# Phonology of Burmese loanwords in Jinghpaw

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**Abstract:** The aim of this paper is to provide a preliminary descriptive account of the phonological properties of Burmese loans in Jinghpaw especially focusing on their segmental phonology. Burmese loan phonology in Jinghpaw is significant in two respects. First, a large portion of Burmese loans, despite the fact that the contact relationship between Burmese and Jinghpaw appears to be of relatively recent origin, retains several phonological properties of Written Burmese that have been lost in the modern language. This fact can be explained in terms of borrowing chains, i.e. Burmese  $\rightarrow$  Shan  $\rightarrow$  Jinghpaw, where Shan, which has had intensive contact with both Burmese and Jinghpaw from the early stages, transferred lexical items of Burmese origin into Jinghpaw. Second, the Jinghpaw lexicon also contains some Burmese loans reflecting the phonology of Modern Burmese. These facts highlight the multistratal nature of Burmese loans in Jinghpaw. A large portion of this paper is devoted to building a lexicon of Burmese loans in Jinghpaw together with loans from other relevant languages whose lexical items entered Jinghpaw through the medium of Burmese.\*

Key words: Burmese, Jinghpaw, Shan, loanwords, contact linguistics

#### 1 Introduction

Jinghpaw is a Tibeto-Burman (TB) language spoken primarily in northern Burma (Myanmar) where, as with other regions of Southeast Asia, intensive contact among speakers

Abbreviations for languages and language families dealt with in this paper are as follows: Arb. (Arabic); Bur. (Burmese); En. (English); Hin. (Hindi); IA (Indo-Aryan); Jg. (Jinghpaw); La. (Lacid); Lh. (Lhaovo); MB (Modern Burmese); Ng (Ngochang); P. (Pali); Per. (Persian); Por. (Portuguese); Ra. (Rawang); Sh. (Shan); Sk. (Sanskrit); TB (Tibeto-Burman); WB (Written Burmese); Za. (Zaiwa). Abbreviations in glosses are based on Leipzig Glossing Rules. Additional abbreviations are: COUP (couplet) and DECL (declarative).

<sup>\*</sup> I would like to thank Professor Hideo Sawada and Professor Keisuke Huziwara for their careful reading and helpful suggestions on an earlier draft of this paper. Two anonymous reviewers are also acknowledged for their constructive comments. Any errors that remain are, of course, solely my responsibility. My fieldwork on Jinghpaw, Lhaovo, and Lacid was supported by a Grant-in-Aid for JSPS Fellows (Nos. 24-2938 and 26-2254) from the Japan Society for the Promotion of Science.

from diverse linguistic backgrounds has been a long-standing phenomenon. For example, Jinghpaw serves as a lingua franca in northern Burma, spoken among the linguistically diverse Kachin people who form a complex socio-cultural society of shared cultural traits. Simultaneously, Jinghpaw is in contact with other linguistic groups of higher prestige such as Burmese. Building upon a lexicon of Burmese loans in Jinghpaw provided in Appendix A, this paper offers a preliminary descriptive account of the phonological properties of Burmese loans in Jinghpaw, focusing especially on their segmental phonology. Burmese loan phonology in Jinghpaw, which exhibits the characteristics of both old and new strata in Burmese phonology, provides a case study of complicated contact situations in Southeast Asia.

This paper is organized as follows. Section 2 discusses the stratal nature of Burmese loans in Jinghpaw and its historical background. Section 3, beginning with initial consonants, provides a detailed description of Burmese loan phonology in Jinghpaw. Conclusions and future objectives are presented in Section 4. Appendix A presents Burmese loans in Jinghpaw, including other source languages whose lexical items filtered into Jinghpaw through the medium of Burmese, and Shan that has played an important role in introducing Burmese items into Jinghpaw. A brief sketch of the semantics of Burmese loans in Jinghpaw is provided in Appendix B. In the remainder of this section, I provide a brief literature review and sources of linguistic data presented in this paper.

#### 1.1 Previous studies

Few previous studies have addressed the lexical borrowing between Burmese and Jinghpaw. Hanson (1896:87–8) is one of the earliest studies to identify about thirty Burmese loans in Jinghpaw. He highlights the important fact that several Burmese loans in Jinghpaw are also found in Shan, a Tai-Kadai language whose distribution partially overlaps with Jinghpaw making it difficult to determine whether a given word entered Jinghpaw from Burmese or Shan. Hanson (1906), a dictionary of Jinghpaw, is a significant contribution to the Burmese-Jinghpaw contact linguistics in that it identifies a number of Jinghpaw lexical items of Burmese origin with their source words in their orthographic transcription. Maran (1978), an updated dictionary of Hanson (1906), is also an important contribution that presents additional data. Dai and Xu (1995:265–6), based on a Jinghpaw dialect spoken in China, identify about two dozen Jinghpaw words

<sup>&</sup>lt;sup>1</sup> Burmese loans in this paper include not only loans of Burmese origin but also loans that entered Jinghpaw through the medium of Burmese (see Section 1.2).

of Burmese origin. They observe that Burmese borrowings in Jinghpaw are culturally motivated, being primarily related to daily commodities or terms associated with politics, economics and culture. This paper is a first step to provide a detailed description of Burmese loan phonology in Jinghpaw.

## 1.2 Data and transcriptions

The data of Burmese loans in Jinghpaw presented here are collected based on Hanson (1906) and Maran (1978). The author identified corresponding Shan forms using the SEAlang Library Shan Dictionary.<sup>2</sup> This paper also includes loans of Indic and European origin, most of which likely found their way into Jinghpaw through Burmese. This paper treats only established and integrated loans; regarding a given word as a loan only if it is listed in the aforementioned sources. Although spontaneous language mixing between Jinghpaw and Burmese is commonly found in ordinary Jinghpaw speech, this paper does not consider such cases as genuine loans (for more details see Section 2.4).

