

# Pwo Karen writing systems 2: Western Pwo Karen

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## Abstract

Western Pwo Karen is a dialectal group of Pwo Karen spoken in the Ayeyarwady Delta, Myanmar. This article discusses the correspondence between orthography and phonology in this language. The Christian Pwo Karen Script is used as the writing system for Western Pwo Karen. This script was originally created by Baptist missionaries for Eastern Pwo Karen. Western Pwo Karen and Eastern Pwo Karen differ considerably in terms of phonology. However, when the missionaries started using this script for Western Pwo Karen, they did not make any changes to the script. They only changed the readings according to the regular phonological correspondences. In addition to showing the correspondence between orthography and phonology, this article also clarifies how the missionaries changed the readings.

## 1. Introduction

This study is a sequel to Kato (2021); thus, the title is, “Pwo Karen writing systems 2”. In Kato (2021), I mentioned discussing the correspondence between the Christian Pwo Karen Script and the phonological system of Western Pwo Karen on another occasion. That is the primary purpose of this study. In addition, I will show the phonological correspondence between Western Pwo Karen and 19th-century Eastern Pwo Karen, which was the basis for the creation of the Christian Pwo Karen Script. This will clarify the linguistic context in which this writing system came to be used not only as a writing system for Eastern Pwo Karen but also for Western Pwo Karen.

Western Pwo Karen is a dialectal group of Pwo Karen, spoken in the Ayeyarwady

Delta of Myanmar, with many speakers in the Patheingyi District, Myingyan District, and Maubin District of the Ayeyarwady Region. The variation of Western Pwo Karen that is treated in this article is a dialect spoken in the town of Kyonpyaw (Kyonbyaw) in the Patheingyi District of the Ayeyarwady Region. Hereafter, “Western Pwo Karen” refers to this dialect. The phonological system of this dialect is not substantially different from that of the dialect spoken in Patheingyi (Bassein), about 70 km southwest. For more information on the dialects of Pwo Karen, see Kato (1995, 2009, 2017, 2019a), Dawkins and Phillips (2009a, b), and Phillips (2017, 2018). Among the Karen people in Myanmar, it is generally believed that there are two varieties of Pwo Karen: Western Pwo Karen and Eastern Pwo Karen. Intelligibility between the two is very low. This tells us that a considerable amount of time has passed since the two dialects diverged, and correspondingly, that a considerable amount of time has passed since the Karen people began to live in the Delta. Kato (2019b) estimated that the split of Eastern and Western Pwo Karen occurred in the 17th century; however, this could have occurred earlier.

As mentioned by Kato (2021), the most widely used writing systems for Pwo Karen dialects are the Buddhist Pwo Karen Script and the Christian Pwo Karen Script, both of which have an abugida system (for more information on Pwo Karen writing systems, see also Kato 2001a, 2001b, and 2006). The Christian Pwo Karen Script was created in the 1840s by American Baptist missionaries, including Wade, Mason, and Brayton (cf. Mason 1846). I call this script the Christian Pwo Karen Script because it was created by Christian missionaries. Note that Stern (1968) calls this the Mission script. Henceforth, the Christian Pwo Karen Script is referred to as CS (Christian Script). The CS was created based on the Christian Sgaw Karen Script, which was created by Wade in the 1830s using symbols in the Burmese script. In the early stage of the CS, there were some novel innovations not seen in the Christian Sgaw Karen Script, such as the use of Roman letters and the juxtaposition of basic letters and vowel signs. However, these innovations seem to have caused problems in reading and writing. Therefore, it was modified by the early 1850s to be closer to the method of Christian Sgaw Karen Script. As shown in detail in Kato (2021), the CS system fits very well with the phonological system of the Hpa-an dialect, an Eastern Pwo Karen

dialect—and even better with the presumed phonological system of the Hpa-an dialect of the 19th century. Therefore, it is reasonable to assume that the CS was created based on the phonological system of the 19th-century Hpa-an dialect.

Although the CS was created for Eastern Pwo Karen, it later came to be used as the script for Western Pwo Karen spoken in the Ayeyarwady Delta, as I already pointed out in Kato (1995, 2001b, 2006, and 2021). It is not known precisely when Western Pwo Karen was first written in the CS. I have been working since 2017 with Hitomi Fujimura, a historian who specializes in Karen Baptist history, reading her selections of the Christian documents written in Pwo Karen and Sgaw Karen in the 19th century. To the best of our knowledge, the earliest printed material written in Western Pwo Karen is an article by an anonymous author entitled, “An account of the Churches in Sandoway”, which appeared in *The Instructor*, No. 7 (1851)—a Pwo Karen journal published by the Maulmain Mission Press. Thus, it is certain that an attempt to write Western Pwo Karen in the CS had already been made at a very early stage in the CS history, that is, at the beginning of the 1850s.

In Western Pwo Karen texts written in the CS, many words and expressions with Eastern Pwo Karen origins can be observed. For example: ၤ /dɛ/, a particle with the meaning ‘and’, which is considered originally an Eastern Pwo Karen word, is frequently found in Western Pwo Karen texts (it will be referred to again in Section 4.4); and ၵၢ်ခိၣ် /lâ sheiʔ/, which is originally an Eastern Pwo Karen optative expression placed at the end of a sentence, is also common in Western Pwo Karen texts. Western Pwo Karen speakers use such Eastern Pwo Karen elements in their written language because they consider them to be orthodox. This can be attributed to the fact that Eastern Pwo Karen was used in authoritative Christian literature, including the Pwo Karen Bible. The orthodoxy that Western Pwo Karen speakers feel in Eastern Pwo Karen elements still exists, and such elements are frequently found in present-day literature written in Western Pwo Karen. It should be noted, however, that these linguistic elements of Eastern Pwo Karen are not considered by Western Pwo Karen speakers to be of Eastern Pwo Karen, but rather of “literary style”. Most Western Pwo Karen writers and readers are probably unaware that these expressions are of Eastern Pwo Karen origin.

Since Western Pwo Karen texts use many Eastern Pwo Karen expressions, they may appear at first glance to be of Eastern Pwo Karen; however, in texts written in Western Pwo Karen, words and expressions specific to Western Pwo Karen appear with a greater or lesser frequency. Therefore, a careful reading of the texts enables us to identify them as of Western Pwo Karen. For example, if ၵ (read as /kə/ in Western Pwo Karen) is used instead of Eastern ၶ (read /lə/ in Eastern Pwo Karen) as the numeral for ‘one’, then the text can be identified as of Western Pwo Karen. Similarly, if the Western irrealis marker ၵ (/kə/ in Western Pwo Karen) is used instead of the Eastern irrealis marker ၶ (read as /mō/ in Eastern Pwo Karen; Western Pwo Karen reads it /mô/ and the meaning is ‘want to’), then the text can be identified as of Western Pwo Karen. The 1851 article in *The Instructor* is also identified as a Western Pwo Karen text through such a process.

However, identification is challenging in rare cases. The Pwo Karen Bible, published in the 1880s, is written in Eastern Pwo Karen, but the Psalms of the Bible contain some elements of Western Pwo Karen. For example, the verb meaning ‘to listen’ is ၶၵၶၵ /chōnná/ in Eastern Pwo Karen (Western Pwo Karen reads it as /shàunnà/), but in the Psalms the Western Pwo Karen word ၶၵၶၵ is used for the verb meaning ‘to listen’. Western Pwo Karen reads it as /khoʔnà/, and the Eastern Pwo Karen reading of this spelling is /khónà/. It is likely that some Western Pwo Karen speakers participated in some way in the compilation of the Psalms. It is difficult to determine whether the language of the Psalms is Eastern or Western Pwo Karen; that is, it is unclear whether the writer intended to write Eastern Pwo Karen to match the rest of the Bible but unintentionally mixed Western Pwo Karen words, or whether they intended to write Western Pwo Karen in a “gorgeous” literary style filled with Eastern Pwo Karen elements. It may be possible to regard such texts as being both Eastern and Western Pwo Karen.

Today, the CS is mostly regarded as a Western Pwo Karen writing system by the Karens, because Eastern Pwo Karen speakers mainly use the Buddhist Pwo Karen Script and the CS is mainly used by Western Pwo Karen speakers. Moreover, in Western Pwo Karen-speaking areas, the CS has also become increasingly popular among Buddhists over the last 20 to 30 years. Books written by Buddhist monks, such

as /θəmèiɴ mû pláɴ/ (2005)—a collection of commentaries on the Dharma of Buddhism—have also been published in this script. Therefore, we can safely say that this script is now establishing itself as an orthography of Western Pwo Karen.

The following Section 2 presents the phonological system of Western Pwo Karen. Section 3 presents the phonological correspondences between Western Pwo Karen and 19th-century Eastern Pwo Karen. Section 4 shows how the CS corresponds to the phonological system of Western Pwo Karen, and how the Baptist missionaries replaced the 19th-century Eastern Pwo Karen readings with those of Western Pwo Karen in order to use the CS as a writing system for Western Pwo Karen. In the last part of this section, some of the problems in using the CS to write Western Pwo Karen are pointed out. Section 5 presents a Western Pwo Karen text written in CS. Section 6 concludes the study.

Hereafter, Western Pwo Karen and Eastern Pwo Karen will be referred to as WPK and EPK, respectively. When it is necessary to distinguish between 19th-century Eastern Pwo Karen and contemporary Eastern Pwo Karen, the former will be abbreviated as 19c EPK and the latter as CEPK.

