

Introduction to Phonetics & Phonology Ježek Session 2

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Speech production

- Three levels of description:
 - **articulatory** level (head);
 - **phonatory** level (throat);
 - **respiratory** level (chest).

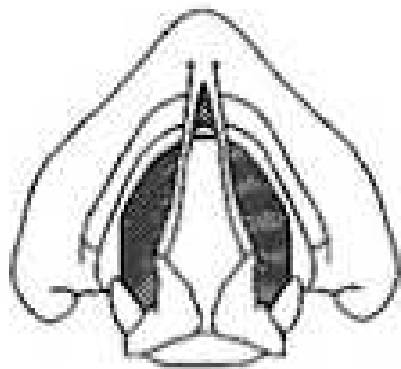
Respiratory level

- Speech sounds are:
 - **egressive** (breathing out) v. **ingressive** (breathing in);
 - **pulmonic** (air pressure from lungs) v. **non-pulmonic** (ejectives, implosives, clicks).
- Vast majority of sounds in European languages are egressive and pulmonic.

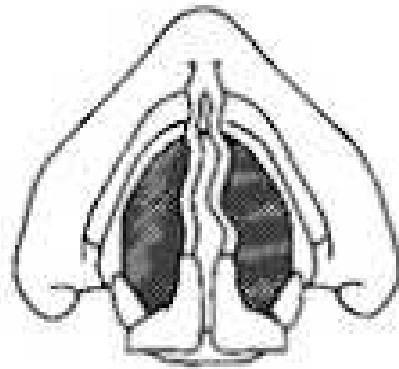
Phonatory level

- Trachea
- Larynx
- Vocal folds (cords):
 - open=voiceless sounds;
 - closed and vibrating=voiced sounds;
 - closed without vibration=glottal stop.
- Glottis

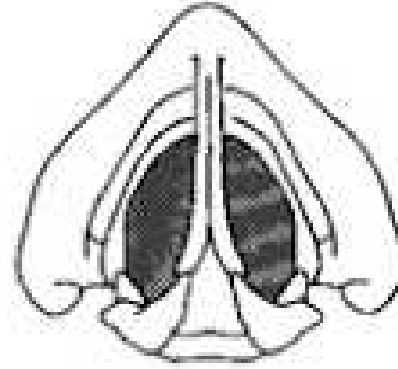
Vocal folds



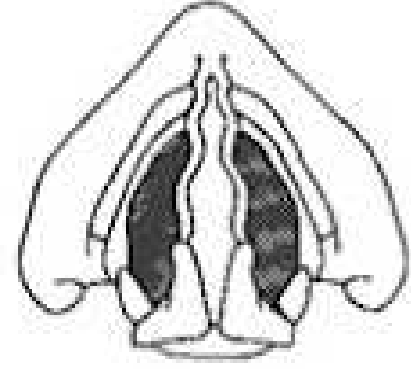
Voiceless



voiced



whisper



murmur

source: O'Grady, William D., Micheal Dobrowolsky & Francis Katamba, [ed.], (2001)

Contemporary Linguistics, Longman. (ISBN 0582246911)

