## Contents

Preface to the Third Edition xvAcknowledgements xvii

Part I What is Behaviorism? 1

1 Behaviorism: Definition and History 3

Historical Background 3

From Philosophy to Science 3

Objective Psychology 6

Comparative Psychology 7

Early Behaviorism 8

Free Will Versus Determinism 10

Definitions 10

Arguments For and Against Free Will 11

Social Arguments 12

Aesthetic Arguments 13

Folk Psychology 15

Summary 15

Further Reading 17

Keyterms 17

2 Behaviorism as Philosophy of Science 19

Realism versus Pragmatism 19

Realism 19

The Objective Universe 20

Discovery and Truth 20

Sense Data and Subjectivity 20

Explanation 22

Pragmatism 22

Science and Experience 24

Conceptual Economy 25

Explanation and Description 27

Radical Behaviorism and Pragmatism 28

Summary 31

Further Reading 32

Keyterms 32

Public, Private, Natural, and Fictional 33  Mentalism 33  Public and Private Events 33  Natural Events 34  Natural, Mental, and Fictional 35  Objections to Mentalism 37  Autonomy: Mental Causes Obstruct Inquiry 37	
Superfluity: Explanatory Fictions are Uneconomical 38	
Category Mistakes 40	
Ryle and the Para-Mechanical Hypothesis 41 Rachlin's Molar Behaviorism 42	
Private Events 46	
Private Behavior 46 Self-Knowledge and Consciousness 49	
Summary 52	
Further Reading 54	
Keyterms 55	
Port II AS : 125 I I I I I I I I I I I I I I I I I I I	
Part II A Scientific Model of Behavior 57	

Evolutionary Theory and Reinforcement 59 Evolutionary History 59 Natural Selection 60 Reflexes and Fixed Action Patterns 62 Reflexes 62 Fixed Action Patterns 62 Respondent Conditioning 64 Reinforcers and Punishers 66 Operant Behavior 66 Physiological Factors 68 Overview of Phylogenetic Influences 70 History of Reinforcement 70 Selection by Consequences 71 The Law of Effect 71 Shaping and Natural Selection 71 Historical Explanations 75 Summary 77 Further Reading 78 Keyterms 78

# Purpose and Reinforcement 81 History and Function 81 Using Historical Explanations 82 History Versus Immediate Cause 82 Gaps of Time 82 Functional Units 83

Species as Functional Units 84 Activities as Functional Units 84 Three Meanings of Purpose Purpose as Function 86 Purpose as Cause 87 Purposive Behavior 88 Purposive Machines 89 Selection by Consequences 90 Creativity 90 Purpose as Feeling: Self-Reports 92 Talking About the Future 92 Talking About the Past 92 Feelings as By-Products 93 Summary 94 Further Reading 95

97 Stimulus Control and Knowledge

Stimulus Control 97 Discriminative Stimuli 98 Extended Sequences and Discriminative Stimuli Discrimination 101

Knowledge 102

Keyterms 96

Procedural Knowledge: Knowing How 103 Declarative Knowledge: Knowing About 105 Declarative Knowledge and Stimulus Control 105 What is a Lie? 106 Self-Knowledge 107 Public Versus Private Stimuli 107

Introspection 110 The Behavior of Scientists 111

Observation and Discrimination 111

Scientific Knowledge 112

Pragmatism and Contextualism 112

Summary 113

Further Reading 114

Keyterms 115

Verbal Behavior and Language 117

What is Verbal Behavior? 117 Communication 117 Verbal Behavior as Operant Behavior 118 Speaking Has Consequences 118 The Verbal Community 118 Speaker and Listener 119 The Verbal Episode 119

The Reinforcement of Verbal Behavior 120 The Listener's Role 121 Examples 122 The Importance of History 122 Sign Language and Gestures 123 Nonhuman Animals 123 Talking to Myself 124 Verbal Behavior versus Language 125 Functional Units and Stimulus Control 126 Verbal Activities as Functional Units 126 Stimulus Control of Verbal Behavior 128 The Generative Nature of Language 129 Talking About Talking 129 Talking About the Future 130 Meaning 131 Reference Theories 131 Symbols and Lexicons 131 The Importance of Context Meaning as Use 133 Consequences and Context 133 Varieties of Use 134 **Dictionary Definitions** 135 Technical Terms 135 Grammar and Syntax 135 Rules as Descriptions 136 Competence and Performance 136 Grammar and Grammarians 137 Where are the Rules? 137 Summary 138 Further Reading 139 Keyterms 140

