

# Practical Ph&Ph:

## Segmental pronunciation of English



# Before starting about vowels, diphthongs and consonants, a brief revision of...

- ... the physiology of speech, so one could explain sound production to more technically-minded pupils
- ... the disciplines of Phonetics and Phonology, the concepts of the *sound* and the *phoneme*, *allophonic (narrow, phonetic)* and *phonemic (broad)* transcriptions;
- ... the main concepts in *articulatory*, *acoustic* and *auditory phonetics*;
- ... the fact that everything is intertwined in speech, namely *segmental* and *suprasegmental* pronunciations;
- ... the vowels and diphthongs, being the most sonorous sounds and carriers of voice, being particularly impacted by *suprasegmental (prosodic)* behaviour both within a short unit such as the word and in connected speech.



# Adrian Underhill's Sound Foundations

pronunciation charts for GB and GenAm

ɪ	ɪ	ʊ	u:	ɪə	eɪ	ɪ	ɔ
e	ə	ɜ:	ɔ:	ʊə	ɔɪ	əʊ	
æ	ʌ	ɑ:	ɒ	eə	aɪ	aʊ	
P	b	t	d	tʃ	dʒ	K	ŋ
f	v	θ	ð	s	z	ʃ	ʒ
m	n	ŋ	h	l	r	w	j

ɪ	ɪ	ʊ	u	eɪ	ɪ	ɔ	
e	ə	ɜr	ɔ	ɔɪ	oʊ		
æ	ʌ	ɑ		aɪ	aʊ		
P	b	t	d	tʃ	dʒ	K	ŋ
f	v	θ	ð	s	z	ʃ	ʒ
m	n	ŋ	h	l	r	w	j

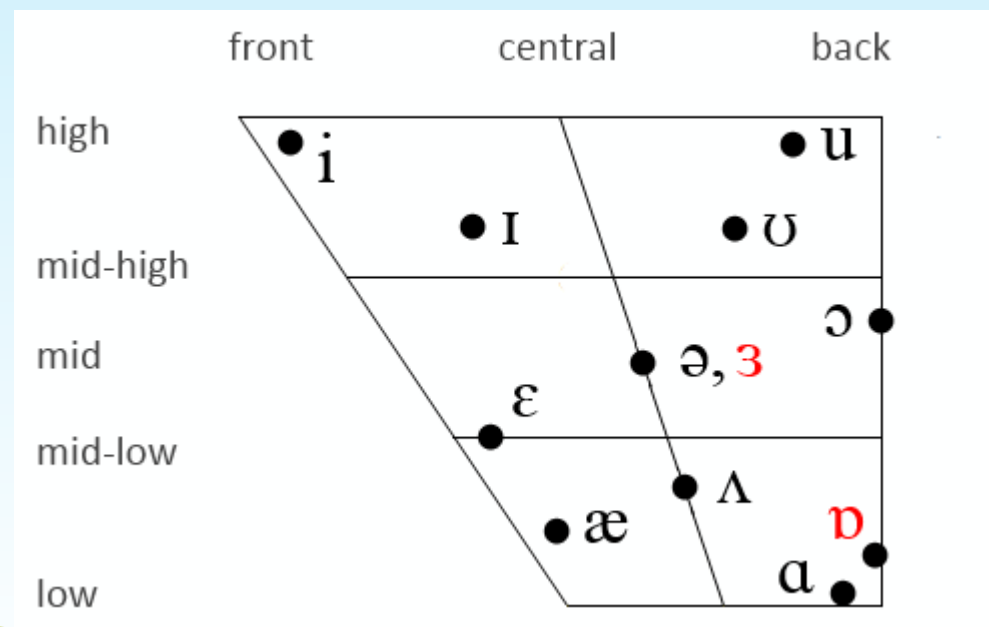


# English vowels

*High* and *low* can also be referred to as *close* and *open*. The sounds in **red** plus [ɔ] are exclusive to GB (General British, a replacement term for RP, in the U.S. also referred to as SSBE=Standard Southern British English). Notice that length (duration) is no longer marked in modern transcriptions and charts as duration depends largely on what follows.

Source - <https://www.sltinfo.com/ess101-simple-vowels-summary/>

In GenAm, vowels are generally more open and nasal, which makes AmE more suitable for singing. The British [ɒ] and [ɔ] have merged with [ɑ], the long [ɑ:] is raised to [æ], both mixed vowels [ə] and [ɜ] are rhoticised to [ɚ] and [ɝ].



