

Contents

Notes on Contributors	xi
Acknowledgments	xvii
Introduction <i>Heather Dyke and Adrian Bardon</i>	1
Part I The History of the Philosophy of Time	7
1 Heraclitus and Parmenides <i>Ronald C. Hoy</i>	9
2 Zeno's Paradoxes <i>Niko Strobach</i>	30
3 Aristotle on Time and Change <i>Andrea Falcon</i>	47
4 Determinism, Fatalism, and Freedom in Stoic Philosophy <i>Ricardo Salles</i>	59
5 Creation and Eternity in Medieval Philosophy <i>Jon McGinnis</i>	73
6 Newton's Philosophy of Time <i>Eric Schliesser</i>	87
7 Classical Empiricism <i>Lorne Falkenstein</i>	102
8 Kant and Time-Order Idealism <i>Andrew Brook</i>	120
9 Husserl and the Phenomenology of Temporality <i>Shaun Gallagher</i>	135

CONTENTS

10	The Emergence of a New Family of Theories of Time <i>John Bigelow</i>	151
11	The B-Theory in the Twentieth Century <i>M. Joshua Mozersky</i>	167
	Part II Time as a Feature of the Physical World	183
12	Time in Classical and Relativistic Physics <i>Gordon Belot</i>	185
13	Time in Cosmology <i>Chris Smeenk</i>	201
14	On Time in Quantum Physics <i>Jeremy Butterfield</i>	220
15	Time in Quantum Gravity <i>Nick Huggett, Tiziana Vistarini, and Christian Wüthrich</i>	242
16	The Arrow of Time in Physics <i>David Wallace</i>	262
17	Time and Causation <i>Mathias Frisch</i>	282
18	Time Travel and Time Machines <i>Douglas Kutach</i>	301
19	The Passage of Time <i>Simon Prosser</i>	315
20	Time and Tense <i>Heather Dyke</i>	328
21	Presentism, Eternalism, and the Growing Block <i>Kristie Miller</i>	345
22	Change and Identity over Time <i>Dana Lynne Goswick</i>	365
	Part III Time as a Feature of Human Experience	387
23	The Perception of Time <i>Barry Dainton</i>	389
24	Transcendental Arguments and Temporal Experience <i>Georges Dicker</i>	410
25	Memory <i>Jordi Fernández</i>	432
26	Time in Mind <i>Julian Kiverstein and Valtteri Arstila</i>	444

CONTENTS

27	The Representation of Time in Agency <i>Holly Andersen</i>	470
28	Temporal Indexicals <i>John Perry</i>	486
29	Time – The Emotional Asymmetry <i>Caspar Hare</i>	507
30	Evolutionary Explanations of Temporal Experience <i>Heather Dyke and James Maclaurin</i>	521
31	Time and Freedom <i>Robin Le Poidevin</i>	535
32	Time and Morality <i>Krister Bykvist</i>	549
	Index	563