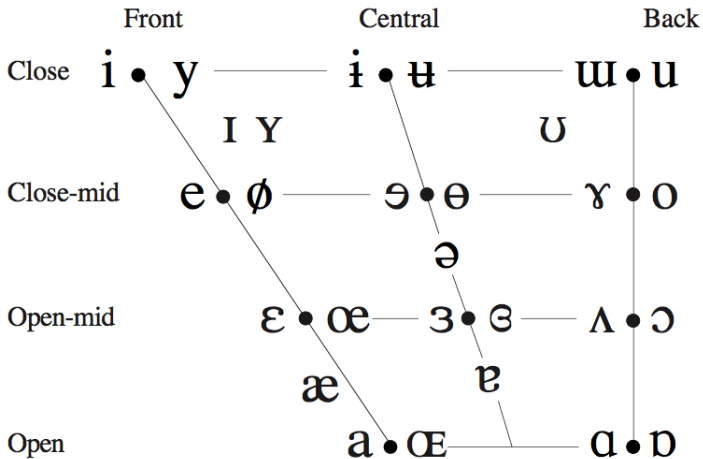


Ling 105
Sounds of Language

Thursday, September 19, 2024

Kevin Ryan

IPA vowel chart



Rounding

- French
 - *lit* ['li] “bed” ♪
 - *lu* ['ly] “read” ♪
 - *loup* ['lu] ♪ “wolf”
 - What is *le*?
- Vietnamese
 - ['tu] “to drink” ♪
 - ['tɯ] “fourth” ♪

German umlaut

- Orthography vs. IPA
- Fuß, Füße (cf. *foot*, *feet*)
- Mutter, Mütter
- Sohn, Söhne
- Vater, Väter

Nasalization

- French
 - *lot* [ˈlɔ] “prize” 🎵
 - *long* [ˈlɔ̃] “long” 🎵

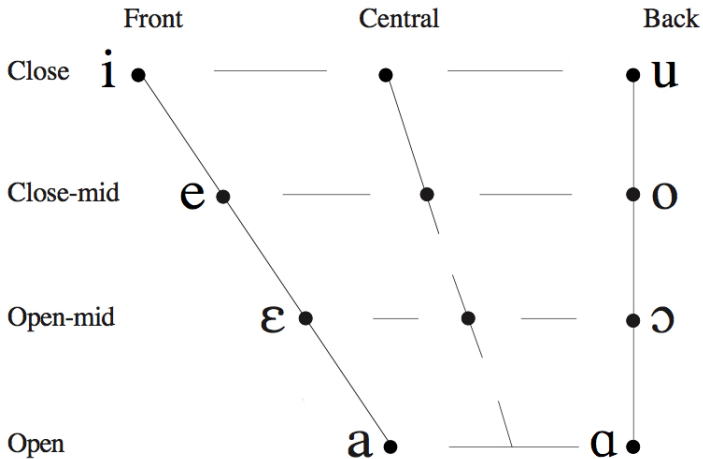
Phonemic length

- Latin had phonemic length distinctions in vowels
 - *os* ['os] “bone”
 - *os* ['o:s] “mouth”
 - *malum* ['malum] “evil”
 - *malum* ['ma:lum] “apple”
- Also in consonants (long consonant = geminate)
 - *mulus* ['mu:lus] “mule”
 - *mullus* ['mu:l:us] “mullet”
 - *anus* ['anus] “old woman”
 - *annus* ['an:us] “year”
- If both vowel & consonant length were phonemic in Latin, why did its orthography (normally) only indicate consonant length?

