"State of the Art" Research on Bounded Rationality*

Eyal Winter

Dhami and *Sunstein's* book is a highly comprehensive and thorough presentation of the "state of the art" research on bounded rationality. It brings together empirical evidence with theoretical modelling and discusses the implications of these findings for public policy and law.

One important objective of the book is to challenge the currently dominant framework in economics, which assumes perfect rationality and builds on the Bayesian approach to the study of decision-making under uncertainty. In spite of the elegance and the simplicity of the Bayesian approach, its theory was developed by Von Neumann and Morgenstern in the 1940s without reflecting on empirical evidence about actual human behaviour. To address the weakness of this perfect rationality approach, the authors of the current book first clarify the term "rationality". This concept is prone to create much confusion in popular discourse and is interpreted differently in different disciplines (prominently Philosophy and Economics).

In the past few decades, the development of behavioural economics has been taking two different routes. The first one can be called the incremental approach, which seeks to replace selected assumptions and features that are embedded in the Bayesian model to make it more realistic and more consistent with empirical results, with the hope of gradually obtaining a general theory, which is better behaviourally founded. The other route can be called the "big push" approach. This approach practically deserts the Bayesian model as a benchmark and attempts to generate behavioural insights, and sometimes also full-fledged models, directly from the empirical evidence. It is fair to say that that, unlike the incremental route, the big

---

Eyal Winter: Lancaster University Management School, Andrews and Brunner Professor of Economics; The Hebrew University, Silverzweig Professor of Economics. E-mail: eyal.winter@mail.huji.ac.il

push route is not attempting to develop general models of human behaviour and is largely motivated by cognitive biases and emotional effects. The incremental approach puts more weight on general modelling and often uses quite involved mathematical and game theoretical tools to study bounded rationality. Perhaps unsurprisingly, these two routes of research are pursued by different researchers scattered across two disciplines (mainly Economics and Psychology), with little interaction across routes. Perhaps the most important contribution of Dhami and Sunstein's book is in bringing these two approaches together in a very cohesive manner.

Another important achievement of the book is that it manages to make the frontiers of the subject accessible to the lay reader. This is often done through examples, without compromising on accuracy and on the understanding of the relevant theory. In spite of the fact that a significant part of the literature on bounded rationality uses mathematical modelling, the mathematics requirements to read the book do not exceed a serious high school mathematics course. Nevertheless, the book provides substantial material to keep the advanced reader interested, explaining concepts in evolutionary game theory, stochastic social dynamics, epidemiological models and the axiomatic approach to decision-making.

The material in the book is highly interdisciplinary. In addition to economists, it may be of interest to readers from other social science disciplines including business administration, law, psychology, political science, sociology and public policy. Readers who enjoyed "*Nudge*" by *Thaler* and *Sunstein* stand to benefit from a great deal of interesting material on libertarian paternalism and a defence of the theory behind nudges.

Bounded Rationality by *Dhami* and *Sunstein* is an important book that benefits a broad academic audience from a wide range of social science disciplines.