Contents

Volume 2

VI. Gestures across cultures
73. Gestures in South Africa • Heather Brookes .............................................. 1147
74. Gestures in the Sub-Saharan region • Heather Brookes and Victoria Nyst 1154
75. Gestures in West Africa: Left hand taboo in Ghana • James Essegbey .. 1161
76. Gestures in West Africa: Wolof • Christian Meyer ................................. 1169
77. Gestures in South America: Spanish and Portuguese • Monica Rector . 1175
78. Gestures in South American indigenous cultures • Sabine Reiter ....... 1182
79. Gestures in native South America: Ancash Quechua • Joshua Shapero . 1193
80. Gestures in native Mexico and Central America: The Mayan Cultures • Penelope Brown ................................................................. 1206
81. Gestures in native Northern America: Bimodal talk in Arapaho • Richard Sandoval ................................................................. 1215
82. Gestures in Southwest India: Dance theater • Rajyashree Ramesh ...... 1226
83. Gestures in China: Universal and culturally specific characteristics • Shumeng Hou and Wing Chee So ............................................. 1233
84. Gestures and body language in Southern Europe: Italy • Marino Bonaiuto and Tancredi Bonaiuto ................................................. 1240
85. Gestures in Southern Europe: Children’s pragmatic gestures in Italy • Maria Graziano ................................................................. 1253
86. Gestures in Southwest Europe: Portugal • Isabel Galhano-Rodrigues .... 1259
87. Gestures in Southwest Europe: Catalonia • Lluis Payrató .................... 1266
88. Gestures in Western Europe: France • Dominique Boutet and Simon Harrison ................................................... 1272
89. Gestures in Northern Europe: Children’s gestures in Sweden • Mats Andrén ................................................................. 1282
90. Gestures in Northeast Europe: Russia, Poland, Croatia, the Czech Republic, and Slovakia • Grigory E. Kreydlin ................. 1289

VII. Body movements – Functions, contexts, and interactions
91. Body posture and movement in interaction:
   Participation management • Ulrike Bohle ................................................. 1301
92. Proxemics and axial orientation • Jörg Hagemann ............................... 1310
93. The role of gaze in conversational interaction • Mardi Kidwell .......... 1324
94. Categories and functions of posture, gaze, face, and body movements • Beatrix Schonherr ................................................................. 1333
95. Facial expression and social interaction • Pio E. Ricci Bitti .................. 1342
96. Gestures, postures, gaze, and movement in work and organization • Ma­rino Bonaiuto, Stefano De Dominicis and Uberta Ganucci Cancellieri .... 1349
97. Gesture and conversational units • Ulrike Bohle ................................ 1360
98. The interactive design of gestures • Irene Kimbara .............................. 1368
99. Gestures and mimicry • Irene Kimbara .......................................... 1375
100. Gestures and prosody • Dan Loehr .............................................. 1381
101. Structuring discourse: Observations on prosody and gesture in Russian TV-discourse • Nicole Richter .................. 1392
102. Body movements in political discourse • Fridanna Maricchiolo, Marino Bonaiuto and Augusto Gnisci .......... 1400
103. Gestures in industrial settings • Simon Harrison ............................ 1413
104. Identification and interpretation of co-speech gestures in technical systems • Timo Sowa ......................................................... 1419
105. Gestures, postures, gaze, and other body movements in the 2nd language classroom interaction • Alexis Tabensky ........ 1426
106. Bodily interaction (of interpreters) in music performance • Richard Ashley ...... 1432
107. Gestures in the theater • Erika Fischer-Lichte ............................... 1440
108. Contemporary classification systems • Ulrike Bohle .......................... 1453
110. Emblems or quotable gestures: Structures, categories, and functions • Lluis Payrato ............................................................. 1474
111. Semantics and pragmatics of symbolic gestures • Isabella Poggi .......... 1481
112. Head shakes: Variation in form, function, and cultural distribution of a head movement related to “no” • Simon Harrison ........ 1496
113. Gestures in dictionaries: Physical contact gestures • Ulrike Lynn .... 1502
114. Ring-gestures across cultures and times: Dimensions of variation • Cornelia Müller ...................................................... 1511
115. Gesture and taboo: A cross-cultural perspective • Heather Brookes .... 1523

