

## GLIDES IN SHERPA

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### I. THE PROBLEM

The low front and back vowels in Sherpa have been a problem in the phonemic interpretation.

Kent Gordon in 'Sherpa Phonemic Summary' 1969, introduced six vowels /i, e, a, ɔ, o, u/ and the co-vowels /y/ and /w/. In combining /y/ and /w/ with the two central vowels /a/ and /ɔ/, which he labelled assimilating, the vowels were grouped as follows:

/ya/	[a·]	[a]	[e·]	[e <sup>ə</sup> ]
/yɔ/	[ɛ]	[ɛ <sup>ʔ</sup> ]		
/wa/	[ɔ·]	[ɔ <sup>ə</sup> ]	[ɔ·]	
/wɔ/	[ɔ]			

This solution, however, created some problems in that palatalisation of the initial consonant and the co-vowel /y/ preceding /a/ and /ɔ/ in some instances were not easily readable.<sup>1</sup>

In order to overcome this problem an eight vowel system was introduced tentatively. The two additional phonemes were: /ɤ/ and /ɔ/.<sup>2</sup>

Further research resulted in a third solution consisting of six vowels without co-vowels.<sup>3</sup> This, however, was possible only by interpreting the low back vowel, for instance, by a trigraph: [<sup>w</sup>ɔ<sup>ə</sup>] /owa/, as in /'lɔwa/ 'liver'.<sup>4</sup>

When this solution was set forth relatively few examples containing this vowel had been found. Since then we concentrated our work on the verbal system of Sherpa and a number of verb stems containing the low back vowel appeared. Most verbs in Sherpa are monosyllabic. Therefore representing the vowel slot of a monosyllabic verb stem by a trigraph

tends to obscure the structure of the verbal system. For that reason again an alternative was sought.

## II. A PROPOSAL

Here we suggest a solution proposing the six vowel phonemes /i, e, a, ɔ, u/ and co-vowels /y/ and /w/. The co-vowels, however, will not co-occur with the central vowels /a/ and /ɔ/, as was suggested earlier, but with the mid front and mid back vowels /e/ and /o/.

The two co-vowels then, will *lower* the mid front and mid back vowels:

/ye/ [ɛ̣] [ə̣]

/wo/ [ɔ̣] [ɒ̣]

In order to account for the variants of /y/ and /w/ the following environments are relevant.

- After /h/ and before /u/ and /o/
- Elsewhere after /h/
- Word-initial before /u/ and /o/
- Intervocalic, adjacent to /i/ and /u/

	'norm'	a	b	c	d
/y/	1. [y]	2. [ÿ]	3. [Y]	4. [W]	5. [i]
/w/	6. [w]				7. [u]

The numbers of the chart above refer to the examples that follow.

- [y] voiced high front unrounded glide:

/'yàku/ [yàku] 'brother-in-law'

/'gyàmu/ [gÿmu] 'fat'

/'gyàp/ [gÿp] 'back side'

- [ÿ] voiceless high front rounded glide:

/'rhyú/ [ʃÿu] 'monkey'

- [Y] voiceless high front unrounded glide:

/'khyén/ [kYən] 'having frozen'

- [W] voiced high front rounded glide:

/'yu/ [Wu] 'village'

- [i] voiced high front unrounded vocoid:

/'péyi/ [pe<sup>1</sup>i] '(I) opened (it)'

6. [w] voiced high back rounded glide:

/'wòk/ [wɔ̃k̚] 'under'  
/'kìwi/ [k̚iwi] 'do (Present/Future disjunct)'

7. [u] voiced high back closed rounded vocoid:

/'kìwu/ [k̚i̯u / k̚i̯u̯] 'did (you) do (it)?'

The examples above show that the variants of /e/ and /o/ following the co-vowels /y/ and /w/ respectively are lengthened.

There are a few cases of /ye/ that do not have lengthened variants, but rather a short one which is followed by an optional glottal stop.

/'gyè/ [g<sup>y</sup>ɛʔ] 'eight'  
/'wyè/ [wəʔ] 'there is'  
/'myè/ [mɛʔ] 'there isn't'

The variants of /a/ by definition are inherently longer than variants of /a/ following a postconsonantal /y/. (See example 1 above.)

The stops p, t, d, g tend to be optionally palatalised preceding front vowels, especially /e/. This type of palatalisation, however, is subphonemic and therefore not reflected in the phonemic orthography. Consider the following examples:

/'gèken/ [g<sup>y</sup>ɛ̃kɛŋ / gɛ̃kɛŋ] 'teacher'  
/'dyè/ [d<sup>y</sup>ɛ̃ / dɛ̃] 'here'  
/'pyè/ [p<sup>y</sup>ɛ̃ / pɛ̃] 'rat'  
/'pé/ [p<sup>y</sup>e^ / pe^] 'open'  
/'tyè/ [t<sup>y</sup>ɛ̃ / tɛ̃] 'there'

A single /y/ following /n/ always indicates palatalisation of /n/. (Formerly we had phonemicised [ɳ] by /ngy/ which will be /ny/ henceforth.) If two /y/ occur postconsonantly the first one will indicate palatalisation of the consonant, the second acts as a co-vowel. Thereby we differentiate the following pair:

/'nyè/ [ɳɛ̃] 'my'  
/'nyyékyok/ [ɳə<sup>y</sup>ɛ̃k̚ɔ̃k̚] 'pot, vessel'

A single /y/ preceding /e/ after consonants other than /n/ may be regarded a co-vowel. If two /y/ occur the first one will signal palatalisation and the second one acts as a co-vowel.

/'lyèmu/ [l̥ə̃·mũ] 'nice'  
/'kyéplaa/ [k̚ə̃<sup>y</sup>p̚la] 'for giving birth'  
/'khyyéni/ [k̚ə̃<sup>y</sup>ə̃ni] 'having frozen'

## III. INITIAL CLUSTERING WITH /y/ AND /w/

The chart below demonstrates syllable initial clustering with /y/.

1. py	2. ty	3. ɥy	4. cy		5. ky
				6. ʒhy	7. khy
	8. dy			9. ʝy	10. gy
	11. sy			12. ʒy	
				13. ny	
	14. ly				
	15. lhy				
	16. ry				
	17. rhy				
18. wy					

The numbers of the chart above refer to the examples below.

1. /'pyè/	[pʰ / pʰ]	'rat'
2. /"tyè/	[tʰ / tʰ]	'there'
3. /"ɥyèp/	[ɥʰ pʰ]	'to ask'
4. /'cyép/	[tsʰ pʰ]	'to play'
5. /'kyép/	[kʰ pʰ]	'to give birth'
6. /"ʒhyè/	[tʒʰ]	'great (man)'
7. /"khyyéni/	[kʰ ɲi]	'having frozen'
8. /'dyè/	[dʰ / dʰ]	'here'
9. /'ʝyèp/	[ʝʰ pʰ]	'to change'
10. /'gyèmu/	[gʰ mu]	'reddish-brown colour'
11. /'syè/	[sʰ]	'mane'
12. /"zyép/	[zʰ pʰ]	'to die'
13. /'nyè/	[ɲʰ]	'my'
14. /'lyèmu/	[lʰ mu]	'nioe'
15. /'lhyé/	[lʰ]	'navel'
16. /"ryù/	[ɾʰ y]	'puppy'
17. /"rhyú/	[ɾʰ u]	'monkey'
18. /"wyè/	[wʰ]	'there is'

The following chart gives syllable initial clustering with /w/.