

CHAPTER 3

SEGMENTAL PHONOLOGY

3.0 Introduction

This section describes the segmental phonology of Syriem. According to *A dictionary of Linguistics and Phonetics* (Crystal 2003:408), “Segmental phonology analyzes the speech into distinctive units, or phonemes, which have a fairly direct correspondence with phonetic segments.” This section is divided into two main sections: consonants and vowels, including their variations.

3.1 Consonants

There are twenty-six consonant phonemes in Syriem representing seven distinctive places of articulation and six distinctive manners of articulation. Syriem has four series of plosives, three series fricatives and nasals, two glides and one affricate, lateral and trill. Syriem has the retroflex /ʈ/. The consonant phonemes are listed in Table 1 below according to place and manner of articulation. Phonemic symbols are presented in plain face; orthographic symbols used in the text and in language examples are given in italic face, in parentheses.

	BILABIAL	LABIO-DENTAL	ALVEOLAR	RETROFL EX	PALATAL	VELAR	GLOTTAL
Plosive vl.	p (<i>p</i>)		t (<i>t</i>)	ʈ		k (<i>k</i>)	ʔ (<i>q</i>)
vl. asp	p ^h (<i>ph</i>)		t ^h (<i>th</i>)			k ^h (<i>kh</i>)	
vd.	b		d				
Affricate			ts				
Fricative vl.		v (<i>v</i>)	s				h
vd.			z				
Nasal vl.	m̥ (<i>hm</i>)		n̥ (<i>hn</i>)				
vd.	m		n			ŋ (<i>ng</i>)	
Lateral vl.			l̥ (<i>hl</i>)				
vd.			l				
Trill vl.			r̥ (<i>hr</i>)				
vd.			r				
Approximant	w				j		

Table 1: Consonant phonemes

3.1.1 Stops

The stops series occurs at five distinctive places of articulation: bilabial, alveolar, retroflex, velar and glottal. The voiceless unaspirated and aspirated stops are maintained only in bilabial, alveolar and velar places of articulation. Except the retroflex and glottal stop, the rests of the stops series have a contrast between aspirated and unaspirated phonemes.

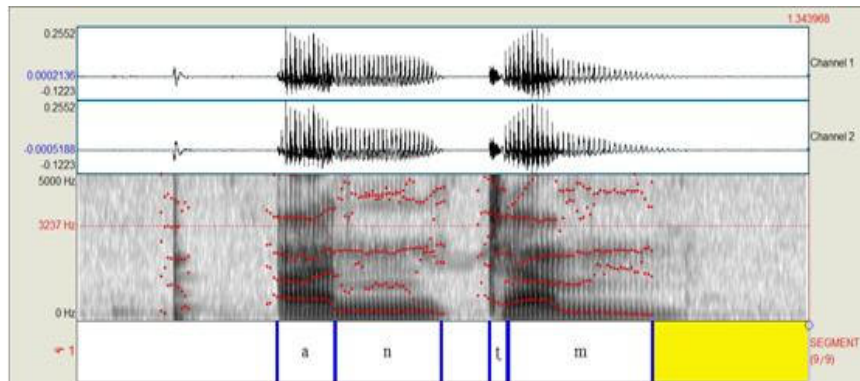


Figure 8: Spectrographic image of a retroflex sound

The glottal stop/?/ is analysed as a phoneme even though it is restricted to occurring as a final element of a word.

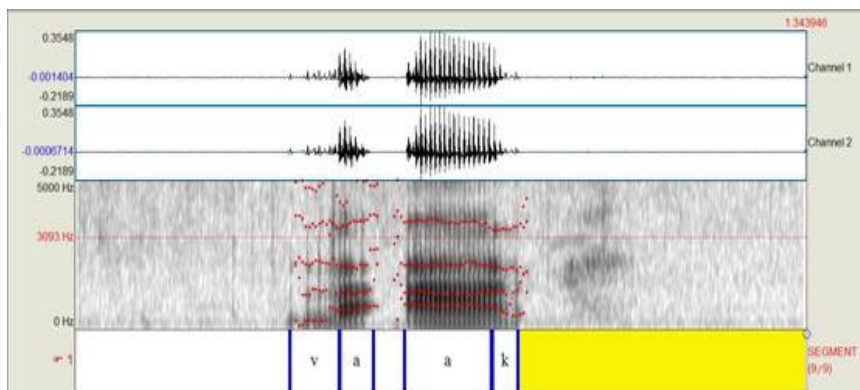


Figure 9: Spectrographic image of a velar sound

The contrasts between the voiceless unaspirated stops and voiceless aspirated stops are given below with minimal and near minimal pairs:

Plosives:

/p-/ pàam ‘valuable’