Rule-Governed Behavior and Thinking What is Rule-Governed Behavior? 141 Rule-Governed versus Implicitly Shaped Behavior 141 Rules: Orders, Instructions, and Advice 143 Always Two Relations 147 The Proximate Reinforcement Relation 147 The Ultimate Reinforcement Relation 149 Learning to Follow Rules 151 Shaping Rule-Following 151 Where are the Rules? 152 Thinking and Problem-Solving 152 Changing Stimuli 153 Precurrent Behavior 155

Summary 157 Further Reading 158 Keyterms 158

#### Social Issues 159 Part III

Freedom 161 9 Uses of the Word Free 161 Being Free: Free Will 161 Feeling Free: Political and Social Freedom 162 163 Coercion and Aversive Control Freedom and Happiness 165 Objections to the Behavioral View 165 Reinforcement Traps, Bad Habits, and Self-Control 167 Spiritual Freedom 171 The Challenge of Traditional Thinking 173 Summary 174 Further Reading 175 Keyterms 175

10 Responsibility, Credit, and Blame 177 Responsibility and the Causes of Behavior Free Will and the Visibility of Control Assigning Credit and Blame 178 Compassion and Control 179 Responsibility and the Consequences of Behavior 181 What is Responsibility? 182 Practical Considerations: The Need for Control 183

Applying Consequences 184 What Kind of Control?

Summary 185 Further Reading 186 Keyterms 186

Relationships, Management, and Government 187

Relationships 187 Mutual Reinforcement 188 Individuals and Organizations 189 Exploitation 191 The "Happy Slave" 192 192 ma has memeral and the back Long-Term Consequences Comparative Well-Being 193 Equity Theory 194 Which Comparisons? 196 Cooperation 197 Control and Counter-Control 197 Counter-Control 197

Equity 200 Power 201 Democracy 203 Summary 204 Further Reading 205 Keyterms 206

### 12 Values: Religion and Science 207

Questions about Value 207 Moral Relativism 209 Ethical Standards 209

The Law of Human Nature 210 The Question of Origins 212

A Scientific Approach to Values 213 Reinforcers and Punishers

Feelings 215

Evolutionary Theory and Values 217

Altruism and Cooperation 219

Morals 223

The Good Life 224

Summary 224 Further Reading 226 Keyterms 226

#### 13 The Evolution of Culture 227

Biological Evolution and Culture 228

Replicators and Fitness 228

Societies 229

Group Selection 231

Definition of Culture 232

Culture and Society 232

Culture and Fitness

Traits for Culture 233

Behavioral Specializations 234

Imitation 236

Social Reinforcers and Punishers 237

Variation, Transmission, and Selection 238

Variation 238

Cultural Replicators 239

Meme, Culturgen, Practice 239

Social Reinforcement and Punishment 241

Mutation, Recombination, and Immigration 242

Transmission 243

Inheritance of Acquired Characteristics 243

Transmission by Imitation 244

Transmission by Rule-Governed Behavior 245

Selection 246 Natural Selection in Culture 246 Selective Transmission 246 Rule-Following and Rule-Making 248 The Legend of Eslok 249 Cultural Group Selection 249 Self-Interest 250 Summary 252 Further Reading 254 Keyterms 255

### Design of Culture: Experimenting for Survival 257

Design from Evolution 257 Selective Breeding 258 Evaluation 258 Survival as a Standard 259 Guided Variation 261 The Experimental Society 262 Experimenting 262 Democracy 263 Happiness 264 Walden Two: Skinner's Vision 265 Interpreting Walden Two 265 Is Walden Two Utopian? 266 Objections 267 Summary 272 Further Reading 273 Keyterms 274

Glossary 275 Index 295