

Annotation tools

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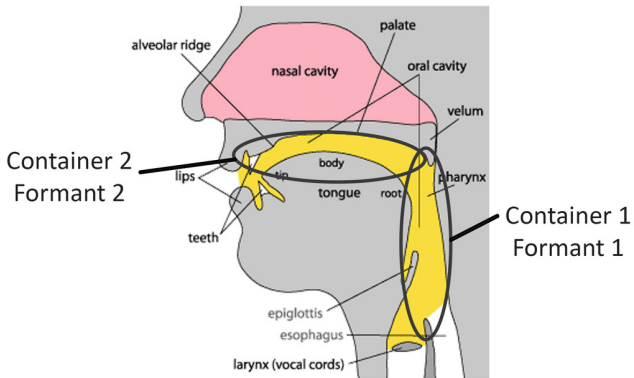
- Praat: Phonetic analysis
- ELAN: Analysis of audio-visual material
- GraphAnno: Annotation and analysis of multi-level data

- Praat is a powerful software for phonetic analysis, with a script language of its own.
- It can also conveniently be used for high-resolution manual annotation.

Some basics of acoustic phonetics

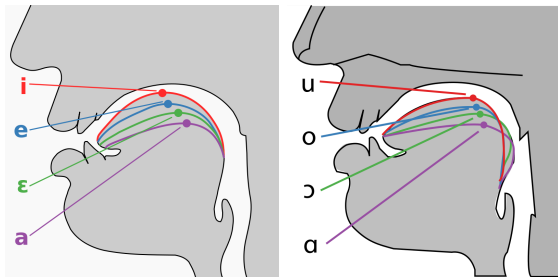
- Speech sounds are analyzed in terms of physical properties such as amplitude (loudness) and frequency.
- Speech signals are not 'pure'. They comprise resonance and noise at different frequencies.
- Friction is higher frequency noise.
- The vocal tract produces resonance.
- Fundamental frequency: frequency of the 'source sound' produced by the vocal cords (F_0), corresponding to pitch.
- Formant frequencies: Additional frequencies produced in the vocal tract.

Articulation and formants



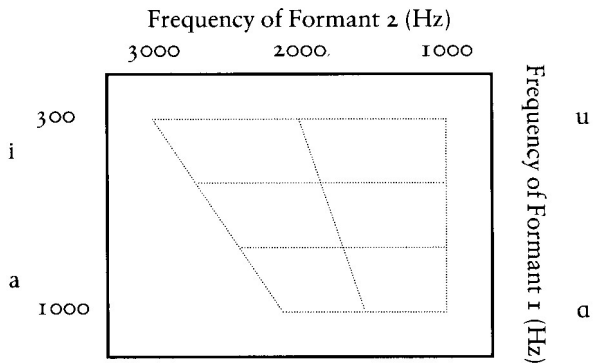
Source: <https://www.voicescienceworks.org/harmonics-vs-formants.html>

Articulation and formants II



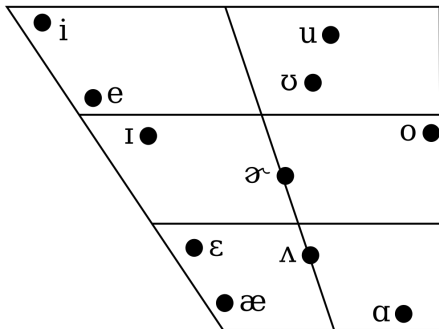
Source: Wikipedia

Analysing vowels



Source: Wikipedia

The vowels of Californian English



Source: Wikipedia

- GraphAnno is a tool for manual manipulation of multi-level corpora.
- It allows the manual creation and manipulation of corpora as well as the import of existing corpora.