Places and manners of articulation Part 1

Rogers chapters 10 and 11

IPA chart plosives

Graphic unavailable See plosive row in Main IPA Table Rogers Appendix

Old friends p b t d k g ? **Note also** Dental v. alveolar: [t , d] v. [t, d] bilabial

Dental and alveolar

Retroflex

Graphic unavailable See lateral fricative row in Main IPA Table Rogers Appendix

Palatal

Velar

Uvular (rough)

Graphic unavailable See lateral fricative row in Main IPA Table Rogers Appendix

Constructed via http://www.chass.utoronto.ca/~danhall/phonetics/sammy.html

Diacritics

Graphic unavailable See IPA Diacritics Table Rogers Appendix (Many are related to place of articulation)

Advanced and retracted

- Front and back varieties of $[k] [\underline{k} \ \underline{k}]$
- To insist on 'interdetntal' fricatives $[\theta \ \tilde{\phi}]$
- Go *too* far and change place

 Not much difference between a retracted [k] and an advanced [q]

Fricatives IPA

Graphic unavailable See fricative row in Main IPA Table and Other Symbols IPA Table in Rogers Appendix Bilabial fricative

Labiodental fricative

Dental fricative

Alveolar fricative

Post alveolar

Alveo palatal

Retroflex

Palatal

Velar

Uvular

Pharyngeal

Epiglottal

Physilogical measures

Pharyngeal/epiglottal/glottal

- There is some controversy about consonants made lower down in the vocal tract
- Research by J. Esling (U. Victoria) suggests a complex 'laryngeal' articulator
 - Glottis, epiglottis, aryepiglottal muscles, pharynx, root of tongue
 - Can produce a variety of obstruent and trill-like gestures (dramatic videos prove it!)

Esling:		Official IPA:
place: aryepiglottic folds		
voiceless fricative	[ħ]	Vless pharyngeal fric.
voiced approximant	[٢]	Vd. Pharyngela fric
voiceless trill	[н]	Vless epiglottal fric
voiced trill	[우]	Vd. Epiglottal stop

http://web.uvic.ca/ling/research/phonetics/lands.htm

Aryepiglotic muscle



aryepiglottic muscle

(Science: anatomy) The fibres of the oblique arytenoid muscle that extend from the summit of the arytenoid cartilage to the side of the epiglottis; action, constricts the laryngeal aperture.

Synonym: musculus aryepiglotticus.

U.

Sibilants:

- higher frequency and greater acoustic energy

– [s, z, ∫, ʒ, ɕ, ʑ, ʂ, ʐ]

– What do these have in common in terms of articulation and airflow?

Non-sibilants:

- lower frequency and less acoustic energy

– [φ, β, f, v, θ, ð, ç, j, x, ɣ, χ, ʁ, ħ, ʕ]

– Do any of these have anything in common with sibilants in terms of articulation and airflow?

Slit v. groove fricative (Artist's conception)

Graphic unavailable

Sibilants ?: Faster airflow, more turbulence

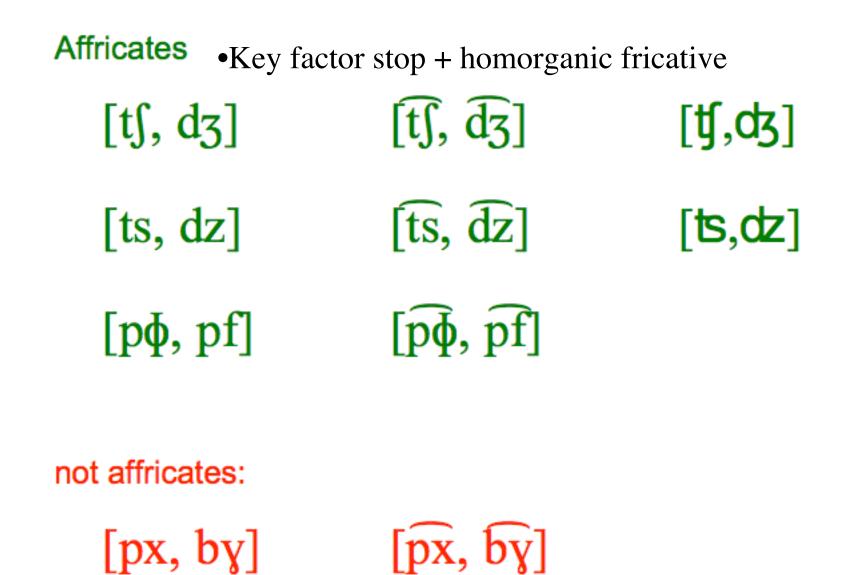
Reality check on tongue shapes

- Some real physilogical measures of tongue shape
- Oldest: Palatography (cocoa powder + olive oil on palate, take photo after)
- Update: electropalatograph
- Ultrasound

Electropalotography

Graphic unavailable Try Google. Ultrasound s S

Graphic unavailable Try the site speech.umaryland.edu Ultrasound T



•Homorganic : (approximately) same place of artic .