## **2. Phonology of Western Pwo Karen**

The phonological system of WPK presented here is basically the same as that presented in Kato (1995) as the phonological system of the Kyonbyaw dialect, but there are a few parts that have been modified after subsequent research. As already mentioned, the phonological system of this dialect is not substantially different from that of the dialect spoken in Pathein (Bassein). The phonological system of the Bassein dialect was presented by Jones (1961). Given that his interpretation is unique, the phonological system of the Bassein dialect may appear different, on the surface, from the system shown here, but in fact it is not as different as one might imagine based on the differences in the transcription.

The syllable structure of WPK can be represented as C1(C2)V1(V2)(C3)/(T). “C” stands for a consonant, “V” for a vowel, and “T” for a tone. C1 is an initial consonant, C2 is a medial consonant, and C3 is a final consonant. One or two vowels may occur and are represented by V1 and V2. Bracketed elements may or may not occur. The

part of C1(C2)- is called an onset, and that of -V1(V2)(C3) is called a rhyme.

As shown in Table 1, there are four tones: low-level, high-level, falling, and checked tones. In the table, they are shown with /a/ with tone marks. The exact phonetic realization of /a/ is [ä]. Additionally, there are atonic syllables, and they are represented by not adding any tone marks. The only rhyme that can appear in atonic syllables is /-ə/. These are pronounced short and weak.

**Table 1: Tones in WPK**

à	[a11]	low-level tone
á	[a55]	high-level tone
â	[a51]	falling tone
aʔ	[aʔ51]	checked tone
ə		atonic

The pitch of the checked tone is almost the same as that of the falling tone. Therefore, some speakers confuse the checked tone with a falling tone. Giving a phonological interpretation of the checked tone is not a simple task. The following two possibilities must be considered: (1) it is a distinct tone from the other tones, with a final glottal stop as its inherent feature; and (2) it is a falling tone that appears in the syllable ending with a glottal stop. If we adopt interpretation (1), there is no need to phonologically recognize syllables ending with a glottal stop, because the final glottal stop is a feature of the tone. If we adopt interpretation (2), we need to phonologically recognize syllables ending with a glottal stop. In Kato (1995), I adopted interpretation (2) because the pitch of the checked tone is almost the same as that of the falling tone. However, the possibility of interpretation (1) remains. Therefore, in this article, I adopt an interpretation that combines (1) and (2); that is, the final glottal stop is an inherent feature of the checked tone, and at the same time, it is also regarded as a phonological syllable-final consonant.

Simple onsets consisting only of C1 are listed in Table 2. A total of 30 phonemes can occur at a simple onset.

**Table 2: Simple onsets in WPK**

p	θ	t	c	k	ʔ
ph		th		kh	
ʙ		dʰ			
b	ð	d		g	
		s	ɛ	x	h
		sh			
		z		ɣ	
m		n	ɲ	ŋ	
w			j		
		l			
		r			

The phonetic values of simple onsets are as follows: /p-/ [p], /θ-/ [t̪~t̪θ], /t-/ [t], /c-/ [tɕ], /k-/ [k], /ʔ-/ [ʔ], /ph-/ [pʰ], /th-/ [tʰ], /kh-/ [kʰ], /ʙ-/ [ʙ], /dʰ-/ [dʰ], /b-/ [b], /ð-/ [d̪~d̪ð], /d-/ [d], /g-/ [g], /s-/ [s], /ɛ-/ [ɛ], /x-/ [x], /h-/ [h], /sh-/ [sʰ], /z-/ [z], /ɣ-/ [ɣ], /m-/ [m], /n-/ [n], /ɲ-/ [ɲ], /ŋ-/ [ŋ], /w-/ [w], /j-/ [j~j], /l-/ [l], and /r-/ [r~ɾ].

The phonemes that can appear as C2 are /-w-/ [w], /-l-/ [l], /-r-/ [r~ɾ], and /-j-/ [j~j]. The combinations of C1 and C2 that have been found to date are listed in Table 3.

**Table 3: Possible combinations of C1 and C2 in WPK**

		C1																
		p	θ	t	k	ʔ	ph	th	kh	ʙ	dʰ	s	sh	x	m	n	j	l
w		+	+	+	+	+		+	+	+	+	+	+	+	+	+	+	+
C2	l	+		+	+		+	+	+	+					+			
	r	+			+				+									
	j	+					+		+						+			

As previously mentioned, the structure of a rhyme can be represented as -V1(V2) (C3). Among the components of a rhyme, the position of C3 can only be occupied by /-N/ or /-ʔ/. The nasal /N/ is a phoneme that can only occur as a final consonant. It is realized as [N] or nasalization of the preceding vowel. Rhymes can be divided into three types: open rhymes without C3, nasalized rhymes with /-N/, and stopped rhymes with /-ʔ/.

There are 12 open rhymes, as shown in Table 4.

**Table 4: Open rhymes in WPK**

Monophthongs				Diphthongs	
i	i	u	u	ai	au
e	ə		o		
ɛ	a		ɔ		

These rhymes are realized as follows: /-i/ [i], /-i/ [i̯], /-u/ [u], /-u/ [u̯], /-e/ [ɛ], /-ə/ [ə], /-o/ [o], /-ɛ/ [ɛ], /-a/ [ä], /-ɔ/ [ɔ], /-ai/ [äi], and /-au/ [äʊ~äo].

There are eight nasalized rhymes, as shown in Table 5. I place /-iN/ in parentheses because it appears only in loanwords from Burmese and those from other languages that have entered via Burmese.

**Table 5: Nasalized rhymes in WPK**

Monophthongs (iN)	Diphthongs		
əN	eiN	əuN	ouN
aN	aiN		auN

These rhymes are realized as follows: /iN/ [iN~ĩ], /-əN/ [ə~ə̃], /-aN/ [ɐN~ẽ], /-eiN/ [eiN~eĩ], /-əuN/ [əuN~əũ], /-ouN/ [ouN~oũ], /-aiN/ [äiN~äĩ], and /-auN/ [äʊN~äö̃]. The nasalization of /-əN/ is very weak and may be completely eliminated. In that case, /-əN/ loses its phonetic distinction from /-ə/. Therefore, in some speakers, /-əN/ has merged into /-ə/. The nasalization of /-eiN/, /-əuN/, /-ouN/, /-aiN/, and /-auN/ is also often weak. As a result, the distinction between /-ai/ and /-aiN/ and that between /-au/ and /-auN/ may be ambiguous for some speakers. The occurrence of /-əuN/ is very rare, as will be discussed in Section 3.

There are eight stopped rhymes, as shown in Table 6. These rhymes appear when there is a glottal stop at the end of the syllable. As mentioned earlier, the final glottal stop may be an inherent feature of the checked tone rather than a syllable-final consonant.

**Table 6: Stopped rhymes in WPK**

Monophthongs		Diphthongs		
	i?	ei?	əu?	ou?
e?	o?			
a?	ɔ?			



These rhymes are realized as follows: /-iʔ/ [iʔ], /-eʔ/ [eʔ], /-oʔ/ [oʔ], /-aʔ/ [äʔ], /-ɔʔ/ [ɔʔ], /-eiʔ/ [eiʔ], /-əuʔ/ [əuʔ], and /-ouʔ/ [ouʔ].

### 3. Phonological correspondences between WPK and 19c EPK

The CS, created in the 1840s, seems to reflect the phonological system of EPK from the end of the 18th century to the middle of the 19th century. What I call “19c EPK” is the EPK of this period. As mentioned in Section 1, WPK adopted CS slightly later than EPK. This adoption was achieved by replacing the 19c EPK pronunciation, represented by the CS, with the WPK pronunciation of the same period. WPK during this period can be assumed to be the dialect of Pathein (Bassein), which was the center of the Baptist mission in the Ayeyarwady Delta.

The details of the pronunciation of the WPK in the 19th century are no longer well known. Therefore, for the sake of convenience, the discussion in this article assumes that the phonological system of WPK in the 19th century is the same as that of WPK today. In other words, we assume that the phonological system of WPK, to which the missionaries applied the CS, is the system described in Section 2.

The phonological system of 19c EPK has already been presented in Kato (2021), but in order to make the discussion easier to understand, the outline will be presented below.

The syllable structure of the 19c EPK can be represented as C1(C2)V1(V2)(C3)/(T). There are six tones: low-level, mid-level, high-level, falling, low-checked, and high-checked, as shown in Table 7.

**Table 7: Tones in 19c EPK**

à	low-level tone
ā	mid-level tone
á	high-level tone
â	falling tone
àʔ	low-checked tone
áʔ	high-checked tone
ə	atonic

Simple onsets consisting only of C1 are listed in Table 8. Four of these, /w/, /l/,

/r/, and /j/, also appear as C2.

**Table 8: Onsets in 19c EPK**

p	θ	t	c	k	ʔ
ph		th	ch	kh	
b		d			
			e	x	h
				ɣ	ʁ
m		n	ɲ	ŋ	
w			j		
		l			
		r			

The structure of a rhyme in 19c EPK can be represented as -V1(V2)(C3). As C3, /-N/, which does not appear as C1, and /-ʔ/, which also appears as C1, can appear. There are 10 open rhymes, as shown in Table 9; seven nasalized rhymes, as shown in Table 10; and eight stopped rhymes, as shown in Table 11.