# Cz/SI problems with E vowels

- Not disposing of such phonological distinction in their own language, the Czechs and Slovaks replace [æ] with [e]: *my pet ret*
- ... [ɪ] with [i]: *just a leetle beet*
- ... [ʊ] with [u]: *book, foot, hood*
- We can say they don't build and maintain the desired degree of openness on certain vowels. This, combined with final-consonant devoicing, can render some word chains virtually indistinguishable, e.g. *med-met-mad-mat*.
- The long mixed vowel /ɜ:/ is often replaced by /ɔ:/, saying *warm* meaning *worm* and *ward* meaning *word*.
- Remedial training: check any authentic English/American audio materials and Trim's English pronunciation illustrated in Study Materials.



# Pre-fortis shortening

- All vowels, diphthongs and even voiced consonants become much shorter if they are followed by voiceless (=fortis) consonants /p/, /f/, /k/, /t/, /ʃ/, /s/, /tʃ/, e.g. making the /ɒ/ in *dock* a millisecond shorter than in *dog*.
- To make things more complicated, in AmE /t/ after /n/ is often dropped, making the only difference between the affirmative *I can* and the negative *I can't* the duration of the open ash. This is very well explained by Rachel in this video:

<https://www.youtube.com/watch?v=Vp7xmbtylqI>



# English diphthongs

1) gliding to /ɪ/, 2) centring (lowering to /ə/, non-existent in AmE), 3) gliding to /ʊ/.

/ʊə/ has disappeared in modern GB, merges with long /ɔː/.

/əʊ/ has a less central start in GenAm than in GB and sounds like /ou/.

## DIPHTHONGS

**aɪ** (try, my, I, high)

**eə** (where, there, stair)

**aʊ** (how, now, cow)

**eɪ** (may, day, they)

**ɪə** (here/hear, beer)

**əʊ** (no/know, load)

**ɔɪ** (boy, toy, Troy)

**ʊə** (poor, tour, moor)



# The pronunciation of English vowel letters in open and closed syllables


(consonants are the closing elements; the “magic E opens syllables). Hence, reduplication is necessary to keep the short pronunciation (lad-laddie).

There are many exceptions, e.g. *have, love* and examples on the following slide, still reduplications and the *magic E* work most of the time.

	<u>In open syllables:</u> “long pronunciation”	<u>In closed syllables</u> “short pronunciation”
A	mate	mat
E	Pete	pet
I, Y	I, my	it, myth
O	poke	Spock
U	dispute	put, putt







# Problem of Czech/Slovak speakers with /eɪ/ (understandable as they follow the rule on slide 8):

- In words such as *ancient*, *angel*, *arrange*, *Cambridge*, *change*, *manger*, *range*, *strange*, Cz/Slovak students often erroneously replace the diphthong /eɪ/ with the monophthong /e/.
- There is a lot of monophthongisation in various regional and social dialects of English but never of this kind.
- Remedial training: check any authentic English/American audio materials.





# Comprehending British English: smoothing of triphthongs

- For some time now in GB, particularly in its posher forms, the sequence

*/aɪə/, /eɪə/ or /aʊə/*

is smoothed. The diphthong's central element is weakened or totally eliminated, changing pronunciation of *fire*, *layer* and *tower* to ['fɑ:ə], ['leə] and ['tɑ:ə].

Well documented in this video from the Guardian:

<https://www.theguardian.com/lifeandstyle/video/2014/sep/22/secrets-posh-accent-video-riot-club-vowels>





# Comprehending British English: the disappearance of /ʊə/

- Words containing the /ʊə/ diphthong such as *sure*, *pure*, *cure* and *endure* now realise the phoneme /ʊə/ as long /ɔː/.
- Discussion point: Should a learner try to imitate this?



# English consonants

		MANNER	VOICING	PLACE					
				Bilabial	Labiodental	Interdental	Alveolar	Palatal	Velar
Obstruent	Stop	Voiceless	p			t		k	ʔ
		Voiced	b			d		g	
	Fricative	Voiceless		f	θ	s	ʃ		h
		Voiced		v	ð	z	ʒ		
	Affricate	Voiceless					tʃ		
		Voiced					dʒ		
Sonorant	Nasal	Voiced	m			n		ŋ	
	Liquid	Lateral	Voiced			l			
		Rhotic	Voiced					r (ɹ)	
		Glide	Voiced	w				j	(w)



# Sonority and articulatory energy

- Sonority (voicing; categories voiced vs. voiceless) and articulatory energy (tension; categories lenis vs. fortis) are two counteracting qualities of consonants. Most English consonants come in pairs and are either voiced lenis or voiceless fortis.
- Voiced lenis are consonants where vocal energy is required on the vocal tract but lips and tongue are rather idle. One cannot whisper voiced lenis consonants: /b/, /v/, /g/, /d/, /z/, /ʒ/, /dʒ/.
- Voiceless fortis are consonants where no energy is invested on the vocal folds but lips and tongue work harder. One can whisper voiceless fortis consonants: /p/, /f/, /k/, /t/, /s/, /ʃ/, /tʃ/.
- The only exception in English is /h/ which is voiceless lenis (just a breath, no energy involved anywhere).