The data in this paper are primarily secondary data obtained from the following sources: Burmese (Myanmar Language Commission ed. 2009); Hindi (McGregor 1993); Jinghpaw (Maran 1978); Lacid (my field notes); Lhaovo (Sawada 2003, 2004, supplemented by my field notes marked by K); Mon (Jenny 2015); Ngochang (Nasaw Sampu et al. 2005); Pali (Rhys Davids and Stede, eds. 1921-1925); Persian (McGregor 1993); Rawang (LaPolla and Sangdong 2015); Sanskrit (Monier-Williams 1899); Shan (Sao Tern Moeng 1995); and Zaiwa (Lustig 2010). The Jinghpaw data based on Maran (1978) are given with slight modifications according to the phonemic transcription employed by Kurabe (2016). The Shan data based on Sao Tern Moeng (1995), an updated version of Cushing (1881 [1914]), are transcribed according to the system used in the SEAlang Library Shan Dictionary. The transcription of Written Burmese (WB) is based on the system outlined by Duroiselle (1916) and the data for Modern Burmese (MB) are transcribed according to the system illustrated by Kato (2008). For details on the phonological systems of WB, MB, Jinghpaw, and Shan, the four main languages discussed in this paper, readers can refer to Duroiselle (1916), Kato (2008), Kurabe (2016), and Sao Tern Moeng (1995), respectively. The Lhaovo and Lacid data based on my field notes are provided in their orthographic forms (for the phonological systems and/or correspondences between phonological and orthographic transcriptions, see Sawada 2006 and Wannemacher 2011).

<sup>&</sup>lt;sup>2</sup> http://www.sealang.net/shan/dictionary.htm (accessed December 4, 2016)

## 2 Stratal nature and historical background of Burmese loans

#### 2.1 Co-existence of Written and Modern Burmese phonologies in Jinghpaw

The phonology of Burmese loans in Jinghpaw, by exhibiting two distinct phonological properties reflecting different historical periods, displays at least two strata of Burmese loans in Jinghpaw. The older loan stratum, whose items predominate over the other, consists of borrowings that display the phonological properties of WB that have been lost in MB. The younger stratum, on the other hand, consists of borrowings that display the phonological properties of MB. To illustrate this, let us compare two Burmese loans in Jinghpaw  $\eta_0 r \acute{a} y$  'hell' and me 'ballot', where the former reflects the properties of WB (WB  $\dot{n} a r a i$ , MB  $\eta \check{a} y \acute{e}$ ), in contrast to the latter that reflects properties of MB (WB mai, MB  $m\acute{e}$ ). The same holds for the contrast between (1a) and (b), where only the former retains the final velar of WB that has been reduced to a glottal stop in MB, and between (1c) and (d), where only the former retains the final bilabial nasal that has been merged into /N in the modern language together with other final nasals (for more examples see Section 3).

- (1) Examples representing separate loan strata
  - a. 'measles' Jg. wàksàk (from WB waksak, MB wε?θε?)
  - b. 'screw' Jg. wé?wu (from WB wak'ū, MB wɛ??ù)
  - c. 'luck' Jg. gàm (from WB kam, MB kàn)
  - d. 'pencil' Jg. khédan (from WB khaitam, MB khédàn)

#### 2.2 Contact relationship between Jinghpaw and Burmese

Burmese, the national language of Burma, is the medium of education and communication throughout modern Burma. The majority of Jinghpaw speakers today are thus fully bilingual in Burmese from childhood (see also Section 2.4). This situation, however, does not seem to hold a century ago, as can be seen in the following quotation from Tegenfeldt (1974:174) who describes the situation in the early 1900s:

A few Kachin [Jinghpaw] young men who appeared especially promising and who had some knowledge of the Burmese language were sent for training to the Burman Theological Seminary at Insein, near Rangoon. The first of these seems to have been Zau Mai, son of a chief from the Shan State, who completed his course during the four years 1907-1911.... However, there were not many sent to Insein,

partly because of the Burmese language requirement, and partly because there undoubtedly was some question in the minds of the missionaries about the suitability of the training provided in an urban environment in Lower Burma for service in the Kachin Hills.

It is also of importance to note that the name of Jinghpaw or Kachin does not appear in Old Burmese inscriptions of the Pagan period (Luce 1959), where, along with the name of the extinct Pyu people, the names of other modern major ethnic groups in Burma such as Arakanese, Sgaw, Pwo, Mon, and Shan are already attested. This fact seems to suggest that the Jinghpaw people were, in general, not under the direct control of Pagan kings, and that intensive contact between Burmese and Jinghpaw is of relatively recent origin. The name "Kachin" itself, the Burmese exonym for the Jinghpaw and associated groups in northern Burma, seems to have a relatively short history.

#### 2.3 Borrowing chains

The predominance of Burmese loans reflecting the conservative WB phonology in Jinghpaw is remarkable given that the intensive contact relationship between Burmese and Jinghpaw appears to be of relatively recent origin. The puzzle of the existence of conservative Burmese phonology in a language with a relatively short historical relationship with Burmese is attributable to borrowing chains. The Jinghpaw lexicon, together with a rich array of inherited words, contains a considerable number of foreign elements from languages belonging to both TB and non-TB stock, including Shan, Burmese, Chinese, Pali, and Sanskrit. It is not always the case that Jinghpaw borrowed a given word directly from a given source language. Matisoff (2013:24) provides the borrowing chains across several language families presented in (2), remarking that the Jinghpaw lexicon has a large number of Shan elements, and "[s]ome of these Shan items were themselves from Burmese, and in turn some of these were originally from Indo-Aryan". Jinghpaw, which serves as a lingua franca among the ethno-linguistically diverse Kachin people, further introduced some of these items into languages inside the Jinghpaw sphere of influence such as Rawang.

## (2) Borrowing chains

Pali (IA) 
$$\rightarrow$$
 Burmese (TB)  $\rightarrow$  Shan (Tai)  $\rightarrow$  Jinghpaw (TB)  $\rightarrow$  Rawang (TB)

Many Burmese loans with conservative phonological characteristics thus entered Jinghpaw, not directly from Burmese but by way of Shan, a language that has a wellestablished historical relationship with both Burmese and Jinghpaw. The early contact relationship between Shan and Burmese is well attested to the extent that the Shan people, after the fall of the Pagan dynasty of Burmese kings in A.D. 1287, swiftly gained power and established several kingdoms ruled by Burmanized Shan kings in Central Burma. It is thus fairly likely that Shan borrowed Burmese lexical items from early stages. A number of Burmese loans in Shan that exhibit the phonological properties of early Burmese also indicates this scenario. The contact relationship between Shan and Jinghpaw is also well established. The Jinghpaw lexicon, in which there are more Shan loans than from any other languages (Kurabe to appear), shows that the most prominent donor language of loans in Jinghpaw is Shan, with which Jinghpaw has been in contact relationship for the past centuries. The intensive contact between the Shan and Jinghpaw people is well attested to the extent that, as a result of cultural assimilation, it is not infrequent that a Jinghpaw "becomes a Shan" (Leach 1954:30). A large number of Burmese loans with conservative phonology being also found in Shan (Hanson 1896:87–8) were thus introduced into Jinghpaw through the medium of Shan not directly from Burmese.