**Table 9: Open rhymes in 19c EPK**

i	i	u	u
e	ə	o	
ɛ	a	ɔ	

**Table 10: Nasalized rhymes in 19c EPK**

Monophthongs		Diphthongs		
əN	oN	eiN	əuN	ouN
aN		aiN		

**Table 11: Stopped rhymes in 19c EPK**

Monophthongs		Diphthongs		
	iʔ			
eʔ		oʔ		
aʔ	ɔʔ	aiʔ	auʔ	auʔ

We will now look at the phonological correspondence between the WPK and 19c EPK. The following tables (Tables 12 to 18) are made in terms of how the phonology of 19c EPK corresponds to the phonology of WPK. Therefore, when looking at the tables, it is convenient to look first at the 19c EPK forms. In addition, the corresponding

sounds of CEPK are also shown for reference.

The regular correspondence of the tones is listed in Table 12. The 19c EPK tones are placed in the middle column, WPK tones in the left column, and CEPK tones in the right column.

**Table 12: Tones**

WPK	19c EPK	CEPK
á [a55]	*à	à [a11]
â [a51]	*ã	ã [a33 ~ 334]
à [a11]	*á	á [a55]
à [a11]	*â	â [a51]
aʔ [aʔ51]	*àʔ	à [a11]
aʔ [aʔ51]	*áʔ	á [a55]
ə (atonic)	*ə (atonic)	ə (atonic)

The following points should be noted in relation to Table 12:

- The corresponding pitches of the WPK and CEPK tones are very different. For example, the high-level tone /á/ in WPK corresponds to the low-level tone /à/ in CEPK, that is, the pitches have an opposite relationship. The difference in tonal pitches is the main reason why the intercommunication of WPK and CEPK is difficult.
- The high-level tone \*/á/ and falling tone \*/â/ in 19c EPK correspond to the low-level tone /à/ in the WPK. Similarly, the low-checked tone \*/àʔ/ and high-checked tone \*/áʔ/ in 19c EPK both correspond to the checked tone /aʔ/ in WPK. These correspondences reflect the fact that some of the Proto-Pwo Karen tones merged in WPK (for Proto-Pwo Karen, see Kato 2009).

Tables 13 to 15 show the regular correspondence of the initial consonants. Table 13 shows how the stops and affricates in the 19c EPK regularly correspond to WPK sounds. Recall that these tables are designed to look first at the 19c EPK sounds as a starting point. The CEPK sounds are shown for reference only.

**Table 13: Stops and affricates**

WPK	p	θ	t	s	c	k	ʔ	ph	th	sh	kh	ʃ	ɖ
19c EPK	*p	*θ	*t	*c	*cj	*k	*ʔ	*ph	*th	*ch	*kh	*b	*d
CEPK	p	θ	t	c	c	k	ʔ	ph	th	ch	kh	b	d

The following points should be noted in relation to Table 13:

- *\*/b-/* and *\*/d-/* in 19c EPK and */b-/* and */d-/* in CEPK are all implosives. In other words, they are phonetically [ɓ] and [ɗ]. The reason these are not represented as */b-/*, */d-/* is that they do not show opposition to non-implosives. Since there are */b-/* vs. */b-/* and */d-/* vs. */d-/* oppositions in WPK, it is necessary to transcribe the WPK implosives as */b-/* and */d-/*.
- The reason for the absence of WPK */b-/*, */ð-/*, */d-/*, and */g-/* in this table is that these are phonemes that emerged independently in WPK through irregular sound changes and borrowings. Examples of WPK */b-/* include the following: */bá/* ‘we’ (cf. 19c EPK *\*/pà/*, CEPK */pà/*) and */báN/* ‘inside’ (cf. 19c EPK *\*/phàN/*, CEPK */phàN/*). These two examples have a minimal pair counterpart with */b-/*, i.e., */bá/* ‘to worship’ and */báN/* ‘be thick’. Examples of */ð-/* include the following: */ðeiʔ/* ‘still’ (cf. 19c EPK *\*/dàiʔ/*, CEPK */dài/*). Examples of */d-/* include the following: */tódò/* ‘considerably’ (borrowing from Burmese */tòdò/*). Examples of */g-/* include the following: */gàu/* ‘side’ (cf. 19c EPK *\*/khô/*, CEPK */khô/*), */kángá/* ‘to discuss’ (cf. 19c EPK *\*/kànkà/*, CEPK */kànkà/*), */màngánèiN/* ‘last year’ (no corresponding form in EPK), and */màngúnèiN/* ‘the year before last’ (no corresponding form in EPK). The number of forms with */b-/*, */ð-/*, */d-/*, and */g-/* is very small.
- WPK */c-/* is thought to correspond to the 19c EPK consonant cluster *\*/cj-/*. This issue will be discussed in detail in Section 4.2.

Table 14 shows how the fricatives in 19c EPK regularly correspond to WPK sounds.

**Table 14: Fricatives**

WPK	ɕ	x		ɣ	ʎ
19c EPK	*ɕ	*x	*h	*ɣ	*ʎ
CEPK	ɕ	x	h	ɣ	ʎ

The following points should be noted in relation to Table 14:

- WPK /h-/ emerged independently in WPK through borrowing from Burmese, e.g., /hó/ ‘to preach’ (Burmese /hó/). 19c EPK \*/h-/ also emerged independently in EPK through irregular sound changes and borrowing. Therefore, WPK /h-/ does not regularly correspond to 19c EPK \*/h-/ or CEPK /h-/. This is why WPK /h-/ is not listed in the table.
- The WPK fricatives /s-/ and /sh-/ correspond to the 19c EPK affricates \*/c-/ and \*/ch-/, respectively, as shown in Table 13. Therefore, they do not appear in the table.
- WPK /ɣ-/ corresponds to 19c EPK \*/ɣ-/ or \*/ɕ-/, e.g., /ɣà/ ‘evening’ (cf. 19c EPK \*/ɣá/, CEPK /ɣá/) and /ɣà/ ‘question marker’ (cf. 19c EPK \*/ɕâ/, CEPK /ɕâ/).
- WPK /z-/ emerged independently in WPK. The origin of this sound is one of the following cases: One is the case in which /z-/ emerged through an irregular sound change, e.g., /zâ/ ‘thing’ (cf. 19c EPK \*/chā/, CEPK /chā/). The other case is borrowing from Burmese, for example, /zê/ ‘market’ (cf. Burmese /zê/).

Table 15 shows how the nasals, semivowels, and liquids in 19c EPK regularly correspond to WPK sounds.

**Table 15: Nasals, semivowels, and liquids**

WPK	m	n			w	j	l	r
19c EPK	*m	*n	*ɲ	*ŋ	*w	*j	*l	*r
CEPK	m	n	ɲ	ŋ	w	j	l	r

The following point should be noted in relation to Table 15:

- WPK also has /ɲ-/ and /ŋ-/. However, none of the forms with these sounds have a corresponding form in 19c EPK or CEPK. Therefore, these WPK phonemes were not included in this table. Examples of WPK /ɲ-/ and /ŋ-/ are /ɲoʔà/ ‘noni (Morinda

citrifolia)’ and /məŋâ/ ‘be good’, whose origins are unknown.

Tables 16–18 show the regular correspondence of rhymes. Table 16 shows how the plain rhymes in the 19c EPK regularly correspond to WPK sounds.

**Table 16: Plain rhymes**

WPK	i	i	u	u	e	ə	o	ai, ε	a	au, ɔ
19c EPK	*i	*i	*u	*u	*e	*ə	*o	*ε	*a	*ɔ
CEPK	i	i	u	u	i	ə	o	ε	a	ɔ

The following points should be noted in relation to Table 16:

- 19c EPK \*/-ε/ corresponds to the two rhymes /-ai/ and /-ε/ in the WPK. This is because \*/-ai/ and \*/-ε/ in Proto-Pwo Karen (Kato 2009) merged into /-ε/ in EPK. As will be discussed in Section 4.5, the CS, which reflects the 19c EPK phonology, does not distinguish between /-ai/ and /-ε/ in WPK.
- 19c EPK \*/-ɔ/ corresponds to the two rhymes /-au/ and /-ɔ/ in WPK. This is because \*/-au/ and \*/-ɔ/ in Proto-Pwo Karen have merged into /-ɔ/ in EPK. As will be discussed in Section 4.5, the CS does not distinguish between /-au/ and /-ɔ/ in WPK.

Table 17 shows how the nasalized rhymes in 19c EPK regularly correspond to WPK sounds.

**Table 17: Nasalized rhymes**

WPK	ən	aun	an	ein	ən	oun	ain
19c EPK	*ən	*on	*an	*ein	*əun	*oun	*ain
CEPK	ən	on	an	ein	əun	oun	ain

The following points should be noted in relation to Table 17:

- 19c EPK \*/-ən/ corresponds to WPK /-ən/. 19c EPK \*/-əun/ also corresponds to the same rhyme /-ən/ in WPK. This is because \*/-ən/ and \*/-əun/ in Proto-Pwo Karen (Kato 2009) have merged into /-ən/ in WPK. Moreover, as noted in relation to Table 5, in the pronunciation of some WPK speakers, /-ən/ has lost its nasality and merged into the plain rhyme /-ə/.

- WPK has rhyme /-əuN/. The only form with this rhyme so far found is /mátəuN/ ‘to threaten’. This word corresponds to 19c EPK \*/màtəuN/ (cf. CEPK /màtəuN/). Therefore, there is a possibility that we can list /-əuN/ in addition to /-əN/ as a WPK rhyme corresponding to the 19c EPK rhyme \*/-əuN/. However, since only one instance of this correspondence has been found, it is impossible to determine whether it is regular or not. For this reason, the correspondence 19c EPK \*/-əuN/ : WPK /-əuN/ is not listed in Table 17.

