New Directions in the Philosophy of Science
Contents

Part I  Formal Methods

Things in Possible Experiments: Case-Intensional Logic as a Framework for Tracing Things from Case to Case .................... 3
Thomas Müller

The Proof Is in the Process: A Preamble for a Philosophy of Computer-Assisted Mathematics.............................................. 15
Liesbeth De Mol

The Future Role of Computation in Science and Society .................. 35
Patrick Suppes

In No Categorical Terms: A Sketch for an Alternative Route to a Humean Interpretation of Laws........................................ 45
Kerry McKenzie

The Undeniable Effectiveness of Mathematics in the Special Sciences .... 63
Mark Colyvan

Comment on “The Undeniable Effectiveness of Mathematics in the Special Sciences” ............................................................. 75
Tim Räz

Part II  Philosophy of the Natural and Life Sciences

Explanatory Pluralism in Psychiatry: What Are We Pluralists About, and Why? ................................................................. 87
Raffaella Campaner

Pluralists About Pluralism? Different Versions of Explanatory Pluralism in Psychiatry ......................................................... 105
Jeroen Van Bouwel
Contents

Shifting Attention from Theory to Practice in Philosophy of Biology ................. 121
C. Kenneth Waters

Living Instruments and Theoretical Terms: Xenografts as Measurements in Cancer Research ........................................ 141
Pierre-Luc Germain

Developmental Explanation ........................................................................ 157
Veli-Pekka Parkkinen

What Counts as Causation in Physics and Biology? ...................................... 173
Jan Faye

Challenges to Characterizing the Notion of Causation Across Disciplinary Boundaries: Comment on Faye ........................................ 191
Jan Baedke

Just Complexity ...................................................................................... 203
Max Urchs

Confessions of a Complexity Skeptic .......................................................... 221
Raphael Scholl

New Directions in the Philosophy of Biology: A New Taxonomy of Functions ................................................................. 235
Cristian Saborido

Part III Philosophy of the Cultural and Social Sciences

How Essentialism Properly Understood Might Reconcile Realism and Social Constructivism .................................................. 255
Wolfgang Spohn

Social Construction – By Whom? ................................................................ 267
Matti Sintonen

Is Social Constructivism Soluble in Critical Naturalism? ......................... 279
Daniel Andler

Scientific Representation, Reflexivity, and the Possibility of Constructive Realism ................................................................. 297
Tarja Knuuttila

The Limits of Realism in the Philosophy of Social Science ....................... 313
David-Hillel Ruben

The Social Re-Construction of Agency .................................................... 323
Katarzyna Paprzycka

Local Realism: An Analysis of Social Choice Theory ................................ 339
Obdulia Torres González
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Author(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>121</td>
<td>Objectivity and Visual Practices in Science and Art</td>
<td>Chiara Ambrosio</td>
</tr>
<tr>
<td>141</td>
<td>Cultural Information: Don’t Ask, Don’t Tell</td>
<td>Tim Lewens</td>
</tr>
<tr>
<td>157</td>
<td>Part IV Philosophy of the Physical Sciences</td>
<td></td>
</tr>
<tr>
<td>173</td>
<td>Introducing QBism</td>
<td>Christopher A. Fuchs</td>
</tr>
<tr>
<td>191</td>
<td>A Critic Looks at QBism</td>
<td>Guido Bacciagaluppi</td>
</tr>
<tr>
<td>203</td>
<td>Elementary Particles and Metaphysics</td>
<td>F.A. Müller</td>
</tr>
<tr>
<td>221</td>
<td>Assessing the Status of the Common Cause Principle</td>
<td>Miklós Rédei</td>
</tr>
<tr>
<td>235</td>
<td>A Note on Strong Causal Closedness and Completability</td>
<td>Michal Marczyk and Leszek Wroński</td>
</tr>
<tr>
<td>235</td>
<td>Artificial Examples of Empirical Equivalence</td>
<td>Pablo Acuña</td>
</tr>
<tr>
<td>255</td>
<td>The Measurement Problem Is Your Problem Too</td>
<td>Ronnie Hermens</td>
</tr>
<tr>
<td>255</td>
<td>Pros and Cons of Physics in Logics</td>
<td>Petr Švarný</td>
</tr>
<tr>
<td>267</td>
<td>How Fundamental Physics Represents Causality</td>
<td>Andreas Bartels and Daniel Wohlfarth</td>
</tr>
<tr>
<td>279</td>
<td>Anchoring Causal Connections in Physical Concepts</td>
<td>Mario Hubert and Roland Poellinger</td>
</tr>
<tr>
<td>297</td>
<td>Good Just Isn’t Good Enough: Humean Chances and Boltzmannian Statistical Physics</td>
<td>Claus Beisbart</td>
</tr>
<tr>
<td>323</td>
<td>Noncommutative Causality in Algebraic Quantum Field Theory</td>
<td>Gábor Hofer-Szabó</td>
</tr>
<tr>
<td>339</td>
<td>Lost in Translation: A Comment on “Noncommutative Causality in Algebraic Quantum Field Theory”</td>
<td>Dustin Lazarovici</td>
</tr>
</tbody>
</table>
Causal Probabilities in GRW Quantum Mechanics ......................... 561
Tomaž Placek

Physics, Metaphysics and Mathematics ........................................... 577
Dennis Dieks

Part V  History of the Philosophy of Science

Where Would We Be Without Counterfactuals? ............................... 589
Huw Price

Pragmatism and European Philosophy: William James
and the French-Italian Connection ............................................... 609
Massimo Ferrari

European Pragmatism? Further Thoughts on the German
and Austrian Reception of American Pragmatism ......................... 627
Thomas Uebel

New Prospects for Pragmatism: Ramsey's Constructivism ................. 645
Maria Carla Galavotti

Critical Realism in Perspective: Remarks on a Neglected
Current in Neo-Kantian Epistemology ........................................ 657
Matthias Neuber

Realism Without Mirrors .............................................................. 675
Henrik Rydenfelt

The Continuing Relevance of Nineteenth-Century Philosophy
of Psychology: Brentano and the Autonomy of Psychological Methods ... 693
Uljana Feest

On the Logical Positivists' Philosophy of Psychology: Laying
a Legend to Rest ............................................................................. 711
Sean Crawford

Epistemology Historicized: The French Tradition ............................ 727
Anastasios Brenner

Commentary on Anastasios Brenner's "Epistemology Historicized" ...... 737
Cristina Chimisso

History and Philosophy of Science: Between Description
and Construction ............................................................................. 747
Friedrich Stadler

Index ............................................................................................... 769