To summarize, the conservative phonological properties in many Burmese loans in Jinghpaw, together with historical evidence indicating recent contact between Burmese and Jinghpaw, suggest that a large number of Burmese items filtered into Jinghpaw through Shan. The fact that some Jinghpaw words of Burmese origin have additional non-etymological Shan elements further supports this scenario. WB  $un^3$  'coconut', for example, is borrowed into Jinghpaw as  $m \frac{\partial^2 un}{\partial u}$  (cf. Shan  $maak^2 \frac{\partial un}{\partial u}$ ) with a Shan class term  $maak^2$  'fruit' that frequently occurs in Shan fruit names, just like many other Shan fruit names borrowed into Jinghpaw (Kurabe to appear).

#### 2.4 Loans and code-switching

As noted earlier among Burmese loans of different origins, the majority of established loans belong to the older stratum having been introduced into Jinghpaw through Shan. This does not imply, however, that Jinghpaw is resistant to Burmese influence. Rather, modern Jinghpaw, with the majority of speakers being fully bilingual in Burmese from a very young age, is greatly influenced by Burmese. This can be observed in the codeswitching (both alternational and insertional) that occurs among modern Jinghpaw speakers who frequently insert Burmese elements into their ordinary speech, whether they are words, phrases, or utterances, even when there is no need to compensate for lexical gaps. The following extract from a Jinghpaw monologue illustrates insertional switches within a single sentence, where a Burmese noun phrase shănwín dô 'turmerics' and a Burmese

idiomatic phrase bà dô pà dô 'something like that' are inserted:

(3) cánthe codu ?ay gò yá? ná dzòn **shănwín dô bà dô pà dô** 3pl cook NMLZ TOP now GEN like turmeric PL what PL COUP PL n-baŋ ?ay.

**NEG-put DECL** 

'They don't, unlike today, put turmerics and the like into what they are cooking.'

Although instances of lexical insertions like (3) can be widely observed, this paper distinguishes such types of spontaneous language mixing from borrowing, which is essentially a diachronic process. In what follows, as noted in Section 1.2, we shall study established and integrated loans alone, regarding a given word as a loan only when it is listed in Hanson (1906) and Maran (1978).

## 3 Phonology of Burmese loans

This section deals with the phonological properties of Burmese loans in Jinghpaw in terms of initials (3.1), open rhymes (3.2), nasal rhymes (3.3), and checked rhymes (3.4) by comparing them with Burmese and Shan through the medium of which, as noted in Section 2.3, many Burmese words entered Jinghpaw. Section 3.5 presents a brief summary of the importation and adaptation observed in Burmese loans in Jinghpaw.

## 3.1 Initial consonants

Table 1 below displays the correspondences of initial obstruents between WB, MB, Shan, and Jinghpaw attested in our data in Appendix A. Since Burmese initials have not undergone drastic sound changes compared with its rhymes, it is often difficult to determine whether a given loan in Jinghpaw reflects the phonology of WB or MB.

WB	p	ph	b	t	th	d	k	kh	g	c	ch	j	s	h
MB	p	ph	b	t	th	d	k	kh	g	$\mathbf{S}$	sh	$\mathbf{Z}$	θ	h
Sh	p	$p^{h}$	p	t	$t^{\mathrm{h}}$	t	k	$k^{\rm h}$	k	ts	$s^{h}$	ts	$s^{h}$	h
Jg	p/b	ph	b	t/d	th	d	k/g	kh	g	c/j/ts	$\mathbf{s}$	j/dz	$\mathbf{S}$	kh/h

Table 1 Correspondences between initial obstruents

Shan and Jinghpaw, as demonstrated in Table 1, faithfully retain Burmese voiceless aspirated stops, as illustrated by (4a) to (c), mapping them straightforwardly to their equivalents. Some voiceless unaspirated stops of Burmese, as in (4d) and (e), are mapped to their Shan equivalents and to either voiceless or voiced Jinghpaw counterparts, the conditioning factor of which is unknown. Voicing instability of loans in Jinghpaw is also observed for Shan loans in Jinghpaw (Kurabe to appear). As far as our data reveals, Burmese voiced stops that were devoiced in Shan with no voice contrast regularly correspond to Jinghpaw voiced stops as in (4f). This fact can be taken to suggest that they entered Jinghpaw directly from Burmese. It is also possible, however, that the correspondence is merely accidental given the insufficient data and voicing instability of loans.

#### (4) Correspondences of stops

- a. 'raft' WB phon, MB phàun, Sh.  $p^h \supset \eta^2$ , Jg. phon
- b. 'jail' WB thon, MB thàun, Sh.  $t^h \supset \eta^2$ , Jg. thon
- c. 'bell' WB khon<sup>3</sup>lon<sup>3</sup>, MB kháunláun, Sh. khon<sup>4</sup>lon<sup>4</sup>, Jg. khonlon
- d. 'class' WB tan3, MB tán, Sh. taan4, Jg. tán
- e. 'fort' WB tap (from Mon), MB ta?, Sh. tap5, Jg. dàp
- f. 'rheumatism' WB dūlā (from Sanskrit), MB dùlà, Sh. tu²laa², Jg. dula

WB /c/ that has developed into MB fricative /s/ is reflected with /ts/ in Shan. As illustrated by (5a) and (b), it corresponds to Jinghpaw /c, j, ts/ suggesting different periods or paths of borrowing (i.e. Bur. > Jg. or Bur. > Sh. > Jg.). Based purely on phonological similarity, Jinghpaw /c, j/ appears to reflect WB /c/ while Jinghpaw /ts/ appears to reflect Shan /ts/. The fact that /ts/ in loans of Shan origin is always mapped to Jinghpaw /c, j/, however, obscures the correspondences (Kurabe to appear). As exemplified by (5c) to (e), WB /ch/ and /j/ that have become MB /sh/ and /z/ are usually mapped to /sh/ and /ts/ in Shan and to /s/ and /j, dz/ in Jinghpaw, where words showing the WB /j/ vs. MB /z/ vs. Jg. /dz/ ([dz]  $\sim$  [z]) correspondence appear to be of recent origin.

#### (5) Correspondences of affricates

- a. 'machine' WB cak (from Pali), MB se?, Sh. tsaak<sup>3</sup>, Jg. jàk
- b. 'envelope' WB cā'it, MB sà?ei?, Jg. tsa?ík
- c. 'teacher' WB charā, MB shəyà, Sh. shraa2, Jg. səra
- d. 'Jataka' WB jāt (from Pali), MB za?, Sh. tsaat<sup>3</sup>, Jg. jàt
- e. 'spoon' WB jwan<sup>3</sup>, MB zún, Jg. dzún

The two WB fricatives, as illustrated by (6a) and (b), are mapped to close equiv-

alents in Shan and Jinghpaw. Jinghpaw, as illustrated by (6b), sometimes displays hesitation between /kh/ and /h/ for the voiceless glottal fricative of Burmese. This can be accounted for in terms of the competition between importation and adaptation: the phoneme /h/ is only restricted to interjections and mimetic words in the Jinghpaw native phonology (see Section 3.5).

