, our first aggregate theme emerged from our understanding that, from the perspective of the interviewees, their WTP had little to do with their conception of
nature’s ‘value’ and how it should be understood. A conscious ‘valuation’ it certainly was not. As valuation, it was unintentional.

4.2 Retraction

One of the most striking patterns in the data related to how all interviewees reacted when we explained how WTP is used in CBA (i.e. the implication of the decision-rule). During the interviews, we first described the consequences of a positive net value outcome (CBA+), that is, when the total benefit is larger than the total cost and actions are justified (Q8), and then the consequences of a negative ditto (CBA-) (Q9). Notably, none of the interviewees seemed to have paid any particular attention to the decision-rule. Although four interviewees (P3, P4, P6, P7) were sceptical of the (CBA+) case, only P6 was explicitly so because of what it implied in principle: ‘If you use that method, my answer is ‘not good’. [...] It will be low if some people estimate a very low figure, which might make it more difficult to succeed with this drive.’. Continuing, P6 laughed and explained that either outcome would be ‘completely wrong, you don’t see the actual need’. The remaining six interviewees seemed not to fully understand the CBA criterion until the (CBA-) case was presented to them, and then all but two (P7 and P4) were strongly against using WTP in a CBA once they realised that it could lead to no action being taken. P3, for example, reacted strongly with ‘Crass business, no thanks’.

As many as four interviewees also gave answers to Q8 and Q9 that were erratic with respect to the theoretical conjectures of economic thinking: P1, who in the (CBA+) case said the rule seemed reasonable and ‘one has to start somewhere’, said the (CBA-) outcome sounded ‘very dangerous’; P2 went from stating the approach was ‘brilliant’ to it being ‘against all I stand for’ in the negative case. P7 and P4 doubted the method in general, revealed a mistrust in decision-makers and felt that WTP estimates were too ambiguous to deliver anything substantial or trustworthy.

Furthermore, once they had understood the (CBA-) case, five interviewees indicated they thought the issue of determining the value of the environmental improvement should not be up to the public but rather taken care of by experts. P3, for instance, said, ‘that’s nothing the average Swede knows’ and P2 suggested some ‘higher instance’ should say ‘No, stop!’ if people were not prepared to pay or did not appreciate the environment enough. P5 thought measures had to be taken ‘even with dictatorial methods’.

Summing up all interviewees’ various expressions of discontent at this stage of the interview, it was clear that they had not understood how their participation in the survey could come to be used, and once they did – once the purpose and potential decisiveness of WTP in CBA was understood – they essentially retracted from the valuation process.

4.3 Incompleteness

One of the first cycles of categorising the codes revealed that several participants seemed to perceive the WTP question as a means to call for potential contributions towards realising the environmental improvement presented in the survey scenario. Theory-wise, this is a problem, because SPs aim to elicit only the value of the object of worth (the improvement of the environment), whatever it may be, and irrespective of its realisation or means of funding. Implicit in most respondents’ accounts was however that they not only perceived the WTP question as a call for financial support to realise the scenario; they also seemed to take the
benefit of the scenario for granted, as if the value of action was axiomatic. For example, four interviewees explicitly thought that people would not be willing to pay enough compared to what seemed ‘needed’, and P6 called the survey a ‘drive’, which he thought must be improved and directed towards those ‘unwilling to pay’ to make sure things happen. The fact that most (without being asked to) gave some sort of suggestion about how the survey should be designed to make people want to pay, arguing things like ‘people need to feel part of a solution’ or that ‘information about positive health impacts’ could trigger WTP, supports this further.

This hardly supports the interpretation that the WTP of our interviewees can be meaningfully interpreted as some sort of total of the value of the environmental change they were asked about. The most evident sign of the latter were the answers by P1 and P3 in responding to Q5-Q7, when they indicated that WTP was something of a subset of the value of the environmental change, P3 by saying that by ‘the value’ one can only imply water quality and the fish stock, ‘There’s not much more you can make calculations of’, and P5 by quite drastically claiming ‘no matter how we measure the value, let it cost what it costs [...] We’ll just have to find the best methods for it, even with dictatorial methods’, implying that to her the actual value of the environmental measure was essentially unlimited.

As the aggregate conceptualisation for these themes, we conclude that rather than an estimate of something of a ‘total’ value, if anything, WTP was an inherently incomplete value of the environmental change to our interviewees.

