

CONTENTS

List of figures	ix
List of tables	xii
List of tracks on audio CD	xiii
Acknowledgements	xv
List of phonetic symbols	xviii
A Introduction	1
1 English worldwide	2
2 Phoneme and allophone	8
3 Connected speech and phonemic transcription	16
4 How we produce speech	26
5 Consonant possibilities	41
6 Vowel possibilities	58
B Development	69
1 Phoneme and syllable revisited	70
2 English consonants	79
3 English vowels	96
4 English spelling	105
5 Features of connected speech	115
6 Stress and rhythm	123
7 Speech melody	132
C Exploration	149
1 Accent variation – General American	150
2 Accents of the British Isles 1: England	158
3 Accents of the British Isles 2: Celtic-influenced varieties	171
4 World accent varieties	179
5 Pronunciation change: past, present, future	193
6 Teaching and learning a foreign language	208
D Extension	223
1 RP – R.I.P.? (David Abercrombie)	224
2 Attitudes to accents (Daniel Jones)	228
3 Pronunciation worries (David Crystal)	232
4 Phonetics applied to teaching the deaf (Dennis Fry)	236
5 Making computers talk (Peter Ladefoged)	239
6 Using phonetics in criminal investigations (Maurice Varney)	245

7	The rise of 'upspeak' (Barbara Bradford)	248
8	How children learn the meaning of intonation (David Crystal)	253
9	English accents and their implications for spelling reform (J.C. Wells)	257
10	The sociolinguistics of modern RP (Peter Trudgill)	264
Glossary		273
Further reading		286
References		292
The International Phonetic Alphabet		295
Index		296

Most significant sections for topics are shown in **bold**.

- Abercrombie, David **224–8**, 311
- Aberdare 177
- accent (*diacritical mark*) 126, 214–15, 218–19
- accent **2–8**, **72–3**, 90–2, 101, 134, **150–8** (General American), **158–70** (England), **171–9** (Celtic-influenced), **179–93** (world varieties), 194–5, 202, 207, 215, 224–8, 228–31, 233, 235, 245, 249, 257–64, 264–72, **273**, 275–9, 281–4, *see also* non-native (accent), rhotic/non-rhotic accents, world accent varieties
- accents, attitudes to 158, 179, 198–208, 224–8, 228–31, 261, 264, 267, *see also* stigmatisation
- accent, prestige **3–4**, 6, 207–8, 227, 277, 281–2
- accents, regional **4**, 46, 91, **158–79**, **180–4**, 194–5, 199, 207, 215, 225, 227–8, 235, 248–9, 264–72
- accent, social **2–6**, 265, 224–8, 228–31, 260–1, 281
- accent bar 226
- accent loyalty 101
- accent variation, *see* distributional, lexical, realisational and systemic variation
- acoustics **8**, 12, 58, 63, 70, 77, 236, 238, 246–7, **273**, 290
- acrolect(al) **3**, 191, 207, **273**
- active/passive articulator **43**, 45, 82, **273**, **280**, 284
- advanced/retracted **95**, 168, 173, 176–7, 179, 192, 197, **273**, 282
- affricate 41, **44–5**, 47, **80–2**, 91–2, 94, 117, 222, **273**, 283, 294
- affricated/affrication 82, 174, 178, 188, 270
- African languages 10, 27, 45, 50, 66, 133–4, 188, 209
- Afrikaans 33, 66–7, 188
- airstream **26–7**, 28–30, 34–5, 37–8, 43, 45, 47–9, 78, 82, 85, 89–90, **273**, 277–9, 281–2, 285
- allophone **12**, 48–50, **70–2**, 80, 95, 99, 116, 120, 152, 165, 183, 200, 210, 213–14, 221, **273**, 275–6, 281
- allotone 134
- alveolar (ridge) 9, **36–7**, 41–2, 44–8, 51, 56–7, 71–2, 80, 82, 85–6, 89–92, 94–5, 117, 120, 152, 209, 214, 261, **273**, 280, 282
- American English, 6–7, 106, **150–8**, **180–4**, 204, *see also* General American
- American Indian languages 134
- antepenultimate stress **127**, 203, **273**
- approach stage **81–2**, 85, **273**, 277, 281
- approximant 41, 46, **48–9**, 71, 77, 80, 88, **90–4**, 117, 165, 170, 174, 176, 189, 191, 217, 221, **273**
- Arabic 45, 57, 209, 211, 287
- Argentine 212
- articulation 7, 26, **34–57**, **274**
- articulation, energy of 13, 41, **50–4**, 58, 72, 117, 121, 168, 274, **276**
- articulation, manner of 41, **43–50**, 58, 78, 86, 117, **273**, **276**, 278, 281, 284
- articulation, place of 37, **41–3**, 50, 58, 82, 117, 273, 274, 275, 277, 278, 280, **281**, 282, 284, 285
- articulatory phonetics **8**, 26, 246
- articulatory setting **56–7**, 156, 179, 209, **283**
- articulatory system 26, **34–40**, **274**
- arytenoid cartilages **28–33**, 274, 285
- aspirated/aspiration **16**, 52, 57, 72, **82–4**, 94, 151, 168, 172, 178, 188–9, 193, 211, 217, 274
- assimilation 25, 85, **116–21**, 165, 168, 235, **274**, 278, 282
- attitudinal function, *see* intonation, attitudinal function