Table 18 shows how the stopped rhymes in 19c EPK regularly correspond to WPK sounds.

**Table 18: Stopped rhymes**

WPK	iʔ	eʔ	oʔ	aʔ	ɔʔ	eiʔ	əuʔ	ouʔ
19c EPK	*iʔ	*eʔ	*oʔ	*aʔ	*ɔʔ	*aiʔ	*auʔ	*auʔ
CEPK	i	e	o	a	ɔ	ai	aʊ	aʊ

The following point should be noted in relation to Table 18:

- The syllable-final glottal stop that was present in Proto-Pwo Karen was preserved in 19c EPK but has been lost in CEPK. This sound is preserved in the WPK. However, as mentioned earlier, the WPK final glottal stop may be an inherent feature of the checked tone in terms of phonology.

#### 4. Christian Pwo Karen Script and Western Pwo Karen

The CS was created for 19c EPK in the 1840s; thus, it reflects the phonological system of the 19c EPK. However, in less than a decade after its creation, this writing system also began to be used to write the WPK. The Baptist missionaries found that they could use the CS as a writing system for WPK if they replaced the pronunciation of 19c EPK with that of WPK based on the regular phonological correspondences between 19c EPK and WPK discussed in Section 3. No changes were made to the writing system at that time. This was possible because the CS was a highly systematic script that reflected the pronunciation of the 19c EPK with great accuracy.

The pronunciation of WPK in those days must have been slightly different from

what it is today. Unfortunately, the details of the WPK pronunciation at that time are unknown. However, the process that the missionaries followed can be simulated using the modern pronunciation of WPK. Therefore, for the sake of convenience, this study assumes that the phonological system of WPK in the 19th century was the same as the contemporary WPK phonological system discussed in Section 2.

In the following, the sounds when reading the CS in the WPK are shown. Furthermore, the 19c EPK sounds that regularly correspond to these WPK sounds are also provided. Based on the sounds of the 19c EPK, one can understand how the missionaries replaced the EPK readings with those of the WPK.

#### 4.1. Initial consonants

Initial consonants, that is, consonants appearing in the C1 position, are generally written with basic letters. There are 27 basic letters listed in Table 19. The WPK pronunciations and those of the 19c EPK are shown in two lines below each basic letter. The upper sounds without an asterisk are the pronunciations of the WPK. The lower asterisked sounds are the 19c EPK pronunciations that correspond regularly to the upper WPK sounds, and at the same time, these are the 19c EPK pronunciations that the letters used to represent. However, the WPK sounds with “#” do not directly correspond to the 19c EPK sounds.

Let us consider the basic letter  $\phi$  as an example. The consonant /s-/ immediately below  $\phi$  is the WPK reading. The asterisked consonant \*/c-/ below it is the sound of 19c EPK that regularly corresponds to WPK /s-/, and at the same time, this \*/c-/ sound of 19c EPK was represented by the basic letter  $\phi$  of the CS. To use the CS as a writing system for WPK, the missionaries replaced the lower sounds with the upper ones.



**Table 19: Basic letters**

က k- *k-	ခ kh- *kh-	ဂ γ- *γ-	ဃ x- *x-	င #η- *η-
စ s- *c-	ဆ sh- *ch-	ဇ #z- *c-	ည #j- *j-	ဈ ε- *ε-
တ t- *t-	ထ th- *th-	ဒ d- *d-	န n- *n-	ပ p- *p-
ဖ ph- *ph-	ဗ b- *b-	မ m- *m-	ဇ j- *j-	ရ r- *r-
လ l- *l-	ဝ w- *w-	တ θ- *θ-	ဟ #h- *h-	ခ ʔ- *ʔ-
	ဃ γ- *γ-	ပ p- *p-		

The following are notes on the basic letters.

- The WPK sounds marked with “#” do not show a regular correspondence with the 19c EPK sounds below them. This is because, as mentioned in Section 3, /j-/ , /η-/ , /z-/ , and /h-/ are sounds that emerged independently in the WPK. The “same” sounds for /j-/ , /η-/ , and /h-/ exist in 19c EPK, but \*/j-/ , \*/η-/ , and \*/h-/ of 19c EPK also emerged independently in EPK through sound changes and borrowings. Therefore, for the sounds marked with “#”, it cannot be said that the readings were determined based on the regular sound correspondences when the CS was applied to WPK. Presumably, the pronunciations represented by ည, င, ဇ, and ဟ were determined by following the pronunciations of the corresponding Burmese letters.
- The sound \*/ɸ-/ written with ဃ in 19c EPK corresponds to WPK /γ-/ , as shown in Table 14. In accordance with this rule, ဃ is pronounced /γ-/.
- ဝ is used to write the WPK prefix ဝ /pə-/ denoting a human being. In terms of the reading of the corresponding prefix in 19c EPK, i.e., \*/pə-/ or \*/hə-/ , it should be sufficient to write this prefix as ဝ or ဟ. For the possible reasons for making a separate character, see Kato (2021). In WPK, the noun /pà/ , meaning “person”, is also written

with this letter without any additional symbols, e.g., ပုလောဝဲာထာမဒလိာဆာ /pà ló yài thàn málò zâ/ (person – REL – come – up – study – thing) ‘people who came to study’.

- There are no particular letters for writing /b-/ , /ð-/ , /d-/ , and /g-/ . The spellings for these sounds are generally determined according to the following principle: if there is a corresponding form in 19c EPK, follow its spelling. The forms of 19c EPK are referenced using literature, including the Bible. Examples of words written with this principle are: ဝာဒ /bá/ ‘we’ (cf. 19c EPK ဝာဒ \*/pə̀/, CEPK /pə̀/), ဖဒ္ဒ /báN/ ‘inside’ (cf. 19c EPK ဖဒ္ဒ \*/phə̀N/, CEPK /phə̀N/), ဒိေ /ðei?/ ‘still’ (cf. 19c EPK ဒိေ \*/dai?/, CEPK /dai/), ဒိာ /gàu/ ‘side’ (cf. 19c EPK ဒိာ \*/khə̀/, CEPK /khə̀/), and ကဒ္ဒကဒ /kánɡá/ ‘to discuss’ (cf. 19c EPK ကဒ္ဒကဒ \*/kànkà/, CEPK /kànkà/). Note that the reading of the rhyme in ဝာဒ /bá/ ‘we’ is irregular. The reading of this word will be discussed in Section 4.4. Examples of cases where there is no corresponding form in 19c EPK are: တိဒတိာ /tódò/ ‘considerably’, မ္ဂကဒနံ့ /màngánèin/ ‘last year’, and မ္ဂုကဒနံ့ /màngúnèin/ ‘the year before last’. Generalizations of these spellings are yet to be made.

- /z-/ is written with ခ, but for the noun ဆာ /zâ/ ‘thing’, it is written with the letter ဆာ for /sh-/. This is because /zâ/ is a variant of /shâ/ (ဆာ) ‘thing’ (cf. 19c EPK ဆာ \*/chə̀/, CEPK /chə̀/ ‘thing’). The form /zâ/ is mainly used when /shâ/ appears as the object of a verb. See /zâ/ in the example above meaning ‘people who came to study’.

Examples of WPK words written with each basic letter follow: ကာ /kà/ ‘be difficult’, ခာ /khà/ ‘be bitter’, ဂာ /gà/ ‘evening’, ဝိာ /xi/ ‘be beautiful’, မာ /mə̀ŋá/ ‘be good’, စာ /sù/ ‘hand’, ဆာ /shà/ ‘to ache’, ဒုဒ /zé/ ‘market’, ညိလ္လာ /jɔʔθà/ ‘noni (Morinda citrifolia)’, ရာ /éá/ ‘be few’, တိဒ /tʰ/ ‘be straight’, ထာ /tha?/ ‘iron’, ဒာ /dā/ ‘to see’, နာ /ná/ ‘ear’, ပာ /pà/ ‘plank, board’, ဖာ /phà/ ‘father’, ဘာ /bà/ ‘be right’, မာ /má/ ‘to do’, ဝာ /jà/ ‘fish’, ရာ /ra?/ ‘hell’, လာ /lá/ ‘moon’, ဝာ /wá/ ‘husband’, ဘာ /θà/ ‘to bear fruits’, တိဒ /hʰ/ ‘to preach’, အာ /ʔà/ ‘be many’, ဧာ /ɣà/ ‘question marker’, and ပုမ္မာ /pəmù/ ‘woman’.

#### 4.2. Medial consonants

In the CS, the medial consonants /-w-/ , /-l-/ , /-r-/ , and /-j-/ are written as shown in Table 20, using subscripts. As shown in Table 19, the upper sounds without an asterisk

are the WPK pronunciations. The lower asterisked sounds are the 19c EPK pronunciations that correspond regularly to the upper WPK sounds, and at the same time, these are the 19c EPK pronunciations that the subscripts used to represent. In order to use the CS as a writing system for WPK, the missionaries replaced the lower sounds with the upper ones; however, for medial consonants, the readings of WPK happen to be the same as those of 19c EPK.

