

VOWEL DISTRIBUTION IN HRÊ

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1. The Hrê¹ vowel system consists of seven vowels with the tense register and six vowels with the lax register;
2. There are also four diphthongs which may occur with tense or lax register:²

Tense Vowels
and Diphthongs

i u ia ua
e o εa ɔa
ε a ɔ

Lax Vowels
and Diphthongs

ᵚi ᵚu ᵚia ᵚua
ᵚe ᵚo εa ɔa
ε a ɔ

Of the tense vowels, /a/ is low central unrounded, and all the others are front unrounded or back rounded. /i/ and /u/ are high vowels, /e/ and /o/ are high-mid vowels, and /ε/ and /ɔ/ vary from mid to low vowels depending on the following phoneme. In environments where /e/ and /o/ may not occur, /ε/ and /ɔ/ are mid or low-mid vowels; where /e/ and /o/ may occur, /ε/ and /ɔ/ are generally low vowels. All diphthongs are falling diphthongs; the off-glide after /i/ and /u/ is mid central, and the off-glide after /ε/ and /ɔ/ is low central. Of the lax vowels, all but /a/ and /ɔ/ have points of articulation closely corresponding to their tense counterparts; /a/ is higher than /a/ and /ɔ/ is higher and more central than /ɔ/.

Hrê words are made up of an obligatory stressed main syllable and an optional unstressed preliminary syllable. The register contrast occurs only with vowels of the main syllable.

Tense register vowels in Hrê are said with the faucal pillars in the throat somewhat tense and the tongue root slightly backed; they sound clear and bright. Lax register vowels are said with relatively relaxed faucal pillars and with the tongue root fronted; they sound deep and muffled and often breathy.

The register contrasts are demonstrated by the following:

ti	'to'	ti	'hand'
tem	'to be on time'	tem	'to throw'
ten	'tail'	ten	'to expose to the sun'
tam	'more'	tam	'to set a fishtrap'
tɔh	'small'	tɔh	'bean'
toh	'breast'		
tun	'to waste'	tun	'a kind of tree'
wia	'to avoid'	wia	'to be able'
čɛa	'a wild cat'	čɛa	'to dig'
čua	'to stoop'	čua	'pig'
sɔa	'cast-off snake skin'	sɔa	'fuzz'

The register contrast occurs after all stops whether voiceless, voiced or implosive. The register contrast occurs in all possible combinations with /ʔ/ and /h/, except that no word has been found having a tense vowel with /h/ both before and after it.³

The register contrast occurs before all final consonants. However, there are some asymmetries in the occurrence of particular vowels with register and final consonants. See Table I. These asymmetries reveal pressures within the vowel system.

Lax back vowels show only a two-way contrast in vowel aperture in all environments; the vowels are /u/ and /ɔ/ (there is no /ɔ̄/), and /ɔ/ is phonetically higher and more central than tense register /ɔ/. Front vowels with lax register likewise show only a two-way /i/ vs. /ɛ/ contrast in vowel aperture, except before /p t m n w/ where a three-way /i/ vs. /ɛ/ vs. /è/ contrast appears.

Tense back vowels show a clear three-way contrast /u/ vs. /o/ vs. /ɔ/ only in open syllables and before /č y yh y?/. In other environments where there is only a two-way contrast, the higher vowel is phonetically like /o/ (of the three-way contrast) before /ʔ h p m ŋ/ and like /u/ before /t, n/. The phonetic height of the higher vowel is not only quite different in these different environments, it is also quite stable. Thus the words /ton/ 'metal sheeting' and /duŋ/ 'correct', which have been recently borrowed from Vietnamese, fit easily into 'holes' in the Hrê system without disturbing other relationships; and by introducing /-on/ and /-uŋ/ they mark the beginning of three-way contrasts before /n/ and /ŋ/.