Phonemic rhoticity

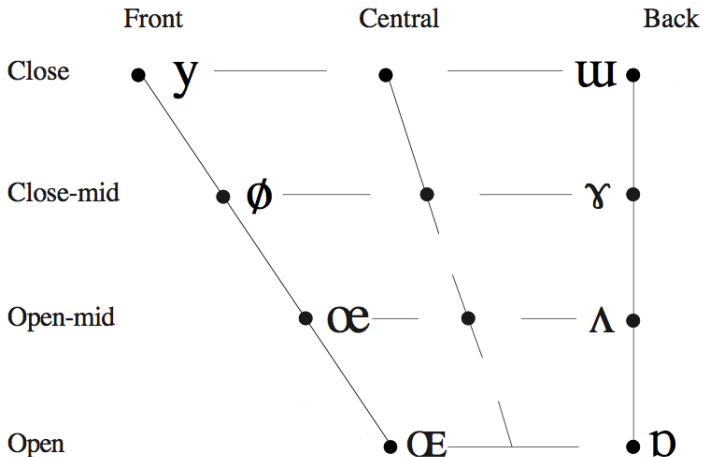
- Badaga
 - [ˈoːgu] “to go” 🎵
 - [ˈoːge] “inside” 🎵
- For all vowel qualities!
- More examples at “UCLA Phonetics Lab data”

Cardinal vowels: primary



Where symbols appear in pairs, the one to the right represents a rounded vowel.

Cardinal vowels: secondary



Where symbols appear in pairs, the one to the right represents a rounded vowel.

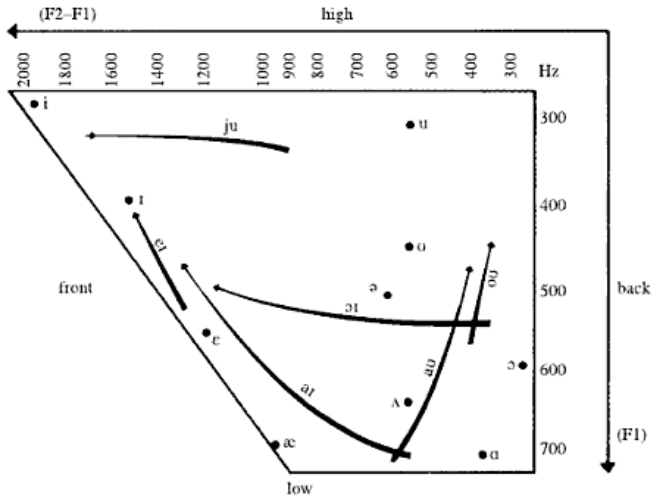
Rounding asymmetry

- For primary, front = unrounded and (non-low) back = rounded
- For secondary, reversed

Cardinal vowels

- Daniel Jones (1918); reference points for phoneticians
- Not a real language; no “reference language” for the IPA
 - e.g. English vs. German “[u]”
 - Secondaries in English?
 - Transcribe a vowel halfway between [u] and [o]
- Real vowel spaces are analog; for precision, use measurements, not symbols

Acoustic version



Some useful IPA vowel diacritics

- [ɑː]: long
- [ɑˑ]: half-long
- [Ǻ]: extra-short
- [æ̯]: non-syllabic
- [ɑ̣]: rhotic
- [ã]: nasalized
- [ɑ̥]: voiceless
- Fine-tuning place
- Position of diacritic

Allophonic partial vowel length in English

- Vowels are allophonically slightly longer before voiced plosives ([Praat bed..bed.wav](#))
- Normally not transcribed
- Explanation: **compensatory lengthening**
 - Voiceless plosives are longer
 - Vowels preceding them are shorter

Other allophonic length in English

- Unstressed vowels are shorter (and more reduced/centralized) than their stressed counterparts
e.g. *dealer* vs. *delay*
- Vowels tend to be shorter in longer words
e.g. *fee* vs. *fever* vs. *feverishness*
- Vowels tend to be longer in **open** than in **closed** syllables (another compensatory process)
- Everything tends to lengthen in final syllables (**final lengthening**)
e.g. *helper* vs. *permission*

Vowel devoicing in English

- Non-final unstressed vowels optionally devoice after a voiceless stop, e.g. *potato*, *tomato*