

Contents

List of Phonetic Symbols and Signs	xvii
Part I Speech and Language	
1 Communication	3
1.1 Speech	3
1.2 Writing	3
1.3 Language	4
1.4 Redundancy	5
1.5 Phonetics and Linguistics	5
2 The Production of Speech	8
2.1 The Speech Chain	8
2.2 The Speech Mechanism	8
2.2.1 Sources of Energy: The Lungs	9
2.2.2 The Larynx and Vocal Folds	9
2.2.3 The Resonating Cavities	12
2.2.3.1 The Pharynx	12
2.2.3.2 The Mouth	14
2.3 Articulatory Description	17
3 The Sounds of Speech	18
3.1 Sound Quality	18
3.2 The Acoustic Spectrum	20
3.2.1 Fundamental Frequency: Pitch	22
3.2.2 Intensity: Loudness	23
3.2.3 Duration: Length	24
3.2.4 'Stress'	24
3.3 Hearing	25

4 The Description and Classification of Speech Sounds	26
4.1 Phonetic Description	26
4.2 Vowel and Consonant	26
4.3 Consonants	27
4.3.1 Egressive Pulmonic Consonants	28
4.3.2 Voicing	28
4.3.3 Place of Articulation	28
4.3.4 Manner of Articulation	29
4.3.5 Obstruents and Sonorants	30
4.3.6 Fortis and Lenis	30
4.3.7 Classification of Consonants	32
4.3.8 Ingressive Pulmonic Consonants	32
4.3.9 Egressive Glottalic Consonants	32
4.3.10 Ingressive Glottalic Consonants	32
4.3.11 Ingressive Velaric Consonants	33
4.4 Vowels	33
4.4.1 Difficulties of Description	34
4.4.2 Cardinal Vowels	35
4.4.3 Nasality	37
4.4.4 Relatively Pure Vowels vs Gliding Vowels	37
4.4.5 Articulatory Classification of Vowels	38
5 Sounds in Language	40
5.1 Speech Sounds and Linguistic Units	40
5.2 The Linguistic Hierarchy	41
5.3 Phonemes	42
5.3.1 Diversity of Phonemic Solutions	43
5.3.2 Distinctive Features	43
5.3.3 Allophones	44
5.3.4 Neutralization	46
5.3.5 Phonemic Systems	46
5.4 Transcription	48
5.5 Syllables	49
5.5.1 The Sonority Hierarchy	49
5.5.2 Syllable Constituency	50
5.5.3 Syllable Boundaries	51
5.6 Vowel and Consonant	52
5.7 Prosodic Features	53
5.8 Paralinguistic and Extralinguistic Features	53
Part II The Sounds of English	
6 The Historical Background	57
6.1 Phonetic Studies in Britain	57
6.1.1 Palsgrave and Salesbury	57
6.1.2 Spelling Reformers: Smith, Hart, Gil	58
6.1.3 Phoneticians: Wallis, Wilkins, Cooper	59
6.1.4 Eighteenth Century: Johnson, Sheridan, Walker, Steele	61

