CHAPTER 4

SGAW KAREN PHONOLOGY AND ORTHOGRAPHY

This chapter describes the syllable structure, consonants, vowels and tones of Standard Sgaw Karen as well as their orthographic representation. This will be used as a basis of comparison with the Northwestern Karen languages in Chapter 7.

4.1 Sgaw Karen Phonology

The following is a summary of the phonology of standard (Yangon) Sgaw Karen based on the writer's own speech.

4.1.1 Sgaw Syllable structure

The syllable of standardized Sgaw is composed of an initial consonant (C_1), an optional medial consonant (C_2) and a vocalic nucleus (V). All major syllables include a tone, represented by a following symbol. The structure of major syllable is therefore as follows:

$$C_1 (C_2) V T$$

(1) [maꜚ] 'wife' CVT
    [klaꜚ] 'clear' CCVT

Minor syllables are always stressless, and never bear a distinctive tone. Minor syllables are composed of an initial consonant C and mid central vowel /ə/. The initial consonant of a minor syllable is generally a stop. Minor syllables are phonologically bound to a following major syllable. Some examples are given in (2).

(2) pədɛꜚ   'rabbit';   təyaꜚ   'one person'

    kəluˀʔ   'Angel';   ʔəbɔꜚ   'yellow'

The syllable structure of Sgaw therefore consists of an optional minor syllable and a major syllable:

$$(C_1 V_1) \, C_2 \, (C_3) \, V_2 T$$

4.2 Sgaw Karen consonants

There are 30 consonantal phonemes in Sgaw. One notable feature of Sgaw Karen (although it occurs in other Asian languages as well) is a fortis-lenis distinction in plosives. In the plosives fortis /p, t, k/ (phonetically varying between voiceless fortis [p, t, k] and voiced fortis [p, t, k] contrast with voiced lenis /ɓ ɗ/ which are more or less implosive. in the affricates, voiceless fortis [tʃ] contrast with voiceless lenis [d̥ʒ].

Table 1 displays the consonant inventories of standard Sgaw.

	Bilabial	Dental	Alveolar	Post alveo	Palatal	Velar	Glottal
Plosive fortis vl. asp.	pʰ	t̪	tʰ			kʰ	
fortis vl. unasp.	p		t			k	ʔ
Implosive lenis vd.	ɓ		ɗ				
Fricative fortis vl.			s sʰ	sʲ		x	h
lenis vd.						ɣ	ɦ
Affricate fortis vl.				tʃ			
lenis vl.				d̥ʒ			
Trill			r				
Nasal	m		n		ɲ	ŋ	
Lateral			l				
Approximant	w					j	

Table 1. Sgaw consonant inventory

Selected consonant contrasts between phonetically similar segments are illustrated with minimal pairs in (3).

(3) a. [p] - [pʰ] maꜜ lɔꜜ **piˀ↑** 'to extinguish'(309)   mɛˀ↑ **pʰiˀ↑** 'eye lid'(126)
         [t] - [tʰ] pənɛ↑ **tə**ꜜ 'candle'(215)   sʰə↑ **tʰə**ꜜ 'stand'(272)
         [k]- [kʰ] koˀ↑ xa↑ 'to shout'(247)   ?oꜜ **kʰo**ˀ↑ 'to wait'(257)
     b. [p] - [ɓ] poˀ↑ kʰwa↑ 'man'(169)   ɓoˀ↑ ke↑ 'to bend'(426)
         [t] - [ɗ] tɛ↑ 'to tell'(246)   ɗɛ↑ 'hut'
     c. [ɓ] - [m] ɓu↑ 'thin'(346)   mu↑ kʰoꜜ 'sky'(1)
     d. [ɗ] - [l] ɗɛꜜ 'daughter in law'   lɛꜜ 'wide'(349)
         [ɗ] - [n] ɗɔ↑ 'knife'(221)   nɔ↑ 'sister'(179)
     e. [tʃ] - [dʒ] tʃɛꜜ tʃɔ↑ 'mix'   dʒɔ↑ 'a kind of eucalyptus tree'
     f. [h] - [ɦ] hə↑ 'to cook by steaming'   ɦə↑ 'attention particle'

