

Korean consonants, IPA

	Bilabial		Alveolar		Retro-flex		Alveolo-palatal		Velar		Glottal	
Plosive	p	[b]	t	[d]					k	[g]		
Aspirated plosive	p ^h		t ^h						k ^h			
Affricate			[t͡s]	[d͡z]			[t͡ɕ]	[d͡ʒ]				
Aspirated affricate			[t͡s ^h]				[t͡ɕ ^h]					
Fricative	[ɸ]	[β]	s				[ɕ], [ç]	[ʝ]	[x]	[ɣ]	h	[ɦ]
Aspirated fricative			s ^h				[ɕ ^h]					
Nasal		m		n				[ɲ]		ŋ		
Tap				[ɾ]		[ɽ]						
Approximant		w						j		ɰ		
Lateral approximant				l		[ɭ]		[ɭ]				

- Where symbols appear in pairs, the one to the right represents a voiced consonant.
- Where symbols appear singly, they are placed to the left within their column if they represent a voiceless consonant, and to the right if they represent voiced.
- Symbols enclosed in brackets represent non-phonemic consonants.
- Blacked-out cells indicate phones judged to be impossible.
- The non-phonemic bilabial, palatal, velar, and glottal fricatives are all allophones of /h/.
- All taps and lateral approximants are allophones of /l/.
- The alveolo-palatal column contains two palatal phones: [ç] and [j].
- The non-phonemic alveolo-palatal fricatives are allophones of the corresponding alveolar fricatives occurring before front vowels.

- The aspirated plosive [p^h] corresponds to two phonemes, a “lax” one with a VOT of 20-50 ms, and one with a VOT of 80 ms or more. Similarly for [t^h,k^h], and the affricate [t͡ɕ^h].
- The plosive [p] corresponds to a single “tense” phoneme, with VOT of less than 20 ms. Similarly for [t,k], and affricate [t͡ɕ].
- The aspirated fricative [s^h] corresponds only to one phoneme, a “lax” one with a VOT of 20-50 ms.

- The non-phonemic alveolar affricates are allophones of the corresponding alveolo-palatal affricates occurring before back vowels.
- The voiced phones [b,d,g,d͡z] are allophones of the lax /p^h,t^h,k^h,t͡ɕ^h/.