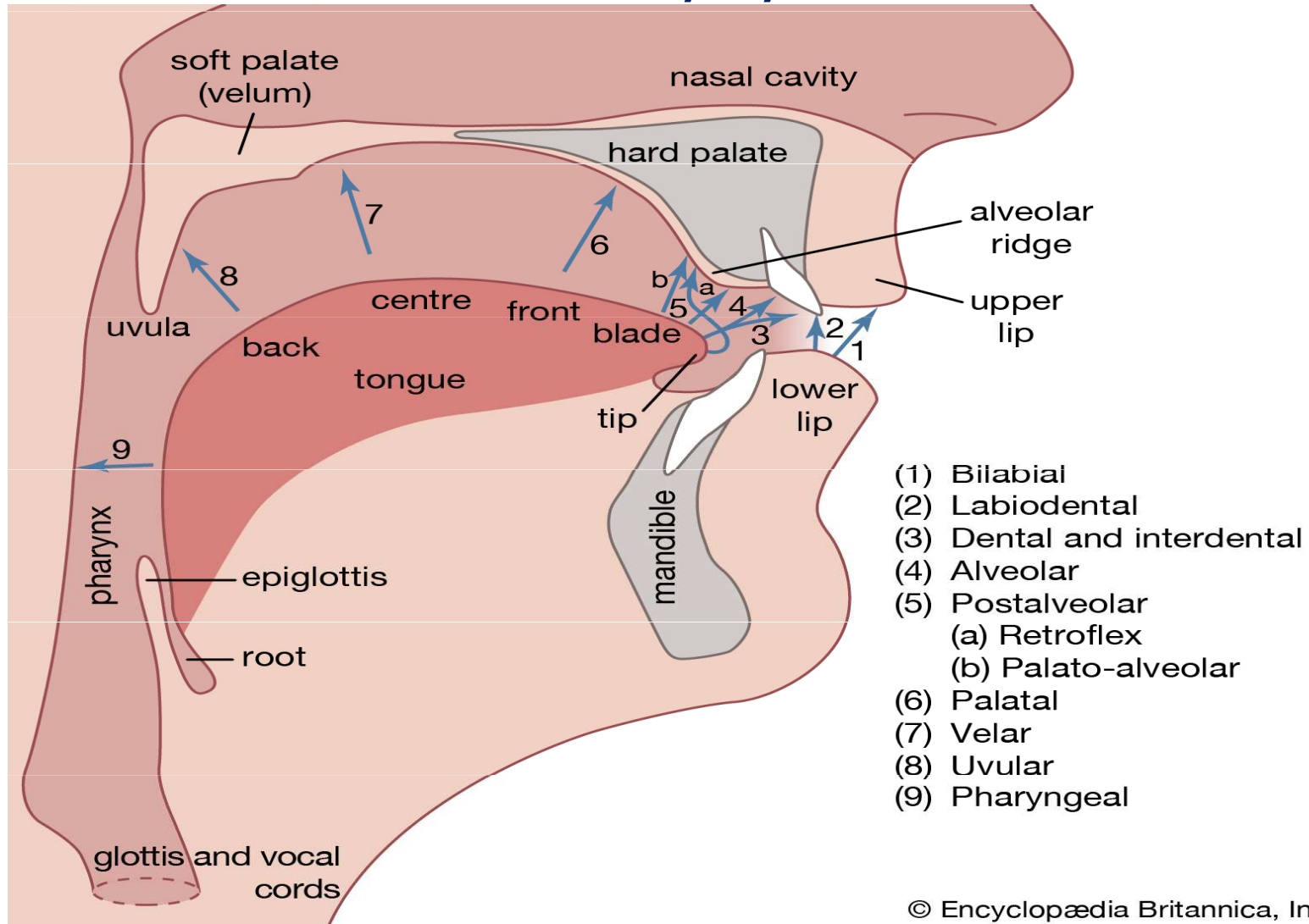
Articulatory level

- Throat (pharyngeal cavity)
- Mouth (oral cavity)
- Nose (nasal cavity)



- Place of articulation (e.g. lips, teeth, alveolar ridge)
- Manner of articulation (e.g. plosive, fricative)
- Energy of articulation (fortis/lenis)