- auditory **8**, 58, 63, 274
- Australian English **6–7**, 56, 71, 92, 101,
150–1, 158, 179–80, **185–6**, 187, 201–2,
248–9, 252–3, 263, 265, 279
- Austria 219
- back vowel **58–64**, 67, 71, 90, 95, 99–100,
102, 104, 153, 170, 174, 176, 183, 18, 193,
197, 199, 201, 217, 218, 271, **274**
- backing diphthong **103–4**, 274
- Bahasa 211
- Bangladesh 189
- basilect(al) **3**, 73, 158, 173–4, 183, 191,
207–8, **274**, 276, 277
- Basque 102, 212
- BATH words **101–2**, 151, 153, 158, **160–1**,
164–5, 168, 177, 183, 185, 188, 190, 193,
197, **274**
- Bavaria 219
- BBC **3–4**, 93, 196, 225, 232, 234–5, 267,
272, 282
- Belfast 171, **175–6**, 271, *see also* Irish/
Northern Irish English
- Bengali 33, 189
- bilabial **9**, 35, **41–2**, 45, 72, 80, 82, 86, 94–5,
117, **274**
- Birmingham 73, 99, 134, 150–1, **165–6**, 171,
208, 235, 260, 265, 271
- brackets, slant/square/angle **9–11**, 16, 30, 46,
80, 152, 162–3, 281
- Bradford 168
- Bradford, Barbara 202, **248–53**, 291
- breaking **181**
- breathy voice **32–3**, 274, 294
- Bristol 2, 57, **164–5**, 171, 202, 208, 265, 271,
see also West Country
- Burchfield, Robert 234, 291
- Burmese 45, 50
- Canadian English 7, 91, 179, **184–5**, 251,
259
- Cardiff 2, 177, 202, 270–1
- cardinal vowels **60–5**, 274, 290
- Caribbean 7, 91–2, 101, 165, 179–80, **190–2**,
249
- Carr, Philip 79
- Castellano 209, **212–14**, *see also* Spanish
- Catalan 212
- Catford, J. C. 75, 291
- central approximant, *see* approximant
- central vowel **65**, 67, 90, **99**, 102, 124–6,
210, 214–15, 218, 282
- centring diphthong **102–4**, 170, 176, 200,
274
- Chaucer, Geoffrey 106, 194–6
- checked/free distinction 13, **96**, 210, 222
- checked vowel **13–14**, 67, 86, **96–9**, 153,
157, 164, 166, 210, 222, 244, 247, **274**, 276
- Chinese 13, 134, 190, 209, 229, 264, 284, 287
- citation form **16–17**, 116, 119, 274
- clear and dark *l* 55–6, 70, 90–1, 98, 100,
103–4, 153, 165, 187–90, 199, 209, 217,
221, 222
- close vowel **59–60**, 63, 67, 72, 77, 90, 100,
102, 104, 165–6, 173–4, 183, 186, 188,
201, 222, **275**
- close-mid vowel 63, **67**, 96, 99, 104, **294**
- closed syllable **74**, 217–18, 275, 280
- closing diphthong **102–3**, 275
- cluster, *see* consonant cluster
- Cockney 5, 30, 85, 151, 161–2, **163–4**,
165–7, 197, 199, 206–7, 230, 244, 268,
270–1, 275, 278, *see also* London
- coda, *see* syllable coda
- complementary distribution **70–1**, 116, **276**
- compound stress, *see* stress in compounds
- conservative 5, 103, 170, 172, 195, 207
- consonants **41–57**, 275, *see also* English
(NRP) consonants
- consonant cluster 72, **74–6**, 78, 83, 94–5,
107, 174, 186, 190–1, 209–11, **275**, 285
- content word **17**, 23, 130, 136, 275, **277**
- contracted form **17–21**, 24–5, 84, 181, 209,
210, **275**
- contraction, *see* contracted form
- contrastive analysis **209–10**, **275**
- creak **30–1**, 33, 107, **275**, 277, 280
- creaky voice **31–3**, 156, 224, **275**
- creole 132, 180, 191–2
- Croatian 134
- cross-section **34**, 44, 66
- Cruttenden, Alan 195, 249, 254–7
- Crystal, David 188, 196, 202, **232–5**, **253–7**,
263
- Czech 125, 278
- Danish 10, 31–2, 36–7, 65, 125, 131, 145,
209–10, 264
- dark *l*, *see* clear and dark *l*
- deafness 236–9

- declination 135
 Delhi 189
 dental 36, 41–2, 56, 88, 95, 105, 122, 152,
 174, 176, 183, 189, 190–1, 193, 209–10,
 271, 275, 284
 devoiced/devoicing 50, 52–3, 83, 85, 94–5,
 193, 275
 diacritic 16, 45, 50, 53–4, 56, 95, 273, 275,
 282
 dialect 2–3, 58, 168, 207, 224, 246–7, 249,
 265–6, 270–1, 273, 274, 275, 284
 diphthong 13–14, 58, 65–6, 96–7, 100,
 102–4, 119, 151, 153, 160, 162, 164, 166,
 170, 173, 176, 183, 185–7, 192, 196–7,
 200–1, 206, 210, 214, 217, 220, 222, 224,
 227, 258, 269–70, 274, 275, 276, 277, 283,
 285
 diphthong shift 164, 166, 186–7, 206, 269,
 275
 discourse (function) 141, 143–5, 245–6,
 249–51, 276, 284
 distributional variation 150–2, 154, 161–2,
 201
 double articulation 42, 276, 278, 296
 Dublin 159, 171, 173–5, 178, 271 *see also*
 Irish English
 duration 58, 67, 90, 124–6, 136, 215, 217,
 276, 281, 283
 Dutch 10, 20, 36–7, 51–2, 55, 57, 64–5, 67,
 71, 83, 121, 125, 131, 145, 188, 191, 203,
 209, 211, 283

