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## Foreword

When Massimo Egidi, Robin Marris and I collaborated with Herbert Simon in 1992 on the publication by Elgar of the book “Economics, Bounded Rationality and the Cognitive Revolution”, the contribution of cognitive sciences to the theory of social rationality, and in general to the development of social sciences, was absolutely marginal and contested in Europe and in the United States. Cognitive sciences were seen with suspicion by sociologists, economists, political scientists, anthropologists and even philosophers. I had already experienced this type of hostility from the philosophical world directly a few years earlier, in Oxford in 1984. When I proposed the outline for my doctorate thesis in the Philosophy of Science, I had to overcome a great deal of hostility and disparagement on the part of my supervisor towards the issue of the *cognitive theory of science*. In Europe, in particular, the neopositivist culture still prevailed, maintaining a clear separation between the context of discovery and justification, an opinion strenuously sustained even by a non-neopositivist like Sir Karl Popper. Methodological rationality could not be analysed empirically because of the risk of falling prey to the mortal sin of naturalistic fallacy. The naturalistic revolution of W.O. Quine and the contribution of philosophers like Steven Stich or Alvin Goldman were not represented in the philosophy of science. Even Larry Laudan, who had considered the problem of the empirical-historical evaluation and justification of methodological rationality, was not part of the mainstream of the philosophy of science and was underestimated in Europe. My work in Oxford and my subsequent work at the L. Bocconi University of Milan, where I began to teach Logic and Epistemology as part of the course in Economic and Social Disciplines (DES) in 1987, provided the basis for my book “*Metodo e Società nella Scienza*”, which was published in 1991, soon after Ronald Giere published his “*Explaining Science*” in 1988. Both set out to propose a naturalistic approach to the philosophy of science. Mine also argued in favour of the explanatory supremacy of the cognitive approach over the social approach in the study of the dynamics of conceptual change in the scientific community. This book is both a synthesis of my work on the *cognitive theory of science* (which will be the subject of the second volume) and the start of two working programmes, one in the epistemology and methodology of social sciences designed to overcome the intentionalism and rationalism inherent in the current Methodological Individualism, and the other designed to develop the cognitive foundations of social rationality, with particular reference to the economic context.

Where the first programme is concerned, the contemporary references were Raymond Boudon and Jon Elster. I introduced the term *Methodological Cognitivism* for the first time in 1994, to define the proposal of an individualistic methodology of social sciences, that based its theory of action on a causal model of the mind-action relationship. To develop this programme, I had to analyse a number of issues related to the philosophy of mind, the epistemology of causality, the methodology of social sciences and the cognitive models of reasoning and decision-making. In the years between 1997 and 2001, some of these issues were refined at the meetings of the Scientific Network of the European Science Foundation “Human Reasoning and Decision Making”, particularly the encounters at the Sorbonne, Paris IV and the College de France. My recent work on methodological cognitivism, which developed in the direction of neurocognitive social sciences and the theory of mirror neurons in particular, was triggered by a theory of the strong identity between the mind and the brain.

My work on the cognitive theory of rationality, particularly in an economic context, evolved in parallel in that same period, from 1987 on. From the 1988 seminar with Herbert Simon at the Rosselli Foundation in Turin, until the conference on “Cognitive Economics” at the Bocconi University in Milan in 1996, the subsequent creation of the magazine *Mind & Society* in 2000 and, after Simon’s death, the foundation of the Herbert Simon Society in 2008, numerous initiatives have enabled me to develop Simon’s programme. The term “Cognitive Economics”, which I coined at the conference in 1996 and subsequently returned to in the publication of the proceedings *Cognitive Economics* (1997), underlines an “extreme” attempt to overcome the epistemological bottlenecks of experimental economics and the scientific bottlenecks of behavioural economics. Only a reformulation of the theory of economic action according to the best models of neurocognitive sciences can stimulate positive economics and its realistic and empirical goals.

And finally, we come to the empirical work undertaken with Dan Osherson from 1995 on the inductive models of reasoning based on categories. This work was undertaken in Italy, but also in Vietnam at the University of Ho Chi Min City, and in New Delhi at the Indian Institute of Technology, and it allowed us to study the effects of the membership of different cultural or social groups on inductive reasoning among adults and children, and in particular the application of the “difference principle” and the Bayesian model. These studies of cognitive anthropology also contributed to the debate taking place in the scientific community, between supporters of relativism and of epistemological and cognitive universalism, and between those on innate bases or the cultural bases of the inferential capabilities of the human brain.

I have had the good fortune to develop some of these considerations at the Bocconi University in Milan, at Milan Bicocca University and at the Scuola Superiore di Pubblica Amministrazione in Rome, where I taught, and during periods spent at foreign universities such as Oxford, Aix en Provence, Fribourg, Rice-Houston, California-Santa Barbara and Columbia.

This volume of selected papers is divided into three parts to reflect the division into the three areas of study described above.

A second volume will be published in 2012. It will contain selected papers on cognitive theory of science, social epistemology, tacit knowledge and knowledge transfer. In any case both volumes are characterized by a common denominator: the *Methodological Cognitivism* as the new methodological tool to analyze the social action.

“*Mind, Rationality, and Society*” is the first book of Selected Papers, “*Methodological Cognitivism*”. Most of the chapters are modified versions of earlier publications. In this regard, I wish to first thank Laura Gilardi, without whose punctilious and professional editorial assistance I would not have been able to complete the work.

My main scientific debt is to Herbert Simon, who has been a constant benchmark for my work over the years.

Among those who are no longer with us, I am particularly indebted to Norberto Bobbio, who taught me to see new horizons in the relationship between the philosophy of science and human sciences. I must also mention Kathy Wilkes for her important comments on the philosophy of mind, and Martin Hollis for his considerations on the theory of rationality.

My encounter with Sir Karl Popper marked an important moment in my development; his intellectual reference has been fundamental throughout the years.

I am grateful to Giulio Giorcello, Angelo Petroni, Dario Antiseri, Diego Marconi and Massimo Egidi for having introduced me to the issues that I have developed in the past years.

I would like to mention with particular gratitude the study and research undertaken in Oxford with William Newton Smith, and in Milan and Houston with Dan Osherson.

I am grateful to the following for their discussions and critical comments on my work over the years (in casual order and with many omissions): William Herbert Newton Smith, Dan Osherson, Raymond Boudon, Massimo Egidi, Giulio Giorcello, Dan Sperber, Giovanni Dosi, Paolo Legrenzi, Vittorio Girotto, Rino Rumiati, Diego Marconi, Achille Varzi, Angelo Petroni, Dario Antiseri, Guido Martinotti, Denis Hilton, Steven Lukes, Luciano Gallino, Simona Morini, Laura Macchi, Jonathan Evans, Phil Johnson Laird, Margaret Boden, Giacomo Rizzolatti, Corrado Sinigaglia, Alvin Goldman, Rom Harre, Richard Nelson, Henry Etzkowitz, Loet Leyersdorff, Jon Elster, Domenico Parisi, Pietro Terna, Donato Masciandaro, Umberto Filotto, Raffaele Caterina, Margherita Balconi, Nicolao Bonini, Fabio del Missier, Davide Pietroni, Colin Blakemore, Elisabetta Galeotti and Bas Van Fraassen.

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Many of the issues examined in this volume have been discussed at seminars or developed in research organised by the Rosselli Foundation in Turin from 1988 to 2008. For this reason, I would like to thank all those people who have made these important meetings and research possible, first and foremost Daniela Italia, Anna Mereu, Laura Gilardi.

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Riccardo Viale



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