EERHPOLICYBRIEF

"Yes we can ..." : Ensuring that people reveal their true preferences for environmental change

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Being asked complex valuation questions does not prevent people distorting their true preferences.

There is increasing pressure to include environmental values in any policy decision relating to environmental change. Choice-modelling experiments are one source of such values.

To ensure the integrity of the policy process, there needs to be an understanding of whether values derived from choice-modelling experiments accurately reflect people's true preferences. Choice-modelling experiments need to be designed in a way that ensures people do not misrepresent their preferences strategically.

Valuation of non-market environmental goods has relied on stated preference methods (such as contingent valuation and choice experiments). The contingent valuation method has been in use for the past 30 years. This method may, however, suffer from 'strategic bias'. To bias an outcome strategically means that someone with a particular interest can inflate the amount they state they would be willing to pay for an outcome, beyond the level they would give if they actually had to pay for that outcome.

Choice modelling, a relatively new approach to valuing the environment, may be able to avoid strategic bias. In a choice-modelling experiment, participants are presented with a number of scenarios. Each scenario contains several options for them to contemplate. Options are broken down into constituent elements, all of which vary in level or output. The task is to select the best option, or rank the options from best to worst. The relative complexity of this process, compared with evaluating a single option, may make it difficult for people to manipulate the outcomes.

By its nature, strategic behaviour is difficult to identify; people's true preferences are unobserved. In this study, students first completed a standard choice-modelling experiment on a well-known good (in this case, student housing). To try to bias the outcomes in a predetermined way, the students were given a monetary incentive and asked to repeat the same experiment. The students who managed to distort the results the most were given increased chances of winning a lottery.

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By changing the nature of the experiment and seeing how well the students could bias the outcomes, it was possible to identify which features of a design might protect a choice-modelling experiment from strategic bias. Design features included the number of options the students were given to choose from, whether the students had to select a preferred option or rank them all, and whether the students had to influence one or two of the elements contained within the options.

In cases in which students had to choose one option as their 'preferred' outcome, a high level of bias was recorded, regardless of the other features of the design. When the students had to rank all options, from best to worst, they seemed to be less able to influence the outcome. Even though bias was reduced in this case, the students did not revert to their original preferences, which had not been distorted by the monetary incentive.

The results from the study help guide the design of choice experiments. It is not enough to assume that the complexity of the task being presented to participants is enough to prevent them from following strategic behaviour. Instead, researchers need to continue to use appropriate designs that provide incentives for revealing truthful behaviour.

Further reading

Burton, M. (2010). Inducing Strategic Bias, and its Implications for Choice Modelling Design, Environmental Economics Research Hub Working Paper, No. 61.

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