Contents

Series Foreword ix
Preface and Acknowledgments xi

1 A Focus on Infrastructure 1

2 Primate Intentional Communication 13
2.1 Vocal Displays 15
2.2 Gestural Signals 20
2.3 Communication with Humans 34
2.4 Intentionality in Ape Communication 43
2.5 Conclusion 53

3 Human Cooperative Communication 57
3.1 Pointing and Pantomiming 60
3.2 The Cooperation Model 72
3.3 Communicative Conventions 99
3.4 Conclusion 107

4 Ontogenetic Origins 109
4.1 Infant Pointing 111
4.2 Sources of Infant Pointing 135
4.3 Early Pantomiming 145

4.4 Shared Intentionality and Early Language 154
4.5 Conclusion 165

5 Phylogenetic Origins 169
5.1 The Emergence of Collaboration 172
5.2 The Emergence of Cooperative Communication 191
5.3 The Emergence of Conventional Communication 218
5.4 Conclusion 237

6 The Grammatical Dimension 243
6.1 The Grammar of Requesting 246
6.2 The Grammar of Informing 270
6.3 The Grammar of Sharing and Narrative 282
6.4 The Conventionalization of Linguistic Constructions 295
6.5 Conclusion 316

7 From Ape Gestures to Human Language 319
7.1 Summary of the Argument 320
7.2 Hypotheses and Problems 327
7.3 Language as Shared Intentionality 342

References 347
Author Index 373
Subject Index 379