Articulatory system



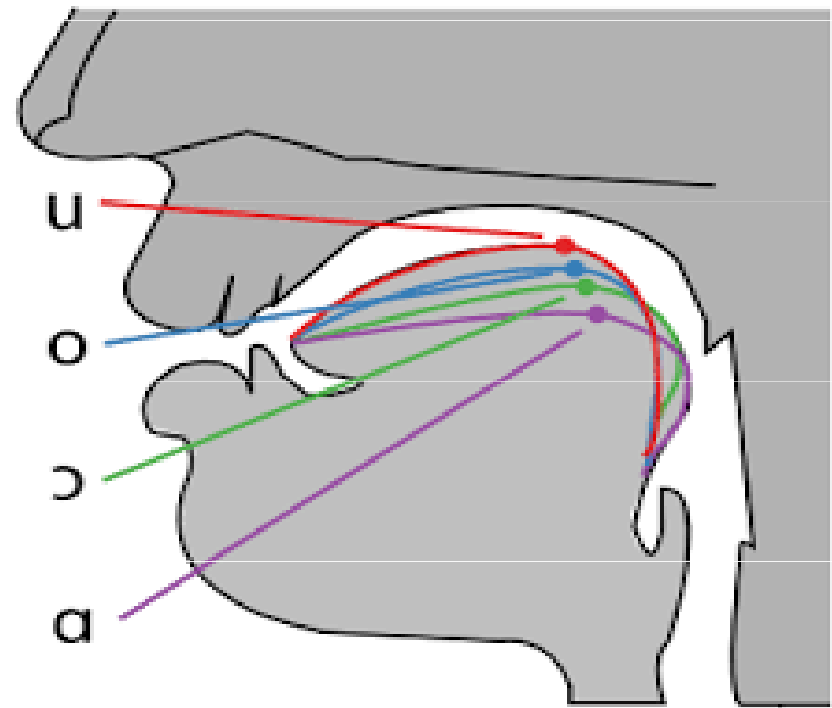
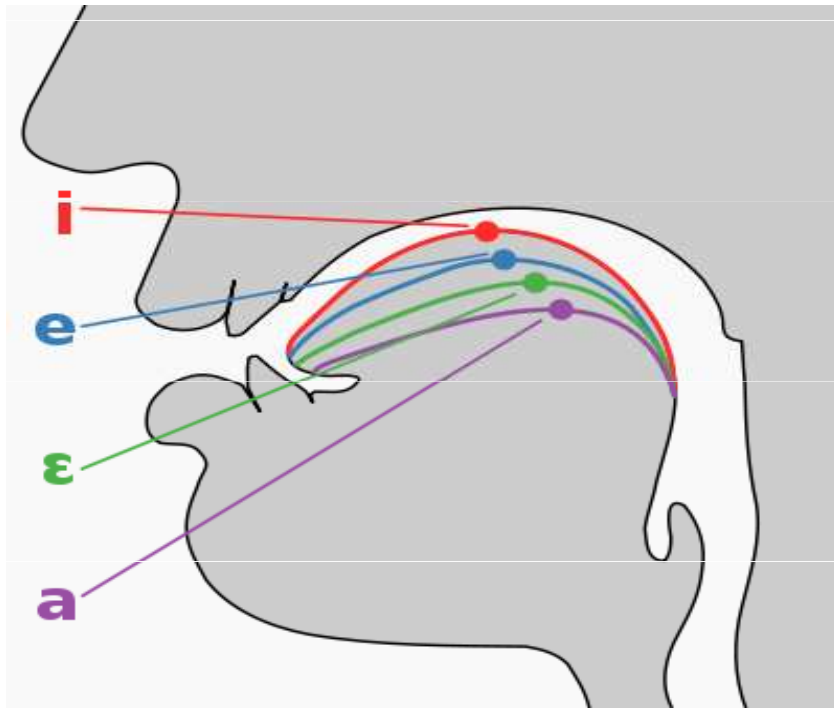
Vowels

- There is no obstruction to the airflow coming from lungs.
 - Place, manner and energy of articulation useless for vowels (tongue, approximants, lenis) => other criteria.
 - Vowels are described in the following way:
 - tongue shape;
 - lip shape (rounded v. neutral v. spread);
 - monophthongs v. diphthongs;
 - position of soft palate (nasality);
 - duration.
- (from Collins & Mees 2003: 57-66)
- Phonologically, vowels are syllabic, i.e. they form the nucleus of syllables.

Tongue shape

- The most important criteria are:
 - vowel height: **close** v. **open** vowels (say [i] v. [a]) – how close the tongue is to the roof of the mouth;
 - vowel backness: **front** v. **back** vowels (say [i] v. [u]) – which part of the tongue is the highest.
 - (actually, it is **formants** F1 and F2 respectively that define the height and backness of vowels; the spectral shapings just correspond to the given positions of the tongue in the mouth)

