

Sven Ove Hansson • Vincent F. Hendricks
Editors

Esther Michelsen Kjeldahl
Assistant Editor

Introduction to Formal Philosophy

 Springer

Contents

Part I The Scope and Methods of Formal Philosophy

- 1 Formalization** 3
Sven Ove Hansson

Part II Reasoning and Inference

- 2 Argument** 63
Henry Prakken
- 3 Formal Methods and the History of Philosophy** 81
Catarina Dutilh Novaes
- 4 Nonmonotonic Reasoning** 93
Alexander Bochman
- 5 Induction** 105
Rafal Urbaniak and Diderik Batens
- 6 Conditionals** 131
John Cantwell
- 7 Neural Network Models of Conditionals** 147
Hannes Leitgeb
- 8 Proof Theory** 177
Jeremy Avigad
- 9 Logics of (Formal and Informal) Provability** 191
Rafal Urbaniak and Pawel Pawlowski

Part III Metaphysics and Philosophy of Language

- 10 Theory of Concepts** 241
Erich Rast

11	Categories	251
	Jean-Pierre Marquis	
12	Can Natural Language Be Captured in a Formal System?	273
	Martin Stokhof	
13	Reference and Denotation	289
	Robert van Rooij	
14	Indexicals	297
	Philippe Schlenker	
15	Necessity and Possibility	323
	Melvin Fitting	
16	Bivalence and Future Contingency	333
	Gabriel Sandu, Carlo Proietti, and François Rivenc	
Part IV Epistemology		
17	Epistemic Logic and Epistemology	351
	Wesley H. Holliday	
18	Knowledge Representation for Philosophers	371
	Richmond H. Thomason	
19	Representing Uncertainty	387
	Sven Ove Hansson	
20	Belief Change	401
	Sven Ove Hansson	
21	Probability Theory	417
	Darrell P. Rowbottom	
22	Bayesian Epistemology	431
	Erik J. Olsson	
23	Coherence	443
	Sven Ove Hansson	
Part V Philosophy of Science		
24	Computational Models in Science and Philosophy	457
	Paul Thagard	
25	Models of the Development of Scientific Theories	469
	Gerhard Schurz	
26	Space and Time	487
	John Byron Manchak	

Part VI Value Theory and Moral Philosophy

27 Formal Investigations of Value	499
Sven Ove Hansson	
28 Value Theory (Axiology)	523
Erik Carlsson	
29 Preference and Choice	535
Sven Ove Hansson	
30 Preference Change	549
Fenrong Liu	
31 Money-Pumps	567
Sven Ove Hansson	
32 Deontic Logic	577
Sven Ove Hansson	
33 Action Theories	591
Andreas Herzig, Emiliano Lorini, and Nicolas Troquard	

Part VII Decision Theory and Social Philosophy

34 Decision Theory: A Formal Philosophical Introduction	611
Richard Bradley	
35 Dynamic Decision Theory	657
Katie Steele	
36 Causal Decision Theory	669
Brad Armendt	
37 Social Choice and Voting	693
Prasanta K. Pattanaik	
38 Judgment Aggregation	705
Philippe Mongin	
39 Logical Approaches to Law	721
John Woods	