 Edinburgh 2, 171–3 *see also* Scottish English
 Egypt 228
 egressive, *see* airstream
 elision 25, 85, 116, 118, 120, 122, 165,
 203–4, 235, 276, 285
 Elizabethan English 194, 195–7
 Ellis, Stanley 246–7
 energy of articulation, *see* articulation,
 energy of
 energy assimilation 117, 121, 168
 English (NRP) consonants 14, 47, 79–95
 /b/ 14, 47, 80–6, 94
 /d/ 14, 47, 80–6, 94–5
 /dʒ/ 14, 41–2, 47, 80–2, 84–5
 /ð/ 14, 47, 80, 88, 95
 /f/ 14, 47, 80, 88
 /g/ 14, 47, 38, 80–6, 94–5
 /h/ 14, 47, 79, 80, 90
 /j/ 14, 47, 79, 80, 92, 94–5
 /k/ 14, 47, 80–6, 94–5
 /l/ 14, 47, 49–50, 80, 85, 90–1, 94, *see also*
 clear and dark l
 /m/ 14, 47, 80, 85, 86–7, 94–5
 /n/ 14, 47, 80, 86–7, 94–5
 /ŋ/ 14, 47, 38, 80, 86–7
 /p/ 14, 47, 80–6, 94
 /r/ 14, 47, 48, 80, 88–9
 /s/ 14, 47, 80, 86
 /ʃ/ 14, 47, 80, 86–7
 /t/ 14, 47, 80–6, 94–5
 /tʃ/ 14, 47, 80–2, 84–5
 /θ/ 14, 47, 80, 88, 95
 /v/ 14, 47, 80, 85, 92
 /w/ 14, 47, 80, 90–1
 /ʌ/ 93
 /z/ 14, 47, 80, 89–90
 /ʒ/ 14, 47, 86–7
 English (NRP) vowels 14, 96–104
 bonus /ə/ 14, 65, 97, 99
 CHOICE /ɔɪ/ 14, 97, 103
 CURE /ʊə/ 14, 97, 104
 DRESS /e/ 14, 97
 FACE /eɪ/ 14, 97, 103
 FLEECE /i:/ 14, 97, 100
 FOOT /ʊ/ 14, 97, 99
 GOAT /əʊ/ 14, 97, 103–4
 GOOSE /u:/ 14, 97, 102
 KIT /ɪ/ 14, 97–8, 100
 LOT /ɒ/ 14, 97–9
 MOUTH /aʊ/ 14, 97, 103–4
 NEAR /ɪə/ 14, 97, 103–4
 NURSE /ɜ:/ 14, 97, 100–1
 PALM /ɑ:/ 14, 97, 101–2
 PRICE /aɪ/ 14, 97, 103–4
 SQUARE /ɛ:/ 14, 97, 100–1
 STRUT /ʌ/ 14, 97–9
 THOUGHT /ɔ:/ 14, 97, 100–2
 TRAP /æ/ 14, 97–8, 101–2
 epenthesis 119, 247, 276
 epiglottis 28
 error analysis 208–9, 276, 277
 Estuary English 5–6, 206–7, 264, 268–72,
 276, 290
 Ewe 133, 284
 Ewen, Colin J. 79, 291