6.1.5 Nineteenth Century: Pitman, Ellis, Bell, Sweet	62
6.2 Sound Change	63
6.2.1 Types of Change	64
6.2.2 Rate and Route of Vowel Change	66
6.2.3 Sound Change and the Linguistic System	67
6.2.4 Sources of Evidence for Reconstruction	68
6.2.5 Classical Old English Sound System	73
6.2.6 Middle English Sound System	73
6.2.7 Early Modern English Sound System	74
6.2.8 Present English Sound System	75
6.2.9 Modifications in the English Sound System	75
7 Standard and Regional Accents	77
7.1 Standards of Pronunciation	77
7.2 The Emergence of a Standard	77
7.3 The Present-day Situation: RP	78
7.4 Current Changes within RP	81
7.4.1 Changes Almost Complete	82
7.4.2 Changes Well-established	82
7.4.3 Recent Innovations	83
7.4.4 Innovations on the Verge of RP	83
7.5 Comparing Systems of Pronunciation	84
7.6 Systems and Standards Other than RP	84
7.6.1 General American	85
7.6.2 Standard Scottish English (SSE)	86
7.6.3 London English	87
7.6.4 Northern English	89
7.6.5 Australian English	90
8 The English Vowels	91
8.1 The Distinctive Vowels	91
8.2 Vowel Glides with a Non-prominent First Element	93
8.3 Glides to [ə]	94
8.4 Vowel Length	94
8.4.1 Phonetic Relationships	94
8.4.2 Morphophonemic Alternations	96
8.5 Transcriptions of English Vowels	97
8.6 Acoustics of RP Vowels	99
8.7 Learning of Vowels	103
8.7.1 Acquisition of Vowels by Native Learners	103
8.7.2 Advice to Foreign Learners	103
8.8 Descriptions of the Vowels	104
8.9 (Relatively) Pure Vowels	104
8.9.1 /i:/	104
8.9.2 /ɪ/	106
8.9.3 /e/	109
8.9.4 /æ/	110
8.9.5 /ʌ/	112

8.9.6 /ɑ:/	114
8.9.7 /ɒ/	117
8.9.8 /ɔ:/	118
8.9.9 /ʊ/	121
8.9.10 /u:/	122
8.9.11 /ɜ:/	124
8.9.12 /ə/	126
8.10 Diphthongal Vowel Glides	129
8.10.1 /eɪ/	129
8.10.2 /aɪ/	131
8.10.3 /ɔɪ/	133
8.10.4 /əʊ/	134
8.10.5 /aʊ/	136
8.11 Diphthongs + [ə]	138
8.12 Centring Diphthongs /ɪə, eə, uə/	141
8.12.1 /ɪə/	141
8.12.2 /eə/	144
8.12.3 /uə/	145
8.13 Vowels in Syllables without Primary Accent	146
8.14 Frequency of Occurrence of RP Vowels	148
9 The English Consonants	149
9.1 The Distinctive Consonants	149
Class A: Obstruents	150
9.2 Plosives	150
9.2.1 The Phonetic Features of English Plosives	151
9.2.2 Acoustic Features of English Plosives	154
9.2.3 Acquisition of Plosives by Native Learners	156
9.2.4 The Release Stage of English Plosives	157
9.2.5 Bilabial Plosives	160
9.2.6 Alveolar Plosives	162
9.2.7 Velar Plosives	165
9.2.8 Glottal Plosive	168
9.3 Affricates	171
9.3.1 Palato-alveolar Affricates	174
9.4 Fricatives	177
9.4.1 Acoustic Features of English Fricatives	179
9.4.2 Acquisition of Fricatives by Native Learners	180
9.4.3 Labiodental Fricatives	181
9.4.4 Dental Fricatives	183
9.4.5 Alveolar Fricatives	185
9.4.6 Palato-alveolar Fricatives	188
9.4.7 Glottal Fricative	191
9.5 Voiced and Voiceless as Phonological Categories	193
Class B: Sonorants	193
9.6 Nasals	193
9.6.1 Bilabial Nasal	195
9.6.2 Alveolar Nasal	196

