

Contents

<i>List of Figures</i>	page x
<i>List of Tables</i>	xvi
<i>Acknowledgments</i>	xvii
1 Introduction: Sign Language versus Gesture; Sign Language versus Speech	1
1.1 Introduction to the Topics of this Volume	1
1.2 Historical Perspectives on Sign Language Phonology	4
1.3 Sign Language and Gesture	6
1.3.1 Neuroimaging	9
1.3.2 Conventionalization	10
1.4 Sign Language and Speech at the Word Level	11
1.4.1 The Core Lexicon	13
1.4.2 The Spatial Lexicon	31
1.4.3 The Non-native Lexicon: Fingerspelling, Mouthings, and the Foreign Component	35
1.5 New Theoretical Contributions to Sign Language Phonology	39
1.5.1 Optimality Theory	39
1.5.2 Cognitive and Usage-Based Approaches	41
1.6 Summary	42
1.7 Further Reading	42
2 Modality Effects	44
2.1 Why Is Communication Modality So Important?	44
2.2 Signal Differences	46
2.3 Phonetic Differences: Perception	49
2.4 Phonetic Differences: Articulation	52
2.5 Complexity	55
2.5.1 Articulatory Complexity	55
2.5.2 Frequency as Complexity	57

vi	<i>Contents</i>
2.5.3 Complexity as Expressed by Order of Acquisition	57
2.5.4 Complexity as Expressed by Phonological Structure	58
2.6 Prominence: Single versus Multiple Oscillators	58
2.7 Modality Effects on Phonology	60
2.7.1 Movements, Segments, Features: How Are They Organized?	60
2.7.2 Sonority	62
2.7.3 Sonority, Movement, and Syllable Nuclei	64
2.7.4 Syllable Weight	70
2.7.5 Morphophonology and Word Shape	72
2.8 Summary	74
2.9 Further Reading	74
3 Iconicity	75
3.1 Introduction to Central Issues of Iconicity in Sign Languages	75
3.1.1 Types of Iconicity	78
3.1.2 Avoiding the “Gesture-Is-Iconic/Language-Is-Not” Trap: Clarifying the Relevant Terms	79
3.2 Iconicity across the Lexicon	82
3.2.1 Iconicity in Word Building: Movement and Event Structure	84
3.2.2 Arbitrary Distribution of Orientation in Iconic Classifier Constructions	87
3.2.3 The Feature [Stacked] and Iconicity	88
3.3 Iconicity in the Grammar: Agreement	90
3.4 Iconicity in Sign Language Processing	94
3.5 Conclusion	96
3.6 Further Reading	97
4 Interfaces	99
4.1 Introduction to Interface Phenomena in Sign Languages	99
4.2 The Language–Gesture Interface	101
4.2.1 The <i>Inter</i> -modality Gestural Interface	101
4.2.2 The <i>Intra</i> -modality Gestural Interface	102
4.3 Interfaces of Phonology and Other Grammatical Components	106
4.3.1 Phonetics–Phonology Interface: Constrained Flexibility	107

<i>Contents</i>	vii
4.3.2 Morphology–Phonology Interface	111
4.3.3 Prosodic Units and Sentence/Discourse Meaning	120
4.3.4 Nondominant Hand (H2)-Spread	126
4.4 Conclusion	130
4.5 Further Reading	131
5 The Emergence of Phonology	132
5.1 Introduction to the Issues	132
5.2 Where Do Phonological Features and Phonological Patterns Come From?	138
5.3 Applying Internal Phonological Principles to Emerging Sign Languages	141
5.3.1 The Development of Grammatical Non-manuals and Their Alignment	142
5.3.2 Dispersion and Handshape Morphology within the Phonemic Space	144
5.3.3 Repetition: Loss and Reorganization of Iconicity in Distinguishing Nouns and Verbs	156
5.4 External Pressures on a Phonological System	159
5.4.1 Applying Principles External to the Phonological System in Emerging Sign Languages	160
5.4.2 Are Internal or External Factors More Important in Emerging Phonologies?	162
5.5 Conclusions	164
5.6 Further Reading	165
6 Sign Language Phonological Processing	166
6.1 Introduction	166
6.2 Language Processing of Phonological Units	167
6.2.1 Production Evidence: Slips of the Hand	167
6.2.2 Production Evidence: Tip-of-the-Finger Phenomena	168
6.2.3 Perceptual Evidence: Movement	171
6.2.4 Perceptual Evidence: Handshape	178
6.3 Phonological Processing and Neighborhood Density	186
6.4 Neurological Mapping of Sign Language Phonology	188
6.5 Conclusions	198
6.6 Further Reading	199

viii	<i>Contents</i>
7 Sign Language Acquisition	200
7.1 Introduction	200
7.2 Typical First-Language (L1) Acquisition	203
7.2.1 Iconicity in L1 Acquisition	204
7.2.2 IDS and Iconicity	204
7.2.3 Time Course of L1 Acquisition in ASL Phonology	206
7.2.4 Acquisition of Classifier Handshapes	212
7.2.5 Prosodic Acquisition	213
7.2.6 Acquisition of Fingerspelling	215
7.3 Second-Language (L2) Acquisition	218
7.3.1 L2 Acquisition of Sign Parameters	218
7.3.2 L2 Acquisition and Iconicity	220
7.3.3 Acquisition of Classifier Constructions in L2 Signers	222
7.3.4 Acquisition of Prosody in L2 Signers	222
7.4 The Critical Period for Language Acquisition and the “Phonological Bottleneck”	224
7.5 Connection between Sign Language Phonology and Reading	229
7.5.1 The Use of Spoken and Signed Phonological Codes in Deaf Readers	230
7.5.2 Cross-Modal Activation	234
7.5.3 Phonological Readiness for Reading in Deaf Children	236
7.6 Conclusions	239
7.7 Further Reading	240
8 Sign Language Phonological Variation and Change	241
8.1 Introduction	241
8.1.1 Sources of Data	242
8.1.2 Language Variation, Change, and Emergence	245
8.2 Synchronic Variation	246
8.2.1 Synchronic Variation Based on Linguistic Factors	246
8.2.2 Synchronic Variation Based on Sociolinguistic Factors	249
8.3 Diachronic Change	253
8.3.1 Frishberg’s Contribution	253
8.3.2 Further Developments in ASL Historical Studies	258
8.4 Combining Synchronic and Diachronic Sources	261

<i>Contents</i>	ix
8.5 Conclusions	266
8.6 Further Reading	267
8.7 Further Corpus Information	267
<i>Glossary</i>	269
<i>References</i>	274
<i>Index</i>	318