**Table 20: Medial consonants**

◌◊	◌ᄁ	◌ᄂ	◌ᄃ
-w-	-l-	-r-	-j-
*-w-	*-l-	*-r-	*-j-

Example words with medial consonants follow: ᄁᄂ /kwá/ ‘ax’, ᄁᄃᄂ /thwi/ ‘dog’, ᄁᄂᄂ /klaʔ/ ‘crow’, ᄁᄂᄂ /phlá/ ‘arrow’, ᄁᄂᄂ /kríʔ/ ‘be suitable’, ᄁᄂᄂ /pràN/ ‘to compete’, ᄁᄂᄂ /pjoʔ/ ‘to vomit’, and ᄁᄂᄂ /bjá/ ‘be gentle’.

The following are notes on the subscripts.

- As already pointed out in Kato (2021), CS ᄁᄂ /-l-/ and ᄁᄃ /-j-/ are identical in shape to ᄁᄂ /-j-/ and ᄁᄃ /-l-/ in the Buddhist Pwo Karen Script (= BS), but the relationship between the letters and sounds is inverse. The usage of the CS is based on that of the Christian Sgaw Karen Script, whereas the usage of the BS is based on that of the Mon Script.
- When ᄁᄃ is combined with ᄁ as in ᄁᄂᄂ, it is pronounced as /c-/, not /ky-/.

There is an important remark on the second note. In Kato (2021), I stated the following: “The CEPK initial consonant /c-/ is sometimes written as ᄁᄂ instead of using the basic letter ◊. Words that are written with ᄁᄂ are often borrowings of Mon or Burmese words that are written with ᄁᄂᄂ in the original languages”. Although this point is correct, some genuine CEPK words are also written with this spelling. CEPK examples include the following: ᄁᄂᄂ /càʊ/ ‘to pull’, ᄁᄂᄂ /cá/ ‘to turn back’, ᄁᄂᄂ /cáʊN/ ‘be lazy’, and ᄁᄂᄂ /càN/ ‘hut’. Moreover, the WPK words corresponding to these generally have /c-/, as follows: ᄁᄂᄂ /couʔ/ ‘to pull’, ᄁᄂᄂ /cà/ ‘to turn back’, ᄁᄂᄂ

/càN/ ‘be lazy’, and ၵၵ /cáN/ ‘hut’. Normally, /c-/ in CEPK corresponds to /s-/ in WPK, e.g., CEPK ၵၵ /cá/ and WPK ၵၵ /sàu/ ‘be wet’, but the words above constitute an exception to this correspondence.

I propose here that the Proto-Pwo Karen forms of the above mentioned words had \*/cj-/ as the initial consonant cluster and that this cluster was preserved in 19c EPK as \*/cj-/ , whose pronunciation was probably [tɛj]. The 19c EPK forms of these words can be assumed to be \*/cjàuʔ/ ‘to pull’, \*/cjá/ ‘to turn back’, \*/cjáuN/ ‘be lazy’, and \*/cjàn/ ‘hut’, and this \*/cj-/ was spelt as ၵၵ. This initial consonant cluster later merged with /c-/ in CEPK. In WPK, Proto-Pwo Karen \*/c-/ and \*/cj-/ became /s-/ and /c-/, respectively.

When writing CEPK in BS, these words are also written using ၵၵ instead of using the more usual spelling ၵ for /c-/, as follows: ၵၵၵ /càʔ/ ‘to pull’, ၵၵၵ /cá/ ‘to turn back’, ၵၵၵ /cáuN/ ‘be lazy’, and ၵၵၵ /càn/ ‘hut’. The fact that the Mon cluster /cy-/ is written with the same spelling ၵၵ in the Mon script, on which the BS was based, would also support the reconstruction of \*/cj-/ in 19c EPK. The existence of /cy-/ in Mon has been pointed out by Mitani (1983).

### 4.3. Rhymes and tones

Table 21 shows the correspondences between the rhymes, tones and their spellings. As shown in Tables 19 and 20, the upper sounds without an asterisk are the WPK pronunciations. The lower asterisked sounds are the 19c EPK pronunciations that correspond regularly to the upper WPK sounds, and at the same time, these are the 19c EPK pronunciations that the CS spellings used to represent. The horizontal columns are arranged according to the tone symbols, and the vertical columns are arranged according to the vowel symbols (plus the nasalization symbol). No instances have been found for some combinations of rhyme and tone. In Kato’s (2021) table showing the correspondence between the CEPK rhymes/tones and CS spellings, I have left such cases blank or marked them with a note, but in this table, to avoid complications, theoretical pronunciations are given even when no instances have been found. Blank cells indicate that the combination does not exist phonologically. To use the CS as a writing system for WPK, the missionaries replaced the lower sounds with

the upper ones. Presumably, dealing with rhymes and tones was the most complicated and difficult part of pronunciation replacement.

**Table 21: Rhymes and tones**

	○2	no mark	○J	○᠑	○S	○L
○	○2 -í *-í	○ -î *-î	○J -ì *-ì	○᠑ -ì *-î	○S -ei? *-ài?	○L -ei? *-ài?
○ <sup>◌</sup>	○2 -é *-é	○ <sup>◌</sup> -ê *-ê	○J -è *-é	○᠑ -è *-ê	○S -e? *-è?	○L -é? *-é?
○ <sup>◌</sup>	○2 -âi, -ê *-ê	○ <sup>◌</sup> -âi, -ê *-ê	○J -âi, -è *-é	○᠑ -âi, -è *-ê		
○᠑	○᠑2 -í *-í	○᠑ -î *-î	○᠑J -ì *-ì	○᠑᠑ -ì *-î	○᠑S -i? *-i?	○᠑L -i? *-i?
○᠔	○᠔2 -ô *-ô	○᠔ -ô *-ô	○᠔J -ò *-ò	○᠔᠑ -ò *-ô		
○᠑	○2 -á *-á	○᠑ -â *-â	○J -à *-á	○᠑ -à *-â	○S -a? *-à?	○L -a? *-á?
○ <sup>L</sup>	○2 -ú *-ú	○ <sup>L</sup> -û *-û	○J -ù *-ú	○᠑ -ù *-û	○S -əu? *-àu?	○L -əu? *-áu?
○ <sup>ll</sup>	○2 -ü *-ü	○ <sup>ll</sup> -û *-û	○J -ù *-ú	○᠑ -ü *-û	○S -ou? *-àu?	○L -ou? *-áu?
○	○2 -ó *-ó	○ <sup>o</sup> -ô *-ô	○J -ò *-ó	○᠑ -ò *-ô	○S -o? *-ò?	○L -o? *-ó?
○ <sup>o</sup>	○2 -âu, -ò *-ò	○ <sup>o</sup> -âu, -ô *-ô	○J -àu, -ò *-ò	○᠑ -âu, -ò *-ò	○S -ɔ? *-ò?	○L -ɔ? *-ó?
○᠔:	○᠔2 -ón *-ón	○᠔: -ân *-ân	○᠔J -òn *-ón	○᠔᠑ -ân *-ân		
○:	○2 -án *-án	○: -ân *-ân	○J -àn *-àn	○᠑ -àn *-àn		

⊙ <sub>⊙</sub>	⊙ <sub>⊙</sub> -áUN *-òN	⊙ <sub>⊙</sub> -âUN *-òN	⊙ <sub>J</sub> -âUN *-óN	⊙ <sub>γ</sub> -âUN *-òN		
⊙ <sub>⊙</sub>	⊙ <sub>⊙</sub> -éIN *-èIN	⊙ <sub>⊙</sub> -êIN *-ēIN	⊙ <sub>J</sub> -éIN *-éIN	⊙ <sub>γ</sub> -éIN *-éIN		
⊙ <sub>⊙</sub> ⊙ <sub>⊙</sub>	⊙ <sub>⊙</sub> ⊙ <sub>⊙</sub> -òN *-òuUN	⊙ <sub>⊙</sub> ⊙ <sub>⊙</sub> -òN *-òuUN	⊙ <sub>J</sub> ⊙ <sub>⊙</sub> -òN *-òuUN	⊙ <sub>γ</sub> ⊙ <sub>⊙</sub> -òN *-òuUN		
⊙ <sub>⊙</sub>	⊙ <sub>⊙</sub> -âIN *-âIN	⊙ <sub>⊙</sub> -âIN *-âIN	⊙ <sub>J</sub> -âIN *-âIN	⊙ <sub>γ</sub> -âIN *-âIN		
⊙ <sub>⊙</sub>	⊙ <sub>⊙</sub> -ôUN *-òUN	⊙ <sub>⊙</sub> -ôUN *-òUN	⊙ <sub>J</sub> -ôUN *-óUN	⊙ <sub>γ</sub> -ôUN *-ôUN		
⊙ <sub>⊙</sub>	(⊙ <sub>⊙</sub> ) -îN	(⊙ <sub>⊙</sub> ) -îN	(⊙ <sub>J</sub> ) -îN	(⊙ <sub>γ</sub> ) -îN		
∅		○ -ò *-ò				

The following are notes on writing rhymes and tones.

- $\overset{\circ}{\circ}$  represents both /-ai/ and /-ε/. The CS does not distinguish between the two vowels.
- $\overset{\circ}{\circ}$  represents both /-au/ and /-ɔ/. The CS does not distinguish between the two vowels.
- The symbol for the vowel /-a/ is  $\overset{\circ}{\circ}$ . This symbol is written only when the tones are unmarked.
- The symbol representing nasalization of rhymes is  $\circ\text{̃}$ . When a tone mark is attached to a basic letter,  $\overset{\circ}{\circ}$  is written underneath the tone mark.
- Both  $\circ\text{J}$  and  $\circ\text{γ}$  represent the low-level tone. The symbol to use is determined according to the 19c EPK distinction.
- Both  $\circ\text{S}$  and  $\circ\text{L}$  represent the checked tone. The symbol to use is determined according to the 19c EPK distinction.
- The word /mátəuN/ ‘to threaten’, which is the only form found with the rhyme /-əuN/, as mentioned in relation to Table 17, is written as  $\text{əz}\overset{\circ}{\circ}\text{z}$ . This spelling follows the 19c EPK form \*/mátəuN/.