Note that the above consonant inventory differs somewhat from Jones' (1961) description of Sgaw. Jones recorded the affricates [tʃ] and [dʒ] as voiceless palatal stops /c/ /cʰ/, the fortis dental stop /t̪/ as interdental fricative /θ/, and the postalveolar fricative /sʲ/ as a palatal / š /(= IPA [ʃ]). Jones also failed to distinguish the fortis and lenis glottal fricatives [h] vs. [ɦ] (see 3 f above)

4.2.1 Sgaw consonant clusters

Consonants that occur as (C₂) are restricted to /w/, /l/, /ɣ/, /r/ and /j /. The approximants /l, r, j/ appear as medial consonants only after labial and velar stops, and /ɣ/ only after labial stops and /s, sʰ/. /w/ may appear as a medial consonant after an initial of any place of articulation. The initial clusters (C₁C₂) are shown in table 2.

	pʰw	ɓw	mw	t̪w	tw	tʰw	ɗw	nw	sw	sʰw	jw	ɲw	kw	kʰw
pl	pʰl	ɓl	ml										kl	kʰl
pr	pʰr			t̪r	tr	tʰr							kr	kʰr
pj	pʰj												kj	kʰj
pɣ	pʰɣ	ɓɣ	mɣ						sɣ	sʰɣ				

Table 2. Sgaw Karen consonant clusters

4.3 Sgaw Karen Vowels

The syllable nucleus is a monophthong V. There are no diphthongs. The inventory of standard Sgaw vowels is as shown in Table 3.[1]

	Front Unrounded	Central Unrounded	Back Rounded
High	i	ɯ	u
Mid	e	ə	o
	ɛ		ɔ
Low		a	

Table 3. Sgaw Karen vowels

[ɯ] is phonetically a back unrounded vowel, here represented phonologically as central unrounded. (4) shows selected contrasts of the vowel phonemes between phonetically similar vowels.

(4) u - ɯ   sʰu˦   '(go) to'   sʰɯ˦   'pound'
     ɛ - ə   pɛ˦   'place it somewhere else'   pə˦   'rule'
     ɔ - o   tʰɔˀ˦ʔ   'pig'   tʰoˀ˦ʔ   'touch'
     i - e   mi˦   'sleep'   me˦   'if'

4.4 Sgaw Karen tones

Pitches are distinctive in Sgaw Karen. There are four level tones in standard Sgaw: mid-high (44), mid (33), mid-low (22) and low (11). Low toned syllables are produced with breathy voice quality. There are in addition two contour tones, high falling (53) and low falling (31). Contour tones are accompanied by creaky voice quality.

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[1] Jones (1961) records the back unrounded vowel [ɯ] as a high central vowel with slight protrusion, and transcribes it as [y]. [ɯ] seems a better transcription to me, however.

Table 4 shows the typical pitch trace associated with each tone.

Standard Sgaw	44	33	22	11	53ʔ	31ʔ
5						
4	——					
3		——				
2			——			
1				——		

Table 4. Phonetic realizations of Sgaw Karen tonal categories

Note that the pitch traces of Table 4 differ from those reported for Sgaw by Jones (1961) (reproduced in Table 5).

Moulmein Sgaw	/ ´ /	/ - /	/ ´ʔ /	/ ` /	/ -ʔ /	/ `ʔ /
H						
M						
L						

Table 5. Phonetic realizations of the tonal categories in Sgaw (Jones 1961)

A brief comparison of Sgaw tones with Jones (1961)Moulmein Sgaw tones shows that both dialects have six tonal categories, but that the phonetic realization of each category is somewhat different. The mid-low tone (equals Jones' high checked tone) is especially different in pitch and in not being checked.

(5) Tonal category	Standard Sgaw phonetic realization	Standard Sgaw	Moulmein Sgaw Jones	English Gloss
Mid-high	˦ (44)	sɯ˦	sɤ́	'hand'
Mid-tone	˧ (33)	sɯ˧	sɤ̄	'far apart'
Mid-low	˨ (22)	sɯ˨	sɤ́ʔ	'poison'
Low-tone	˩ (11)	tə˩	tə̀	'ant'
High Check	˥ʔ (53)	sɯ˥ʔ	sɤ̄ʔ	'drop with a bang'
Low Check	˩ʔ (31)	sɯ˩ʔ	sɤ̀ʔ	'baby hammock'

Note that Jones' analysis of Sgaw tones in terms of three phonemes, high mid, and low, with a checked and an unchecked allophone, cannot be supported for standard Sgaw. Rather, we have six separate tonal categories.