9.6.3 Velar Nasal	198
9.7 Oral Approximants	200
9.7.1 Lateral Approximant	200
9.7.2 Post-alveolar Approximant	205
9.7.3 Palatal and Labial-velar Approximants (or Semi-vowels)	210
9.7.4 Unrounded Palatal Approximant	211
9.7.5 Labial-velar Approximant	213
9.8 Frequency of Occurrence of RP Consonants	216
Part III Words and Connected Speech	
10 Words	221
10.1 Accent	222
10.2 Accent and Prominence	222
10.3 Word Accentual Patterns	224
10.3.1 Roots	224
10.3.2 Suffixes	226
10.3.3 Prefixes	228
10.3.4 Secondary Accent	228
10.3.5 Compounds	228
10.4 Word Accentual Instability	231
10.5 Distinctive Word Accentual Patterns	233
10.6 Acquisition of Word Accent by Native Learners	235
10.7 Advice to Foreign Learners	235
10.8 Elision and Epenthesis	235
10.9 Variability in the Phonemic Structure of Words	238
10.10 Phonotactics	239
10.10.1 Word-initial and Word-final Phoneme Sequences	240
10.10.2 Word-medial Syllable Division	244
10.10.3 Inflexional Suffix Formation	245
10.10.4 Acquisition of Phonotactics by Native Learners	247
10.10.5 Advice to Foreign Learners	247
10.11 Consonant Harmony in the Word Structure of Native Learners	247
11 Connected Speech	249
11.1 Accent	249
11.2 Prominence, Accent, and Rhythm	250
11.3 Weak Forms	252
11.4 Acquisition of Rhythm and Weak Forms by Native Learners	254
11.5 Advice to Foreign Learners	255
11.6 Intonation	255
11.6.1 The Forms of Intonation	256
11.6.1.1 Intonational Phrases	256
11.6.1.2 Primary Accents	256
11.6.1.3 Types of Nuclear Tone	257
11.6.1.4 Secondary Accents	261
11.6.1.5 The Pitch of Unaccented Syllables	262

11.6.2 The Functions of Intonation	264
11.6.2.1 Intonational Phrasing	264
11.6.2.2 Primary Accents and New Information	265
11.6.2.3 The Meanings of Tones	267
11.6.2.4 The Use of Secondary Accents	273
11.6.3 Regional Variation in Intonation	273
11.6.4 Pitch Range	273
11.6.5 Intonation and Punctuation	274
11.6.6 Acquisition of Intonation by Native Learners	275
11.6.7 Advice to Foreign Learners	275
11.7 Hesitations	276
11.8 Voice Quality	277
12 Words in Connected Speech	278
12.1 Citation Forms and Connected Speech	278
12.2 Neutralization of Weak Forms	280
12.3 Variation in the Accentual Pattern of Words	280
12.4 Phonemic and Phonetic Variations at Boundaries	280
12.4.1 Allophonic Variations	281
12.4.2 Phonemic Variations	283
12.4.3 Voiced/Voiceless Variations	283
12.4.4 Nasality and Labialization	284
12.4.5 Variations of Place	285
12.4.6 Elision	286
12.4.7 Liaison	288
12.4.8 Juncture	290
12.5 Frequency of Occurrence of Monosyllabic and Polysyllabic Words	291
12.6 Advice to Foreign Learners	292
12.7 Stylistic Variation	293
13 Teaching the Pronunciation of English	296
13.1 The Place of Pronunciation	296
13.2 Models of Pronunciation	297
13.2.1 Choice of Basic Model	297
13.2.2 A Wider-based RP	297
13.3 Performance Targets	298
13.4 High Priorities	300
13.4.1 Rhythm and Accent	300
13.4.2 Segmental Sounds	300
13.4.3 Sounds in Connected Speech	301
13.4.4 Intonation	301
13.5 RP High Acceptability	302
13.5.1 Vowels	302
13.5.2 Consonants	305
13.5.3 Sounds in Connected Speech	306
13.5.4 Accentuation	307
13.5.5 Intonation	307
13.6 Minimum General Intelligibility	308

13.6.1 Vowels	309
13.6.2 Consonants	310
13.6.3 Intonation	312
13.6.4 Sounds in Connected Speech	313
13.6.5 Minimum General Intelligibility: Conclusion	313
13.7 Teaching Methods	313
13.7.1 Vowels	315
13.7.2 Consonants	315
13.7.3 Accentuation	316
13.7.4 Intonation	316
13.8 Pronouncing Dictionaries	317
13.9 Assessment	318
Bibliography	320
Index	333