VIII. Gesture and language

116. Pragmatic gestures • Lluis Payrató and Sedinha Teßendorf .................. 1531
117. Pragmatic and metaphoric – combining functional with cognitive approaches in the analysis of the “brushing aside gesture” • Sedinha Teßendorf .......... 1540
118. Recurrent gestures • Silva H. Ladewig ........................................ 1558
119. A repertoire of German recurrent gestures with pragmatic functions • Jana Bressem and Cornelia Müller ........................................ 1575
120. The family of Away gestures: Negation, refusal, and negative assessment • Jana Bressem and Cornelia Müller ........................................ 1592
121. The cyclic gesture • Silva H. Ladewig ........................................ 1605
Contents

122. Kinesthemes: Morphological complexity in co-speech gestures
   Ellen Fricke .................................................. 1618
123. Gesture families and gestural fields
   Ellen Fricke, Jana Bressem and Cornelia Müller .................. 1630
124. Repetitions in gesture · Jana Bressem .............................. 1641
125. Syntactic complexity in co-speech gestures:
   Constituency and recursion · Ellen Fricke ......................... 1650
126. Creating multimodal utterances: The linear integration
   of gestures into speech · Silva H. Ladewig ......................... 1662
127. Gestures and location in English · Mark Tutton ...................... 1677
128. Gestural modes of representation as techniques of depiction
   Cornelia Müller ................................................. 1687
129. Levels of abstraction · Ulrike Lynn ................................. 1702
130. Gestures and iconicity · Irene Mittelberg ......................... 1712
131. Iconic and representational gestures · Irene Mittelberg and Vito Evola
   ................................................................. 1732
132. Gestures and metonymy · Irene Mittelberg and Linda Waugh ........ 1747
133. Ways of viewing metaphor in gesture · Alan Cienki and Cornelia Müller
   ................................................................. 1766
134. The conceptualization of time in gesture
   Kensy Cooperrider, Rafael Núñez and Eve Sweetser ............... 1781
135. Between reference and meaning: Object-related and interpretant-related
   gestures in face-to-face interaction · Ellen Fricke .................. 1788
136. Deixis, gesture, and embodiment from a linguistic
   point of view · Ellen Fricke ..................................... 1803
137. Pointing by hand: Types of reference and their influence
   on gestural form · Ewa Jarmolowicz-Nowikow ....................... 1824