/p ^h -/	<i>p^hàam</i>	‘greedy’
/b-/	<i>bàan</i>	‘arm’
/t-/	<i>tàaŋ</i>	‘block
/t ^h -/	<i>t^hâaŋ</i>	‘snare’
/d-/	<i>dàan</i>	‘law’
/t-/	<i>tàam</i>	‘famine’
/k-/	<i>kàaŋ</i>	‘burn’
/k ^h -/	<i>khàam</i>	‘cliff’
/p-/	<i>pâay ro</i>	‘carry’
/p ^h -/	<i>p^hâay</i>	‘paddy field’
/b-/	<i>bâay</i>	‘lame person’
/t-/	<i>tàm</i>	‘many’
/t ^h -/	<i>t^hèm</i>	‘touch’
/d-/	<i>dèm ro</i>	‘condemn/oppose’
/k-/	<i>kùm</i>	‘burn’
/k ^h -/	<i>k^hùm</i>	‘to cover something’

3.1.2 Fricatives and affricate

Syriem has one affricate and five fricatives. The alveolar affricate is analyzed as forming a separate series from the stops, because unlike the stops, affricate does not occur in coda position. In the case of this affricate, the phoneme /ts/ occurs as a unit even though these two phonemes /t/ and /s/ occur as separate phonemes elsewhere. The fricatives on the other hand demonstrate three distinctive places of articulation, viz. labio-dental, alveolar and glottal.

Voicing in fricative series is limited to labio-dental and alveolar fricatives. The voiced fricative /v/ lacks its voiceless counterpart /f/. Though the term ‘glottal fricative’ is somewhat misleadingly used as historical label, it is used in this paper to describe a voiceless segment that is unspecified for place of articulation and occurs only in onset position. In terms of occurrence too, the voiceless glottal fricative/h/ occurs relatively infrequently compared to other consonant phonemes. The contrast between fricatives with affricate in major syllable is illustrated below.

fricatives and affricate

/v-/	<i>vâa</i>	‘bird’
/s-/	<i>sâa</i>	‘meat, animal’
/z-/	<i>zâa</i>	‘hundred’
/ts-/	<i>tsâa</i>	‘request, ask’

/h-/ hâa ‘teeth’

3.1.3 Sonorants

Syriem has three nasals which occur in three places of articulations: labial, alveolar and velar places of articulations. The nasals occur initially and finally as onset and coda.

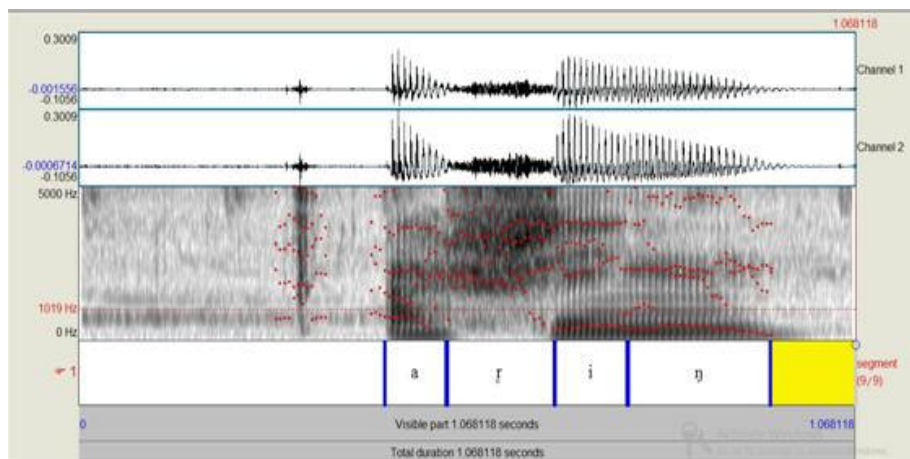


Figure 10: Spectrographic image of a voiceless trill sound

Minimal pairs that contrast the three nasals in onset and coda positions are given below:

Sonorants: voiced and voiceless

/m-/ mâay ‘pumpkin’ /ṃ-/ ṃâaj ‘face’

/n-/ nâay ‘child’ /ṅ-/ ṅâaj ‘pus’

/ŋ-/ ŋâay ‘to hear’

/l-/ lâay ‘middle’ /ɭ-/ ɭâa ‘wing’

/r-/ ràay ‘scold’ /r-/ rèy ‘axe’

Voiceless sonorants

/m-/ m̀àar ‘north’ m̀iîŋ ‘name’

/ŋ-/ ŋ̀àar ‘nose’ ŋ̀im ‘smell’ (v)

/l-/ l̀àa ‘month’ l̀im ‘happy, joy’

/r-/ r̀aal ‘thirsty’ r̀iŋ ‘green’

3.1.4 Consonants and allophonic variations

3.1.4.1 Plosives

/p/ is a voiceless unaspirated bilabial stop. It has two variants [p] and [p̚]. It is always realised as [p] syllable-initially, e.g. /puon/ ‘cloth’ again it is always realised as unreleased [p̚] in final position, e.g. [tsop̚] ‘to suck’

/ph/ is a voiceless aspirated bilabial stop. It is always realised as [ph] and occurs syllable-initially, e.g. /phuuy/ ‘to dry’. It is represented in the practical orthography by the digraph *ph*.

/b/ is a voiced bilabial stop. It is always realised as [b] and occurs syllable-initially, e.g. /baaŋ/ ‘wall’.