#### (6) Correspondences of fricatives

WB

MB

Sh

Jg

m

m

m

m

 $\mathbf{m}$ 

m

n n

n n

- a. 'Murraya' WB sanapkhā<sup>3</sup>, MB θănăkhá, Sh. s<sup>h</sup>a<sup>1</sup>naap<sup>3</sup>k<sup>h</sup>aa<sup>4</sup>, Jg. sənàpkhá
- b. 'preach' WB ho, MB hó, Sh.  $ho^4$ , Jg.  $h\acute{o} \sim kh\acute{o}$

n

ny

The regular phonological mapping of initial sonorants between source and borrowing languages attested in our data is summarized in Table 2.

mh nh 'n rh lh n ñ w wh y yh 1 hl hm n hn  $\mathfrak{p}$ C hw η

s/c

1

W

1

Table 2 Correspondences between sonorants

r/j

r/y

ŋ

The voiced nasal, liquid and glide of Burmese, as given in (7a) and (b), are faithfully preserved in Shan and Jinghpaw without any substitution.<sup>3</sup> On the other hand, the voiceless sonorants are replaced with their voiced counterparts in the borrowing languages to conform to their native phonologies where voiceless sonorants are absent, as illustrated by (7c) and (d). As (7e) and (f) exemplify, WB liquid r that appears to have been shifted to /y/ by the end of the 18th century (Nishi 1999:6) is mapped both in Shan and Jinghpaw to /r/ or /y/, the latter of which suggests its recent origin. The WB voiceless liquid rh that has developed into MB fricative /c/ is reflected as  $/s^h/$  in Shan. The phonological similarity suggests that loans displaying this correspondence were introduced into Shan after the fricativization of the WB voiceless liquid. This sound, as exemplified by (7g), is reflected in Jinghpaw either with /s/ or /c/, the former of which appears to have been introduced into Jinghpaw through Shan and the latter directly from Burmese, based on their phonological similarities.

<sup>&</sup>lt;sup>3</sup> A few exceptions include WB *jalum* 'bowl' (MB *zălòun*) that appears as *jəruŋ* in Jinghpaw (cf. Shan *tsa¹ luŋ²*).

## (7) Correspondences of sonorants

- a. 'prince' WB man̄<sup>3</sup>sā<sup>3</sup>, MB mínθá, Sh. man̄<sup>4</sup>shaa<sup>4</sup>, Jg. mánsá
- b. 'intellect' WB ñāṇ (from Pali), MB pàn, Sh. paan², Jg. nyàn
- c. 'offer' WB lhū, MB hlù, Sh. lu², Jg. lu
- d. 'certificate' WB lakmhat, MB le?hma?, Sh. laak³maat³, Jg. làkmàt
- e. 'office' WB rum', MB youn, Sh. run', Jg. run
- f. 'affair' WB are<sup>3</sup>, MB ?ăyé, Sh. ?a<sup>1</sup>je<sup>4</sup>, Jg. ?əye
- g. 'be messy' WB rhup, MB cou?, Sh.  $s^h u k^5$ , Jg.  $c u k \sim s u k s a k$

Table 3 displays the correspondences involving consonant clusters between WB, MB, Shan, and Jinghpaw.

Table 3 Correspondences between consonant clusters

WB	py	phy	ky	khy	my	pr	phr	kr	khr	mr
MB	py	phy	c	ch	my	py	phy	c	ch	my
Sh	_	_	kj	$k^{\rm h} j$	mj	p(y)	_	kj/ts	_	mj
Jg	_	_	ky/gy/j	khy	my	py	_	ky/c	_	my

Burmese loans in Shan and Jinghpaw, compared with MB where some clusters were affricated, preserve WB consonant clusters well, as (8a) illustrates. WB clusters with a liquid that were palatalized in MB appear with medial /y/ in Shan and Jinghpaw, as in (8b). There are some instances, as provided in (8c), where WB clusters are, like MB, mapped to affricates in Jinghpaw. These can be viewed as representing the recent stratum of Burmese loans in Jinghpaw.

#### (8) Correspondences of consonant clusters

- a. 'to rest' WB khyam<sup>3</sup>sā, MB chánθà, Sh. khjaam<sup>4</sup>shaa<sup>2</sup>, Jg. khyámsà
- b. 'emerald' WB mra, MB myâ, Sh. mja<sup>5</sup>, Jg. mya
- c. 'school' WB kyon', MB cáun, Sh. kjon, Jg. jòn

#### 3.2 Open rhymes

Table 4 shows the correspondences of open rhymes between WB, MB, Shan, and Jinghpaw.

Table 4	Correspond	lences betwee	n open rhymes
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WB	a	ā	i	ī	u	ū	e	ai	ay	О	ui
MB	a	a	i	i	u	u	e	3	ε	С	0
Sh	a/aa	a/aa	_	i	u	u	e	$aaj/\epsilon$	aaj	С	0
Jg	a	a	_	i	u	u	i/e	ay/e	ay/e	O	u

WB open rhymes, as illustrated by (9), are usually mapped to their equivalents in Shan and Jinghpaw straightforwardly. WB rhyme e, as seen in (9f) and (g), appears as either /i/ or /e/ in Jinghpaw, the condition of which is unknown. There are some instances, such as (9h), where Jinghpaw shows hesitation between /i/ and /e/. WB rhyme ui, which represents [o] as in MB (Bradley 1985:189), appears as /o/ in Shan and /u/ in Jinghpaw. The mapping from /o/ to /u/ is also attested well in Shan loans in Jinghpaw (Kurabe to appear), e.g. dusat 'animal' (from Shan  $to^1s^hat^4$ ).