IX. Embodiment – The body and its role for cognition,
    emotion, and communication

138. Gestures and cognitive development · Martha W. Alibali ............. 1833
139. Embodied cognition and word acquisition:
   The challenge of abstract words · Anna M. Borghi ................... 1841
140. The blossoming of children’s multimodal skills
   from 1 to 4 years old · Aliyah Morgenstern ......................... 1848
141. Gestures before language: The use of baby signs · Lena Hotze .......... 1857
142. Gestures and second language acquisition · Marianne Gullberg ........ 1868
143. Further changes in L2 Thinking for Speaking? · Gale A. Stam .......... 1875
144. Gesture and the neuropsychology of language · Pierre Feyereisen .... 1886
145. Gestures in aphasia · Pierre Feyereisen ................................ 1898
146. Body movements and mental illness: Alterations of movement behavior
   associated with eating disorders, schizophrenia, and depression
   Hedda Lausberg .................................................. 1905
147. Bodily communication and deception · Siegfried L. Sporer ................ 1913
148. Multi-modal discourse comprehension · Seana Coulson and Ying Choon Wu
   ................................................................. 1922
149. Cognitive operations that take place in the Perception-Action Loop
   Stephanie Huette and Michael Spivey ............................... 1929
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>150.</td>
<td>Gesture and working memory</td>
<td>Susan Wagner Cook</td>
<td>1936</td>
</tr>
<tr>
<td>151.</td>
<td>Body movements in robotics</td>
<td>Ipke Wachsmuth and Maha Salem</td>
<td>1943</td>
</tr>
<tr>
<td>153.</td>
<td>The psychology of gestures and gesture-like movements</td>
<td>Katja Liebal</td>
<td>1955</td>
</tr>
<tr>
<td>154.</td>
<td>An evolutionary perspective on facial behavior</td>
<td>Marc Mehu</td>
<td>1962</td>
</tr>
<tr>
<td>156.</td>
<td>Multimodal forms of expressing emotions: The case of interjections</td>
<td>Ulrike Stange and Damaris Nübling</td>
<td>1982</td>
</tr>
<tr>
<td>157.</td>
<td>Some issues in the semiotics of gesture: The perspective of comparative semiotics</td>
<td>Göran Sonesson</td>
<td>1989</td>
</tr>
<tr>
<td>158.</td>
<td>Embodied meaning, inside and out: The coupling of gesture and mental simulation</td>
<td>Tyler Marghetis and Benjamin K. Bergen</td>
<td>2000</td>
</tr>
<tr>
<td>159.</td>
<td>Embodied and distributed contexts of collaborative remembering</td>
<td>Lucas M. Bietti</td>
<td>2008</td>
</tr>
<tr>
<td>160.</td>
<td>Living bodies: Co-enacting experience</td>
<td>Elena Clare Cuffari and Thomas Wiben Jensen</td>
<td>2016</td>
</tr>
<tr>
<td>161.</td>
<td>Apropriocception, gesture, and cognitive being</td>
<td>Liesbet Quaeghebeur, Susan Duncan, Shaun Gallagher, Jonathan Cole and David McNeill</td>
<td>2026</td>
</tr>
<tr>
<td>162.</td>
<td>Embodifying audio-visual media: Concepts and transdisciplinary perspectives</td>
<td>Jan-Hendrik Bakels</td>
<td>2048</td>
</tr>
<tr>
<td>163.</td>
<td>Cinematic communication and embodiment</td>
<td>Christina Schmitt and Sarah Greifenstein</td>
<td>2061</td>
</tr>
<tr>
<td>164.</td>
<td>The discovery of the acting body</td>
<td>Sarah Greifeinstein and Hermann Kappelhoff</td>
<td>2070</td>
</tr>
<tr>
<td>165.</td>
<td>Expressive movements in audio-visual media: Modulating affective experience</td>
<td>Thomas Scherer, Sarah Greifenstein and Hermann Kappelhoff</td>
<td>2081</td>
</tr>
<tr>
<td>166.</td>
<td>Expressive movement and metaphor meaning making in audio-visual media</td>
<td>Christina Schmitt, Sarah Greifenstein and Hermann Kappelhoff</td>
<td>2092</td>
</tr>
<tr>
<td>167.</td>
<td>Gesture as interactive expressive movement: Inter-affectivity in face-to-face communication</td>
<td>Dorothea Horst, Franziska Boll, Christina Schmitt and Cornelia Müller</td>
<td>2112</td>
</tr>
</tbody>
</table>

X. Sign language – Visible body movements as language

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
<th>Authors</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>168.</td>
<td>Linguistic structures in a manual modality: Phonology and morphology in sign languages</td>
<td>Onno Crasborn</td>
<td>2127</td>
</tr>
<tr>
<td>169.</td>
<td>The grammaticalization of gestures in sign languages</td>
<td>Esther van Loon, Roland Pfau and Markus Steinbach</td>
<td>2133</td>
</tr>
<tr>
<td>170.</td>
<td>Nonmanual gestures in sign languages</td>
<td>Annika Herrmann and Nina-Kristin Pendzich</td>
<td>2149</td>
</tr>
<tr>
<td>171.</td>
<td>Enactment as a (signed) language communicative strategy</td>
<td>David Quinto-Pozos</td>
<td>2163</td>
</tr>
<tr>
<td>172.</td>
<td>Gestures in sign-language</td>
<td>Sherman Wilcox</td>
<td>2170</td>
</tr>
</tbody>
</table>
Contents

Volume 1

Introduction • Cornelia Müller ................................................................. 1

I. How the body relates to language and communication: 
   Outlining the subject matter

1. Exploring the utterance roles of visible bodily action: 
   A personal account • Adam Kendon ................................................. 7
2. Gesture as a window onto mind and brain, and the relationship to 
   linguistic relativity and ontogenesis • David McNeill ....................... 28
3. Gestures and speech from a linguistic perspective: A new field 
   and its history • Cornelia Müller, Silva H. Ladewig and Jana Bressem 55
4. Emblems, quotable gestures, or conventionalized body movements • Sedinha TeBendorf .......................................................... 82
5. Framing, grounding, and coordinating conversational interaction: 
   Posture, gaze, facial expression, and movement in space • Mardi Kidwell 100
6. Homesign: When gesture is called upon to be 
   language • Susan Goldin-Meadow ................................................ 113
7. Speech, sign, and gesture • Sherman Wilcox .................................... 125