/t/ is a voiceless unaspirated alveolar stop. It is always realised as [t] and usually occurs syllable-initially, e.g. /tʊm/ ‘who’. It is always unreleased in final position, e.g. [moot̚] ‘banana’

/θ/ is a voiceless aspirated alveolar stop. It is always realised as [θ] and occurs syllable-initially, e.g. /θiː/ ‘to die’. It is represented in the practical orthography by the digraph th.

/d/ is a voiced alveolar stop. It is always realised as [d] and occurs syllable-initially, e.g. /daɪ/ ‘cold’.

/ɖ/ is a voiceless unaspirated retroflex. It is always realised as [ɖ] and occurs syllable-initially, e.g. /ɖam/ ‘many’.

/k/ is a voiceless unaspirated velar stop. It is usually realised as [k] and occurs syllable-initially, e.g. /kʊm/ ‘year’. It is always unreleased in final position, e.g. [vook̚] ‘pig’.

/kʰ/ is a voiceless aspirated velar stop. It is usually realised as [kʰ] and occurs syllable-initially, e.g. /kʰo/ ‘village’.

/ʔ/ is a voiceless glottal stop. It occurs syllable finally, e.g. /kiloʔ/ ‘vomit’.

3.1.4.2 Fricatives

/v/ is a voiced labio-dental fricative. It occurs in syllable-initial position. It is always realised as [v], e.g. /vaak/ ‘walk’.

/s/ is a voiceless alveolar fricative. It occurs in syllable-initial position and is realised as alveolar [s] e.g. /sum/ ‘money.’

/z/ is a voiced alveolar fricative. It occurs in syllable-initial position and is realised as alveolar [z] e.g. /zoon/ ‘to search.’

/h/ is a voiceless glottal fricative. It is always realised as [h] and occurs in syllable-initial position, e.g. /haa/ ‘teeth’.

3.1.4.3 Affricates

/ts/ is a voiceless unaspirated post-alveolar affricate. It occurs in syllable-initial position and is realised as alveolar [ts] e.g. /tsum/ ‘to punch’.

3.1.4.4 Nasals, Lateral and Trill

/m/ is a voiced bilabial nasal. It is realised as [m] and occurs in syllable-initial and final position, e.g. /mit/ ‘eye’

/n/ is a voiced alveolar nasal. It occurs in syllable-initial and final position and is usually realised as [n] e.g. /nan/ ‘you’.

/ŋ/ is a voiced velar nasal. It is always realised as ŋ and occurs in syllable-initial position e.g. /ŋaa/ ‘fish’.

/l/ is a voiced alveolar lateral approximant. It occurs in syllable-initial and final position and is usually realised as [l] e.g. /luŋ/ worm, /tsel/ ‘to hold’.

/r/ is a voiced alveolar lateral approximant. It occurs in syllable-initial and final position and is usually realised as [r] e.g. /ram/ ‘country’.

3.1.2.5 Voiceless Nasals, Lateral and Trill

/m̥/ is a voiceless bilabial nasal. It is realised as [m̥] and occurs in syllable-initial position, e.g. /m̥in/ ‘name’.

/n̥/ is a voiceless alveolar nasal. It occurs in syllable-initial position and is usually realised as [n̥] e.g. /n̥uuy/ ‘to laugh’.

/l̥/ is a voiceless alveolar lateral approximant. It occurs in syllable-initial position and is usually realised as [l̥] e.g. /l̥aa/ ‘wing’.

/r̥/ is a voiceless alveolar lateral approximant. It occurs in syllable-initial position and is usually realised as [r̥] e.g. /r̥iil/ ‘to tell’.

3.2 Vowels

Five vowels and two diphthongs are generally regular across the Kuki-Chin languages of Barak valley. These vowels show distinctive length except in open syllables where the vowel naturally surfaces as long unless occurring as the unstressed initial syllable of a disyllabic compound.

	<i>front</i>	<i>central</i>	<i>back</i>
<i>high</i>	i / ii		u / uu
<i>mid</i>	e / ee		o / oo
<i>low</i>		a / aa	
<i>diphthongs</i>	ie		uo

Table 2: Vowel phonemes

3.2.1 Vowel contrasts

The vowel phonemes of Syriem can be illustrated by the following minimal set. Words with different tones should be treated as near-minimal pairs:

i/ii	t ^h î	‘blood/to die’	ahĩŋ	‘foul smell’	k ^h it	‘tie’
e/ee	t ^h êe	‘scatter’	hěem	‘beating’	k ^h èk	‘peeling(bean)’
u/uu	t ^h ûu	‘word’	ahûum	‘solid’	k ^h ùt	‘hand’
o/oo	t ^h òo	‘to do’	hòom	‘punctual’	k ^h òk	‘peel’
a/aa	t ^h ǎa	‘strength’	hàam	‘yawn’	ink ^h àt	‘one’
ie/uo	sieŋ	‘to claw’	suong	‘cook’		

3.2.2 Nasalization

Nasalized vowels are not phonemic in Syriem. Vowels are nasalized when they occur in the environment of nasal sounds.

V --[+nasal]/ C[+nasal] ___ C[+nasal]

[nĩ] ‘sun’ [mĩ] ‘person’

[ŋãã] ‘fish’ [mũũ] ‘seed’

[naŋ] ‘you’