#### (9) Correspondences of open rhymes

- a. 'emerald' WB mra, MB myâ, Sh. mjaa<sup>5</sup>, Jg. mya
- b. 'rank' WB arā, MB ?ăvà, Sh. ?a¹ jaa², Jg. ?əya
- c. 'lottery' WB  $th\bar{i}$ , MB  $th\hat{i}$ , Sh.  $t^hi^2$ , Jg. thi
- d. 'work' WB amhu, MB ?ăhmû, Sh. ?a<sup>1</sup>mu<sup>5</sup>, Jg. ?əmú
- e. 'offer' WB lhū, MB hlù, Sh. lu², Jg. lu
- f. 'affair' WB are<sup>3</sup>, MB ?ăyé, Sh. ?a<sup>1</sup> je<sup>4</sup>, Jg. ?əye
- g. 'law' WB upade (from Pali), MB ?ûbədè, Sh. u<sup>5</sup>pa<sup>5</sup>te<sup>2</sup>, Jg. ?úbədi
- h. 'deputy commissioner' WB  $are^3puin$ , MB ? $\check{a}$ y $\acute{e}$ b $\check{a}$ in, Jg. ? $\check{e}$ y $\acute{e}$ by $\check{e}$ η  $\sim$  ? $\check{e}$ y $\acute{e}$ by $\check{e}$ η
- i. 'preach' WB ho, MB hó, Sh.  $ho^4$ , Jg.  $kh\acute{o} \sim h\acute{o}$
- j. 'interest' WB atui<sup>3</sup>, MB ?ătó, Sh. ?a<sup>1</sup>to<sup>4</sup>, Jg. ?ətú

WB rhymes ai and ay that have developed into MB  $/\epsilon$ / are mapped to either /aaj/ or  $/\epsilon$ / in Shan and to /ay/ or /e/ in Jinghpaw. This fact, as noted in Section 2.3, is due to the different paths or periods of borrowing. Compare:

#### (10) Correspondences of open rhymes with WB ai and ay

- a. 'hell' WB narai, MB ŋăyé, Sh. ŋaa⁴raaj⁴, Jg. ŋəráy
- b. 'pencil' WB khaitam, MB khédàn, Sh.  $k^h \varepsilon^4 taan^2$ , Jg. khédan
- c. 'sea' WB panlay, MB pinlè, Sh. paan<sup>2</sup>laaj<sup>2</sup>, Jg. panlay
- d. 'herring' WB  $\dot{n}\bar{a}^3phay$ , MB  $\eta \breve{a}ph\grave{e}$ , Jg.  $\eta \acute{a}$ ?ùphe

#### 3.3 Nasal rhymes

Table 5 presents the correspondences of nasal rhymes with WB a between WB, MB, Shan, and Jinghpaw.

Table 5 Correspondences between nasal rhymes with WB a

WB	am	aṁ	an	añ	an
MB	an	an	an	$i/e/\epsilon$	in
Sh	aam	am/aam	aan	3	aŋ/aaŋ
Jg	am	am/an	an	e	aŋ/an

Contrasts of WB final nasals (except  $\tilde{n}$ ) that have merged into /n/ in MB are often preserved in loans that entered Shan and Jinghpaw, as illustrated by (11a) to (d). WB rhyme  $a\tilde{n}$  that is reflected with three reflexes in MB appears as  $/\epsilon/$  and /e/ in Shan and Jinghpaw respectively, as shown in (11e). There are also some instances where Jinghpaw has final /n/ for WB finals  $\dot{m}$  and  $\dot{n}$  as in (11f), which indicate their status as recent loans. Variation in Jinghpaw such as (11g) is due to the the different periods or paths of borrowing: the form with final n is of recent origin, having entered Jinghpaw directly from Burmese, while the form retaining WB final  $\dot{n}$  is a loan that entered Jinghpaw through Shan.

- (11) Correspondences of nasal rhymes with WB a
  - a. 'to work' WB tham<sup>3</sup>, MB thán, Sh. tham<sup>4</sup>, Jg. thám
  - b. 'luck' WB kam (from Pali), MB kàn, Sh. kaam<sup>2</sup>, Jg. gàm
  - c. 'telescope' WB mhanpron'<sup>3</sup>, MB hmànbyáun, Sh. maan<sup>2</sup>pjɔŋ<sup>4</sup>, Jg. manpyón
  - d. 'capital' WB arain<sup>3</sup>, MB ?əyin, Sh. ?a<sup>1</sup>raaŋ<sup>4</sup>, Jg. ?áráŋ
  - e. 'disciple' WB  $tapa\tilde{n}^1$ , MB  $d\check{a}b\hat{\varepsilon}$ , Sh.  $ta^1p\varepsilon^4$ , Jg.  $sp\acute{e}$
  - f. 'oil' WB renam, MB yènàn, Jg. yenan
  - g. 'bottle' WB pula $\dot{n}^3$ , MB pălín, Sh. pa $^1$ lɛ $\eta^4$ , Jg. pəlé $\eta \sim$  pəlín

WB labialized rhymes -wan and -wan that are reflected in MB by /un/ and /win/ appear as /un/ and /un/ respectively in Shan and Jinghpaw, as illustrated by (12a) and (b). WB palatalized rhyme -yam, as given in (12c), is retained as such in Shan and Jinghpaw. Note that the PTB palatalized rhyme \*-yam has regularly developed into /en/ in Jinghpaw (Benedict 1972:51, Matisoff 2003:252), e.g. Jg. pyen 'fly' (from PTB \*byam, cf. WB

*pyam*) and Jg. *khyen* 'snow' (from PTB \*kyam, cf. WB *khyam*<sup>3</sup>). The structural gap in the Jinghpaw native phonology once created by this sound change is filled by Burmese loans suggesting that they entered Jinghpaw after the sound change.

- (12) Correspondences of WB labialized or palatalized nasal rhymes
  - a. 'doctor' WB charāwan, MB shəyəwùn, Sh. shraa2wun2, Jg. tsì-sərawùn4
  - b. 'olive' WB samlwan, MB θànlwìn, Sh. shaan²lun², Jg. tsanlun
  - c. 'to rest' WB khyam<sup>3</sup>sā, MB chánθà, Sh. khjaam<sup>4</sup>shaa<sup>2</sup>, Jg. khyámsà

Phonological correspondences of WB nasal rhymes other than a are summarized in Table 6.

Table 6 Correspondences between nasal rhymes other than WB a

WB	im	in	uṁ	un	o'n	uiń
MB	ein	ein	oun	oun	aun	ain
Sh	_	iŋ	uŋ	un	oŋ	eŋ/uŋ
Jg	_	iŋ	uŋ	un	oŋ	eŋ/uŋ

It is of importance to note that WB final nasals, when preceded by high vowels, are often mapped as velars in Shan and Jinghpaw not always being faithfully replicated in the borrowing languages. The regular mapping of WB rhymes *in* and *uin* in Shan and Jinghpaw are thus /iŋ/ and /uŋ/, as illustrated by (13a) and (b).<sup>5</sup> A parallel development is also observed for checked rhymes with high vowels, e.g. WB ip,  $it \rightarrow /ik/$ , WB up,  $ut \rightarrow /uk/$  (see Table 7 in Section 3.4). This "velarization", however, does not hold for WB un, as in (13c). WB rhyme uin, as exemplified by (13e), is usually mapped to  $/\epsilon\eta/$  and  $/\epsilon\eta/$  in Shan and Jinghpaw respectively. In (13f), it is adapted as  $/u\eta/$  that, based on their phonological similarity, seems to reflect the older form of Burmese.