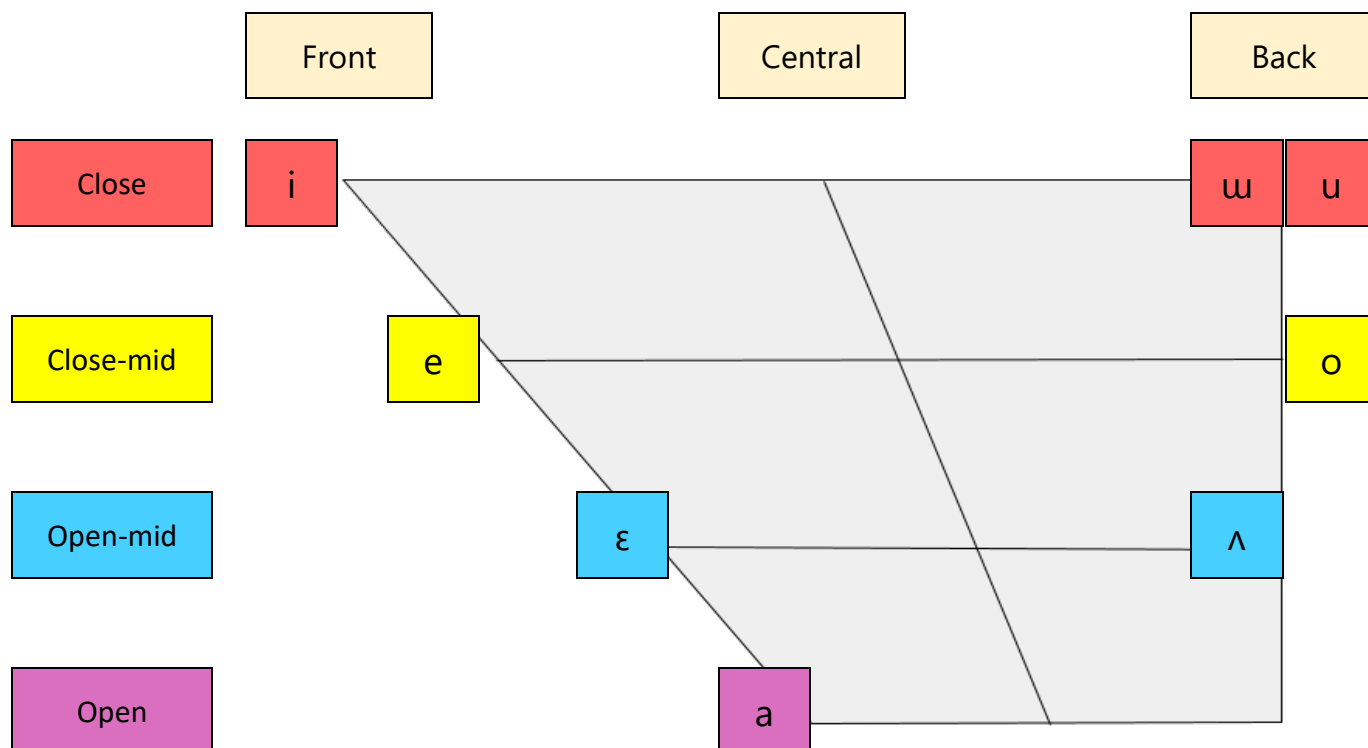
Korean consonants, Hangeul alphabet

	Bilabial		Alveolar		Retro-flex		Alveolo-palatal		Velar		Glottal	
Plosive	ㅂ	(ㅃ)	ㄸ	(ㄹ)					ㄱ	(ㅋ)		
Aspirated plosive	ㅍ, ㅂ		ㅌ, ㄸ						ㅋ, ㄱ			
Affricate			(ㄸ)	(ㄹ)			ㅈ	(ㅉ)				
Aspirated affricate			(ㅈ), (ㅉ)				ㅊ, ㅈ					
Fricative	(ㅎ)	(ㅎ)	ㄴ				(ㄴ), (ㅎ)	(ㅎ)	(ㅎ)	(ㅎ)	ㅎ	(ㅎ)
Aspirated fricative			ㄴ				(ㄴ)					
Nasal		ㅁ		ㄴ				(ㄴ)		ㅇ		
Tap				(ㄹ)		(ㄹ)						
Approximant		ㅇ						ㅇ		ㅇ		
Lateral approximant				ㄴ		(ㄹ)		(ㄹ)				

- Symbols enclosed in parentheses represent non-phonemic consonants.
- In the rows for aspirated plosives and aspirated affricates, the two characters represent the super-aspirated phonemes with VOT of 80 ms or more, and

the lightly aspirated “lax” phones with VOT of 40-50 ms. Only one audio clip is provided for each populated cell; these audio clips have VOT of about 80 ms.

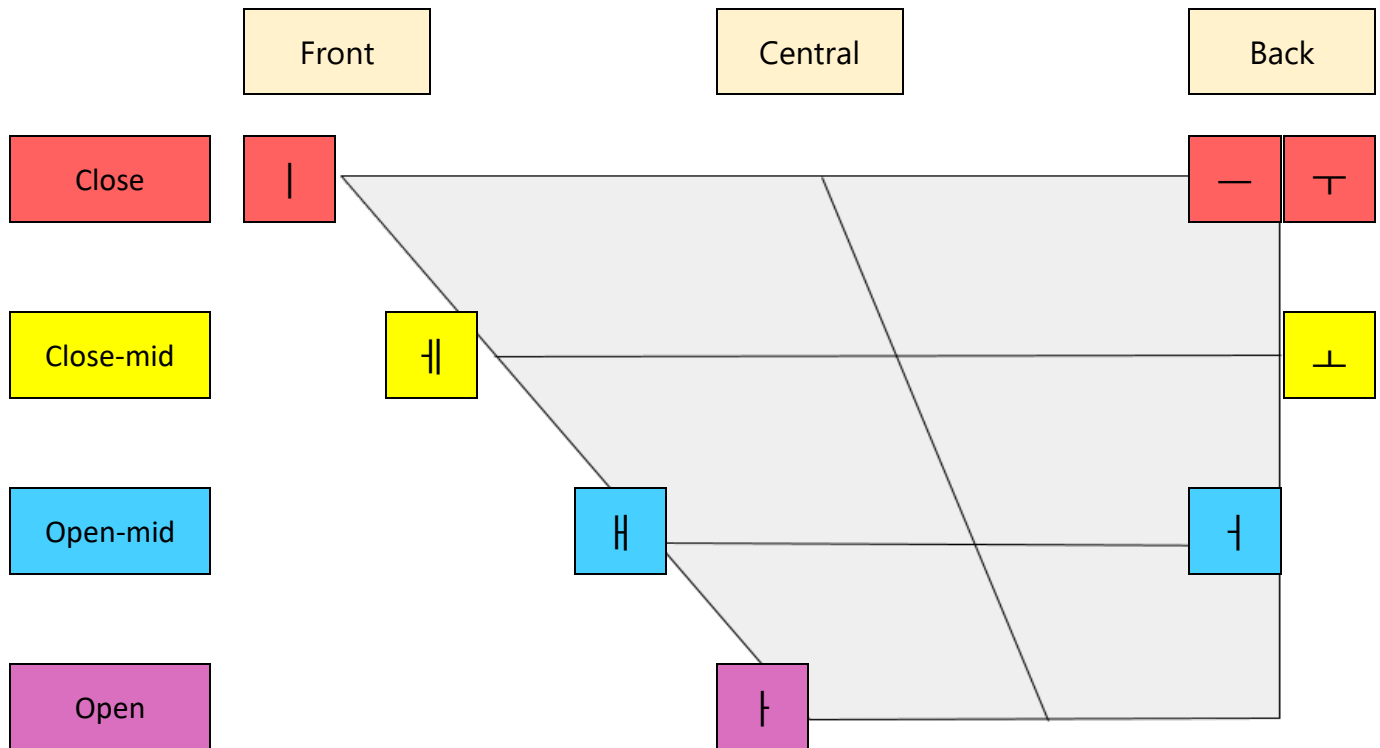
Korean vowels, IPA



- Where symbols appear in pairs, the one to the right represents a rounded vowel.
- Of the symbols appearing singly, all are unrounded except for [o].
- Symbols appearing singly are unrounded.



Korean vowels, Hangul alphabet



- Where symbols appear in pairs, the one to the right represents a rounded vowel.
- Symbols appearing singly are unrounded.



References

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