● The parenthesized spellings representing the rhyme /-iN/ in Table 21 are only used to represent Burmese loanwords or those from other languages that have entered via Burmese. Since these are considered new, the pronunciations of the 19c EPK are not listed.

● A basic letter with no marking, i.e., ◦, represents an atonic syllable.

Below are examples of how to write WPK rhymes and tones.

- လိံး /lí/ ‘air’, နိံ /ní/ ‘to smile’, ပိံ /phi/ ‘pus’, ထိံ /thi/ ‘water’, ဆိံ /shei?/ ‘be small’, လိံ /lei?/ ‘letter, alphabet’
- ◌ လှဲ /lé/ ‘to go’, နဲ /nê/ ‘to get’, ဖဲ /phè/ ‘to give’, ဖာ /phè/ ‘paddy husk’, ဒဲ /dê?/ ‘every’, ဆဲ /she?/ ‘to stab’, ထဲ /thê?/ ‘be cut’
- ◌ နဲး /náí/ ‘to believe’, ပဲး /phé/ ‘playing card’, ဝဲ /jâi/ ‘five’, မဲ /mwê/ ‘to be’, အဲ /?àí/ ‘to love’, ကွဲ /kwè/ ‘to release’, မဲာ /mài/ ‘widow’, ထဲာ /thè/ ‘plough’
- ◌ ဆိံး /shí/ ‘race, ethnic group’, ကိံ /kí/ ‘surely’, ဝိံ /phi/ ‘short, low’, ကျိံးဝိံ /kle?si? ~ kli?si?/ ‘to endeavor’, ခိံ /khi?/ ‘habit, nature’
- ◌ ဆဲး /shâ/ ‘thing’, လဲး /lâ/ ‘LOC’ (The locative particle /lâ/ is spelled with no tonal mark although it has the high-level tone.)
- ◌ မဲး /má/ ‘to do’, ခဲ /khâ/ ‘be broken (as a stick)’, ခဲာ /khà/ ‘be bitter’, မဲာ /mà/ ‘wife’, ဆဲး /sha?/ ‘to sew’, မဲာ /ma?/ ‘son-in-law’
- ◌ ဒဲး /dú/ ‘pear’, ဝဲး /jû/ ‘to swallow’, ဘဲး /bù/ ‘paddy’, ဖဲာ /phù/ ‘to jump’, ဒဲး /dau?/ ‘to fight’, နဲး /nau?/ ‘to enter’
- ◌ ဝဲး /jú/ ‘to fly’, ဝဲး /jû/ ‘rat’, ခဲး /khù/ ‘to smoke’, ဖဲာ /phù/ ‘grandfather’, ဒဲး /dôu?/ ‘room’, လဲး /lou?/ ‘be used up’
- ◌ ဘိံး /bó/ ‘blister’, မိံ /mò/ ‘mother’, မိံ /khò/ ‘head’, ဖိံ /phò/ ‘to swell’, ကိံ /ko?/ ‘to call’, ဝိံ /jo?/ ‘be deep’
- ◌ လိံး /láu/ ‘to tell’, တိံး /t/ ‘be straight’, ထိံ /thâu/ ‘can contain’, ဖိံ /phô/ ‘to read’, အိံ /?àu/ ‘to be, exist’, နိံ /nò/ ‘that’, ထိံ /thàu/ ‘be long, high’, နိံ /nò/ ‘to wrestle’, ဒိံ /dô?/ ‘again’
- ◌ ဖဲး /phán/ ‘inside’, အဲလဲး /?àlɔjâN/ ‘weight’, ရဲး /rânsân/ ‘weight’, ဝဲး /θàn/ ‘three’

- ◌: ʉꞑ /phán/ ‘spear’, ʌ: /lân/ ‘place’, ʌꞑ /ʔàn/ ‘to eat’, ʃhàn /shàn/ ‘hen’
- ◌: ʉꞑ /tháun/ ‘bridge’, ʃhâun /shâun/ ‘to pick up (a person)’, ʃhâun /phâun/ ‘to catch’, ʉꞑ /thâun/ ‘gold’
- ◌: ʃhâun /dêin/ ‘to play (an instrument)’, ʉ: /thêin/ ‘be intimate’, ʃhâun /nèin/ ‘year’, ʉꞑ /mèin/ ‘be ripe’
- ◌: ʉꞑ /jâun/ ‘to roar (as a dog)’, ʉ: /khân/ ‘to threaten’, ʉꞑ /ʔân/ ‘be cloudy’, ʉꞑ /ʔânthân/ ‘to pick up’
- ◌: ʉꞑ /jâin/ ‘be far’, ʉ: /khâin/ ‘to tie around’, ʉꞑ /ʔâin/ ‘to bite’, ʉꞑ /lâin/ ‘rocky mountain’
- ◌: ʉꞑ /nóun/ ‘horn’, ʉ: /phôun/ ‘to get a hole’, ʉꞑ /thòun/ ‘bag’, ʉꞑ /yòunphòun/ ‘belly’
- ◌: ʉꞑ /ʔéðishín/ ‘Thomas Edison’
- ◌ ʉ /jâ/ (preposed form) ‘I, me’, ʉꞑ /kâbân/ ‘ship’, ʉꞑ /tâlâ/ ‘box’

#### 4.4. Exceptional readings

In WPK written in CS, exceptional spellings can be found in many words. Most of these cases are caused by reading a spelling that reflects the 19c EPK form with the WPK pronunciation, when the sounds of the 19c EPK and WPK forms do not correspond regularly. In the following, some basic words with exceptional readings are discussed.

The pronouns /jâ/ ‘1SG’ and /ná/ ‘2SG’ are spelled ʉꞑ and ʃhâ, respectively. The regular readings of these spellings in WPK are /jâ/ and /ná/, but these readings are incorrect. They are spelled this way because the corresponding 19c EPK forms are \*/jâ/ and \*/nâ/ (cf. CEPK /jâ/ and /nâ/). Similarly, the pronoun /bâ/ ‘1PL’ is spelled ʉꞑ. The regular reading of this spelling in WPK is /pâ/, but this reading is incorrect. This is because the corresponding 19c EPK form is \*/pâ/ (cf. CEPK /pâ/). The reading of this pronoun is irregular both in the initial and the rhyme.

The preposition /bô/ ‘as, like’ is spelled ʉꞑ. The regular reading of this spelling in WPK is /bâi/ or /bê/, but neither of these readings is correct. This is because the corresponding 19c EPK form is \*/bê/ (cf. CEPK /bê/). In addition, the first syllables of the forms ʉꞑ /bâjâ/ ‘like this’ and ʉꞑ /bâñâ/ ‘like that’ are read as /bâ/ (these



forms may also be read as /bójó/ and /bónô/). They are spelled this way because the corresponding 19c EPK forms are \*/bêjò/ (cf. CEPK /bêjò/) and \*/bênó/ (cf. CEPK /bênó/). Note that the first consonant in /bójó/ and /bónô/ is /b-/, not /b̄-/. Note also that the second syllable of /bónô/ has the falling tone, not the low-level tone. This is consistent with the fact that the second syllable of the WPK demonstrative ᳚᳚᳚ /ʔənô/ ‘that one’ has the falling tone instead of the low-level tone, which is expected from the 19c EPK form \*/ʔənó/ (cf. CEPK /ʔənó/).

The verb /pwí/ ‘be tired’ is spelled ᳚᳚. The regular reading of this spelling in WPK is /pweiʔ/, but this reading is incorrect. This spelling follows the corresponding 19c EPK form \*/pwàiʔ/ (cf. CEPK /pwài/).

The noun /jèin/ ‘house’ is spelled ᳚᳚. The regular reading of this spelling in WPK is /jèin/, but this reading is incorrect. This spelling follows the corresponding 19c EPK form \*/yéin/ (cf. CEPK /yéin/).

The verb /ʔàin/ ‘be narrow’ is spelled ᳚᳚. The regular reading of this spelling in WPK is /ʔèin/, but this reading is incorrect. This is because the corresponding 19c EPK form is \*/ʔéin/ (cf. CEPK /ʔéin/).

The particle /dê/ ‘and’ is spelled ᳚, whose regular reading in WPK is /dâi/ or /dê/. The corresponding 19c EPK form is \*/dê/ (CEPK /dê/), as it is spelled. This particle /dê/ is considered to be a loanword borrowed from EPK into WPK through written language because it is seldom heard in WPK daily conversation. It is unknown why it is not pronounced as it is spelled, given that it was borrowed through written language. Note that the particle /lô/ ‘and’ is used in daily conversation.

The noun /caiʔ/ ‘Buddha; God’ is unique in terms of phonology, because a glottal stop does not appear after a diphthong /-ai/. I regard this as an exception to the phonological rule. In practice, it is often pronounced with the pronunciation /câi/, which fits the phonological rule. The reason for this exception is that this word is a borrowing of Mon /cyac/ ‘Buddha’. To represent this exceptional pronunciation, WPK spells it as ᳚᳚s or ᳚᳚t. Usually, the vowel symbol ᳚ is not combined with the tonal symbol ᳚s or ᳚t. In this regard, the word is also an exception to spelling. The 19c EPK form with the same meaning is \*/cjàiʔ/ (cf. CEPK /câi/), and the spelling in EPK based on this pronunciation is ᳚᳚s.