5. DISCUSSION AND CONCLUSIONS

Our results detail the theory-reality gap of SP practice. They illuminate the deficiencies of WTP as a measure of value to society and how misleading its purported comprehensiveness is, considering, respectively, the respondents’ unintentionality, their retraction once they understood that their WTP could be decisive in cost-benefit analysis and the inherent incompleteness of WTP. Our interviewees’ notion of the value of the environmental change seemed not to invoke any thoughts about WTP being the value, which is the fundamental idea behind neoclassical analysis, and once they understood the potential decisiveness of their WTP in a CBA, they rejected it. These findings align with earlier studies, such as Burgess et al. (1998), Clark et al. (2000) and Svedsäter (2003), and with longstanding critique in the literature of using SPs for social benefit measurement in environmental decision-making tools such as CBA. They also support more recent empirical research on pluralistic approaches to valuation. For instance, in another Swedish study, Stålhammar and Pedersen (2017) used focus groups following a visit to a recreational area and showed that their participants experienced the value of nature as self-evident and were puzzled when asked how they thought the benefits could be valued.

The respondents’ unintentionality therefore illustrates the flaws of how valuation is ontologically conceived in neoclassical theory (Isacs 2021). Although SPs are meant to address the values that choice-making in markets cannot handle, the valuation they are presumed to permit is still equated with individuals’ choice: the decision to pay (or not) is assumed to be a conscious, intentional act of commensuration of the relative welfare obtained by the things they choose (a so-called trade-off), and their WTP is taken to reveal the strength
of their ‘true’ preferences (e.g. Hanley and Czajkowski 2019). That is, despite the claim that
behavioural economics has cleaned up the most disturbing interpretations of rationality
within neoclassical theory, the fallacy of preference utilitarianism, where value equals
increasing human welfare equals preference satisfaction equals choice, remains – in SPs (e.g.
Carson and Groves 2007) as well as other analyses in environmental economics (e.g.
Dasgupta 2021). The collision with our respondents’ perspective is obvious. A ‘total’ value
as strictly anthropocentric and possible to monetise amounts to appropriation of their
apparent experience of nature’s value.

Respondents’ retraction then sheds light on the legitimacy that SPs can possibly achieve.
As Spash et al. (2009) has claimed, since SP respondents’ motives are not only consequential
but based also in deontological and virtue ethical positions (both of which can explain
notions of incommensurability), aggregating WTP as a basis for policy fails to represent
public opinion. Macknight and Medvecky (2021) argued likewise, that the seemingly neutral
technical SP devices are actually means of power, because they impact who is allowed to
speak for nature, and how. Our findings in terms of respondents’ retraction from the intended
consequences of their participation, and experts’ interpretation of it, confirm such claims, and
point to the irony of the argument from some neoclassical economists, that using SP
democratises decision-making by including people’s preferences and getting away from
expert rule (Banzhaf 2009). SPs and CBA are both undemocratic and unethical. Recently,
Bardsley et al. (2022) showed that WTP for climate change mitigation was higher when
richer respondents of an SP were to bear higher costs than when no explicit information was
provided about cost distribution, which is the usual procedure in SP surveys. Since most
respondents favoured implementation of climate change policy which they themselves would
contribute towards, this does not simply reveal a desire to penalise the rich; rather, the
individualism of SPs seems to be undermined at both a practical and a fundamental level.
Now, five of our interviewees’ withdrawal indicated that they thought they were not
knowledgeable enough to determine the value of environmental improvements; instead, it
should be done by experts. However, rather than as a desire for increased expert control – an
idea that stems back to Plato (Brooks 2006) – this could be interpreted as the participants
seeing themselves as not having sufficient knowledge to put a monetary value on the
environment, but that they could possibly express the value in other ways.

The inherent incompleteness of WTP points to the implications of the TEV interpretation.
It is often said that TEV is neither meant to be understood as capturing all imaginable values
nor being about ethics (e.g. Pearce and Moran 1994; Hansjürgens et al. 2016), but it clearly
aspires to a certain comprehensiveness. And this is not a coincidence, because the TEV
interpretation of SPs only confirms that it is the only means through which concerns for intra-
and intergenerational justice and other living beings can empirically enter into mainstream
economic analyses without breaking the neoclassical interpretation of value as preference
satisfaction (cf. Hausman 2018: 200). SP experts’ ultimate defence, that a carefully
constructed WTP should mirror how much the environmental change in question influences
respondents’ ‘well-being’ (e.g. Carson and Groves 2007), confirms this. Another defence is
that WTP is more useful than no number in typical policy assessment, such as CBA (see e.g.
Kling et al. 2012; Costanza et al. 2014; Dasgupta 2021). This argument implies, as Røpke
(2005: 280) notes, that the only possible form of valuation is monetary and has to be dealt
with by experts. Thus, considering our results, and the fact that respondents may not even
consider WTP as a part of nature’s value, this is simply unsatisfactory. It says more about the lack of creativity of positivist researchers than about realism and crowds out broader notions of value by drawing resources and attention away from approaches with potential to embrace value pluralism.4

