

Hindi consonants, IPA

	Bilabial		Labio-dental		Denti-alveolar		Retroflex		Palatal		Velar		Glottal	
Plosive	p	b			ʈ	ɖ	ʈ	ɖ			k	g		
Aspirated plosive	p ^h	b ^h			ʈ ^h	ɖ ^h	ʈ ^h	ɖ ^h			k ^h	g ^h		
Affricate									tʃ	dʒ				
Aspirated affricate									tʃ ^h	dʒ ^h				
Fricative	[ɸ]		f	[v]	s	z	[ʂ]		ʃ		x	ɣ	[h]	ɦ
Nasal		m				n		[ɳ]		[ɲ]		[ŋ]		
Tap						ɾ		[ɽ]						
Aspirated tap						[ɾ ^h]		[ɽ ^h]						
Approximant		[w]		ʋ		l				j				

- 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 approximant row includes one lateral approximant: /l/.
- All taps and aspirated taps are of the /r/ “R” phoneme. The choice of /r/ to represent the phoneme was arbitrary.
- The palatal column is a merging of post-alveolar and palatal. The palatal phones are the nasal and the approximant.



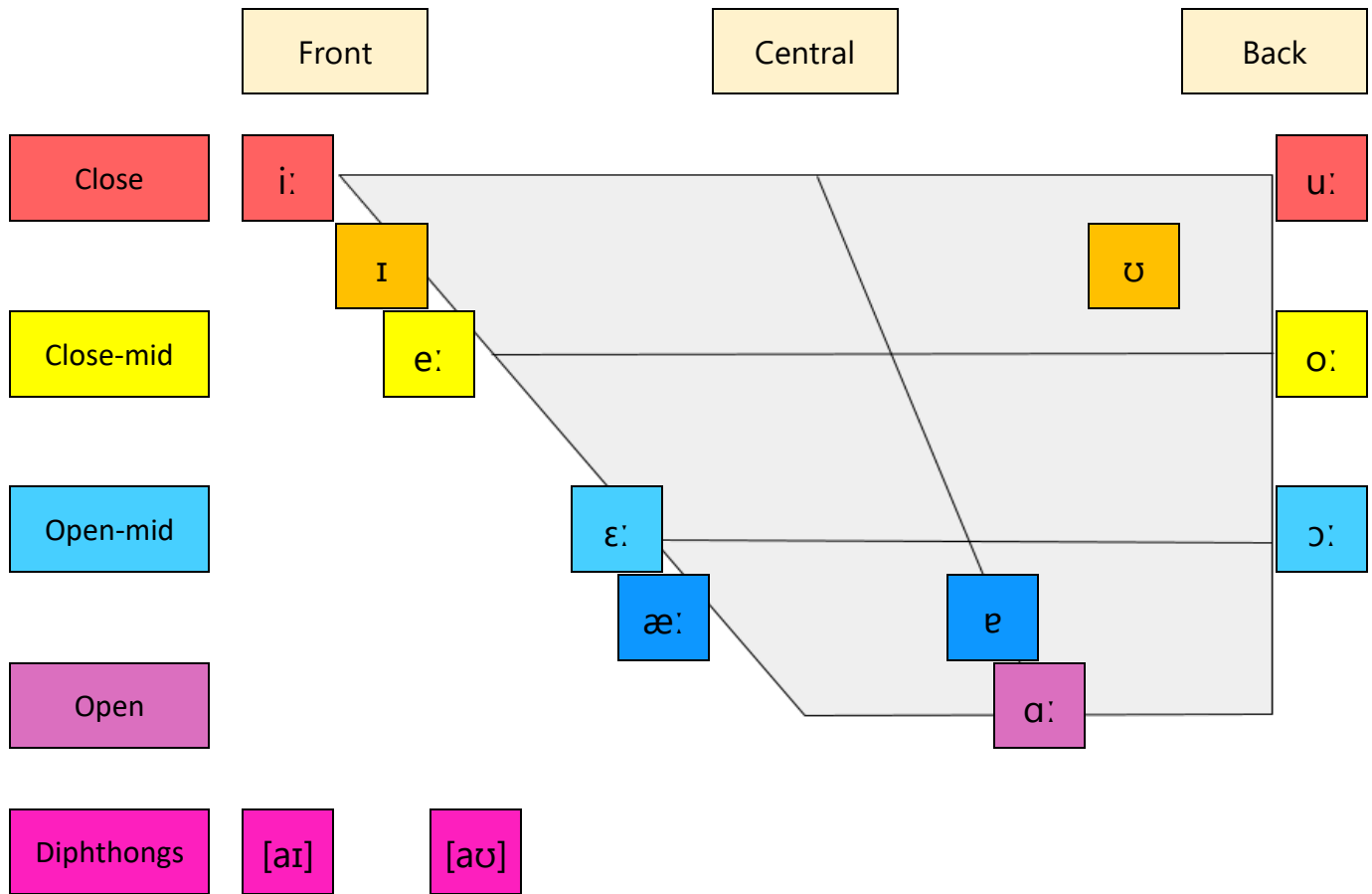
Hindi consonants, Devanagari script

	Bilabial		Labio-dental		Denti-alveolar		Retro-flex		Palatal		Velar		Glottal	
Plosive	प	ब			त	द	ट	ड			क	ग		
Aspirated plosive	फ	भ			थ	ध	ठ	ढ			ख	घ		
Affricate									च	ज				
Aspirated affricate									छ	झ				
Fricative	(फ)		फ़	(व)	स	ज़	ष		श		ख़	ग़	(ह)	ह
Nasal		म				न		(ण)		(ञ)		(ङ)		
Tap						र		(ड़)						
Aspirated tap						(र)		(ढ़)						
Approximant		(व)		व		ल				य				

- Symbols enclosed in parentheses represent non-phonemic consonants.