# The problem with final-consonant devoicing (neutralisation)

- In Czech and Slovak, voiced consonant phonemes in final positions, /b/, /v/, /g/, /d/, /z/, /ʒ/, /dʒ/, are devoiced (neutralised) into their voiceless counterparts /p/, /f/, /k/, /t/, /s/, /ʃ/, /tʃ/.
- Examples: *slib* [-p], *lev* [-f], *blog* [-k], *pád* [-t], *bez* [-s], *masáž* [-ʃ], *bridž* [-tʃ].
- The neutralisation even occurs before a vowel in speech. Then the subsequent vowel begins with a glottal stop: *slib a přísaha* ['slipʔɚ'pɾi:sɚɦɚ], *lev a tygr*, *blog i článek*, *pád i vzestup*, *bez agendy*, *masáž aorty*, *bridž i kanasta*.
- Certain non-native speakers acquire voicing and linking (liaison) habits naturally through observation, others must train hard to eliminate the “harsh Czech accent”.



# Voicing and linking (liaison)

- These terms reflect the speech habit of making one word blend with another without a glottal stop
- Linking /w/: *go on* [ˌgəʊ<sup>w</sup>ɒn]
- Linking /j/: *carry on* [ˌkærɪ<sup>j</sup>ɒn]
- Linking /r/: *car and house* [k<sup>h</sup>ɑːrən<sup>h</sup>haʊs]
- Intrusive /r/: *Buddha images* [ˈbʊdə<sup>r</sup>ɪmədʒəz]
  
- Remedial training: check any authentic English/American audio materials.



# Aspirations of voiceless plosives under stress

- Voiceless plosives /p/, /t/ and /k/ are aspirated if they occur in the beginning of a stressed syllable.
- Aspiration does not occur if the voiceless stop is preceded by a /s/. Sometimes the /s/ is disguised in spelling as x = /ks/.
- Compare *pool* ['p<sup>h</sup>u:l], *tool* ['t<sup>h</sup>u:l], *cool* ['k<sup>h</sup>u:l] with *spool* ['spu:l], *stool* ['stu:l], *school* ['sku:l].
- Compare *tend* ['t<sup>h</sup>end] and *extend* [ək'stend].
- Lack of aspiration can result in /p/, /t/, /k/ being perceived as their voiced counterparts /b/, /d/ /g/, e.g. *Pompei* as *Bombay*, *tick* as *dick*, *cool* as *ghoul*.





# Other problems pronouncing consonants

- Voiceless plosive /t/, instead of being alveolar and aspirated, is often dental, causing *Tom* being perceived as *Dom*.
- Both the dental fricatives, voiceless /θ/ and voiced /ð/, are replaced by their alveolar counterparts /s/ and /d/. As a consequence, the expressions *I think it's a good thing* and *the other* may be perceived as *I sink it's a good sing* and *dee udder*.
- -ING endings often do not finish with a velar /ŋ/ but with a /ŋk/ or alveolar /n/, erasing the phonological difference between e.g. *sing*, *sin* and *sink*.
- Another frequent mistake is the fluctuation between /v/ and /w/.
- Remedial training: see Trim's English pronunciation illustrated in Study Materials.



# Tomková's Pronunciation assessment form

<b>NAME, PTS</b>		<b>40</b>
<b>Stress &amp; rhythm</b>		-15
<b>Voicing &amp; liaison</b>		-7
<b>Vowels</b> /æ/, /ɪ/		-2, -2
<b>Dental fricatives</b> /ð/ and /θ/		-2, -2
<b>Voiceless alveolar plosive</b> /t/		-2
<b>-ing endings</b>		-2
<b>Long mixed vowel</b> /ɜ:/		-2
<b>/v/ and /w/</b>		-2
<b>Words mispronounced</b>		-2



# Articulatory settings in Cz/SI and English

- The term was coined by the South-African linguist Barbara Honickman and is understood as a set of prevailing tongue movements and positions for each language. It is investigated in Russia as *articulatory basis*.
- When speaking English, the tongue tip (apex) operates around the upper teeth, the blade being relatively idle and resting. Its position is *concave*.
- When speaking Czech or Slovak, the apex is relatively idle and the blade approximates the hard palate rather often to produce palatal sounds, *d'* [ɟ], *t'* [c], *ň* [ɲ] and *l'* [ʎ]. Its position is *convex*.



# Articulatory settings in Cz/SI and English

documented on a beef tongue, P&P March 2020



# Sources

- Gimson
- Roach
- Collins and Mees
- Life
- Teaching practice



Thank you  
for your  
attention!

