

## 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<sup>w</sup>'af**

▶ “wax taper”

**k<sup>w</sup>as**

▶ “ball”

**g<sup>w</sup>agg<sup>w</sup>a**

▶ “he became full of suspense”

**k<sup>w</sup>'ak<sup>w</sup>'ate**

▶ “whoop-ing cough”

**h<sup>w</sup>ala**

▶ “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>	<b>k a</b> ▶ “older”	<b>a k<sup>w</sup> a</b> ▶ “bed”	<b>a k<sup>h</sup>p a</b> ▶ “bag”
<u>Voiced plosive</u>	<b>g a</b> ▶ “go”	<b>a g<sup>w</sup> a</b> ▶ “behavior”	<b>a g<sup>h</sup>b a</b> ▶ “fame”
<u>Nasal</u>	<b>ŋ ʊ</b> ▶ “drink”	<b>ŋ<sup>w</sup> ʊ</b> ▶ “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<sup>ˠ</sup>i**

▶ “yellow”

**f<sup>ˠ</sup>i**

▶ “under”

**ṅ<sup>ˠ</sup>i**

▶ “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<sup>ˠ</sup>e**

▶ “day”

**l<sup>̪</sup>eʲ**

▶ “read”

**leʲ**

▶ “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<sup>v</sup>i d̪<sup>jə</sup>**  
▶ “tide”

**t̪<sup>j</sup>i**  
▶ “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:

**kil̪<sup>v</sup>**  
▶ “thin (masc.)”

**cial̪<sup>v</sup>**  
▶ “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<sup>ʰ</sup>arf**

▶ “exchange”

**balla**

▶ “recovered”

**a<sup>ʰ</sup>l<sup>ʰ</sup>a<sup>ʰ</sup>a**

▶ “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<sup>j</sup> o t r**

**p j o t**

▶ “sweat”

▶ “Peter”

▶ “drink (3<sup>rd</sup>. sing.)”