

Editorial

Oliver Fabel¹ · Rudolf Vetschera¹

Published online: 24 March 2016
© Springer-Verlag Berlin Heidelberg 2016

The observation that actual behavior of economic agents frequently deviates from the postulates of rationality has a long tradition in the literature on economics and management. More than half a century ago, Simon's work on bounded rationality (Simon 1960) or Allais' experiments (Allais 1953) provided first theoretical considerations and empirical evidence on the gap that exists between theory and behavior. However, for several decades, descriptive decision theory remained a quite marginal field of research, which had little impact, in particular on the prescriptive models of business economics. This changed in the 1970s and 1980s, when concepts like Prospect Theory (Kahneman and Tversky 1979) began to influence mainstream thinking in economics and business administration.

Still, 25 years after Kahneman and Tversky published their influential paper on Prospect Theory, there is not only one gap between theory and behavior, but in our view, there are several gaps that current research is trying to bridge. Although considerations of behavioral aspects and cognitive biases are already well established and have a considerable influence on decision analysis and models in some areas like behavioral finance, prescriptive models in many other areas still fail to take these phenomena into account. Furthermore, new gaps between theory and behavior (and empirical observation) have opened within the field of behavioral decision making itself: Observations of actual behavior has led to the development of many different models and theories of decision making, and testing and

✉ Oliver Fabel
oliver.fabel@univie.ac.at

Rudolf Vetschera
rudolf.vetschera@univie.ac.at

¹ Department of Business Administration, University of Vienna, Oskar-Morgenstern-Platz 1, 1090 Vienna, Austria

comparing these theories in view of actual behavior has become an important topic for empirical decision research.

The papers collected in this special issue aim at bridging both gaps: they present examples of behavioral decision research in different application domains like supply chain management or consumer choice, and they aim at testing different theories of behavioral decision making. They also share another common trait: They all point out the importance of context for decision making behavior. This is an important characteristic of behavioral decision models in contrast to prescriptive models. There might be one rational behavior (although even that might depend on the concept and axioms of rationality applied), but there is not just one type of “irrational” behavior that all actors will exhibit under all circumstances. Which behavioral decision rule or which heuristic is applied by a given actor in a given context depends on characteristics of both the actor and the context. The papers collected in this special issue also share the goal of identifying such factors that could influence actual decision behavior in certain situations.

In total, nine papers were submitted for this special issue, out of which we selected four papers for publication after a thorough review process. We would like to thank the authors of all papers and all the reviewers for their efforts and their excellent collaboration, which allowed to compile this special issue within sometimes very tight deadlines. In the following paragraphs, we give a brief overview of the four papers contained in this issue:

The paper by Basel and Brühl, “Choice reversal in management decision—the seductive force of new information” is perhaps the paper which is closest to the tradition of behavioral decision research of identifying and isolating new bias phenomena. The authors study the interesting effect that information, which is made available to a decision maker only at a later stage of a decision process, receives more weight than the same information when it is available earlier. In line with the gaps we have identified, Basel and Brühl explore this phenomenon in different application contexts, in particular large investment decisions like acquisitions and offshoring, as well as auditing decision. In accordance with our observations above, they find that this information overweighting effect is dependent on the problem context, it can be confirmed for some, but not all decision problems, and it is dependent on some personal characteristics like age in some contexts. Surprisingly, expertise of decision makers does not have an impact, even experienced decision makers are susceptible to this bias phenomenon. This indicates that the deep unconscious processes underlying these phenomena cannot easily be overcome.

The paper by Köster and Schenk-Mathes “Explanatory and predictive power of the adaptive learning model: average and heterogeneous behavior in a newsvendor context” studies behavior in a quite different area, inventory management. Its main aim is to bridge the second type of gap between different behavioral theories and actual behavior by comparing different models in terms of their predictive power. In this comparison, the authors make an important distinction between aggregate and individual behavior. They point out that a model that fits aggregate behavior quite well might still fail to represent individual behavior. If subjects actually follow two distinct types of behavior which are both substantially different from the behavior predicted by the model under study, errors might cancel out in the aggregate, giving

the wrong impression that the model predicts average behavior quite well. They show that an adaptive learning model, in which actors *ex post* consider what would have happened had they made a different decision, provides the best approximation to both aggregate and individual behavior. This model combines the learning of strategies and learning about the uncertain environment; the fact that this combined model outperforms models that exclusively focus on one aspect shows that behavioral rules might in fact be quite complex and are not necessarily simple.

In contrast, the paper “Decision making styles and the use of heuristics in decision making” by del Campo, Pauser, Steiner, and Vetschera focuses on very simply heuristic decision rules in yet another context, that of consumer decision making. This paper also combines contextual factors like time pressure, and individual factors, and studies whether these factors lead to the use of different decision heuristics. A particular feature of this paper is that the authors use an established scale of different decision making styles to classify their subjects, and test whether these styles are reflected in the type of heuristic subjects use. By performing their experiment in different countries, they also include other contextual factors like culture in the analysis. Their results indicate that contextual factors seem to have a stronger influence on the type of heuristic applied than individual factors.

The first three papers in this special issue deal with the behavior of individuals in different decision situations. The paper “Why can’t we settle again? Analysis of factors that influence agreement prospects in the post-settlement phase” by Gettinger, Filzmoser, and Köszegi takes complexity one step further and analyzes collective behavior of two decision makers in a negotiation setting. Rational bargainers in a negotiation would never “leave value on the table” by agreeing on an inefficient solution, i.e., a solution in which at least one party could improve its outcome without harming the other party. At least, if due to lack of information, an inefficient agreement is reached and then a trusted third party points out that a better solution exists, this better solution should be readily accepted by both parties. However, empirical research has already shown that this is not the case and negotiators do not accept such mutual improvements proposed e.g. by a computerized negotiation support system. The present paper tries, in an exploratory way, to identify factors that lead to such behavior. In line with the arguments presented above, the authors study both individual characteristics of the negotiators, as well as context factors. They show that individual characteristics such as the gender composition of the negotiation dyad, as well as characteristics of the initial, dominating solution, have an influence on this behavior.

The papers collected in this issue clearly show that there are still many gaps between theory and behavior to be bridged. The importance of context, that is clearly visibly in many of the empirical results presented in these papers, indicates the necessity to study behavior explicitly in many different types of problems and contexts, and that it is not easily possible to transfer behavioral results from one application domain to another. They also show that different models of behavior might be applicable in different settings and for different decision makers, and thus also hopefully will provide inspiration for many further empirical studies in behavioral decision making.

References

- Allais M (1953) Le Comportement de l'Homme Rationnel devant la Risque: Critique de Postulats et Axiomes de l'Ecole Americaine. *Econometrica* 21(4):503–546
- Kahneman D, Tversky A (1979) Prospect theory: an analysis of decision under risk. *Econometrica* 47(2):263–291
- Simon HA (1960) *The new science of management decision*. Harper & Row, New York