It may be noticed that the back vowels of tense

and lax register before /p/, for example, all differ in aperture. They could be rearranged in order of descending height as follows: /up/, /op/, /ɔp/, /ɒp/. It is only the overall pattern of the language that determines that register is a significant contrast here rather than a four-way contrast in height. The back vowels before /t/ could not be similarly rearranged, because /ut/ and /ʊt/ have the same degree of aperture.

Tense front vowels show three-way contrasts in several more environments: in open syllables and before /? p t m n w w?/. They show two-way contrasts before /h ɕ ɲ/. Here again the higher vowel before /h/ matches the /e/ of other environments, and the high vowel before /ɕ ɲ/ matches the /i/ of other environments.

All diphthongs with both registers may occur in open syllables and before /h k ŋ/, and the high diphthongs with both registers may also occur before /?/. Before velars the diphthongs seem out of place in the pattern. There are corresponding holes in the simple vowel pattern before velars, especially for front vowels. But, without going here into the details of the argument, it seems to me that a solution that treats the glided vowels before velars as diphthongs, rather than as simple vowels, more accurately represents the present state of the language. Even with this being granted, it is clear that the change-over from simple vowels to diphthongs before velars is a very recent one. The result amounts to an extension of the environment in which diphthongs may occur, and perhaps the establishment of a pattern for further extension.

If there should be further extension of the distribution of diphthongs in Hrê, Vietnamese influence is sure to encourage it. As noted above, Vietnamese loanwords with /-uŋ/, as contrasting with /-uŋŋ/, are helping to establish the contrast of /-uŋ/ with /-uŋŋ/ in Hre. Vietnamese (in Quang Ngai province) also has contrasts of /-uk/ with /-uak/, /-um/ with /-uam/, /-im/ with /-iam/, /-ip/ with /-iap/, (it also has /-iak/ and /-iaŋ/ but no contrasting combinations with simple vowels).

It may be added here that Vietnamese words that have been borrowed have become standardized with either tense of lax register in Hrê, although Vietnamese makes no such distinction. Examples, with the Hrê form preceding the Vietnamese:⁴

H. /ŋi/, V. /ŋĩ/ 'to ponder', H. /mi/, V. /mĩ/ 'American',
 H. /tin/, V. /tĩn/ 'to inform',
 H. /tim/, V. /tĩm/ 'to give an injection',
 H. /m̄ay?/, V. /m̄áy/ 'machine', H. /j̄ây?/,
 V. /ȳay/ 'paper', H. /kwan/, V. /k̄wĩŋ/ 'district',
 H. /kwan/, V. /k̄wĩŋ/ 'trousers', H. /ŋoŋ/,
 V. /ŋaŋ/ 'thousand', H. /ŋoŋ/, V. /ŋ̄awŋ/ 'goose',
 H. /dun/, V. /d̄oŋ/ 'fort', H. /b̄uŋ/, V. /b̄uŋ/ 'mud',
 H. /khuan/, V. /xūaŋ/ 'mould', H. /th̄uak/,
 V. /t̄h̄uak/ 'medicine'.

The register contrast, then, is highly significant in Hrê vowels, and it comes into play in almost every possible environment. Changes within the language, such as the addition of an extra contrast in vowel height in some environments, and the extension of the distribution of diphthongs, have been and are being made within the framework of the register contrast, and, if anything, tend to increase its functional load rather than erode it. Additions to the language from Vietnamese are altered so as to conform to this obligatory contrast.