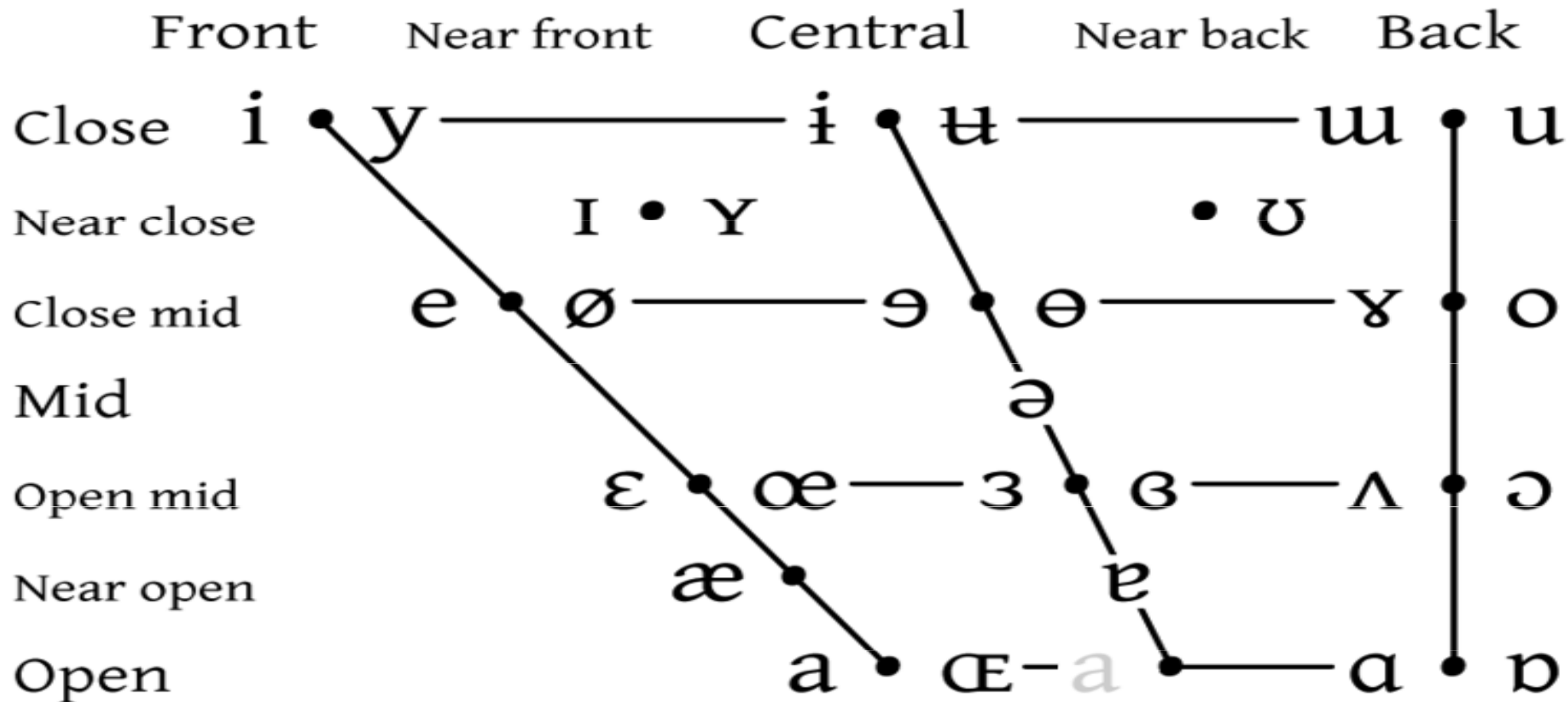
Tongue shape



Source: <http://singingmastermind.com/singing-tongue-vowels/>

IPA vowels – vocalic quadrilateral

VOWELS



Vowels at right & left of bullets are rounded & unrounded.

Standard lexical sets

- Devised by J C Wells (*Accents of English*, 1982) for easier reference to English vowels.
- They are written in capital letters (e.g. FLEECE).
- “[t]he keywords have been chosen in such a way that clarity is maximized: whatever accent of English they are spoken in, they can hardly be mistaken for other words” (Wells 1982: 123).

Received Pronunciation RP

- Prestige accent in England (possibly Wales as well).
- 'received' means acceptable in polite society (not received in public schooling)
- Supposedly a **non-localisable accent**?
- Closely linked with public boarding schools (e.g. Eton, Harrow, Rugby)
- The exclusive link between RP and high education gradually disappeared during the 20th C.
- Contrary to popular belief, RP originated in the (upper) middle class (not the upper class itself) through immense pressure on upward social mobility.

Received Pronunciation - RP

- Varieties of RP:
 - Trad-RP (Upton), U-RP (Wells), Refined RP (Cruttenden), marked RP (Honey), Conservative RP (Gimson);
 - RP (Upton), mainstream RP (Wells), unmarked RP (Honey), General RP (Gimson and Cruttenden);
 - Near-RP (Wells), Regional RP (Cruttenden), Advanced RP (Gimson);
 - Adoptive RP (Wells), Constructed v. Native RP (Fabricius) ;
 - General British (GB), Conspicuous GB, Regional GB (Cruttenden 2014);
 - Non-regional pronunciation (NRP, Collins and Mees 2003).

- and, of course, the BBC accent, Oxford English, the Queen's English...
- Standard English= a dialect spoken in any accent!