- (13) Correspondences of nasal rhymes with vowels other than WB a
  - a. 'time' WB akhyin, MB ?ăcèin, Sh. khiŋ², Jg. khyiŋ
  - b. 'office' WB rum'<sup>3</sup>, MB youn, Sh. run<sup>4</sup>, Jg. run
  - c. 'goods for sale' WB kun, MB kòun, Sh. kun². Jg. gùn

<sup>&</sup>lt;sup>4</sup> The first syllable *tsì* refers to 'medicine' in Jinghpaw.

<sup>&</sup>lt;sup>5</sup> Exceptions include Jg. *sin* from WB *cin* 'diamond' (ultimately from Pali, cf. MB *sèin*), for which Shan presents a regular correspondence (i.e. *tsiŋ*<sup>2</sup>), and Jg. *thun* 'lime' from WB *thuin*<sup>3</sup> (cf. MB *thóun*, Sh. *t*<sup>h</sup>*un*<sup>1</sup>), which seems to be of recent origin.

- d. 'jail' WB thon, MB thàun, Sh.  $t^h \supset \eta^2$ , Jg. thon
- e. 'shop' WB chuin, MB shàin, Sh.  $s^h \varepsilon \eta^2$ , Jg. se $\eta$
- f. 'goal' WB pan³tuin, MB pándàin, Sh. paan⁴tuŋ⁴, Jg. bandùŋ

#### 3.4 Checked rhymes

Table 7 presents the correspondences of checked rhymes between WB, MB, Shan, and Jinghpaw.

WB	ap	at	ac	ak	ip	it	up	ut	ok	uik
MB	a?	a?	i?	63	ei?	ei?	ou?	ou?	au?	ai?
Sh	ap/aap	at/aat	εt/et	ak/aak	ik	ik	uk	uk	эk	$\gamma k/\epsilon k/uk$
Jσ	an	at	et	ak	ik	ik	uk	uk	ok	ik/ek/uk

Table 7 Correspondences between checked rhymes

The contrasts of WB final stops (except c) that have been lost in MB when preceded by WB a are well-preserved in Burmese loans that have entered Shan and Jinghpaw, as illustrated by (14a) to (c). The final velar stop that is restricted in the Jinghpaw native phonology is faithfully imported into Jinghpaw (through Shan) without substitution. WB rhyme ac appears as  $/\varepsilon t$ , et/ and /et/ in Shan and Jinghpaw respectively, as in (14d).

- (14) Correspondences of checked rhymes with WB a
  - a. 'fort' WB tap (from Mon), MB ta?, Sh. tap<sup>5</sup>, Jg. dàp
  - b. 'butter' WB thopat, MB thóba?, Sh. thopat, Jg. thóbàt
  - c. 'era' WB lakthak, MB le?the?, Sh. laak<sup>3</sup>thaak<sup>3</sup>, Jg. làkthàk
  - d. 'guilt' WB aprac (from Pali), MB ?əpyi?, Sh. ?a¹pɛt³, Jg. ?əpyét

It is noteworthy that WB finals t and p, when preceded by high vowels, are regularly replaced with velar finals in Shan and Jinghpaw, as illustrated by (15).<sup>7</sup> A parallel development, as noted in Section 3.3, is also observed for nasal finals. The WB rhyme uik, as illustrated by (15f) and (g), appears in various forms in Shan and Jinghpaw, where forms with front vowels seem to be of recent origin in contrast to forms with the back vowel that appear to be older.

<sup>&</sup>lt;sup>6</sup> Some of the WB rhyme ac came from -yat (Professor Hideo Sawada, p.c., 2016).

<sup>&</sup>lt;sup>7</sup> A few exceptions include Jg. wùt 'brick' from WB ut (ultimately from Pali, cf. MB ?ou?, Sh. ?ut²), and Jg. jərìt 'provisions for a journey' from WB carit (cf. MB zăyei?, Sh. tsa¹rip³).

- (15) Correspondences of checked rhymes with vowels other than WB a
  - a. 'stamp' WB tamchip, MB dăzei?, Sh. tan<sup>4</sup>s<sup>h</sup>ik<sup>3</sup>, Jg. dədzìk
  - b. 'linen cloth' WB pit, MB pei?, Sh. pik3, Jg. pîk
  - c. 'be messy' WB rhup, MB cou?, Sh.  $s^h u k^5$ , Jg.  $c u k \sim s u k s a k$
  - d. 'camphor' WB parut, MB pəyou?, Sh. pa¹ruk³, Jg. pəyúk
  - e. 'cannon' WB amrok, MB ?ămyau?, Sh. ?a<sup>1</sup>mjɔk<sup>3</sup>, Jg. ?əmyòk
  - f. 'paisa' WB puikcham (from Hindi), MB pai?shàn, Sh. pɛk<sup>5</sup>shaan<sup>2</sup>, Jg. pyèksan
  - g. 'fit' WB tuik, MB tai?, Sh. thuk2, Jg. thúk

#### 3.5 Importation and adaptation

As we have seen above, Jinghpaw often preferentially imported Burmese segments (sometimes through Shan) without substitution, occasionally even at the cost of restrictions to its native phonology. Loanwords, thus, may sometimes violate native phonological constraints such as those given in Table 8, which are usually restricted in native words (some of which are exceptionally allowed in mimetic words<sup>8</sup>): (a) final /k/; (b) initial /h/; (c) /w/ before front vowels; (d)  $/\eta/$  before front vowels; (e) minor syllable  $/\eta 9/$ .

Table 8 Native constraints violated in loans

	(a)	(b)	(c)	(d)	(e)
native words	no	no	no	no	no
loanwords	yes	yes	yes	yes	yes
mimetic words	yes	yes	yes	yes	no?

