

The other features for consonants are self-explanatory: [±voiced], [±cons], [±syllabic].

[±high]

[+high]: the tongue is raised from the neutral position (the position for schwa)
High vowels are [+high] while mid and low vowels are [-high].

[±low]: the tongue is lowered from the neutral position (the position for schwa)

Low vowels are [+low] while mid and high vowels are [-high].

Questions: how are mid vowels classified in terms of features?

[±tense]: tense vowels are pronounced with tension of the tongue.

[+tense]: upper high, upper mid, 'backer' low

[-tense]: lower high, lower mid, 'fronter' low; [-tense] vowels are also called lax vowels.

[±round]: vowels pronounced with lip rounding are [+round]

[±back]

Problem: where is the cutoff between [-back] vowels and [+back] vowels.

The question is relevant for central vowels, for example, Polish [a] and [ɨ]: are they [-back] or [+back]?

Exercise:

Define stops as a natural class = group stops together to the exclusion of all the other underlying segments in a given language: