

Preface

This book is for students and scholars who want to think about the big questions: Are we rational? What at all does it mean to be rational? Why do we sometimes deviate from the norms of rationality? What happens in our brain when we reason and decide? What is a good or bad decision? How do we come to sensible beliefs and knowledge? These are questions that people have wondered about since the beginning of humankind. And these are questions about which, since ancient times, thinkers have had much to say. The aim of *The Handbook of Rationality* is to show how (analytic) philosophers and (cognitive) psychologists think about these big questions. In the past decades, both disciplines have made tremendous advances in better understanding the very nature of human rationality. Yet, the interaction between the fields is developed only in rudimentary forms. The consequence is that no publications exist that provide students and scholars with an easily accessible integrated overview about the state of the art in the psychology and philosophy of rationality. *The Handbook of Rationality* seeks to fill this gap and to be a novel resource for students and scholars in psychology and philosophy, but also in neighboring areas, such as economics, neuroscience, artificial intelligence, linguistics, law, sociology, anthropology, or education.

This handbook has not become so voluminous because we wanted it to be. A little less work with the publication of this volume would have been all right. But a less complete treatment would not have done justice to the importance of the subject. Of course we were fully aware of the complexity and breadth of the topic of rationality when we started to think about the chapters and authors that we wanted to collect in this handbook. However, during our work, we repeatedly encountered new topics and issues that we had not considered at the beginning because they only arose from our interdisciplinary cooperation. If we had merely concentrated on our respective home disciplines, we would have missed many of these interesting questions lying in the no man's land between the disciplines.

What has greatly facilitated our interdisciplinary collaboration and made it so productive is the fact that we already collaborated for many years within the Priority Program SPP 1516, *New Frameworks of Rationality*, which has been funded by the German Research Foundation (Deutsche Forschungsgemeinschaft [DFG]) from 2011 to 2018. The program consisted of 15 research projects from psychology, philosophy, and artificial intelligence and often combined methods from these disciplines within highly interdisciplinary projects. The program was headed by Markus Knauff and coinitediated by Wolfgang Spohn, the cognitive psychologists Ralph Hertwig and Michael Waldmann, and the philosopher Gerhard Schurz. Later, the computer scientist Gabriele Kern-Isberner joined this governing board. In this priority program, we gathered many times, worked together very intensively, worked on many joint publications, and spent many, many hours of intensive discussion (www.spp1516.de). All this resulted in enormous shared benefit and progress in mutual understanding.

At some point, we thought we should share our progress with a broader scientific public, and so the idea for this handbook was born in the summer of 2015. We are very grateful to the DFG for the generous funding of the interdisciplinary research program. We are aware that Germany is one of the few countries that still invest so much in basic research without expecting results that are directly economically exploitable. This is a privilege we greatly appreciate. Many scientists from this program have also contributed to this handbook, although we have taken great care to include many other experts from the worldwide community of rationality research. The handbook is a truly international enterprise. We are very pleased that most of the world's leading experts were very enthusiastic and immediately agreed to contribute a chapter to this handbook. The different disciplines use quite different formats for footnotes, indexing, references, and other stylistic matters. To establish uniformity throughout the handbook, we have chosen to

use the rules from the *Publication Manual of the American Psychological Association* (6th edition, 2010).

Our list of acknowledgments is long. First, we thank all our authors. In order to cover our field comprehensively, we had to engage the best authors across the disciplines. We expected that many authors would deliver too late, that we would have to wait a very long time for many contributions, that we would have to send out dozens of reminders, and so on. But we were too pessimistic. Most of our authors were very reliable, delivered their contributions fairly punctually, and were also very cooperative and responsive. We are very sad that one of our initial authors, Sieghard Beller, passed away before he could deliver his chapter and that another author, Arthur Merin, died shortly after finishing his chapter. We are most grateful to all of the authors for the exemplary cooperation.

We are also indebted to all our reviewers. In general, each chapter was reviewed by two reviewers, one from psychology and one from philosophy. In most cases, this was possible, and sometimes we even received three or four reviews from colleagues with different disciplinary backgrounds. For each chapter, at least one review came from an author of another chapter and the other from an external reviewer. We are very thankful to the following external reviewers:

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We are very sad that Christian Freksa died in an accident before the book came out.

We mentioned that we could build on a long previous cooperation within the Priority Program *New Frameworks of Rationality*. Here we want to thank all members of the program for the lively and productive cooperation. It was most instructive.

We are deeply grateful to Christopher von Bülow, who checked all the manuscripts and brought them into the final uniform shape. He did so with unsurpassable care, at times at which we editors were already exhausted. It is also his merit that this project came to a good end.

We also thank Lupita Estefania Gazzo Castañeda, Andreas Kemmerling, and Christoph Klauer for their comments on an earlier version of the introductory chapter. Knauff wrote parts of the long introductory chapter at the University of California, Santa Barbara (UCSB), and thus wants to thank Daniel Montello for his hospitality and the perfect environment for focused thinking and writing. Knauff also wants to thank Estefania and his whole team for the many interesting and lively discussions. Spohn is doubly grateful to the DFG for support: in 2016–2018 through the research unit FOR 1614 at the University of Konstanz and in 2019–2020 through the excellence cluster EXC 2064/1 (project number 390727645) at the University of Tübingen.

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Normally, the editors form a unit that cannot thank itself. Still, we feel the urge to do this. We can only thank each other for the untiring willingness to work together over such a long period of time on such a large project. It was a great scientific experience that neither of us wants to miss, even though we spent so many days and nights discussing and Skyping, as well as exchanging (about 3,000) emails. Our spouses, Erika and Ulli, have faithfully accompanied our work with their understanding, charity, and support. We dedicate our work to them!

Markus Knauff and Wolfgang Spohn
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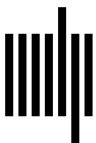
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