Final velars are usually not allowed in native words of modern Jinghpaw due to the sound change of PTB \*k to a glottal stop in inherited words (Benedict 1972:14). Jinghpaw, after this sound change, imported final /k/ from neighboring languages, as in (16a), filling the structural gap in the native phonology once created by the sound change. Jinghpaw words with final /k/ are thus good candidates for loans (Matisoff 1974:157). Burmese /h/, a marginal sound restricted to interjections and mimetic words in the Jinghpaw native phonology, is sometimes straightforwardly maintained without substitution. Some items, as illustrated by (16b), show hesitation between /h/ and /kh/, the latter of which results from adaptation. Jinghpaw has a native phonotactic restriction

<sup>&</sup>lt;sup>8</sup> Examples include *cèk-cèk-càk-càk* 'ticktack', *hàm* 'to yawn', *wi-wi* 'sound of blowing wind', ?ηé?-?ηé? 'sound of heaving breathing'.

against combining an initial /w/ or /ŋ/ with front vowels that arose as a result of a sound change (Kurabe 2014a, 2014b). Such illicit combinations in the native phonology were imported into Jinghpaw during the course of borrowing, as in (16c). Jinghpaw also has a restriction against a sequence of /ŋ/ plus /ə/. The sequence, however, was imported into Jinghpaw, as given in (16d), as an outcome of language contact.

#### (16) Examples of importation

- a. 'weapon' Jg. làknàk (from WB laknak, MB lɛ?nɛ?, Sh. laak³naak³)
- b. 'preach' Jg.  $h\dot{o} \sim kh\dot{o}$  (from WB ho, MB  $h\dot{o}$ , Sh.  $ho^4$ )
- c. 'spirit' Jg. wé.nyi (from WB wiññāñ, MB wèinnìn, Sh. wi<sup>5</sup>pen<sup>2</sup>)
- d. 'hell' Jg. ŋəráy (from WB narai, MB ŋăyɛ́, Sh. ŋaa⁴raaj⁴)

Although Jinghpaw largely adopted Burmese inputs without any adaptation, it sometimes repaired foreign inputs in accordance with its native phonology. Burmese /h/ thus sometimes underwent an adaptation process, the fully nativized form of which is /kh/, as illustrated by (16b). Jinghpaw, as exemplified in (17), systematically adapted voiceless sonorants in Burmese (sometimes through Shan) as voiced counterparts, because its native phonology lacked them. Modern Jinghpaw speakers, although they possess full knowledge of Burmese phonology, even apply this repair strategy to insertions in code-switching. Burmese /hlâ/ 'be beautiful' is thus more likely to be pronounced /lâ/ by Jinghpaw speakers.

## (17) Voicing of voiceless sonorants

- a. 'certificate' Jg. làkmàt (from WB lakmhat, MB lɛ?hma?, Sh. laak³maat³)
- b. 'strike' Ig. nák  $\sim$  nàk (from WB nhak, MB hn $\epsilon$ ?, Sh. naak<sup>3</sup>)
- c. 'offer' Jg. lu (from WB lhū, MB hlù, Sh. lu²)

#### 4 Conclusions

This paper, as a preliminary approximation toward studies in Burmese-Jinghpaw contact linguistics, provided a descriptive account of the phonological properties of Burmese loans in Jinghpaw especially focusing on their segmental phonology. Our findings indicated that Burmese loans in Jinghpaw often retain the phonological characteristics of WB, many of which underwent sound changes in MB. This situation is remarkable given that the intensive contact relationship between Burmese and Jinghpaw appears to be of relatively recent origin. This fact is due to borrowing chains, i.e. Burmese → Shan

→ Jinghpaw, where Shan, which has had well-established contact relationships with both Burmese and Jinghpaw from early stages, performed the function of transferring Burmese lexical items into Jinghpaw. Our findings also revealed that Jinghpaw possesses some Burmese loans that reflect MB phonology, which highlights the multistratal nature of Burmese loans in Jinghpaw. Sporadic irregularity in loans, together with suprasegmental and morphological correspondences between source and borrowing languages, need to be addressed in future studies.

## Appendix A: Lexicon of Burmese loans

This appendix provides Burmese loans entered into Jinghpaw, together with loans of other source languages that filtered into Jinghpaw through Burmese. The remainder of this section is organized as follows. Section 0.1 presents loans of Burmese origin with WB and MB forms, and if any, with corresponding forms of Shan, by way of which many Burmese loans entered into Jinghpaw. Section 0.2 gives loans of Indic origin that found their way into Jinghpaw through Burmese (and Shan). These Indic loans are identified based on Myanmar Language Commission ed. (2009). Section 0.3 provides loans of other origin, especially English, many of which entered into Jinghpaw during the colonial period (1824 to 1948) presumably through Burmese (and Shan). This is suggested by the fact that Jinghpaw shares some peculiar properties of English loans with Burmese and Shan, such as the deaspiration of stops, e.g. WB  $k\bar{a}^3$  'car', MB  $k\dot{a}$ , Sh.  $kaa^4$ , Jg.  $k\dot{a}$ , and the mapping of English f to f

Notes on the lexicon are as follows. The first column provides English translations for Jinghpaw words based on Hanson (1906) and Maran (1978). The second column offers Jinghpaw words in the orthographic forms followed by phonemic transcriptions enclosed in slashes. The third column gives corresponding forms of Burmese and other source languages, which are followed, if any, by corresponding forms from Shan.

#### 0.1 Loans of Burmese origin

affair	ăye /?əye/	အရေး WB $are^3$ , MB $? ye$ ; Sh. $?a^1je^4$
age	ăsak /?əsàk/	အသက် WB $asak$ , MB $?әθε?$ ; Sh.
		$7a^1s^haak^3$
amulet	lak hpoi /làkphóy/	လက်ဖွဲ့ WB lakphwai $^{l}$ , MB l $arepsilon$ ? $phw\hat{arepsilon}$