 fall-rise 138, 140–4, 147, 250–1
 Farsi 30, 125

- Finnish 36, 64, 106, 264
 final element stress (FES) 128–9, 203
 focusing function 136, 139
 FOOT–STRUT contrast, *see* STRUT–FOOT contrast
 FORCE–NORTH 158, 161, 173, 200, 276
 forensic phonetics 245–7
 fortis/lenis contrast 13, 30, 50–2, 58, 82, 88, 117, 209, 276 *see* articulation, energy of
 Fougeron, Cécile 217, 291
 free variation 70–1, 121, 275, 276
 free vowel 13–14, 67, 96–7, 100–2, 103–4, 153, 210, 222, 244, 274, 276
 French 10, 12, 15, 27, 35–7, 41, 45, 52, 55, 57, 63–6, 72, 74, 83, 90, 105, 108, 111, 117, 119, 121, 125, 131, 134, 139–40, 145, 155, 182, 184, 209–12, 215–19, 221–2, 228–9, 264, 278–9, 282, 284
 frequency (speed of vibration) 29, 133, 236, 239, 275, 276, 277, 281, 283
 fricative 36, 41, 47–51, 60, 70–1, 73, 75, 77–8, 80, 82, 88–90, 93–5, 100–1, 105, 117, 120, 122, 161, 170, 174, 181, 183, 186, 189–91, 193, 195–7, 199–200, 209–10, 213–14, 222, 240–1, 271, 276, 277–8, 280, 283, 284
 friction 35, 43–4, 47–9, 60, 78, 81–2, 88–90, 94–5, 273, 276
 front vowel 58–65, 67, 71, 90, 95–6, 98–100, 102–4, 158, 164–7, 175–6, 179, 183–4, 186–8, 192, 197, 201, 212, 214–16, 218, 222, 276
 fronting diphthong 103, 276
 Fry, Dennis B. 236–9
 function word 17, 20–21, 23, 88, 109, 121–2, 130, 275, 277, 283, 285
 GA, *see* General American
 Galician 212
 General American (GA) 7, 15, 24, 65, 91, 135, 150–8, 165, 179, 181, 183–5, 199, 210, 227, 274, 277, 285
 Geordie 38, 41, 134, 158, 163, 169–70, 235, 282
 Georgian 75
 German 10, 13, 36–7, 51, 55, 63–5, 67, 73, 83, 85, 94, 125, 131, 134, 138–9, 145, 209, 211–12, 219–22, 274, 276, 278, 280, 282, 283
 Glasgow 172–3, 271, *see also* Scottish English
 glide, *see* diphthong
 glottalisation 52, 54, 56, 83–5, 151, 162, 165, 172, 177–8, 188, 190, 199, 206, 217, 277, 282
 glottal reinforcement/pre-glottalisation 82–4, 86, 120, 281, *see also* glottalisation
 glottal replacement 84, 85–6, 120, 162, 172, 206, 271, 277, *see also* glottalisation
 glottal setting 29–33, 274–5, 277, 280, 285
 glottal stop 11, 16, 30, 33, 52, 56, 71, 84, 86, 119, 161–2, 164, 170, 198–9, 207, 222, 231, 244, 262, 277, 281
 glottalling, *see* glottal replacement
 glottis 28, 42–3, 81, 90, 274, 277
 grammatical function 140, 146
 grammatical word 243, 277 *see also* function word
 graphophonemic 107
 grave/sharp (hiss) 89, 277, 283
 Greek 13, 36, 132, 209
 grooved 39–40, 89, 277
 Gujarati 125, 132
 h-dropping 122, 158, 161, 162, 164–6, 168, 170, 174, 176–8, 183, 185, 188, 190, 193, 197–8, 206, 261, 277
 happy words 24, 72, 100, 150, 160–1, 173–4, *see also* happy-tensing
 happy-tensing 72, 161, 266
 hard palate 37, 39, 42, 55–6, 82, 89, 280
 Hawaiian 30
 head (intonation) 138, 142, 277, 280
 Hebrew 65, 209, 282, 285
 hierarchy of error 208, 277
 high fall 136–7, 140–2, 147, 184
 high rise 137, 140–1, 144, 164, 251
 Hindi 33, 57, 125, 132, 189, 274, 282
 hold stage 81, 84–6, 91, 277
 homophone 104, 134, 173, 200, 277
 homorganic 44, 75, 82, 84–6, 119, 273, 277–8
 Hong Kong 7
 Hungarian 64
 Icelandic 36, 45, 50
 ideal form 116–17
 idiolect 12, 92, 154, 161, 277
 Indian English 7, 41, 57, 132, 151, 179–80, 188–9, 209, 249

- Indian languages 33, 41, 57, 83, 125, **189**, 209, 282
 ingressive, *see* airstream
 initial element stress (IES) **128–9**, 203
 intensity **124**, 126, 237–8, 244, 277
 interlinear/in-text marking systems **135**, 277, 278
 intervocalic **86**, 91, 108, 110, 152, 183, 190, 199, 262, **278**
 intonation (in English NRP) **135–47**
 intonation, attitudinal function **140–1**, 147, 249, 252
 intonation group **20**, 22–3, 25, **135–6**, 139, 140, 143–5, 162, 219, 277, **278**, 280
 intonation nucleus **136–9**, 140–1, 143, 146, 277, **280**, 284
 intonation onset **39–40**, 89, 277
 intrusive *r* **119**, 222, 225, 233, 235, 259, 266–70, 278–9
 Ireland, *see* Irish
 Irish (language) 55, 159, 171–2, **174**, 178
 Irish/Northern Irish English 6, 47, 55, 73, 90–1, 94, 119, 134, 150–1, 159, 161–2, 171–2, **173–5**, **175–6**, 178, 184, 197, 200, 226, 249, 259, 261, 265, 276, 282
 Italian 10, 25, 52, 55, 65, 83, 125, 139, 182, 209, 211
 Jamaica 191
 Japanese 13, 64, 209, 211, 219, 264
 Jenkins, H. 167
 Jenkins, Jennifer 20, 228
 Johnson, Samuel 106, 197, 292
 Jones, Daniel 60, 63, 107, 196, 201, 207, 224, 228–31, 246, 258, 263–4
 JUICE vowel 73, 150, 177
 Kentucky **179–81**
 keywords 13, 150, 153
 Korean 83, 284
 Krio 192–3
 L1/L2 **208–10**, 212, 264, **278**, *see also* mother tongue *and* target language
 l-vocalisation **90**, 164, 199, 207, 269–70, **278**
 labialisation **54–6**, 82, 95, 278, 282
 labial-velar **41–2**, 47, 73, 80, 93, 278
 labio-dental **35**, 41–2, 72, 80, 88, 91, 95, 189, 191, 270, 278
 Ladefoged, Peter 45, 239–45
 lagging assimilation 117, 121, 278
 Lancashire 83, 100, 150–1, 162, **167–8**, 201, 230
 language invariable stress 125
 larynx **26–9**, 32–4, 132, 277, 283, 285, *see also* glottis
 lateral 39, 41, 47, **48–50**, 53, 77–8, 80, 85, **90**, 100, 117, 214, 273, **278**, 283
 lateral release **85**, **278**
 Latin 105, 258
 Latin America 7, 212
 leading assimilation 116, 120, 278
 Leeds 168, 271
 lenis, *see* fortis/lenis
 Lerond, A. 215, 217, 292
 lexically designated stress **125**, 278
 lexical variation **151–5**, 161, 166, 176, 185, 200, 278
 liaison 92, **118–19**, 218, 278–79
 lingua franca 20
 lingual **38**, **279**, *see also* tongue
 linking *r* 21, 23, 89, **104–5**, 199, 211, 243, 244
 lips 8–9, 35, 42, 55, 57, **63–5**, 82, 218, 231–2, 237, 274, 278, 283 *see also* bilabial
 lip-rounding **35–6**, 54–7, 59, 63–4, 89, 91, 93, 99, 102–3, 153, 166, 176, 218, 278, *see also* labialisation *and* rounded
 lip-shape indicator **64**, 66, 103
 Liverpool 46, 57, 158, 171, 174, **178–9**, 235, 249, 254, 260, 263, 270–1
 London 2, 4–7, 85, 90, 101, 104, 112, 150, 159, **163–4**, 171, 196–7, 199–200, 207, 227, 230, 257, 263, 268–71, 276, *see also* Cockney
 low fall **136–7**, 140–3, 147
 low rise **137**, 140–1, 144–5, 147
 lungs 26–30, 34, 244, 273, 281, *see also* pulmonic
 Maddieson, Ian 45, 64
 Madrid 212
 Malaysia 7
 Manchester 168, 171, 208, 254, 260, 271, *see also* Northern English
 manner of articulation, *see* articulation, manner of
 marginal phoneme *see* phoneme, marginal
 McMahon, April 79
 medial **52**, **279**