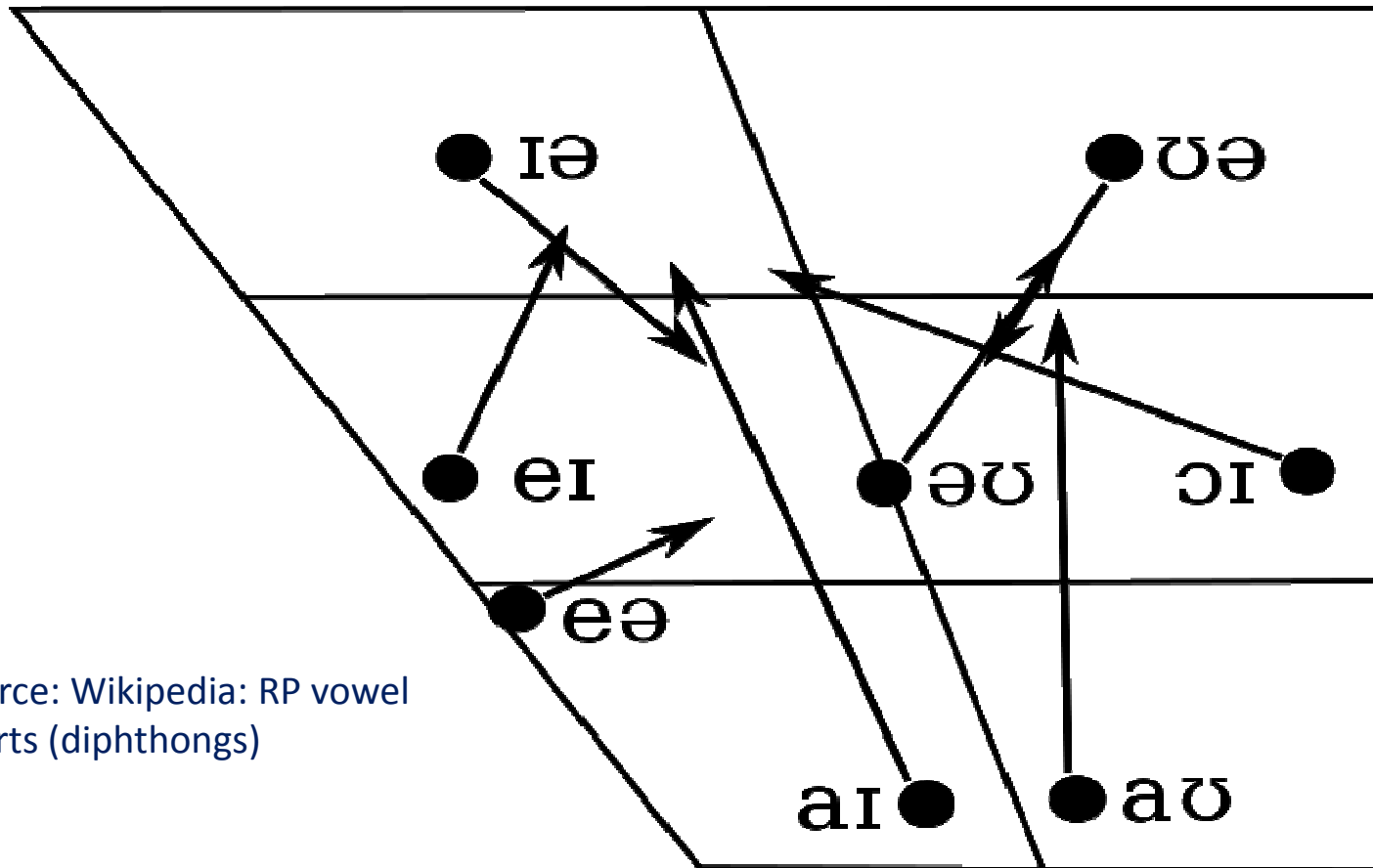
General American - GenAm

- Term coined by George Philip Krapp in 1925.
- The accent employed by educated speakers in formal settings but still permitting variability in particular US regions; i.e. it is not a purely non-localisable (supra-regional) accent like RP (used to be?).
- The accent is 'what is left over after speakers suppress the regional and social features that have risen to salience and become noticeable' (Kretzchmar et Schneider 2004).

RP and GenAm vowels

- Monophthongs (steady vowels)
 - long v. short
 - **Short vowels preceding voiceless consonants are shorter than those preceding voiced consonants** (e.g. *dock* v. *dog*).
- Diphthongs
 - glides from one vowel to another within one syllable
 - fronting [eɪ] v. backing [aʊ];
 - closing [aɪ] v. opening [ɪə];
 - centring [ɪə]

RP diphthongs



Source: Wikipedia: RP vowel charts (diphthongs)

RP and GenAm vowels

- Each vowel is treated separately
- Differences between the traditional model (Daniel Jones, A C Gimson, J C Wells, Alan Cruttenden) and an updated model (Clive Upton, Alan Cruttenden) are highlighted.