#### 4.5. Difficulties in writing Western Pwo Karen in CS

CS reflects the phonological system of the 19c EPK. Therefore, there are several aspects of CS that do not fit the WPK phonological system. In this section, we discuss two major difficulties.

The first difficulty is the notation of tones. There are two notations for the low-level tone: ◯J and ◯ᵛ. There are also two notations for the checked tone: ◯S and ◯L. These notations are used to distinguish between the tones of 19c EPK, and it is sufficient to have one notation for each to correctly represent the low-level tone and the checked tone of the WPK. These notations can be used correctly if one knows the pronunciation of CEPK, but many WPK speakers do not know the pronunciation of CEPK. As a result, WPK speakers often make mistakes when writing tones.

The second difficulty refers to the notation of the vowels. WPK has a distinction between /-au/ and /-ə/. For example, /jáu/ ‘be of strong sunlight’ and /jə/ ‘this’ are pronounced differently. However, in CS, these two words are written as ᵛᵛᵛ using the same spelling. Furthermore, WPK has a distinction between /-ai/ and /-e/. For example, the second syllable of ဒဲᵛᵛᵛ /dəuʔnài/ ‘to show’ and the the sentence-final particle ᵛᵛᵛ /nè/, used to ask for the listener’s agreement, have different vowels, but they are spelled the same in CS. This difficulty with vowel notation does not seem to be as large as the difficulty with tone notation for WPK speakers. This is probably because it is easier to have fewer distinctions when writing, and when reading, native speakers can judge the correct way to read from the context.

### 5. Sample text

This section presents the WPK text written in CS. Here, I will quote a story presented by RVA Pwo Karen, a Western Pwo Karen channel on YouTube, in one of their videos. The URLs of the channel and video are as follows (checked on October 27, 2021).

The name of the channel: RVA Pwo Karen

<https://www.youtube.com/channel/UCoB8vBfCmPEAnpdm0UaMzNw>

The title of the video (in Burmese): ကရင့်ရိုးရာပုံပြင် ကဏ္ဍ (၁၂)

<https://www.youtube.com/watch?v=0pHIzupwCw>

The story is given in CS in Section 5.1. Some of the wording of the story has changed. Section 5.2 provides the transcription and translation of the story.

**5.1. The original text in CS**

“ဒီလီလီနဖိ အာဂုဘာ၊ အာလမ္ပဲ ကကဲဆာကာ”

- (1) လာဖျိုးဖျိုးအိဉ် ပုမုလကအဖိခွာအိဉ်ဂုကကဲအိဉ် အဝဲဘံဒါခွဲတေ လာဆာကာဆာဂဲအဖးဘာအိဉ်ထးမုမဲလာ အဝဲအလးခဲလီ။
- (2) လါနု ပုမုယီဉ် လာအဖိခွာ ကမိမးနီဉ် ကျဲစံးမးအာဂု လီဉ်ဘာအာဂုအာဝဲ ကိဉ်ကျဲဒုလီ။
- (3) မွဲဆာဘဲနီဉ် ဖိခွာလကယီဉ် စးထုလာ အဖိခွာဆဲး ထီးပိဉ်ထုအခါ အမိလီဉ်ဘာ အာဂုအာဝဲ ကိဉ်ကျဲဘိဉ်။
- (4) ဖိခွာနီဉ် ယုယါထး အဲလဲဒုဒါနု အာဝဲလီ။
- (5) မွဲယိထဲဒုအမိမိအဂး လဲဒုလာအာဝဲလီ။
- (6) ကနဲဒုနီဉ်တေ ဖိခွာယီဉ် ဒုပုမုနုဒုပံလဲ လကဲနီဉ် ဘာအာဝဲပုမုနီဉ်ဘိဉ် ပုမုပံလဲယီဉ် အဆာအဲကနဲအဂးနီဉ် တခဲဒု ကဘာမးနးမံဒု ကမးဂု ထီးအလူ အုကံဒု အယုဂု ဘဲဆာကအဲဆာထဲဒု အဝဲလီ။
- (7) အနီဉ်ဘိဉ် ပုမုနီဉ် စံးဆာထဲဒုအဂု အုမ္ပဲ နမိမးယဆာအဲနီဉ် ဂဲနုအုယး နမိအုအာဝဲ ယကဒုအု ယထံအဂးနီဉ်လီ။
- (8) အနီဉ်ကကွဲ ဖိခွာယီဉ် ဆီမိမိအုပု လာဆာနးမံဒုလအုဂီဒု ထဲဒုမးဘံ အမိမိ ပုထုထုဂု အုအာဝဲဂီဒု ဂဲစဲနုဂုလာ အဖိခွာမုအိဉ် လာဆာဘဲပံဖျဲဖျဲလု အဘိဉ်ဘာနီဉ် အဂုအာဝဲဘာထး လဲထဲဖါဂုဒုလီ။
- (9) ထာဖုဝဲမုခွာဘဲနု.
- (10) အထီအခါနီဉ် အမိအလူ ဂမုဒီထုလာအစုယုဒုအဖးဒု လာမိအုအာဝဲ အလီဒုနီဉ် “ဖိခွာဘာဘိဉ်ဒု မနုဘာထံးဘာနု ဆာခိထံးဇာ” နီဉ်လီ။
- (11) ပုရှာဖိယီဉ်နီဉ် မွဲဒုထီးယီဉ်လီနု.
- (12) လာရှါဖးဒု မိလကယီဉ် အာဝဲလါနု အဆာအဲနီဉ် ချဲဒုဒဲးဆာလာ အဖိအဂးဒဲးလီ။
- (13) လာရှါဖးဒုယီဉ် မိလီမုအု.

(14) ခးဘဲတၢ်တၢ်ယၢ်မိလၢဖၤ အဆၢအဲၤပိၤဒိၤဝုၤဒၢ လၢဖိၤဝံၤအဖၢၤခိၤ ဗွဲပဉ္စၢ်လဲၤနီၤ ပဉ္စၢ်ယၢ်ကိၤဂးန့ၤ.

(15) လါန့ၤ ယမိဖၢ်ကိၤဖၢ်ထဲၤဘၢ မိလၢဖၤ အ့ၤန့ၤအဲၤ န့ၤအဖိၤတၢ်ဂျိၤနီၤ ထၢၤလီၤဒုၤဘၢ အဝုၤဝံၤအၢၤ ကိၤမံၤဒုၤ ဘဲၤဂျိၤဖၢ်ယီၤမိလၢဂ့ၤနီၤလီၤ.

**5.2. Transcription and translation**

“θàunlò nə phò ʔèyɛ̀bà, ʔè lə mwê, kə kài shəkà”  
 teach 2SG child well if NEG COP IRR become difficulty  
 ‘Educate your children well. Otherwise, difficulties will arise.’

(1) ló phlóunphlóun ʔó pəmù lə yá ʔə phòkhwà  
 LOC long.ago that woman one NCh 3SG son  
 ʔəu wè kə yá yáun,  
 be EMP one NCh and  
 ʔə wá θidā khweiʔ taʔ, ló shəkàshəyáí ʔəphón  
 3SG husband die.ahead thoroughly and LOC difficulty inside  
 bə ʔəuthân mùmàì ló ʔə wá ʔəlânkhàin lò.  
 must remain widow LOC 3SG husband behind AST  
 ‘A long time ago, a woman had a son. Her husband died, leaving her behind,  
 and she was living as a widow in a difficult situation.’

(2) lânàn pəmù jó ló ʔə phòkhwà kə mô má nò  
 but woman this LOC 3SG son IRR want.to take TOP  
 klíʔsíʔ! má ʔè wè, láun bə ʔè wè ʔə θaʔ  
 endeavor do APb EMP follow BA APb EMP 3SG mind  
 kóʔ cà dɛʔ lò.  
 every time every AST  
 ‘However, this woman did her best to do what her son wanted and always  
 indulged him.’

(3) mwê shə bónò, phòkhwà lə yá jó  
 COP thing like.that son one NCh this  
 saʔ thàn ló ʔə phòthà sheiʔ  
 begin up LOC 3SG youngster small  
 thàn xó thàn ʔəkhà, ʔə mô láun bə  
 until big up time 3SG mother follow BA

ʔəwèʔə θaʔ koʔ cà ʔoʔ.  
 3SG mind every time BO

‘In this way, from the time this son was a small child until he grew up, his mother always indulged him.’

- (4) phòkhwà nò jùjâthân ʔài lán dānê ʔə θaʔ lò.  
 son TOP accustomed love down only 3SG MID AST  
 ‘The son became accustomed to loving only himself.’

- (5) mwê jò tháin ʔə mômô ʔəyân  
 COP look back 3SG mother sake  
 lə θè lán ʔà lò.  
 NEG can anymore NEG AST  
 ‘He could no longer take care of his mother.’