- Merseyside, *see* Liverpool
 mesolect 3, 177, 187, 188, 207–8
 Middle English 194–5
 Midlands 159, 165–6, 197, *see also*
 Birmingham
 minimal pair/set 11, 73, 177, 214, 279
 monophthong, *see* steady-state vowel
 monosyllable 17, 53, 76, 136, 279, 281
 mother tongue 2, 13, 71, 132, 174, 184, 188,
 192, 208, 228–9, 255, 278–9, *see also* L1
 mouth, *see* oral cavity

 narrow/wide diphthong 151, 160, 162, 166,
 170, 174–5, 177, 186, 188, 192, *see also*
 diphthong shift
 narrow glide, *see* narrow/wide diphthong
 nasal cavity 34–5, 37, 85–6, 279
 nasal consonant 9, 35, 41, 45, 47, 51, 53, 56,
 58, 71–2, 75, 77–8, 80, 84–7, 94–5,
 100–1, 117, 119, 161, 181, 186, 197, 214,
 217, 260–1, 279, 283
 nasal release 85, 279
 nasal vowel 35, 66, 216, 218, 279
 nasalisation 54, 56–7, 86, 156, 184, 218, 275,
 279, 282
 native/non-native speaker 2, 6, 10, 12, 14,
 18, 20, 31, 36, 55, 71–2, 76, 83, 100,
 106–7, 115–16, 119, 123, 125–6, 132, 147,
 194, 210, 212, 257–8, 264–5, 267–8, 271,
 277, 279, 285
 neutralisation, *see* phoneme neutralisation
 Newcastle, *see* Geordie
 Newfoundland 184
 New York 2, 7, 154, 179, 182–4, 247, 284
 New Zealand English 6–7, 92, 101, 135, 151,
 179–80, 186–8, 201, 248, 265, 271
 NRP (non-regional pronunciation) 4–6, 24,
 79–95 (consonants), 96–104 (vowels),
 115–23 (connected speech), 123–32
 (stress and rhythm), 132–47 (intonation),
 152–7 (compared with GA), 198–208
 (change, recent and in progress), 272, 274,
 279, 282, *see also* English (NRP)
 consonants, English (NRP) vowels
 non-native, *see* native/non-native
 non-rhotic, *see* rhotic/non-rhotic accents
 Northern English 73, 99–101, 138, 150–1,
 159, 166, 167–8, 173, 178–80, 197, 200,
 260–1, 266, 270, 274, *see also* Lancashire
 and Yorkshire

 Norwegian 36, 134
 Norwich 268–70
 nose, *see* nasal cavity
 nuclear tone 136, 138, 140, 141, 280
 nucleus location 136, 139, 146, 280

 obstruent 47, 51, 53, 77, 186, 276, 278, 280,
 283
 oesophagus 28
 Old English 65, 175, 194
 onset, intonation, *see* intonation onset
 onset, syllable, *see* syllable onset
 open vowel 59, 64, 77, 96, 99–101, 103–4,
 158, 164, 168–70, 173–4, 176–7, 184, 188,
 192–3, 196–7, 201, 217–18, 221, 233, 275,
 280
 open-mid vowel 63, 67, 99, 100–1, 103
 open syllable 74–5, 96, 100, 104, 217, 274,
 276, 280
 oral cavity 34–5, 37, 45, 59–60, 63, 280
 organs of speech 26–40, 229, 280, 283,
 see also speech mechanism
 orthography 9, 17, 21–3, 99, 101, 105–15,
 118–20, 126, 151, 165, 194, 204–5, 210,
 212–13, 215, 218–19, 221–2, 257–64, 279,
 280, 282, *see also* spelling, English
 Ottawa Valley 184
 overlapping stops 85, 280