II. Perspectives from different disciplines

8. The growth point hypothesis of language and gesture as a dynamic 
   and integrated system • David McNeill .............................................. 135
9. Psycholinguistics of speech and gesture: Production, comprehension, 
   architecture • Pierre Feyereisen ................................................... 156
10. Neuropsychology of gesture production • Hedda Lausberg ............ 168
11. Cognitive Linguistics: Spoken language and gesture as expressions 
    of conceptualization • Alan Cienki .............................................. 182
12. Gestures as a medium of expression: The linguistic potential 
    of gestures • Cornelia Müller ...................................................... 202
13. Conversation analysis: Talk and bodily resources for the organization 
    of social interaction • Lorenza Mondada ....................................... 218
14. Ethnography: Body, communication, and cultural 
    practices • Christian Meyer ...................................................... 227
15. Cognitive Anthropology: Distributed cognition 
    and gesture • Robert F. Williams ............................................... 240
16. Social psychology: Body and language in social 
    interaction • Marino Bonaiuto and Fridanna Maricchiolo .............. 258
17. Multimodal (inter)action analysis: An integrative 
    methodology • Sigrid Norris .................................................... 275
18. Body gestures, manners, and postures in 
    literature • Fernando Poyatos ................................................. 287
III. Historical dimensions

19. Prehistoric gestures: Evidence from artifacts and rock art • Paul Bouissac ...................................................... 301
20. Indian traditions: A grammar of gestures in classical dance and dance theatre • Rajyashree Ramesh .......................................................... 306
21. Jewish traditions: Active gestural practices in religious life • Roman Katsman .......................................................... 320
22. The body in rhetorical delivery and in theater: An overview of classical works • Dorota Dutsch .......................................................... 329
23. Medieval perspectives in Europe: Oral culture and bodily practices • Dmitri Zakharine ...................................................... 343
24. Renaissance philosophy: Gesture as universal language • Jeffrey Wollock .......................................................... 364
25. Enlightenment philosophy: Gestures, language, and the origin of human understanding • Mary M. Copple ...................................................... 378
26. 20th century: Empirical research of body, language, and communication • Jana Bressem ...................................................... 393
27. Language — gesture — code: Patterns of movement in artistic dance from the Baroque until today • Susanne Foellmer ...................................................... 416
28. Communicating with dance: A historiography of aesthetic and anthropological reflections on the relation between dance, language, and representation • Yvonne Hardt ...................................................... 427
29. Mimesis: The history of a notion • Gunter Gebauer and Christoph Wulf ...................................................... 438

IV. Contemporary approaches

30. Mirror systems and the neurocognitive substrates of bodily communication and language • Michael A. Arbib ...................................................... 451
31. Gesture as precursor to speech in evolution • Michael C. Corballis ...................................................... 466
32. The co-evolution of gesture and speech, and downstream consequences • David McNeill ...................................................... 480
33. Sensorimotor simulation in speaking, gesturing, and understanding • Marcus Perlman and Raymond W. Gibbs ...................................................... 512
34. Levels of embodiment and communication • Jordan Zlatev ...................................................... 533
35. Body and speech as expression of inner states • Eva Krumhuber, Susanne Kaiser, Kappas Arvid and Klaus R. Scherer ...................................................... 551
36. Fused Bodies: On the interrelatedness of cognition and interaction • Anders R. Hougaard and Gitte Rasmussen ...................................................... 564
37. Multimodal interaction • Lorenza Mondada ...................................................... 577
38. Verbal, vocal, and visual practices in conversational interaction • Margret Selting ...................................................... 589
39. The codes and functions of nonverbal communication • Judee K. Burgoon, Laura K. Guerrero and Cindy H. White ...................................................... 609
40. Mind, hands, face, and body: A sketch of a goal and belief view of multimodal communication • Isabella Poggi ...................................................... 627
41. Nonverbal communication in a functional pragmatic perspective • Konrad Ehlich .......................................................... 648
42. Elements of meaning in gesture: The analogical links • Geneviève Calbris .................................................. 658
43. Praxeology of gesture • Jürgen Streeck .......................................................... 678
44. A "Composite Utterances" approach to meaning • N. J. Enfield .......................................................... 689
45. Towards a grammar of gestures: A form-based view • Cornelia Müller, Jana Bressem and Silva H. Ladewig .......................................................... 707
46. Towards a unified grammar of gesture and speech: A multimodal approach • Ellen Fricke .......................................................... 733
47. The exbodied mind: Cognitive-semiotic principles as motivating forces in gesture • Irene Mittelberg .......................................................... 755
48. Articulation as gesture: Gesture and the nature of language • Sherman Wilcox .......................................................... 785
49. How our gestures help us learn • Susan Goldin-Meadow .......................................................... 792
50. Coverbal gestures: Between communication and speech production • Uri Hadar .......................................................... 804
51. The social interactive nature of gestures: Theory, assumptions, methods, and findings • Jennifer Gerwing and Janet Bavelas .......................................................... 821