- (6) kə ní nòtaʔ phòthákhwà jó  
 one day TOP son this  
 dā pəmúnán xilá lə yá nò,  
 see girl beautiful one NCh after  
 ʔà ʔə θaʔ pəmù nò ʔoʔ,  
 hit 3SG MID female because BO  
 pəmù xilá jó ʔə shəʔài kə nê ʔəyân nò,  
 female beautiful this 3SG love(n.) IRR get sake TOP  
 təkhádā kə ʔà má nán<sup>2</sup> méin, kə má wè tháunʔəlouʔ,  
 whatever IRR must do any kind IRR do EMP all  
 ʔánkéin ʔànjà wè  
 request ask.for EMP  
 ʔó shə kə ʔàishən tháin ʔəθoʔ lò.  
 so.that IMPS IRR love back sake AST  
 ‘One day, this son met a beautiful girl and liked her so much that he did everything possible to win her love, and asked her to love him back.’

- (7) ʔənoʔ ʔoʔ, pəmù nò seiʔshən tháin ʔəwè,  
 that BO female TOP reply back 3SG  
 ‘ʔè mwê nə mô má jə shəʔài nò,  
 if COP 2SG want.to take 1SG love(n.) TOP  
 yài nê ʔè já nə mô ʔəθənʔəθaʔ,  
 come get APb 1SG 2SG mother guts

jə kə dəu? ʔàn jə thwì ʔəyân” nò lò.  
 1SG IRR let eat 1SG dog sake that AST  
 ‘Then the girl replied, “If you want to earn my love, bring me your mother’s  
 entrails to feed my dog.”’

- (8) ʔənô kə cà phòthàkhwà jò  
 that one time boy this
- sháunmàun<sup>3</sup> ʔànxa? ló shə nán méin lə ʔe? yáun,  
 think search LOC thing any kind anymore NEG and
- tháin má ðì ʔə mômô, xwe? thàn wè ʔəθə̀nʔəθa? yáun,  
 return make die 3SG mother cut up EMP guts and
- yài sàin nê wè ló ʔə phòthàmù ʔə ʔàu  
 come run get EMP LOC 3SG girl 3SG place
- lò shəθa?xwì phlâiphlâile? ʔəbóunba? nò,  
 LOC pleasure very.fast interval TOP

ʔəwèʔə khàn bàthón lánthíphâ wèdā lò.  
 3SG leg stumble fall EMP AST  
 ‘Then the boy, no longer thinking about anything else, went home, killed his  
 mother, cut out her entrails, and ran at full speed toward the girl with them in  
 joy. At that moment, he tripped and fell.’

- (9) thə̀nphtúrwáimùkhwà ðì yá<sup>4</sup>.  
 sister.and.brother PL hey  
 ‘Oh, my brethren and sisters!’

- (10) ʔəthôʔəkhà nò ʔə mô ʔə lú yə̀n θau thàn  
 time that 3SG mother 3SG voice hear loud up
- lò ʔə sùjànθa? ʔəphánkhò<sup>5</sup> ló mô ʔəθə̀nʔəθa? ʔəláun nò  
 LOC 3SG palm upside LOC mother guts on TOP
- “phòkhwà θaʔbáun yá,  
 son young hey

mə nə bə̀theiʔbànàin shàkhoʔthei? yà” nò lò.  
 COP 2SG collide to.severely.ache Q that AST  
 ‘It was then that his mother’s voice came loudly from her entrails on his palm.  
 “My young son, did it hurt when you fell?”’

- (11) pə́əphò jò nò mwê dā thāunjó lò nè.  
 humans this TOP COP just like.this AST isn’t.it  
 ‘This is what being human is all about, isn’t it?’

- (12) ló      eâ      bón      mô      lə      yá      jó      ʔè      θi      lânàn,  
 LOC   folktales   inside   mother   one   NCh   this   if   die   though
- ʔə      shəʔài      nò      khláin      ɗeiʔ      zə  
 3SG   love(n.)   TOP   speak   still   thing
- ló      ʔə      phò      ʔəyân      ɗeiʔ      lə.  
 LOC   3SG   child   sake   still   AST
- ‘In the folktale, the mother died, but her love was so strong that she even spoke out for her child.’
- (13) ló      eâ      bón      jó      mô      lə      mwê      ʔeʔ.  
 LOC   folktales   inside   this   mother   only   COM   NEG
- ‘It is not just the mother in the folktale.’
- (14) khânθáin      thənðéinjà      mô      ləphà      ʔə      shəʔài      xóɗò      wèɗà  
 world                    all.over                    mother   PL                    3PL                    love(n.)   big                    EMP
- ló      phò      θi      ʔəphánkhò      xwéɗəθè      lài      nò  
 LOC   child   PL   upside                    how.much   Q                    TOP
- pə      θèjà      koʔ      yá      nè.  
 1PL   know   every   NCh   isn’t.it
- ‘We all know how much mothers all over the world love their children, don’t we?’
- (15) lânàn      jə      mô      phèkòunphètháin      bə      mô      ləphà,  
 however   1SG   want.to   advise                    BA   mother   PL
- ʔè      nəθi      ʔài      nəθiʔə      phò      tæeá      nò,  
 if   2PL   love   2PL   child   really   TOP
- thən      láun      bə      ʔəwèθiʔə      θaʔ      koʔ      méin  
 even   follow   BA   3PL                    mind   every   kind
- bó      eâ      bón      jó      mô      ləyé      nò      lə.  
 as   folktales   inside   this   mother   don’t   that   AST
- ‘However, I would like to give some advice to mothers. If you really love your children, you should not spoil them like the mother in this folktale.’

**Note 1:** /kliʔsiʔ/ ‘to endeavor’ is also pronounced /kleʔsiʔ/ as spelled. The spelling follows 19c EPK \*/klèʔciʔ/ (cf. CEPK /klèci ~ klicì/).

**Note 2:** The literal pronunciation of /nán/ ‘any’ is /nān/, and although it is sometimes pronounced this way, it is usually pronounced /nán/. The spelling follows 19c EPK \*/nān/ (cf. CEPK /nān/).

**Note 3:** The first syllable of /sháunmàun/ ‘to think’ is not pronounced with the low-level tone

as spelled, but with the high-level tone. The spelling follows 19c EPK \*/chônmón/ (cf. CEPK /chônmón/).

**Note 4:** The sentence-final particle /γά/ ‘hey’ is spelled according to the 19c EPK pronunciation \*/κḗ/ (cf. CEPK /κḗ ~ κḗ/). The pronunciation as spelled is /γḗ/, but this pronunciation is incorrect.

**Note 5:** The second syllable of /ʔəphánkhò/ is not pronounced with the low-level tone as spelled, but with the high-level tone. The spelling follows 19c EPK \*/ʔəphánkhó/ (cf. CEPK /ʔəphánkhó/).

## 6. Concluding remarks

We have seen how WPK is written in CS. Interestingly, CS was first created as a writing system for EPK and later became the writing system for WPK. We have also seen how Baptist missionaries changed the readings of CS to use it as a writing system for WPK.

When they started using CS as the writing system for WPK, the Baptist missionaries did not modify the spelling. They read CS with WPK pronunciation by using the regular phonological correspondences between WPK and EPK. The highly systematic nature of CS has made this happen. CS reflects the sounds of the 19c EPK in a nearly one-to-one manner. If it were not for this high degree of systematicity, it would have been impossible to use it as a WPK writing system.

I call this writing system the Christian Pwo Karen Script, because the creator of this writing system was a Christian missionary. However, this term is not exactly appropriate in the context of the current use of this script, because CS is now beginning to be popular among Buddhist Pwo Karens, and even Buddhist monks are beginning to use it. As a case where a writing system created by Christian missionaries is being used by other religious believers, we are reminded of Quốc Ngữ of Vietnamese. Even if the initial purpose of creating a writing system is to propagate a particular religion, if it is accepted by a large number of people, it can achieve the status of an orthography for that language. I would like to conclude this article, emphasizing that CS has already reached a stage where it can be called an orthography of Western Pwo Karen.

### Abbreviations

APb = applicative marker denoting benefaction; AST = particle indicating assertion;



BA = verb particle /bà/ indicating opportunity or inadvertence; BO = particle /boʔ/ or /bó/ having a function of softening the speaker's tone; BS = Buddhist Pwo Karen Script; CEPK = contemporary Eastern Pwo Karen; COP = copular verb; CS = Christian Pwo Karen Script; EMP = emphasis; EPK = Eastern Pwo Karen; IMPS = impersonal subject; IRR = irrealis; LOC = particle indicating location, goal, and source; MID = middle marker; n. = noun; NCh = numeral classifier for a human; NEG = negativity; PL = plural; Q = question; REL = relative marker; SG = singular; TOP = topic; 1 = first person; 2 = second person; 3 = third person; 19c EPK = 19th-century Eastern Pwo Karen.

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### Errata for Kato (2021) “Pwo Karen writing systems”

1. p. 29, the first line below Table 8:  
 Incorrect: There are 7 open rhymes, as shown in Table 9.  
 Correct: There are 7 nasalized rhymes, as shown in Table 9.
2. p. 44, Table 22, the line of ◯<sup>1</sup> (the fifth line from the top):  
 Incorrect: -ī → Correct: -ī (\*-ī)  
 Incorrect: -î → Correct: -î (\*-î)

3. p. 45. Insert the text below as the first note below Table 22:

- When  $\text{○}_\text{̣}$  is combined with the basic letter  $\text{○}$  or the subscript  $\text{○}_\text{̣}$ , it is read /-e/ instead of /-i/, e.g.,  $\text{ᠵᠠᠳᠠᠳᠠᠳᠠᠳᠠ}$  /ʒəwê/. This is because the change from 19c EPK \*/-e/ to CEPK /-i/ did not occur after the initial consonant /w-/ or the medial consonant /-w-/, and \*/-e/ was retained as /-e/ in these environments.