 Pakistan 7, 189
 palatal 37, 41–2, 71, 80, 92, 94, 117, 195,
 199, 201, 214, 217, 222, 280
 palatalisation 54–6, 90, 94–5, 274, 280, 282
 palato-alveolar 37, 41–2, 44, 80, 82, 89, 92,
 117, 120, 201, 280
 paralinguistic 27, 280
 parenthetical intonation 145
 Paris 215–17
 passive articulator, *see* active/passive
 articulator
 penultimate stress 125, 215, 278, 280
 peripheral vowel 67, 124, 126, 222, 274, 280,
 285
 pharyngealisation 57, 179, 188
 pharynx/pharyngeal cavity 34, 59–60, 63,
 156, 280, 283, 285
 phonation 28, 280
 phonatory system 26, 27–34
 phoneme 8–16, 70–3, 75, 78, 150–2, 278,
 280–1, 282, 284

- phoneme, marginal 73, 75, 216, 279
- phoneme neutralisation 24, 72, 100, 152, 181, 201, 279, 281
- phonemic inventory 11, 185, 281
- phonemic transcription 15, 16–25, 31–2, 46, 48, 72, 76, 116, 124–5, 129, 206, 262, 281
- phonetic conditioning 116, 274
- phonetic similarity 12, 70–1
- phonetic transcription 15–16, 30, 46, 95, 240, 243, 281
- pitch 29–30, 59, 63, 89, 124, 126, 132–9, 145, 156, 166, 168, 181, 184, 238–9, 242, 244, 249–51, 254, 277, 278, 280, 281, 283, 284
- place of articulation, *see* articulation, place of
- place assimilation 117, 120
- plosive 41, 43–4, 47, 49–50, 52, 71, 77, 80–3, 85, 94–5, 117, 120, 172, 177, 183, 193, 213–14, 217, 278–9, 281, 283
- Polish 10, 66, 125, 132, 211
- polysyllable 16–17, 279, 281
- Pope, Alexander 194, 197–8
- Portuguese 55, 57, 66, 83, 209, 211, 278–9, 287
- post-alveolar 37, 41, 46, 48, 80, 82, 91, 94, 217
- post-vocalic, *see* pre-/post-vocalic
- pre-fortis clipping 13, 53–4, 96, 100, 102–3, 281
- pre-glottalisation, *see* glottal reinforcement/pre-glottalisation
- pre-/post-vocalic 71, 119, 183, 164, 281
- prescriptive/prescriptivism 123, 126, 229, 281
- primary/secondary cardinal vowels 62–5, 196, 274
- primary/secondary stress 125–7, 283
- prominence (in segments) 15, 78, 284
- prominence (supra-segmental) 124, 135–6, 139, 250, 281, 283
- pulmonic airstream 26–8, 30, 273, 281, 285
- Punjabi 189
- r-colouring 153, 156, 158, 281
- r-distribution, *see* rhotic/non-rhotic accents
- realise/realisation 12, 16, 50, 57, 70–2, 76, 78, 84, 86, 88, 94–5, 100, 116, 151–2, 161–2, 165–6, 170, 174, 177–8, 183–4, 191, 197, 201, 217, 227, 273, 275, 278, 281, 282, 284
- realisational variation 151–4, 162, 186, 201, 282
- Received Pronunciation, *see* RP, traditional
- reciprocal assimilation 117, 120, 122
- release (stage) 44, 51, 81–2, 84–5, 120, 152, 190, 273–4, 277–9, 281, 282
- respiratory system 26, 34
- retracted, *see* advanced/retracted
- retroflex 42, 57, 165, 189, 209, 281, 282
- rhyme 51, 73, 167–8, 194, 258–61; (in syllable) 73–4, 275, 282
- rhotic/non-rhotic accents 24, 75, 91–2, 111, 118–19, 150, 152–3, 158, 160, 162, 164–6, 168, 170, 172, 174, 176–8, 181, 183–5, 187–91, 193, 195–7, 209, 214, 221, 235, 259, 276, 279, 282
- rhythm 56, 121, 123, 130–1, 156–7, 177, 181, 189, 210–12, 215, 222, 244, 252, 282–4
- rise-fall 138, 140–1, 166, 177, 179, 184, 250
- Roach, Peter 273
- Rogers, Samuel 202
- Romanian 183
- Rosewarne, David 5
- rounded/unrounded vowel 35, 55, 63–6, 98–9, 102–3, 153, 166, 176–7, 187–8, 196, 216, 218, 220, 222
- RP, traditional 3–5, 45, 70, 87, 89, 94–7, 99–100, 134, 168, 177, 179, 180–1, 204–6, 230, 247, 250
- Russian 10, 55, 125, 128, 131, 182, 209, 211
- Salesbury, William 194
- salience 152, 158, 168, 177, 181, 183, 185, 191, 251, 268, 282
- Samoan 74–5
- Scandinavian languages 64, 67, 83
- schwa 65, 282, *see also* bonus vowel
- Scots Gaelic 55, 73, 172
- Scottish English 10, 15, 46–7, 53, 56, 73, 83, 90–1, 94, 99, 150–1, 159, 161, 170, 171–3, 174–5, 177, 184, 195, 200–1, 227–8, 235, 259, 274, 282
- Scouse, *see* Liverpool
- secondary articulation 54–6, 277–80, 282, 285
- secondary cardinal vowels, *see* primary/secondary cardinal vowels
- secondary stress, *see* primary/secondary stress