V. Methods

52. Experimental methods in co-speech gesture research • Judith Holler .......................................................... 837
53. Documentation of gestures with motion capture • Thies Pfeiffer .......................................................... 857
54. Documentation of gestures with data gloves • Thies Pfeiffer .......................................................... 868
55. Reliability and validity of coding systems for bodily forms of communication • Augusto Gnisci, Fridanna Maricchiolo and Marino Bonaiuto .......................................................... 879
56. Sequential notation and analysis for bodily forms of communication • Augusto Gnisci, Roger Bakeman and Fridanna Maricchiolo .......................................................... 892
57. Decoding bodily forms of communication • Fridanna Maricchiolo, Angiola Di Conza, Augusto Gnisci and Marino Bonaiuto .......................................................... 904
58. Analysing facial expression using the facial action coding system (FACS) Bridget M. Waller and Marcia Smith Pasqualini .......................................................... 917
59. Coding psychopathology in movement behavior: The movement psychodiagnostic inventory • Martha Davis .......................................................... 932
60. Laban based analysis and notation of body movement • Antja Kennedy .......................................................... 941
61. Kestenberg movement analysis • Sabine C. Koch and K. Mark Sossin .......................................................... 958
62. Doing fieldwork on the body, language, and communication • N. J. Enfield .......................................................... 974
63. Video as a tool in the social sciences • Lorenza Mondada .......................................................... 982
64. Approaching notation, coding, and analysis from a conversational analysis point of view • Ulrike Bohle .......................................................... 992
65. Transcribing gesture with speech • Susan Duncan .......................................................... 1007
66. Multimodal annotation tools • Susan Duncan, Katharina Rohlfing and Dan Loehr .......................................................... 1015
### Contents

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Authors</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>67</td>
<td>NEUROGES — A coding system for the empirical analysis of hand movement behavior as a reflection of cognitive, emotional, and interactive processes</td>
<td>Hedda Lausberg</td>
<td>1022</td>
</tr>
<tr>
<td>68</td>
<td>Transcription systems for gestures, speech, prosody, postures, and gaze</td>
<td>Jana Bressem</td>
<td>1037</td>
</tr>
<tr>
<td>69</td>
<td>A linguistic perspective on the notation of gesture phases</td>
<td>Silva H. Ladewig and Jana Bressem</td>
<td>1060</td>
</tr>
<tr>
<td>70</td>
<td>A linguistic perspective on the notation of form features in gestures</td>
<td>Jana Bressem</td>
<td>1079</td>
</tr>
<tr>
<td>71</td>
<td>Linguistic Annotation System for Gestures (LASG)</td>
<td>Jana Bressem, Silva H. Ladewig and Cornelia Müller</td>
<td>1098</td>
</tr>
<tr>
<td>72</td>
<td>Transcription systems for sign languages: A sketch of the different graphical representations of sign language and their characteristics</td>
<td>Brigitte Garcia and Marie-Anne Sallandre</td>
<td>1125</td>
</tr>
</tbody>
</table>

### Appendix

Organizations, links, reference publications, and periodicals 2177

### Indices

Authors Index 2179
Subject Index 2194