

Department for Environment, Food and Rural Affairs

Behavioural Economics in Defra

Applying Theory to Policy

Defra response to Peer Review Comments

July 2013

1. The Defra Evidence and Analysis Series paper, “Behavioural Economics in Defra: Applying Theory to Policy”, was peer reviewed by John Guest, who specialises in behavioural economics and lectures at Coventry University. The paper has been revised, taking these comments and suggestions into account.
2. This short note explains the key issues raised by John Guest and provides a brief summary of how these have been addressed.
3. Traditional theory does not assume that people act in a rational and selfish/narrow self-interested manner, but that people in models behave in this way. The key issue is the extent to which the prediction of the model is supported by the evidence. This has now been clarified throughout the paper.
4. The definition of behavioural economics is not simply about relaxing the assumptions of limited reasoning and cognitive limitations – it also broadens the utility function described in the paragraph above to encompass a preference for fairness, reciprocity or conformity. The working definition in the paper has now been broadened to encompass this, as well as the potential policy implications that can be inferred.
5. Diminishing marginal utility of income implies that people are risk averse. Where behavioural economics adds to traditional economics, is through the concept of loss aversion – i.e. where the utility function has a discrete kink at zero, and becomes much steeper in losses than in gains. This has been clarified in the paper.
6. Prospect theory was developed as an alternative to expected utility theory in order to analyse and predict decision making in conditions of risk and uncertainty. The major differences were the way in which outcomes and probabilities were treated, where for instance people over weight low probabilities of high returns. This has been clarified in the paper.
7. Although laboratory experiments make every effort to avoid biases, some will always remain and we should be aware of this when interpreting the results of such experiments – hence the need for field experiments where possible.
8. Small payments can, in fact, be particularly damaging as an incentive, when working with in combination with other non-monetary incentives – as they can act to ‘crowd out’ other incentives. This has been clarified in the paper, in its application to payments for eco-system services.
9. Behavioural economics also points to potential policy solutions that address the externality/public good nature of certain market failures. This is due to the notion of conditional cooperation – where people will contribute more to a public good if they believe that other people will. The section of the paper, with potential applications to recycling policy, has been developed to take-on board this point.

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