- segment(ation) **10–11**, 97, 116–17, 119, 121, 123–4, 133–4, 184, 252, 276, 279, 281, **282**, **283**
- sentence stress 17, 21, 23, 25, 124, **129–30**, 283
- semi-vowel, *see* approximant
- Serbian 134
- setting, *see* articulatory setting
- setting, glottal, *see* glottal setting
- Shakespeare, William 6, 105, 166–7, 193–8
- sharp, *see* grave/sharp (hiss)
- Sheffield 168, 270
- Sierra Leone, *see* West African
- Singapore 7, 179–80, **189–90**
- Singlish 190
- slant brackets, *see* brackets
- Slovak 125
- Smith, Caroline L. 217
- smoothing **104**, 270, 283
- sociolinguistic pyramid/triangle **3**, 207, 264–5, 267, 269, 271–2
- soft palate **34–5**, **37**, 39, 43, 45, 56, 66, 85–6, 279, 280, 283, 285, *see also* velum
- sonorant 47, 51, **77–8**, 280, 283
- sonority 77, 283
- Sotho 188
- South African English 6, 33, 83, 92, 151, 179, **187–8**, 199, 201, 251, 279
- South Wales, *see* Welsh English
- Southern USA, *see* Texas
- square brackets, *see* brackets
- Spanish 10, 35–6, 43, 45, 52, 56, 65, 73–4, 83, 106, 126, 132, 139, 145, 182, 191, 205, **209–11**, **212–15**, 219, 222, 275, 284
- speech mechanism **26–40**, 283 *see also* organs of speech
- spelling, English 105–15, 150, 156, 197, 203, 232–3, 235, 241, 244, 278
- spelling guidelines **107–15**, 197, 232, 244, 260–4
- <c> and <ch> **107–8**
- <g> **108**
- <th> **109**
- silent letters **109–12**
- <o> **112–13**
- TRAP, DRESS and SQUARE **113–14**
- FOOT and GOOSE **114–15**
- Sri Lanka 7, 189
- St Eustatius 191
- Statian 191
- steady-state vowel **13–14**, 58, 65, **96–7**, **100–2**, 104, 151, 160, 162, 168, 170, 174, 177, 192–3, 197, 200, 217, 222, 283
- stigmatisation 90, 92, 104, **158**, 162, 177, 183–4, 188, 207, 283
- stød 31–2
- stop **30**, **43**, 45, 47, 51–2, 56–7, 72, 75, 77–8, **81–7**, 94, 100, 119, 164, 176, 181, 183, 190, 192–3, 270, 273, 274, 277, 278, 280, 281, 282, **283**, 284 *see also* glottal stop
- STRUT–FOOT contrast **73**, 99, 150, **160–1**, 166, 168, 170, 179, 196, 260–1
- stress **16–17**, **123–32**
- stress, in compounds **127–9**, 203, 209
- stress, primary/secondary **125–7**, 154, **283**
- stress timing **131–2**, 210, 215, 222, 283–4
- stricture **43**, 45, 48, 56, 78, 80, 91, 93, 279, 283, 285
- strong form (SF) **17–18**, 20–1, 115, **283**, 285
- supra-glottal **34**, 274, 283
- supra-segmental **123–4**, 252, 283
- Swedish 36, 134, 138
- Swiss German 219
- syllabic consonant **15**, 24, 75, 78, 85–6, 124–6, 152, 209, 284–5
- syllable **14–15**, 16–17, 23–4, 53, 56, 65, **73–9**, 83–6, 90, 100, 104, 131, 136, 152, 164, 199, 209–10, 215, 217–19, 232, 244, 254, 266, 274–82, **283**, 284–5
- syllable, structure of **14–15**, 73–9
- syllable, stressed vs. unstressed 16, 23–4, 52, 70, 83, 92, 94, 107, 113, 117, 120–1, 124–6, **130–5**, 138, 154, 190, 210, 215, 222, 277–80, 283, 285
- syllable coda **78**, 107, 186, 210, 275, 282
- syllable nucleus **15**, **73–8**, 280, 282, **284**, 285
- syllable onset **73–8**, 210, 280, 284
- syllable timing 56, **131–2**, 189–90, 210, 215, 219, 283–4
- synthetic speech **239–40**, 244–5
- systemic variation **150**, 152–4, 161–2, 168, 172–3, 179, 199–200, **284**
- t-voicing 86, **152**, 158, 178, 181, 183–5, 199, 254, 284
- tag-question 121, 140, **145–6**, 254, 284
- tag-type response 145, **147**, 284
- tap **45–6**, 78, 86, 91, 131, 152, 166, 172, 174, 177–8, 187, 189, 199, 214, 284
- target language **208**, 210, 212, 278

