

Secondary Articulations

1. Labialization in Amharic
2. Labialization in Igbo (also includes labial-velar double articulations)
3. Velarization and palatalization in Irish Gaelic
4. Emphatic (pharyngealized) consonants in Arabic
5. Palatalization in Russian

Further demos:

laryngealization ([click here](#))

light and dark /l/ in English ([click here](#)) and Russian ([click here](#)).

double articulations in French approximants ([click here](#)).

1. Amharic

(from Illustrations of the IPA)

Amharic, the national language of Ethiopia, has a large number of labialized consonants (although the available material does not provide any minimal pairs directly contrasting plain and labialized sounds).

The ejectives are also featured in a separate demo [[click here](#)].

plain

t'ərrəgə

▶ “he swept”

kəbbəbə

▶ “he encircled”

gərrəmən

▶ “it surprised me”

k'əddədə

▶ “he tore something”

hakim

▶ “doctor”

labialized

t^w'af

▶ “wax taper”

k^was

▶ “ball”

g^wagg^wa

▶ “he became full of suspense”

k^w'ak^w'ate

▶ “whoop-ing cough”

h^wala

▶ “after”

2. Labialization in Igbo

(from Illustrations of the IPA)

Igbo is interesting for having both labialized velars as well as labial-velar double articulations. Another of the many West African language having labial-velar plosives is Ewe; the articulatory details are discussed at length in L&M p.332-343.

	<u>Plain</u>	<u>Labialized</u>	<u>Double</u>
<u>Voiceless plosive</u>	k a ▶ “older”	a k^w a ▶ “bed”	a k^hp a ▶ “bag”
<u>Voiced plosive</u>	g a ▶ “go”	a g^w a ▶ “behavior”	a gb a ▶ “fame”
<u>Nasal</u>	ŋ ʊ ▶ “drink”	ŋ^w ʊ ▶ “die”	

(Note: Igbo has vowel harmony (usually described by +/- Advanced Tongue Root) and tone. This has been omitted from the transcriptions.)

3. Irish Gaelic

(from Illustrations of the IPA)

Irish has an extensive series of consonants contrasting in terms of velarization vs. palatalization.

velarized

b^ˠi

▶ “yellow”

f^ˠi

▶ “under”

ṅ^ˠi

▶ “nine”

palatalized

bʲi

▶ “be”

fʲi

▶ “weaving”

ṅʲi

▶ “wash”

There is a third alveolar nasal category in non-initial position.

For the lateral this can be illustrated in initial position:

l^{̪ˠ}e

▶ “day”

l^{̪ʲ}e

▶ “read”

le

▶ “with her”

For the plosives in the alveolar articulatory region it is particularly noticeable that the velarized/palatalized contrast involves more than just secondary articulation, e.g also place of articulation, affrication:

t̪^vi d̪^{jə}
▶ “tide”

t̪^ji
▶ “about to”

Irish also contrasts velar and palatal plosives in terms of primary place of articulation, but they can also be seen as forming part of this velarized/palatalized series:

ki^vl̪
▶ “thin (masc.)”

ci^val̪
▶ “sense”

4. Arabic

(from Illustrations of the IPA)

The so-called emphatic consonants of Arabic provide a good example of pharyngealization (though in fact some dialects are said to show velarization rather than pharyngalization).

See also SoWL.

See also demo of contrasting places of articulation in Arabic: Includes pharyngeal place of articulation and discussion of possible role of aryepiglottic constriction [[click here](#)].

saara

▶ “walked”

s^ʰarf

▶ “exchange”

balla

▶ “recovered”

al^ʰl^ʰaa

▶ “God”

5. Palatalization in Russian

This is not an example of the complete series of palatalized consonants in Russian.

See SoWL for this.

Rather, it allows a palatalized consonant to be contrasted not only with the corresponding plain consonant, but also with a sequence of consonant + [j].

p o t

p^j o t r

p j o t

▶ “sweat”

▶ “Peter”

▶ “drink (3rd. sing.)”