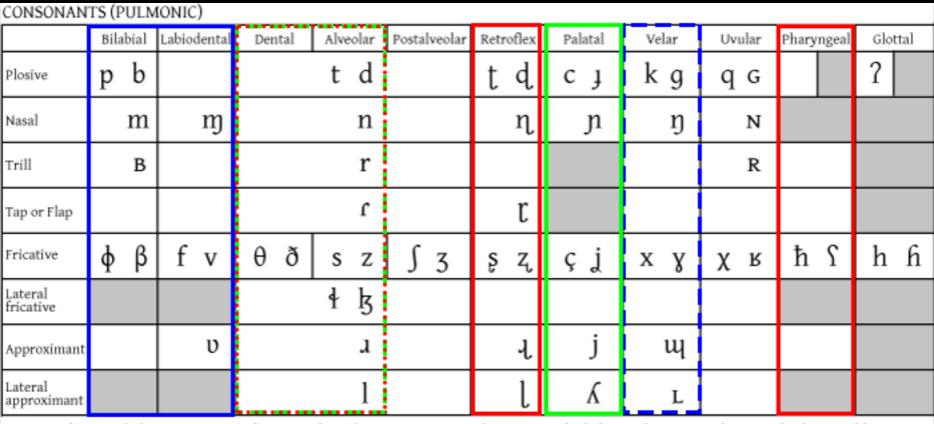
# Elements

Non-Vocalic Elements in Consonants, I

- Resonance elements (3):
  - |I|: *dlp*
  - |U|: *rUmp*
  - |A|: *mAss*

- Non-resonance elements (3):
  - |?|: Energy drop
  - |H|: Noise
  - |L|: Low frequency energy (tomorrow!)

Resonance elements



Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

- Non-resonance elements (3):
  - |?| ~ [?]
  - |H| ~ [h]
    - Autonomous Interpretation
    - No resonance properties (duh)

- |?|
- Phonetic properties
  - Sudden drop in energy

- |?|
- Phonological properties
  - Stops
  - Ejectives
  - Implosives
  - Laryngealized Vowels (Creaky vowels)

- |?|
- Common denominator:
  - Suppression of (glottalic) energy

- |?|
- Non-headed: stops, creaky vowels
- Headed: ejectives, implosives

- |?|
- Ejectives and implosives
  - "enhanced" stops
  - Longer energy build-up
  - Louder release

- <u>|</u>?|
- Ejectives and implosives
  - Contrasted by presence/absence of |L|
  - |U, <u>?</u>|: [k']
  - |U, ?, L|: [g]

- <u>|</u>?|
- Ejectives and implosives
  - While headed, and hence "better", no relation to typology!

- |?|
- Corresponds to [-continuant]
  - Reverse definition
  - Vocalic interpretation

- Sonorants with |?|
  - Nasals (often)
  - Laterals (sometimes)

- |H|
- Phonetic properties
  - Aperiodic acoustic energy, aka. Noise
    - Mostly in the higher frequency regions

- |H|
- Phonological properties
  - Fricatives, stops (release)
  - Voicelessness
  - High tone

- |H|
- Vocalic interpretation
  - High tone
  - Voiceless vowels

- |H|
  - Headed: voicelessness
  - Non-headed: aspiration

- We can now make most obstruents:
  - Stops: | 1 ? H | ~ | U ? H | ~ | A ? H |
  - Ejectives: |I ? H| ~ |U ? H| ~ |A ? H|
  - Aspirated stops: || ? <u>H</u>| ~ |U ? <u>H</u>| ~ |A ? <u>H</u>|
  - Fricatives: |I H| ~ |U H| ~ |A H|
  - More Fricatives: |I H| ~ |U H| ~ |A H|

- Compare:
  - Stops: |I ? H| ~ |U ? H| ~ |A ? H|
  - Fricatives: |I H| ~ |U H| ~ |A H|

- Fricatives are "lesser" stops
- Very different from feature theory!
  - [±continuant] implies no such relation

- Fricatives are "lesser" stops
- Prediction:
  - Stops can weaken into fricatives
  - Fricatives can strengthen into stops

- Lenition / Consonant weakening
  - very common cross-linguistically
  - Mostly diachronic

- Lenition / Consonant weakening
  - [b]  $\rightarrow$  [ $\beta$ ]  $\rightarrow$  [ $\beta$ ]
    - |<u>U</u> ? H| → |<u>U</u> H| → |<u>U</u>|
  - [s] → [h]
    - |A H| → |H|

- Lenition / Consonant weakening
  - Always in weak positions
    - "Coda"
    - Onset of unstressed syllable
    - Intervocalic

- Fricatives can strengthen into stops
  - Very common in child language
  - e.g. /sup/ → [tup]

- Tomorrow:
  - Laryngeal Realism
  - |L|