- teeth 9, 26, 28, **35–6**, 39, 42, 56, 88, 95, 275, 278, *see also* dental
- teeth-ridge, *see* alveolar ridge
- Texas 180–1
- th-stopping **174**, 178, 183, 189, 191, 193, 207, **284**
- tone language **133–4**, 136, 284
- toneme 134
- tongue **38–40**
- tongue arch 39, **60–2**, **284**
- tongue, back of **37–9**, 41–2, 45, 56, 58–9, 82, 217, 278, 284–5
- tongue blade 36, **38–9**, 42–3, 82, 89–90, 273, 280
- tongue, body of **38–9**, 156
- tongue bunching 156, 282
- tongue, centre of 37, 48, 58, 274
- tongue, front of **38–9**, 42, 55–6, 58–9, 66, 82, 89, 280
- tongue grooving, *see* grooved
- tongue height **58**, 62, **284**, 285
- tongue mid-line **39–40**, 277
- tongue root **38–9**, 57, 59, 156
- tongue setting 57, 156
- tongue sides 39, **48–9**, 85, 90–1, 278
- tongue-tip 9, 11, **36–9**, 42–3, 45–6, 48, 57, 82, 88–91, 95, 214, 243, 273, 275, 282
- trachea 27–8
- transcription, *see* phonemic/phonetic transcription
- transcription, passages for 10, 40, 57, 68, 79, 96, 105, 123, 132, 148
- Trask, R. L. 273
- trill 10, 37–9, **45–6**, 78, 209, 214, 284
- Trinidad 191
- Turkish 36, 64, 128, 132, 211
- Tyneside, *see* Geordie
- Ulster, *see* Northern Irish English
- upspeak 185, **186–7**, 202, **248–53**, 284
- Urdu 189
- utterance 20, 53, 70, 135, 139, 142–4, 231, 250, **284**
- uvula(r) **37–8**, 41, 45–6, 71, 158, 170, 193, 209, 217, 221, 282, 284
- American), **158–70** (England), **171–80** (Celtic-influenced), **180–93** (world varieties), 194–5, 197, 200–1, 207–8, 212, 214–15, 219, 244–5, 249, 251–3, 257, 259, 264–71, 273, 275–7, 279, 282, **284**
- Varney, Maurice 245–7
- velar **37–8**, **41–2**, 47, 50, 57, 71, 73, 80, 82, 86, 93, 95, 98, 117, 120, 156, 195–6, 199, 210, 214, 222, 261, **285**
- velar/velic closure 35, **37–8**, 86, 95, 285
- velarisation **54–7**, 70, 90, 179, 183–4, 282, 285
- velic closure, *see* velar/velic closure
- velum, *see also* soft palate 37, 42, 55–6, 82, 278, 285
- vocal cords *see* vocal folds
- vocal folds **28–33**, 83, 133, 243, 274–5, 277, 280, 285, 290
- vocal tract 26, **34**, 43, 82, 90, 274, 276, 279, 281, 283, 285
- voice onset time 83
- voice (general term for an individual's speech) 135, 168, 229–30, 232, 236–7, 246–7, 253–4, 256–7, 280
- voice(d) 9, 13, **27–9**, 30–4, 38, 44–5, 49–53, 57–8, 72, 77, 81–3, 86, 88–9, 94, 112, 135, 152, 156, 188–9, 213–14, 224, 241, 243, 274–5, 278, 280, 284, **285**, *see also* devoicing
- voiceless 9, 13, **28–30**, 33, 44–5, 47, 49, 50–2, 58, 70, 73, 77, 81–3, 90, 93–5, 172, 195, 199, 210, 217, 241, 270, 274–6, 280, **285**
- voiceprint 246–7
- voice quality 27, 32, 57, 184
- vowels **58–67**, **96–104**, *see also* back vowel, central vowel, checked vowel, *etc.*
- vowel diagram **62–7**, 103, 124, 217, 275, 280, 285
- vowel glide, *see* diphthong
- vowel length **52–3**, 96, 131, 153, 157, 165, 157, 165, 173, 177, 197, 217–18, 221–2, 224–5, 260
- vowel limit 60–1
- vowel quadrilateral, *see* vowel diagram
- vowel quality **63**, 67, 71–2, 99, 124, 126, 153, 165, 197, 199, 221, 281, 283, **285**
- vowel reduction **124**, 182, 210, 215, 222, **285**
- vowel sequences **104**, 200, 214, 283, **285**

- weak form (WF) 17–18, 20–1, 24, 122, 166, 188, 283, 285
- Wells, J. C. 4, 13, 23, 100, 104, 106–7, 150, 257–64, 266–7, 269, 271
- Welsh (language) 10, 36, 45, 49, 50, 55, 72, 74, 83, 125, 171, 176–8, 194, 278
- Welsh English 46, 73, 134, 151, 158, 162, 173, 176–7, 194, 278
- West African English 179, 192–3, 209, 211, 228
- West Country English 15, 42, 57, 91, 158–9, 162, 164–5, 199, 202, 235, 265
- West Indian, *see* Caribbean
- whisper 32–3, 285
- wh*-questions 141, 143–4
- wh*-words 17, 23, 130, 174, 181, 195, 197, 199
- wide diphthong, *see* narrow/wide diphthong
- wide glide, *see* narrow/wide diphthong
- windpipe, *see* trachea
- Windsor Lewis, Jack 66, 247
- word stress 17, 23, 124, 125–7, 129, 209, 215, 222, 285
- world accent varieties 91–2, 101–2, 150–8, 179, 180–93, 228, 248–53
- worry words 99, 112–13
- Xhosa 27, 50, 188
- yes–no* questions 141–5
- Yiddish 73, 182
- yod 48, 285
- yod-dropping 92, 151–2, 158, 164, 199, 285
- Yorkshire 100, 150, 167–8, 201, 235, 246–7
- Yoruba 66, 74–5, 284
- Zulu 27, 50, 188, 229