

Dennis Dieks · Wenceslao J. Gonzalez ·
Stephan Hartmann · Thomas Uebel · Marcel Weber
Editors

Explanation, Prediction, and Confirmation

 Springer

TABLE OF CONTENTS

DENNIS DIEKS, Preface: Explanation, Prediction, Confirmation 7

Team A: Formal Methods

JOHN WORRALL, The No Miracles Intuition and the No Miracles Argument 11

STATHIS PSILLOS, The Scope and Limits of the No Miracles Argument 23

GREGORY WHEELER AND RICHARD SCHEINES, Causation, Association and Confirmation 37

JON WILLIAMSON, An Objective Bayesian Account of Confirmation 53

ADAM GROBLER, An Explication of the Use of Inference to the Best Explanation 83

JOKE MEHEUS, A Formal Logic for the Abduction of Singular Hypotheses 93

THOMAS MÜLLER, Probabilities in Branching Structures 109

Team B: Philosophy of the Natural and Life Sciences

RAFFAELLA CAMPANER, Causality and Explanation: Issues from Epidemiology . 125

SAMUEL SCHINDLER, Invariance, Mechanisms and Epidemiology 137

ALEXANDER REUTLINGER, What's Wrong with the Pragmatic-Ontic Account of Mechanistic Explanation?..... 141

MICHAEL JOFFE, Causality and Evidence Discovery in Epidemiology 153

GERD GRAßHOFF, Inferences to Causal Relevance from Experiments..... 167

ALAN C. LOVE AND ANDREAS HÜTTEMANN, Comparing Part-Whole Reductive Explanations in Biology and Physics 183

PETER MCLAUGHLIN, The Arrival of the Fittest 203

THOMAS A. C. REYDON, The Arrival of the Fittest *What?*..... 223

Team C: Philosophy of the Cultural and Social Sciences

WOLFGANG SPOHN, Normativity is the Key to the Difference Between the Human and the Natural Sciences 241

HANS LENK, Methodological Higher-Level Interdisciplinarity by Scheme-Interpretationism: Against Methodological Separatism of the Natural, Social, and Human Sciences 253

JAN FAYE, Explanation and Interpretation in the Sciences of Man 269

PETER KEMP, Imagination and Explanation in History 281

PAOLO GARBOLINO, Historical Narratives, Evidence, and Explanations 293

RAIMO TUOMELA, Holistic Social Causation and Explanation	305
WENCESLAO J. GONZALEZ, Complexity in Economics and Prediction: The Role of Parsimonious Factors	319
MARIA G. BONOME, Prediction and Prescription in the Science of the Artificial: Information Science and Complexity.....	331
Team D: Philosophy of the Physical Sciences	
JEREMY BUTTERFIELD, Against Pointillisme: A Call to Arms	347
DENNIS DIEKS, The Gibbs Paradox Revisited	367
MAURO DORATO, The Alexandroff Present and Minkowski Spacetime: Why it Cannot Do What it has Been Asked to Do	379
TOMASZ PLACEK, A Locus for “Now”	395
SVEND E. RUGH AND HENRIK ZINKERNAGEL, Weyl’s Principle, Cosmic Time and Quantum Fundamentalism	411
MICHIEL P. SEEVINCK AND JOS UFFINK, Not Throwing out the Baby with the Bathwater: Bell’s Condition of Local Causality Mathematically ‘Sharp and Clean’	425
Team E: History of the Philosophy of Science	
BERNA KILINC, Kant on Chance and Explanation	453
MICHAEL STÖLTZNER, Shifting the (Non-Relativized) A Priori: Hans Reichenbach on Causality and Probability (1915–1932).....	465
PIERRE WAGNER, Carnap’s Theories of Confirmation	477
ARTUR KOTERSKI, The Rise and Fall of Falsificationism in the Light of Neurath’s Criticism	487
MARIA CARLA GALAVOTTI, Probability and Pragmatism	499
GRAHAM STEVENS, Russell on Non-Demonstrative Inference	511
ELISABETH NEMETH, Edgar Zilsel on Historical Laws	521
ERIC SCHLISSER, “Every System of Scientific Theory Involves Philosophical Assumptions” (Talcott Parsons). The Surprising Weberian Roots to Milton Friedman’s Methodology	533
Index of Names	545