Upton's model of RP

- Devised in the 1980's (how modern is that?) by Clive Upton.
- Used in all Oxford University Press publications for the native market since the 1990's.
- Need to update the model because RP had 'undeniably come to be associated with older middle- and upper-class speakers in the south-east of England' (Upton 2000: 76).
- Therefore, it is desirable 'to objectively consider the notion of RP and to ensure the description of a late twentieth-century version of the accent [...] looks forward to the new millenium rather than back at increasingly outmoded forms' (Upton 2001: 352).
- Upton's model includes sounds 'heard to be used by educated, non-regionally marked speakers rather than those "allowed" by a preconceived model' (Upton 2000: 78).

Upton's model of RP

- Aim: 'a larger group of people can lay claim to possession of an RP accent than has hitherto been acknowledged' (Upton 2008: 78).
- Why the model has failed to appear in the ELT world:
 - ELT world is extremely conservative;
 - phonetics is given less attention than grammar, syntax or semantics;
 - it would be vastly expensive to re-edit all the ELT teaching materials.

Upton's model of RP

- Wells v. Upton- how to approach language change?
- Wells: keep the symbols (for the sake of clarity), redefine the sounds they represent.
- Upton: change the symbols to reflect the phonetic reality.
- Some of the changes are mere transcriptional preferences, others have far-reaching impact.
- Vowels: see the overview (*Vowels of RP and trad-RP*) uploaded in the IS (folder Jezek).

KIT vowel

- [ɪ] in RP
- [ɪ] in GenAm
- fairly front and fairly close unrounded vowel
- In word-final position frequently undergoes **happy tensing** (see below).

DRESS vowel

- [e] in RP (Upton [ɛ])
- [ɛ] in GenAm
- front open mid unrounded vowel
- Wells insists on [e] because of general familiarity with the symbol.

TRAP vowel

- [æ] in RP (Upton and also Cruttenden 2014 [a]; **lowered TRAP**)
- [æ] in GenAm (often considerably longer)
- open front unrounded vowel in RP; in GenAm near open front unrounded vowel
- It is also called the “ash” (aesc) vowel.
- The correct symbol is rather controversial.

TRAP vowel - audio sample

- Seaside resorts are enormous and, you know, the Royals used to take their holidays at the seaside and things like **that** and so a lot of money got, well, they just had a lot of money coming into all the time so they built these almost palatial **flats** along the seafront and things like that, like five storey **mansions** sort of holiday homes for people...

(Sample 14, Ježek 2017)

LOT vowel

- [ɒ] in RP
- [ɑ] in GenAm (often considerably longer)
- open rounded back vowel in RP; in GenAm it is unrounded.

STRUT vowel

- [ʌ] in RP
- [ʌ] in GenAm
- In both RP and GenAm this vowel is hard to pin down with great precision.
- open-mid to central back unrounded vowel
- **raised STRUT** [ʊ] a salient feature of the North-South divide in England
- [ɜ] also a possible realisation; it is called a fudge.

STRUT vowel – audio sample

- Ehm, I freelanced for a couple of years **covering** football matches which is the best job I've ever had cause I'd get to hold a microphone in front of people, ehm, but people of real status, you know, Arsene Wenger and Jose Mourinho and people, so that was, that was just sexy, it was, it was **lovely**. And of course you get to hear the sound of your own voice as well which kind of, after a while, ehm, isn't, isn't quite as horrifying as it, as it might otherwise ordinarily be, you know, to the **uninitiated**. So that was, that was kind of a great ego trip and if....unfortunately, didn't fit in very well with having a **young** family because **young** family is gonna go to school.

(Sample 10, Ježek 2017)

FOOT vowel

- [ʊ] in RP
- [ʊ] in GenAm
- fairly back and fairly close vowel with weak rounding
- **FOOT fronting** a recent innovation in RP: fronting and unrounding of [ʊ], thus [ɪ].
- no FOOT/STRUT opposition in northern accents in England

BATH vowel

- [ɑ: ~ a] in RP
- [æ] in GenAm
- in RP a long back open unrounded vowel (Wells, Cruttenden) as well as a short front open unrounded one (Upton); in GenAm near open front unrounded vowel
- the other major North-South divide feature
- unlike raised STRUT, **short BATH** not stigmatised, hence the need to accept it in RP=> **northern** and **southern RP**
- cf. *shoda* in Czech (Mathesius 1940)

BATH vowel – audio sample

- And make the players realise they're professional athletes. For the last, well, last season we had, I'd say there were three, no I think I could say there were four outstanding players in the team last season. Ehm, one was Fletcher, striker, he's only just come back from injury, played the second half of the last game and he's, he was very good last season until he got injured.