Thus, although SP researchers may be relatively alone in believing that WTP can measure something like TEV, their discourse has a function for which SP and CBA researchers alike should take greater responsibility. As part of mainstream economic ideas and concepts, they are performative (Muniesa et al. 2007); they construct and change social reality. For instance, although Bishop et al. (2017: 253) provide convincing arguments that their SP results probably do measure a lower limit for what Americans are prepared to pay in additional taxes to avoid future oil spill damage, when they associate this to ‘the total economic value lost’ (our emphasis) they not only aspire to construct this lower (yet somehow, abstrusely, sufficiently economic) value; they also equip and restrict our imagination of what that value is about, and when it is used to make any kind of decision it has a ‘productive’ function (Andersson 2016: 36). This is how social constructions have material implications. Similarly, when a monetary estimate is uncritically claimed to measure the ‘existence value’ of ‘an entire culture, religion, and way of life’ (that of the Hopi tribe in Arizona, US), as do Carson et al. (2020: 936), this is not only insensitive; when this estimate is used in actual decision-making it can arguably be life-changing.

The results of our study speak to the importance of existing alternative approaches to environmental valuation. WTP is at most one out of many different, incomplete and incommensurable, value indicators relating to human-nature relationships. This means any value assessment needs to start from the premise is that values cannot be expected to lend themselves to measurement, comparison and aggregation of numbers (Holland 2002). Once recognised, the acknowledgment of values as plural and incommensurable may help cultivate both legitimacy and creativity in policy appraisal. A growing number of studies show that deliberative approaches to environmental valuation, which Spash was early to call for (e.g. 2008b) and others increasingly recognise (e.g. Arias-Arévalo et al. 2018; Jacobs et al. 2018; Pascual et al. 2017), can address issues of both information gaps and ethical and democratic considerations around complex issues (e.g. Dunford et al. 2018; Kenter 2016; Caselunghe 2018; Nordbrandt 2020). They reveal that in groups’ communicative reasoning, valuation is not about addressing values as trade-offs, but rather as difficult, moral conflicts that have to be resolved through compromise and considerations of appropriateness (e.g. Isacs et al. 2022). It speaks to the fact that incommensurability, not commensurability, is grounded in human experience (ibid.). This requires a greater attentiveness to the politics of valuation, and that decision-making is a continuing process and not discrete events, where time and history are essential parts of its legitimacy (O’Neill et al. 2008). Indeed, if cautiously designed (Mansbridge et al. 2008; Sprain and Black 2018), deliberation holds the potential for democratic renewal (see e.g. Fishkin 2018).

To conclude, whereas Hansjürgens et al. (2016: 222) are perhaps right in that TEV can be used as a conceptual framework for considering ‘the fact that individuals hold values’ for many different reasons, we question that it is a suitable heuristic for showing, as they argue,

---

4 Besides, as Moreno-Mateos et al. (2015) note, ‘better than nothing’ is based on a false dichotomy, since other policies would emerge in the absence of monetisation. The alternative is therefore not ‘nothing’ or business as usual, but something else.
that the array of values captured by monetary valuation methods such as SPs is in fact broader than what critics commonly claim. By contrast, we suspect that the frequent reference to SPs’ comprehensiveness means that ethical concerns in policy analysis that use SPs are inadequately articulated and so conceals rather than reveals the actual implications of choice when used in environmental decision-making. For reasons of appropriateness the typical reference to WTP as a measure of the ‘total’ economic value should therefore be avoided, because it is misleading. It could also aid self-reflection on part of SP economists regarding the truly ambiguous nature of WTP and help them shift the focal question in SP research – from what Clive Spash rightly has called a naïve search for the right method to produce fictional welfare estimates (Spash and Hache 2021), towards studies of the actual reasons for people’s willingness to pay (and not) for environmental policy-making. People need to ‘deliberate values’ rather than being expected to express all sorts of values through money.

REFERENCES


Spash, C.L. 2013. ‘The shallow or the deep ecological economics movement?’ Ecological Economics 93: 351–362 https://doi.org/10.1016/j.ecolecon.2013.05.016


Spash, C. L., Urama, K., Burton, R., Kenyon, W., Shannon, P. and Hill, G. 2009. Motives behind


