

More on place and manner Non-obstruents, secondary articulations

Graphics unavailable. See first three rows of
Main IPA Consonant Chart (Rogers appendix)
See also diacritics for nasalization and nasal release

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Places of articulation for non- obstruents

- We've looked at place for stops
- And for fricatives
- Now we'll look at places for other manners and also at new manners of articulation

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Nasals: Not much new

- Nasals are articulated just like (fully) voiced stops but with velum down
- Every place you get a stop, you can get a nasal
- In addition a labiodental nasal is possible:
[ɱ] ['bæɱf]
 - Labiodental stops are rare or non-existent: No official IPA symbol

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Example: Palatal nasal

Graphic unavailable

Other manner and new place-manner combinations

- Lateral approximants... some additional places
- Lateral fricatives ... a new manner row in IPA table
- Trills
- Flaps and taps

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All nasals

- bilabial [m] [ama]
- Labiodental [ɱ] [aɱa]
- Alveolar [n] [ana]
- Retroflex [ɳ] [aɳa]
- Palatal [ɲ] [aɲa]
- Velar [ŋ] [aŋa]
- Uvular [ɴ] [aɴa]

Alveolar Laterals: palatograms

Closure indicated by shaded areas

Laterals: Central closure
But no closure on sides of tongue

Graphic unavailable

Compare with stops:
Closure all around edges of tongue

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New lateral approximants

Graphic unavailable -- See Main IPA Table in Rogers Appendix Row labeled "Lateral Approximant"

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Examples of laterals

- Most common Alveolar
 - [l] [ɫ]
 - Dark alveolar (pharyngealized) [ɫ̤]
- Palatal (e.g. Italian, Catalan, Quechua)
 - [ʎ] [ɲ] ital. [famija]
 - Retroflex [ɭ] (Malayam?)
 - Velar ? [ʟ]

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Other manner/place combinations

- Laterals... some additional places
 - Alveolar [l]
 - Dark alveolar (pharyngealized) [ɫ̤]
 - Palatal [ʎ]
 - Retroflex [ɭ]
 - Velar ? [ʟ]

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Lateral fricatives

Graphic unavailable
See lateral fricative row in Main IPA Table
Rogers Appendix



Any supraglottal approximant can be made a fricative by squeezing a little more and blowing more air through!
Can get retroflex and palatal lateral-fricatives as well
(Need to use raising symbol with approx. e.g. [ʎ̥])

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Lateral fricatives

- [ɬ] Voiceless (most common)
 - Welsh ll, Dene
- [ɮ] Voiced (less common, Han-Dene)
- Can be in affricates
 - [atɬa] [adɮa]
- Ejective lateral affricates (Dene, Navaho)
 - [atɬ'ɑ]

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Trills, Flaps and Taps IPAChart

Graphic unavailable
See Trill, flap and tap rows in Main IPA Table
Rogers Appendix

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Flaps, taps and trills

- These are mostly r-like sounds
 - Also known as rhotics
- Most common place are in alveolar and retroflex for flaps, taps and trills
- Uvular trill is fairly wide spread
- Bilabial trill [B] is rare but possible

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Trills

- Trill like a multiple tap:
 - Aerostatic/aerodynamic/myoelastic forces conspire to make articulator(s) vibrate
 - Voicing could be (but usually isn't) described as a 'glottal trill'
- Bilabial trills: two lips vibrate
- Alveolar trills: tongue tip against alveolar ridge
- Uvular trill: uvula vibrates between narrowed passage at back of mouth (tongue and faucal pillars)

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Other trills?

- Lateral ?
- Bilateral ??
- Buccal?
- Velo-pharyngeal ???
 - Ingressive and egressive
 - Mostly nocturnal? [snoring]
- Not known as speech sounds

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Other approximants IPA chart

Graphic unavailable
See approximants row in Main IPA Table
Rogers Appendix



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Taps and flaps

- Tap like single pulse of a trill
 - Said to be ‘ballistic up and down’
 - Tongue tip returns to same place it started
- Flaps
 - May involve movement from starting to ending point with a quick contact in between
 - Backer to fronter tongue tip position in retroflex flap with contact by underside of tongue
- Dubious distinction... redundant with place of articulation flap = retroflex tap or tap = alveolar flap

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Approximants

- Old friends [w, j]
 - Note w is not in main chart as it involves double articulation labial velar
- New creatures
 - [ɻ] retroflex approximant
 - [ɻ^w] really what N.A. English ‘r’ really is
 - [ɰ] velar approximant (Turkish) like unrounded [w]
- Note also rounded approximants
 - [w] rounded velar == [ɰ^w]
 - [ɥ] rounded palatal == [j^w]

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Raising and lowering: approximants <==> fricatives

- Raised diacritic [̥] can be used to make ‘extra’ fricatives from approximants
 - [ɹ̥] raised alveolar approximant == ‘fricative r’
- Lowered diacritic [̞] can be used to make ‘extra’ approximants from fricatives
 - [β̞] lowered voiced bilabial fricative == bilabial approximant

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Secondary manner?

- Nasalization of vowels, fricatives and approximants can be thought of a secondary manner
- Raised tilde above symbol
 - [õ̃]

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Secondary place articulations

- Secondary place diacritics
 - Raised [j] palatalized [dʲ]
 - Palatalized alveolars very similar to palatals
[adʲa] [aʲa] [anʲa] [aʲn]
 - Raised [w] labialized [dʷ]
 - (perhaps sometimes labial-velarized?)
 - Raised [ɯ] velarized [dɯ̠]
 - Raised [ʕ] pharyngealized [dʕ]
 - Alternate [̤] through symbol **velarized** or **pharyngealized** as with dark [ɫ]

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Fricatives IPA EXTRA SYMBOLS

Graphic unavailable
See “Other Symbols” table in Main IPA Table
Rogers Appendix

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Extra varieties ejectives and clicks

- Ejectives usually voiceless [p' t' k']
 - Some languages may have partly voiced versions [b' d' g'] etc.
- Implosives usually voiced, but voiceless are theoretically possible. Probably best to use devoicing diacritic [ɓ̥]
- Clicks
 - Can be voiced (ǀ with tie bar)
 - Can be nasalized (ǁ with tie bar)