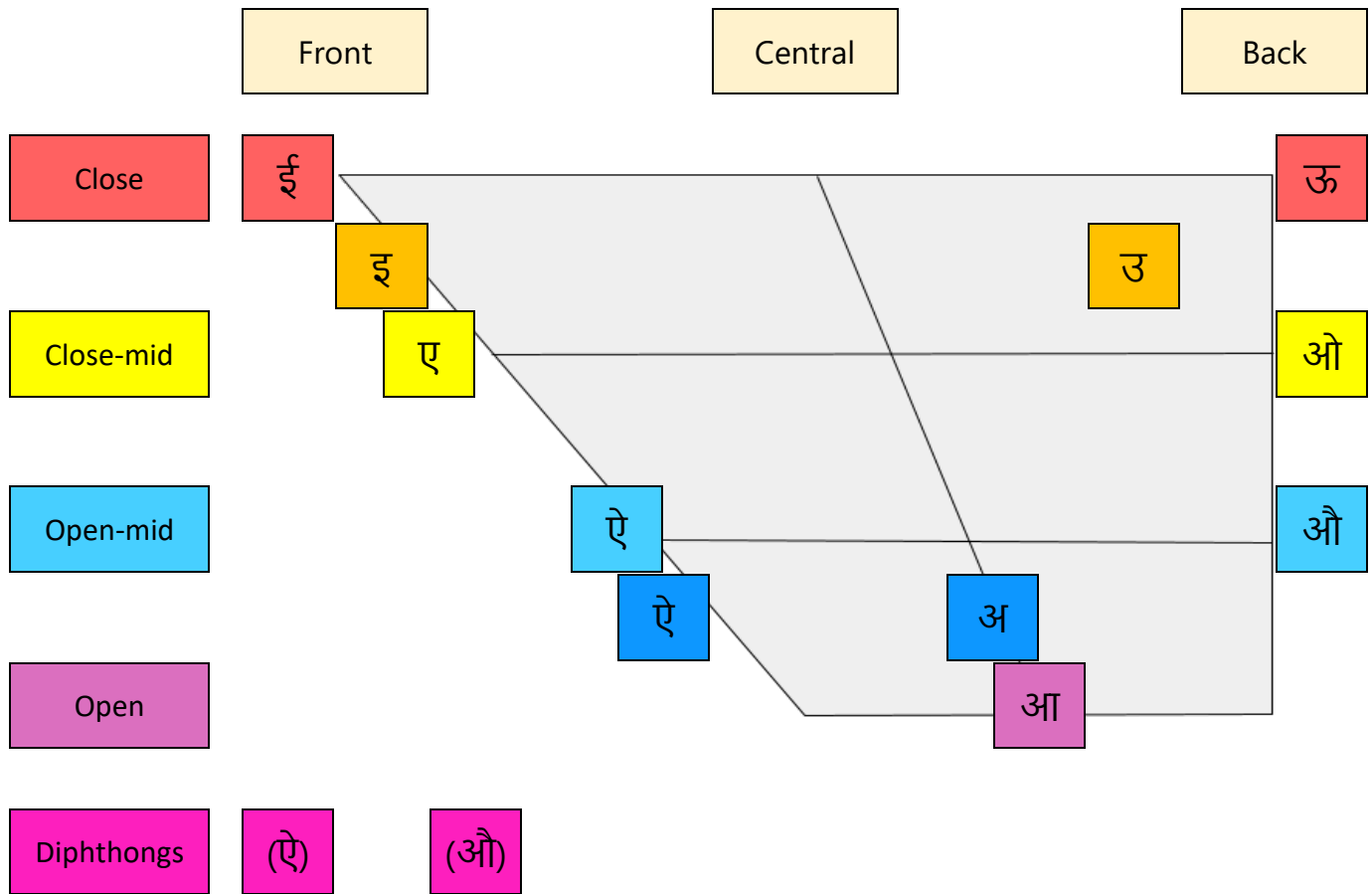
Hindi vowels, IPA



- Symbols enclosed in brackets represent non-phonemic vowels. Specifically, the diphthongs [aɪ] and [aʊ] are realizations of /ɛ:/ and /o:/ in some dialects.
- All the back vowels are rounded; front and central vowels are not.
- In Hindi, vowel length is not phonemic; however, short [ɔ] does occur as an allophone of /ʊ/, and short [ɛ] as an allophone of /e/.
- The central vowel /e/ is usually transcribed in IPA as /ə/, but since my sources tell me it's more open than [ə], I'm going with /e/.
- Instead of the front vowel /a/ or the back vowel /ɑ/, Hindi has a low central vowel, represented by either of these symbols. The choice of /ɑ/ here is arbitrary.



Hindi vowels, Devanagari script



- Symbols enclosed in parentheses represent non-phonemic vowels. Specifically, the diphthongs (ऐ) [aɪ] and (औ) [aʊ] are realizations of /ɛ:/ and /ɔ:/ in some dialects.
- All the back vowels are rounded; front and central vowels are not.



References

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