i	i?	-	ip	it	ič	-	im	in	iñ	iw	iw?	-	-	ia	ia?	iah	iak	iaŋ		
e	e?	eh	ep	et	-	-	em	en	ẽ	ew	ew?	-	-	-	-	-	-	-		
ɛ	ɛ?	ɛh	ɛp	ɛt	ɛč	-	ɛm	ɛn	ɛñ	ɛw	ɛw?	-	-	ɛr	ɛa	ɛah	ɛak	ɛaŋ		
ɨ	ɨ?	ɨh	ɨp	ɨt	ɨč	-	ɨm	ɨn	ɨñ	ɨw	ɨw?	-	-	ɨa	ɨa?	ɨah	ɨak	ɨaŋ		
è	-	-	èp	èt	-	-	èm	èn	-	èw	-	-	-	-	-	-	-	-		
è	è?	èh	èp	èt	èč	-	èm	èn	èñ	èw	èw?	-	-	èr	èa	èah	èak	èaŋ		
a	a?	ah	ap	at	ač	-	am	an	añ	aŋ	aw	aw?	aɣ	aɣ?	aɣh	ar	-	-		
à	à?	-	àp	àt	àč	-	àm	àn	àn	àŋ	àw	àw?	ày	ày?	àyh	àr	-	-		
u	-	-	-	ut	uç	-	-	un	un	-	-	-	uy	uy?	uyh	ua	ua?	uah	uak	uaŋ
o	o?	oh	op	-	oč	-	om	-	-	oŋ	-	-	oy	oy?	oyh	-	-	-	-	-
ɔ	ɔ?	ɔh	ɔp	ɔt	ɔč	-	ɔm	ɔn	ɔñ	ɔŋ	ɔw	ɔw?	ɔɣ	ɔɣ?	ɔɣh	ɔa	ɔa?	ɔah	ɔak	ɔaŋ
ù	ù?	ùh	ùp	ùt	ùč	-	ùm	ùn	ùn	-	-	-	ùy	ùy?	ùyh	ùa	ùa?	ùah	ùak	ùaŋ
ɔ̀	ɔ̀?	ɔ̀h	ɔ̀p	ɔ̀t	ɔ̀č	-	ɔ̀m	ɔ̀n	ɔ̀ñ	ɔ̀ŋ	-	-	ɔ̀y	ɔ̀y?	ɔ̀yh	ɔ̀a	ɔ̀a?	ɔ̀ah	ɔ̀ak	ɔ̀aŋ

Table I. Vowel-plus-consonant combinations in Hre.

FOOTNOTES

1. The Hrê language is spoken in Quảng-Ngãi and northern Bình-Dịnh provinces in central Việt-Nam. The dialect here described is that of the Minh-Long district of Quảng-Ngãi province. The description is based on nine months of field work during 1960-61.

There are three published works on the Hrê language: (1) Trinquet, La post administratif de Lang-Ri (Quảng-Ngãi), *Revue Indochinoise* 346-82 (1908), (vocabulary 376-81). (2) Trinquet, Essai de Vocabulaire Français-Moi-Kare, *Revue Indochinois* 309-17, 417-27 (1912). Trinquet's two vocabularies are of the Son-Ha dialect of Hrê in northern Quảng-Ngãi province. The second is an expansion of the first. In both works the vowels are marked as long, short, or intermediate. I find no correlation between the length contrasts that he marked and the register contrast that I am presenting here. (3) *Hrê, Học tiếng thượng* (Huế, 1960). This is a collection of conversational exercises designed to teach Hrê to Vietnamese officials stationed in the Hrê area. Apparently, informants of several different dialects were used in preparing the lessons. A vowel length contrast is marked, but only occasionally.

2. In the Son-Ha dialect of Hrê the vowel system consists of seven vowels with the tense register, five vowels with the lax register, apparently only two centering diphthongs which may be tense or lax, and one tense fronting diphthong:

i	u	ia	ua	ì	ù	ìa	ùà
e	o			è	ò		
ɛ	a	ɔ	ue	ɛ	à	ɔ	

Of the two low central tense vowels, /a/ is front-central unrounded and /a/ is back-central unrounded. /a/ contrasts with /a/ only before dentals. /e/ occurs only in open syllables and before /ʔ/ and /h/.

3. Lists of forms are available to demonstrate these and later distributional statements in this paper; the details are omitted here as being of more restricted interest.
4. In the phonemicized Vietnamese forms / Λ / is a short mid vowel and /a/ is a long low vowel. The diacritics are the standard Vietnamese tone signs.