

Economic Psychology

Edited by
Rob Ranyard



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Economic Psychology

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Preface

The 28 chapters of this book present an overview of contemporary economic psychology in a manner suitable for the core text of a course at the intermediate or final-year level of a UK honours degree in psychology, or equivalent. The 50 chapter authors are internationally recognized experts in their fields of research. Our focus is on individual and household economic decision-making, ranging widely across financial matters such as borrowing and saving, and economic behaviour such as trading and entrepreneurial activity. Part 1 presents an introduction to the field and to important theoretical developments in economic decision theory. Next, in Part 2, material to equip the student to understand a range of contemporary research methods and to undertake an empirical study in economic psychology is presented. Following this, Parts 3–5 deal with central aspects of economic psychology in everyday life. In addition to reviewing current knowledge on each topic, they also consider its practical and policy implications for supporting economic decision-making. Finally, we consider two broader perspectives. Part 6 presents a life-span developmental approach, from childhood to old age; and Part 7 deals with important societal issues such as charitable giving and pro-environmental behaviour. There is growing interest in both economic psychology and behavioural economics; graduate students and researchers in both areas will find the book useful and insightful.

A course in economic psychology was first introduced in a European university by Karl-Erik Wärneryd at Stockholm University in 1957, assisted by Folke Ölander who subsequently moved to Denmark to teach the subject at Aarhus University. Later, in 1972, Gery van Veldhoven and Fred van Raaij developed economic psychology courses at Tilburg in The Netherlands, and the field began to slowly spread across the continent.

At the same time, researchers were investigating economic behaviour, though with little communication with each other. For example, Reynaud and Paul Albou in Strasbourg, France, and Hermann Brandstätter in Augsburg, Austria, were developing research centres. This somewhat scattered scenario was to change in 1976, when a group of twelve economic psychologists gathered in Tilburg to discuss their findings and experience in the area, in an informal setting (a pizza parlour), that would, nevertheless, have important consequences: this would be the first colloquium of a long series of annual conferences that began to gather researchers not only from Europe, but other parts of the world as well. This organization is today known as the *International Association for Research in Economic Psychology* (IAREP), created in 1982. Just before that, in 1981, the *Journal of Economic Psychology* was founded; 2016 saw the 53rd volume, with six parts a year, and growing visibility and impact.

A round-table on the history of economic psychology took place at the IAREP Conference in Prague, the Czech Republic, in 2005, when experienced pioneer researchers in the area (Karl-Erik Wärneryd, Folke Ölander, Fred van Raaij and

Stephen Lea) discussed the recent history of the discipline, which allowed data about this period to be gathered (Ferreira, 2007). In 2016, the 41st IAREP-SABE Conference took place, in Wageningen, The Netherlands (SABE is the Society for the Advancement of Behavioral Economics, also created in 1982).

Finally, we should mention two important textbooks that contributed to the establishment of contemporary economic psychology (1) *The Individual in the Economy: A Survey of Economic Psychology* (1987) by Stephen Lea, Roger Tarpy and Paul Webley; and (2) the *Handbook of Economic Psychology* (1988) edited by Fred van Raaij, Gery van Veldhoven and Karl-Erik Wärneryd. The present volume aims to document developments in the field over the following decades and to introduce a new generation of readers to this fascinating area of psychology.

REFERENCES

- Ferreira, V. R. M. (2007). *Psicologia Econômica: origens, modelos, propostas* [Economic psychology: origins, models, proposals]. Doctoral thesis, Social Psychology Graduate: Studies Program, PUC-SP, São Paulo.
- Lea, S., Tarpy, R., & Webley, P. (1987). *The individual in the economy: A survey of economic psychology*. Cambridge: Cambridge University Press.
- van Raaij, F., van Veldhoven, G., & Wärneryd, K.-E. (Eds.). (1988) *Handbook of economic psychology*. New York: Springer.

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PART 1

Fundamentals

1 Introduction to Economic Psychology: The Science of Economic Mental Life and Behaviour

ROB RANYARD AND VERA RITA DE MELLO FERREIRA

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LEARNING OUTCOMES

BY THE END OF THIS CHAPTER YOU SHOULD BE ABLE TO:

1. Understand and describe the nature, origins and scope of economic psychology.
2. Discuss the relationship between economic psychology and behavioural economics, and their perceived similarities and differences.
3. Give examples of a range of studies and findings from recent economic psychology research.