Allophones of English Stop Consonants

Stops

Variations in the Manner

- **aspiration**, indicated by a small raised letter \( h \) \( [\text{ʰ}] \) = a period of voicelessness after the stop articulation and before the start of the voicing for the vowel (‘pie, tie, kye’ \( [\text{ʰ}t\text{ɛɾ}, \text{ʰ}t\text{ɛɾ}, \text{ʰ}k\text{ʰ}\text{ɛɾ}] \))

- **unexploded** consonant, indicated by a small raised mark \( [?] \): syllable- or word-final consonant unexploded when the next syllable or word begins a stop or nasal (‘the cat pushed \( [d\text{ʰ} \text{ʰ}k\text{ʰ}\text{ɛɾ}] \), ‘apt’ \( [\text{ӕp}\text{ʰ}\text{ɪɾ}] \), ‘act’ \( [\text{ӕk}\text{ʰ}\text{ɪɾ}] \))

- absence of this rule in oth. languages, a mark of foreign accent to explode all final stop consonants and add an extra vowel at the end (‘it’s a big day’ \( [\text{ɪts} \text{ʰ} \text{ʰ} \text{bɪg} \text{ʰ} \text{dɪɾ}] x \text{ʰ} * [\text{ɪts} \text{ʰ} \text{bɪg} \text{ʰ} \text{dɪɾ}] \))

- **a glottal stop**, indicated by a question mark without the dot \( [?] \) = the sound, or the lack of sound, produced with the vocal cords held tightly together (\( n\text{ʰ} \text{m} \text{ʰ} \text{m} \)) for ‘yes’ \( x [?] \text{ʰ} \text{m} \text{ʰ} \text{m} \) for ‘no’

- **glottal stops** frequently as allophones of \( /t/ \) (‘beaten’ \( [\text{ʰ}\text{bɪt}\text{ɛɾ}] \), ‘kitten’ \( [\text{ʰ} \text{kɪt}\text{ɛɾ}] \), ‘fatten’ \( [\text{ʰ} \text{fæt}\text{ɛɾ}] \))

- **a syllabic** consonant, indicated by \([\text{ʰ}]\)
  - homorganic sounds = two sounds with the same place of articulation
    (a) nasal plosion = the release through the nose of the air pressure built up in the mouth when a voiced stop and a homorganic nasal occur in the same word (‘sadden’ \( [\text{s}\text{ʰ} \text{sæd}\text{н}] \), ‘sudden’ \( [\text{s}\text{ʰ} \text{s\text{ʰ}d]\text{н}] \), ‘leaden’ \( [\text{l}\text{ḍ}\text{н}] \))
  - a mark of foreign accent to add a vowel \( [\text{ʰ}s\text{æd}\text{н}, \text{ʰ}s\text{ḍ\text{н}}, \text{ʰ}l\text{ḍ\text{н}}] \)
(b) lateral plosion = the release by lowering the sides of the tongue of the air pressure built up in the mouth when a stop and a homorganic lateral occur in the same word (‘little’ \( [\text{l}\text{ɪt}\text{ɪɾ}] \), ‘ladle’ \( [\text{l}\text{ɛt\text{ḍ}\text{ɪɾ}}] \))

- **a flap** \( [r]\): GA \( [t] \) changed into a voiced sound after a stressed vowel and before an unstressed syllable oth. than \( [n] \) (‘city’ \( [\text{ʰ}s\text{ʰr}] \), ‘better, writer’)

Variations in the Place

- **coarticulations** = the overlapping of adjacent articulations, present in all utterances
- anticipatory coarticulation = anticipation of the articulations of the sounds yet to come (a stop unexploded before another consonant in ‘apt’ \( [\text{ӕp}\text{ʰ}\text{ɪɾ}] \), etc.)
- perseverative coarticulation = the actions involved in making one sound continue into the next (‘it is’ \( [\text{ɪts} \text{ɪz}] > \text{ʰ} \text{ɪt’s} \text{ɪz} \))
- \( E = \) an anticipatory language
- the feature that two consecutive sounds have in common will be retained throughout the transition btw them
- articulars not involved in the primary articulation will take up t\( w\)d the articulation of the following item
- a general tendency in \( E \) to equalise the lengths of syllables differing in the number of segments \( x \) but: stressed syllables longer than the corresponding unstressed ones
- target positions = the positions of the vocal organs specified for a given sound; remain always the same \( x \) but: the resulting articulation may be changed by the neighbouring sounds
- targets = units used in describing how a speaker produces utterances
- \( x \) phonemes = more abstract units used in describing languages to show how one word contrasts with another

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<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
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</thead>
<tbody>
<tr>
<td>pie</td>
<td>buy</td>
<td>spy</td>
<td>nap</td>
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<td>kye</td>
<td>guy</td>
<td>sky</td>
<td>knack</td>
<td>nag</td>
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</tbody>
</table>

Column 1 vs. 2
- a set of voiceless stop consonants \( x \) voiced stop consonants
- more precisely a set of (voiceless) aspirated stops \( x \) (partially voiced) unaspirated stops

Column 1 vs. 3
- in \( E \) no opposition btw words beginning with \( /sp-, st-, sk-/ \) and \( /sb-, sd-, sg-/ \)

Column 4 vs. 5
- vowel \( > \) shorter before voiceless consonants \( /p, t, k/ \) than before voiced ones \( /b, d, g/ \)
- syllable-final voiceless consonant \( > \) longer than the corresponding voiced consonant after the same vowel

Source: www.anglistika.webnode.cz
**Fricatives**
- fricatives resemble stops
- both groups the only E consonants to contrast by being voiced x voiceless
- both infl. vowel length: vowels shorter before voiceless consonants than before voiced ones
- syllable- or word-final voiceless consonants longer than voiced ones in the same position
- syllable- of word-final voiced consonants fully voiced throughout the articulation only before another voiced sound
- **obstruents** = a natural class of sounds incl. both fricatives and stops /p, b, t, d, k, g, f, v, θ, s, z, ʃ, ʒ/ [+ obstruent] x all oth. E sounds [– obstruent]

**Affricates**
- [tʃ] and [dʒ] = sequences of a stop followed by a homorganic fricative
- from a phonological POV and wrt the sound pattern of E consid. single units

**Nasals**
- [ŋ] = a sequence of the phonemes /n/ + /g/
- phonemically: ‘sing’ /sɪŋ/ but: [sɪŋg] accord. to the phonological rule of /n/ before /g/ and /k/ > the allophone [ŋ]
- the status of [ŋ] different from the oth. nasals
  - cannot be syllabic at the end of word like the oth. nasals together with [ʃ, l]
  - cannot occur at the beginning of word

**Approximants**
- devoicing of a vowel, indicated by [ʰ]: a vowel after the voiceless stops /p, t, k/ partially voiceless (‘pie’ [pʰaɪ], ‘tie’ [tʰaɪ], ‘kye’ [kʰaɪ])
- **devoicing** of a consonant, indicated by [ˌ]: an approximant after the voiceless stops /p, t, k/ voiceless (‘play’ [pɭeɪ], ‘twice’ [twɪs], ‘clay’ [kləɪ], ‘cue’ [kju])
- **velarization**, indicated by [~] = the arching upwards of the back of the tongue
- GA: all examples of /l/ = the arching upwards of the back of the tongue
- RP: only word-final or before a consonant (‘feel’ [fɪl], ‘ball’, ‘filled’)

**Source:** [www.anglistika.webnode.cz](http://www.anglistika.webnode.cz)