(Sample 7, Ježek 2017)

CLOTH vowel

- [ɒ] in RP
- [ɔ] in GenAm (frequently long [ɔ:])
- in RP a short open rounded vowel; in GenAm open-mid back rounded vowel
- Older RP variant [ɔ:] is now obsolete and humorous.

NURSE vowel

- [ɜ:] (Wells, Cruttenden) and [ə:] (Upton) in RP
- [ɜɹ] in GenAm
- in GenAm rhotic
- It is difficult to locate precisely.
- Wells v. Upton: transcriptional preferences
 - Wells criticises Upton's choice on two grounds:
 - 1/ schwa is used in unstressed syllables only;
 - 2/ all the other long-short pairs use distinct symbols as well as the length symbol.

FLEECE vowel

- [i:] in RP
- [i:] in GenAm
- In RP and GenAm it is a long close front unrounded vowel.
- Subject to frequent diphthongisation [ɪi] in RP; if the starting-point is lower and retracted [əi], it is not RP.

FACE vowel

- [eɪ] in RP
- [eɪ] in GenAm
- In RP and GenAm it is a closing diphthong with the starting-point between [e] and [ɛ].
- If the starting-point is lower than [ɛ] (i.e. [æ] or even [a]), then redolent of Cockney.

PALM vowel

- [ɑ:] in RP
- [ɑ:] in GenAm
- In both RP and GenAm it is a long open back unrounded vowel.

THOUGHT vowel

- [ɔ:] in RP
- [ɑ] in GenAm
- In RP it is a long mid-open back rounded vowel.
- In GenAm the vowel is short, fully open and there is no lip-rounding.

GOAT vowel

- [əʊ] in RP (older people may have the starting-point close to [o])
- [oʊ] in GenAm
- For both RP and GenAm this is a diphthong. The starting-point for RP is central unrounded vowel (thus it is a backing diphthong), while it is retracted for GenAm with considerable lip-rounding.
- The closing-point in RP may be fronted -> [əɪ].

GOOSE vowel

- [u:] in RP
- [u] in GenAm
- In both RP and GenAm it is a back close rounded vowel; in RP it is usually long, while in GenAm typically short.
- In RP it may be shortened and/or fronted -> **GOOSE fronting** [ʊ].

PRICE vowel

- [aɪ] (Wells and Cruttenden) and [ʌɪ] (Upton) in RP
- [aɪ] in GenAm
- In both RP and GenAm it is a fronting diphthong; the starting-point in RP is front/central/back.
- Absence of lip-rounding; if present, then regional (London).

CHOICE vowel

- [ɔɪ] in RP
- [ɔɪ] in GenAm
- In both RP and GenAm it is a fronting diphthong; the starting-point is a back mid-close rounded vowel.

MOUTH vowel

- [aʊ] in RP
- [aʊ] in GenAm
- In both RP and GenAm it is a backing diphthong; the starting-point in RP may be rather retracted to central or even back.

NEAR vowel

- [ɪə] in RP
- [ɪɹ] in GenAm
- In GenAm rhotic, thus a fairly close and fairly front vowel followed by /r/.
- In RP it is a centring diphthong; the closing-point is central, not lower.

SQUARE vowel

- [ɛə] (Wells) and [ɛ:] (Upton, Cruttenden 2014) in RP
- [ɛɹ] in GenAm
- In GenAm rhotic, thus an open-mid front vowel followed by /r/.
- In RP it is a centring diphthong or a monophthong with or without a glide (**SQUARE monophthongisation**).

START vowel

- [ɑ:] in RP
- [ɑɹ] in GenAm
- in GenAm rhotic
- In both RP and GenAm it is a back open unrounded vowel; in RP long.

NORTH vowel

- [ɔ:] in RP
- [ɔɹ] in GenAm
- in GenAm rhotic
- In both RP and GenAm it is a back open-mid rounded vowel; in RP long.

FORCE vowel

- [ɔ:] in RP
- [ɔɹ] in GenAm
- in GenAm rhotic
- In both RP and GenAm it is a back open-mid rounded vowel; in RP long.
- The reason why FORCE and NORTH are given separate entries is that they used to be different: FORCE used to be diphthongal [ɔə] in RP.

CURE vowel

- [ʊə ~ ɔ:] in RP
- [ʊɑ] in GenAm
- In GenAm rhotic, so a fairly back and a fairly close vowel followed by /r/.
- In RP it is a centring diphthong or a back open-mid rounded long monophthong.
- RP [ʊə] changed to [ɔ:] (**CURE monophthongisation**) as follows: the starting point was lowered to [ɔə] and then monophthongised to [ɔ:], like FORCE before.
- [ʊə] still exists in less common words (e.g. *gourd*) or where minimal pairs need to be maintained *dour* v. *door*, *cruel* v. *crawl*.

happy vowel

- [i] in RP
- [i] in GenAm
- In both RP and GenAm it is a close front unrounded vowel.
- Short FLEECE vowel [i] has universally replaced older KIT vowel [ɪ] = **happy tensing**.
- Cf. happy [-i] v. happier [-ɪə(ɹ)].

lettER vowel

- [ə] in RP
- [əɹ] in GenAm
- In GenAm rhotic, thus central unrounded vowel followed by /r/.
- In RP it is a central unrounded vowel. If lowered to [ɛ], then regional.

commA vowel

- [ə] in RP
- [ə] in GenAm
- In both RP and GenAm it is a central unrounded vowel.
- In RP intrusive /r/ is often employed to enable liasion between vowels.

unstressed KIT and FOOT vowel

- Traditionally, [ɪ] and [ʊ] are employed here.
- However, schwa [ə] is often used instead. Thus *executive* used to be [ɪg'zɛkjʊtɪv], but now could be transcribed as [əg'zɛkjətəv].
- Upton uses composite symbols [ɪ̯] and [ʊ̯] to indicate that both [i] and [ə] or [u] and [ə] can appear in the given position.
 - E.g. *happily* is transcribed as [hapɪ̯li] to indicate the second vowel may either be [i] or [ə].

Pronouncing dictionaries: ODP (2003), LPD (2008), CEPD (2011) - vowels

- See the overview (*Vowels of RP in three pronouncing dictionaries*) uploaded in the IS (folder Jezek).

References

- COLLINS, Beverley and Inger Mees. 2013. *Practical Phonetics and Phonology*, 3rd ed. London: Routledge.
- CRUTTENDEN, Alan. 2014. *Gimson's Pronunciation of English*, 8th ed. London: Routledge.
- FABRICIUS, Anne. 2000. *T-glottaling between stigma and prestige: a sociolinguistic study of modern RP*. Unpublished PhD thesis, Copenhagen Business School.
- GIMSON, A.C. 1980. *Pronunciation of English*, 3rd ed. London: Arnold.
- KORTMANN, Bernd and Edgar W. Schneider, eds. 2004. *A Handbook of Varieties of English*. Berlin/New York: Mouton de Gruyter.
- MATHESIUS, Vilém. 1940. 'Výslovnost jako faktor sociální a funkční' [Pronunciation as a Social and Functional Factor]. *Program D 41*, 3: 71-74.
- UPTON, Clive. 2000a. 'Maintaining the Standard'. In Robert Penhallurick (ed.) *Debating Dialect: Essays on the Philosophy of Dialect Study*. Cardiff: University of Wales Press, pp. 66-83.
- UPTON, Clive. 2001. 'Revisiting RP'. In Malcolm Jones (ed) *Essays in Lore and Language: Presented to John Widdowson on the Occasion of His Retirement*. Sheffield: National Centre for English, pp. 351-68.

References

- UPTON, Clive. 2001. 'Revisiting RP'. In Malcolm Jones (ed) *Essays in Lore and Language: Presented to John Widdowson on the Occasion of His Retirement*. Sheffield: National Centre for English, pp. 351-68.
- UPTON, Clive. 2008. 'Received Pronunciation'. In Clive Upton and Bernd Kortmann (eds.) *Varieties of English: The British Isles*. New York: Mouton de Gruyter, pp. 237-52.
- UPTON, Clive, William A. Kretzschmar Jr and Rafal Konopka. 2017. *The Routledge Dictionary of Pronunciation for Current English, 2nd ed.* Oxford: Oxford University Press.
- WELLS, J. C. 1982. *Accents of English*, 3 vols. Cambridge: Cambridge University Press.
- WELLS, J. C. 2008. *Longman Pronunciation Dictionary*, 3rd ed. London: Pearson Longman.

References- dictionaries

- ROACH, Peter, Jane Setter, and John Esling (eds.) [Daniel Jones]. 2011. *Cambridge English Pronouncing Dictionary*, 18th ed. Cambridge: Cambridge University Press.
- UPTON, Clive, William A. Kretzschmar Jr and Rafal Konopka. 2003. *The Oxford Dictionary of Pronunciation for Current English*. Oxford: Oxford University Press.
- WELLS, J. C. 2008. *Longman Pronunciation Dictionary*, 3rd ed. London: Pearson Longman.