4.5 The Sgaw Karen orthography

This section describes the main features of the Sgaw Karen orthography. First, the Sgaw Karen graphemes will be presented and discussed. Then the phoneme-grapheme relationship will be explained.

The missionary Rev. Jonathan Wade found it more useful to teach the Karen to read and write in their language than in a second language. He developed the Sgaw Karen orthography in 1834, which Rev. Mason later utilized when he translated the Bible into Sgaw Karen in 1853 (Zan 1961). The Sgaw script was later widely used in all sorts of literature for educational and religious purposes.

4.5.1 Sgaw consonant graphemes

The consonant graphemes were borrowed from the Burmese script and adapted for use with Karen. There are 25 consonant graphemes in Sgaw Karen script, shown in Table 6.

Sgaw	သ	ပ	ဖ	ဘ	၃	တ	ထ	က	ခ	အ	မ	န	ည	င	စ	ဆ	ၡ	ၣ	ၥ	ဟ	ၧ	ရ	လ	ယ	၀
IPA	ɓ	p	pʰ	ʈ	ɗ	t	tʰ	k	kʰ	ʔ	m	n	ɲ	ŋ	s	sʰ	ʃ	ɣ	x	h	ɦ	r	l	j	w

Table 6. Sgaw Consonant graphemes

The phonetic value of the Sgaw Karen graphemes is identical with those of Burmese script, apart from < သ > /ɓ/ and < ၃ > /ɗ/, which represent /ɓ/ and /ɗ/,

respectively in Burmese; < ဂ > /ɣ/, < ဃ > /x/,which both represent /g/ in Burmese; and < ဧ> /ɦ/, which represents word initial /e/ in Burmese.

4.5.2 Sgaw Karen vowel graphemes

There are altogether nine vowel graphemes.

Sgaw	°‑‑‑‑	‑‑‑‑ °	‑‑‑‑‑ `	‑‑ꩠ	‑‑‑‑ ᥪ	‑‑‑‑ ᥪᥪ	°‑‑‑‑	⊖‑‑‑	‑‑ꩠ
IPA	i	e	ɛ	ə	ɯ	u	o	ɔ	a

Table 7. Sgaw Karen vowel graphemes

The characters representing /i/, /ɛ/, /o/, and /ɔ/ occur above the consonant which they phonetically follow. The characters representing /a / and /ə / follow the consonant. The characters representing /e/, /ɯ/, and /u/ occur below the consonant.

(6)   Sgaw   Grapheme order   Transcription   Gloss

       ကိ   i   [kiˉ]   'curl'
                k

       ကႝ   k   [keˉ]   'sick'
                e

       ကါ   ka   [kaˉ]   'step'

Note, however, that / a / is unmarked if a tone mark is present: for example, < ကါ> /kaˉ/ 'step', but <ကႃ> /ka˧/ to wear.

4.5.3 Transcription of tone

The six tonal categories of standard Sgaw are marked in the Sgaw orthography as follows:

(7) Tonal category   Sgaw   IPA   Gloss
                         orthography   example

       Mid-high / ˉ /   ကိ   [kiˉ]   'curl'

Mid	/ ˧ /	ကိ	[ki̠˧]	'sp.insect'
Mid-low	/ ˨ /	ကိဉ်	[ki˨]	'thigh'
Low	/ ˩ /	ကိၢ်	[ki̠˩]	'marrow'
High-checked	/ ˥ʔ /	ကိး	[ki˥ʔ]	'fruit taste'
Low-checked	/˩ʔ /	ကိဉ်	[ki˩ʔ]	'striped'

Mid-high level tone in Sgaw Karen is unmarked. Mid tone is marked by < � >, mid-low by < ၃ >, low by < ၢ >, high-checked by < း >. and low-checked by < ၃ > all of which follow the syllable.