

INTRODUCTION TO THE SPECIAL ISSUE OF *ECONOMICS AND PHILOSOPHY* ON NEUROECONOMICS

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The past fifteen years or so have witnessed considerable progress in our understanding of how the human brain works. One of the objectives of the fast-growing field of neuroscience is to deepen our knowledge of how the brain perceives and interacts with the external world. Advances in this direction have been made possible by progress in brain imaging techniques and by clinical data obtained from patients with localized brain lesions. A relatively new field within neuroscience is neuroeconomics, which focuses on individual decision making and aims to systematically classify and map the brain activity that correlates with decision-making that pertains to economic choices. Neuroeconomic studies rely heavily on functional magnetic resonance imaging (fMRI), which measures the haemodynamic response (that is, changes in the blood flow) related to neural activity in the brain.

Neuroeconomics is acquiring considerable visibility and is undoubtedly an important new development in economics. In the very recent past there have been surveys published in economics journals,¹ entire issues of journals devoted to it,² books have been published containing both criticisms and defences of neuroeconomics,³ a new handbook of neuroeconomics is in the process of being published,⁴ public debates have taken place on the merits and pitfalls of neuroeconomics,⁵

¹ For example, Camerer *et al.* 2005.

² For example, *Games and Economic Behavior*, Volume 52, Issue 2, August 2005.

³ For example, Caplin and Schotter 2008.

⁴ Glimcher *et al.* forthcoming.

⁵ For example, the debate chaired by Reinhardt Selten at the 2007 World Meeting of the Economic Science Association in Rome (<http://www.luiss.it/esa2007/programme/programme3.php?paper=404>).

etc. In light of this the editors of *Economics and Philosophy* thought that it might be beneficial to devote a special issue of the journal to a discussion of the philosophical and methodological issues and challenges that have been raised by the new field of neuroeconomics.

We first invited Glenn Harrison and Kevin McCabe to write two position papers, one containing a critical assessment of neuroeconomics (the article by Glenn Harrison) and the other presenting the case for neuroeconomics (the article by Kevin McCabe). We then assembled a multidisciplinary group of researchers, drawn from economics,⁶ neurobiology,⁷ philosophy⁸ and psychology⁹ and asked them to either comment on one or both of the position papers or to write their personal views on neuroeconomics. Finally, the comments were made accessible to Glenn Harrison and Kevin McCabe with the offer of writing a brief rejoinder. Only Glenn Harrison chose to write a rejoinder.

The Editors of *Economics and Philosophy* are very pleased with the diversity and thoughtfulness of opinions expressed in this special issue and hope that this collection will stimulate further debate and, perhaps, point to new approaches and avenues of research.

REFERENCES

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- Caplin, A. and A. Schotter, eds. 2008. *Foundations of positive and normative economics*. Oxford: Oxford University Press.
- Glimcher, P., C. Camerer, E. Fehr and R. Poldrack, eds. forthcoming. *Neuroeconomics: decision making and the brain*. Elsevier Academic Press.

⁶ Colin Camerer, Andreas Ortmann, Ariel Rubinstein, Burkhard Schipper, Rani Spiegel and Nat Wilcox.

⁷ Anthony Landreth and Camillo Padoa-Schioppa.

⁸ Anna Alexandrova, John Bickle, Carl Craver, Steven Quartz and Don Ross.

⁹ Julian Jamison.