CHOOSING HOW TO CHOOSE: HEURISTICS HETEROGENEITY AND CONVERGENT VALIDITY OF NON-MARKET VALUATION STATED PREFERENCE METHODS

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ABTRACT:

A critical issue in the application of Stated Preference Methods in the context of non-market valuation is the choice of the elicitation technique. The fact that alternative techniques may lead to different preference orderings is indicative of preference reversals. On the other hand, individuals can follow different heuristics in choosing the specific responses to the valuation scenarios. In this paper we propose a new hierarchical Bayesian approach which considers various heuristics decision making in modeling individual responses. The model is sufficiently general to incorporate data from various question formats in stated preference methods (e.g. choice and ranking), allowing us to test for preference reversals as explained by heterogeneous heuristics in consumers' decision rules. The models are applied to data from a survey on the multiple valuation of a set of environmental programs. The consideration of heuristic heterogeneity improves the performance of the model. The results show that the estimated social preferences differ between alternative elicitation techniques, and the test concludes that a large proportion of answers are unlikely to come from the utility maximization heuristic. The violation of this hypothesis also differs between the different elicitation techniques. These results can be generalized for complex task experiments in which preferences are likely to be reversed.

Keywords: Choice Experiments; Heuristics; Preference Reversal; Heterogeneity; Bayesian methods; MCMC; Data Augmentation.

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