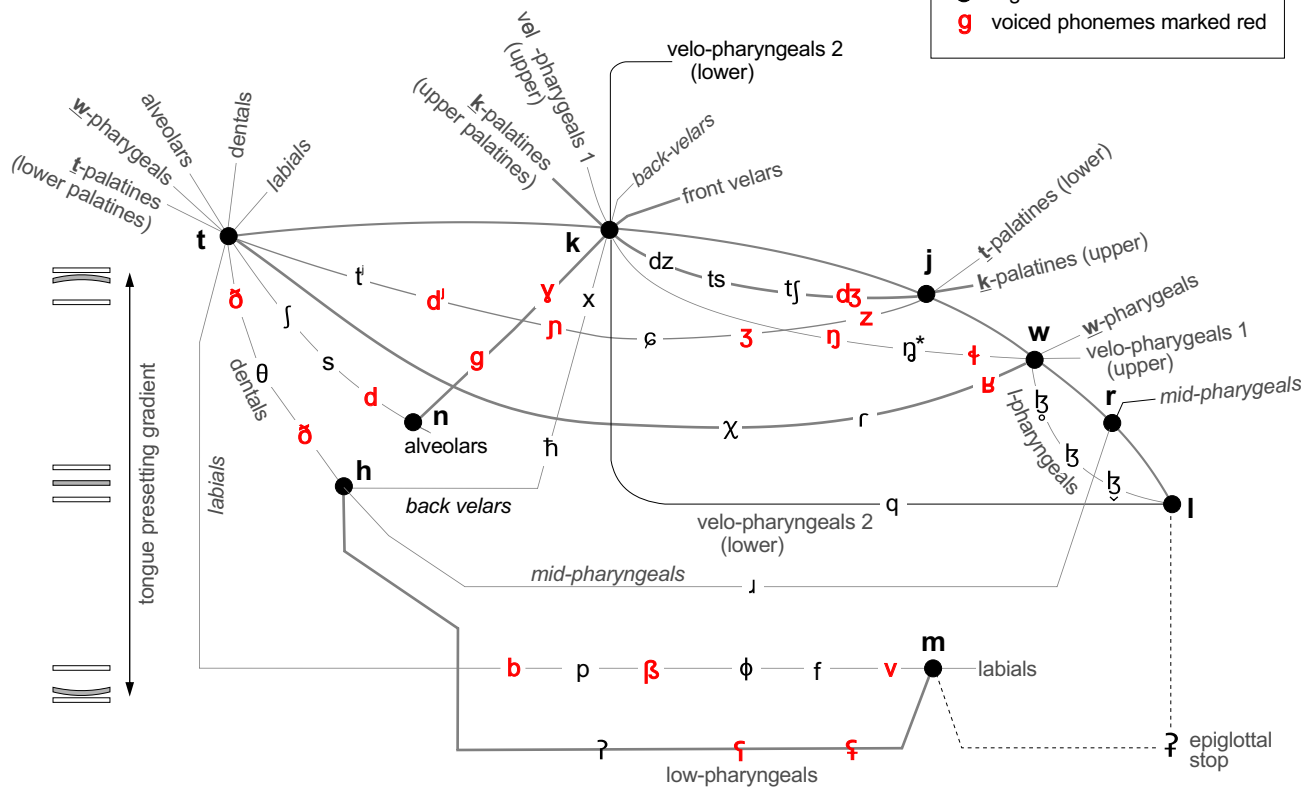


Chart CCT - Complex consonant taxonomy

● lingual consonant nodes
 g voiced phonemes marked red



Parents	Children
t – j	t-palatines (lower palatines)
t – w	w-pharyngeals
t – n	alveolars
t – h	dentals
t – m	labials
k – j	k-palatines (upper palatines)
k – w	velopharyngeals (upper)
k – n	front velars
k – h	back velars
k – l	velopharyngeals (lower)
h – r	midpharyngeals
h – m	low pharyngeals
m – l	epiglottic stop
w – l	l-pharyngeals

It can be experimentally observed that when gliding between any pair of primary parent consonants (bold type) that are connected by lines the intermediary child (complex) consonants can be readily articulated. Between nodes without connections, like /k/ and /h/, or /m/ and /j/ no phonemes can be generated. For voiced phonemes a merger with /n/ occurs, which is not illustrated in the chart. This mapping of positions and lines thus shows the fundamental organic relationships among consonants. The particular consonantal distribution field of any language can be drawn on this map, which also offers various clues in teaching pronunciations, e. g., English "th" is precisely produced not so much as a dental fricative, but rather, as the merger of /t/ and /h/; similarly French /r/ is the child of an /l/+h/ parent merger.

Note:

1. /h/, /n/, and /m/ are the primary phonemes (explained elsewhere), having both consonantal and vocalic qualities.
2. /t/, /k/, /j/, /w/, /r/ and /l/ are the primary consonant phonemes (explained elsewhere)
3. The rest are the complex consonant phonemes (explained elsewhere)