

Table of Contents

1	Introduction: Phonetics and Phonology	5
1.1	Phonetics and phonology	6
1.2	Sounds and letters	9
1.3	The structure of this book	10
1.4	Exercises	11
1.5	Further reading	12
2	Speech production.....	13
2.1	The respiratory system	13
2.2	The phonatory system	16
2.3	The articulatory system	23
2.4	Classifying speech sounds	28
2.5	Articulation in connected speech	33
2.6	The role of the brain	37
2.7	Learning the production of speech	40
2.7.1	Speech production in first language acquisition (advanced reading)	41
2.7.2	Speech production in second language acquisition and teaching (advanced reading)	42
2.8	Methods of researching speech production (advanced reading)	44
2.9	Exercises	47
2.10	Further reading	48
3	The Phonology of English: Phonemes, Syllables and Words	49
3.1	The phonemes of English	50
3.1.1	The consonants of RP and GA and their transcription	53
3.1.2	The allophonic variation of consonants in RP and GA	56
3.1.3	The vowels of RP and GA and their transcription	60
3.1.4	Phonemic and phonetic transcription	67
3.1.5	Phonetic features (advanced reading)	70
3.2	The English syllable	75
3.2.1	Types of syllables and phonotactic rules of English	76
3.2.2	Syllabification in English	82
3.2.3	Stress and speech rhythm in English	83

3.3	The phonological word in English	88
3.3.1	Word stress in English	89
3.3.2	Phonological processes occurring at the level of the pword (advanced reading)	95
3.4	Theories of the acquisition of English phonology (advanced reading)	96
3.4.1	English phonology in first language acquisition	97
3.4.2	English phonology in second language acquisition	98
3.5	Exercises	101
3.6	Further reading	102
4	The Phonology of English: Intonation	105
4.1	Intonational phrasing in English	106
4.2	Nucleus placement in English	111
4.3	English tones and their usage	116
4.3.1	The tones of English and their transcription	117
4.3.2	The function of English tones and tunes	121
4.3.3	Pitch range, key and register	126
4.4	The acquisition of English intonation (advanced reading)	130
4.4.1	The acquisition of English intonation in first language acquisition	130
4.4.2	The acquisition of English intonation in second language acquisition	131
4.4.3	Teaching English intonation	133
4.5	Exercises	134
4.6	Further Reading	135
5	Acoustic properties of English	137
5.1	Acoustic properties of sound	138
5.1.1	Acoustic properties of sound waves	139
5.1.2	Simple and complex waveforms (advanced reading)	142
5.2	The acoustic properties of English vowels	150
5.3	The acoustic properties of English consonants	156
5.4	Acoustic aspects of connected speech in English (advanced reading)	163
5.5	The acoustic properties of English intonation	166
5.5.1	The acoustic properties of intonation phrases in English	166
5.5.2	The acoustic properties of accents in English	168

5.5.3	Measuring pitch and pitch movement in English	170
5.6	Acoustic properties of L2 learner English and the use of acoustic phonetics in pronunciation teaching (advanced reading)	174
5.7	How to make a good speech recording	177
5.8	Exercises	179
5.9	Further Reading	180
6	Speech perception	183
6.1	The outer ear	183
6.2	The middle ear	184
6.3	The inner ear	185
6.4	The internal auditory system	187
6.5	The perception of loudness, pitch and voice quality	190
6.6	Measuring hearing sensitivity	193
6.7	Theories of speech perception (advanced reading)	195
6.8	Speech perception and language acquisition (advanced reading)	200
6.8.1	Speech perception in first language acquisition	200
6.8.2	Speech perception in second language acquisition and teaching	201
6.9	Exercises	206
6.10	Further reading	206
7	List of References	207
8	Index	217