anticipate	htang /thàŋ/ <sup>9</sup>	$\infty$ WB than 'think', MB thin; Sh. $t^h$ aa $y^2$
antique	lak hawng /làkhóŋ/	လက်ဟောင်း WB lakhon်³, MB lɛʔháun
apologize	tawng ban /tóŋban/	တောင်းပန် WB toကံ³pan, MB táunbàn;
		Sh. $to\eta^4 paan^2$
asafoetida <sup>10</sup>	hkying hku /khyiŋkhu/	ຖື နိုး $\stackrel{\circ}{\circ}$ WB $rhin^3khui$ , MB $g\acute{e}inkh\grave{o}$ ; Sh. $s^hig^4k^ho^2$
auger	lun bu /lunbu/	လွန်ပူ WB lwanpū, MB lùnbù
ballot	me /me/	è WB mai, MB mé
be closed	pyik /pyík/	ဝိတ် WB pit, MB pei?; Sh. pik <sup>5</sup>
be destroyed	byak /byák/ $\sim$ byak	ပျက် WB <i>pyak</i> , MB <i>pyɛ?</i>
	/byàk/	7
be deterred	a na /ana/ $\sim$ ăna /?əna/	အားနာ WB $\bar{a}^3$ n $\bar{a}$ , MB $\it{?ána}$ ; Sh. $\it{?aa}^4$ naa $\it{^2}$
be important	ăhkyak /?əkhyàk/	အချက် WB akhyak 'point', MB ?ăchɛ?;
		Sh. $7a^1k^hjaak^3$ 'subject'
be lucky	htik /thìk/	ထိုက် WB thuik, MB dai?
bell	hkawng lawng /khoŋloŋ/	ခေါင်းလောင်း WB khori³lori³, MB
	$\sim$ hkălawng /khəloŋ/	kháunláun; Sh. $k^h$ ə $\eta^4$ lə $\eta^4$
bottle <sup>11</sup>	pălin /pəlín/ $\sim$ păleng	ပုလင်း WB pulaii³, MB pălín; Sh. pa¹lɛŋ⁴
	/pəléŋ/	-
bowl	jărung /jəruŋ/	e္ఫి WB jaluṁ, MB zălòun; Sh. tsa¹luŋ²
bread <sup>12</sup>	muk/mùk/ <sup>13</sup>	မုန္နီ WB mun <sup>1</sup> , MB môun
bucket	ye bung /yebúŋ/	ရေပုံး WB repuṁ³, MB yèbóun; Sh. puŋ⁴
butter	htaw bat /thóbàt/	ထောပတ် WB thopat, MB thóba?; Sh.
		$t^h \sigma^4 paat^3$
camphor	păyuk /pəyúk/	ပရုတ် WB parut, MB pəyou?; Sh. pa¹ruk³

<sup>&</sup>lt;sup>9</sup> This verb is used especially in Jinghpaw dialects distributed in northern Shan State, Burma.

<sup>&</sup>lt;sup>10</sup> 'asafoetida, a wax-like extract of herbal plants, of strong odour used for medicinal purposes, especially of young children (the substance is patted to a round, thin, flat shape and then applied to the regions of the temporal lobes in order to bring down fever)'

<sup>&</sup>lt;sup>11</sup> Also found in other Kachin languages, e.g. Lh.  $p\underline{a}l\underline{i}n^H$ , La. pa rheing", Ng. pvlinh, Ra. bvl\(\delta ng\)

<sup>&</sup>lt;sup>12</sup> Also widely found in other Kachin languages, e.g. Za.  $muk^{I}$ , Lh.  $muk^{H}$ , La. mug, Ra. muk.

<sup>&</sup>lt;sup>13</sup> The irregular final -*k* in Jinghpaw may reflect the falling or 'creaky' tone in Burmese which is articulated with a glottal constriction.

cannon <sup>14</sup>	myawk /ʔəmyòk/	အမြောက် WB amrok, MB ?ămyau?; Sh.
		$a^1$ mjo $k^3$
capital <sup>15</sup>	arang /ʔáráŋ/	အရင်း WB araii³, MB ʔəyín; Sh. ʔa¹raaŋ⁴
carpenter <sup>16</sup>	lak săma /làksəmá/ $\sim$	လက်သမား WB laksamā³, MB lɛʔθămá;
	lăsăma /ləsəmá/	Sh. laak <sup>3</sup> s <sup>h</sup> a <sup>1</sup> maa <sup>4</sup>
catfish <sup>17</sup>	ngăchyawng /ŋəcoŋ/	ငါးကြောင်း WB $iar{a}^3kro\dot{n}^3$ , MB ŋǎjáu $N$
catfish <sup>18</sup>	ngămyin/ŋəmyín/	ငါးမြင်း WB n்ā³mran்³, MB ŋămyín
certificate	lak mat /làkmàt/	လက်မှတ် WB lakmhat, MB lɛʔhmaʔ; Sh.
		laak <sup>3</sup> maat <sup>3</sup>
chief	săgyi /səgyí/	သူကြီး WB sūkrī³, MB ðăjí
cigar	sălik /səlík/	ဆေးလိပ် WB che³lip, MB shélei?; Sh.
		$s^h e^4 lik^5$
city <sup>19</sup>	myu /myú?/	မြို့ WB mrui <sup>1</sup> , MB myô
class	tan /tán/	တန်း WB tan³, MB tán; Sh. taan⁴
clerk <sup>20</sup>	chyăre /cəre/ ∼ tsări	୭୦ରେଃ WB $c\bar{a}re^3$ , MB $s\bar{a}y\acute{e}$ ; Sh. $tsa^1re^4$
	/tsərí/	·
coconut <sup>21</sup>	mă-un/məʔûn/	အုန်း WB un³, MB ʔóun; Sh. maak² ʔun¹
contract <sup>22</sup>	buk pyat /bùkpyàt/	ပုတ်ပြတ် WB putprat, MB pou?pya?
copy (v.)	ku /kú/	നും WB $k\bar{u}^3$ , MB $k\acute{u}$ ; Sh. $ku^4$
cork	paw /po/	See WB $pho^1$ ?, 23 MB $ph\hat{o}$ ; Sh. $p^h\hat{o}^5$
custard ap-	aw za /?ódza/	သြာဇာ WB ojā, MB ?ózà
ple <sup>24</sup>		
customs	kang /kàŋ/	ကင်း WB kaii <sup>3</sup> , <sup>25</sup> MB kín; Sh. kaaŋ <sup>1</sup>

custo

<sup>&</sup>lt;sup>14</sup> Also found in other Kachin languages, e.g. Lh. amyaung (K), La. amyoug, Ng. vmyauq.

<sup>&</sup>lt;sup>15</sup> Also found in other Kachin languages, e.g. Za. a<sup>1</sup> rang<sup>31</sup>, Lh. arang (K), La. arang".

<sup>&</sup>lt;sup>16</sup> Also found in other Kachin languages, e.g. Lh. *lag sama* (K), La. *lag sama*", Ra. *lvksvmá*.

<sup>&</sup>lt;sup>17</sup> 'the long-headed catfish, Mystus aor'

<sup>&</sup>lt;sup>18</sup> 'the short-headed catfish, *Danio nigrofasciatus*'

<sup>&</sup>lt;sup>19</sup> Also widely found in other Kachin languages, e.g. Za. mvyuq<sup>5</sup>, Lh. myu' (K), La. myu, Ra. myoq ~ myuq.

<sup>&</sup>lt;sup>20</sup> Also found in other Kachin languages, e.g. Lh. căre<sup>H</sup>, La. jiri, Ra. jeré.

<sup>&</sup>lt;sup>21</sup> Also found in other Kachin languages, e.g. Lh. ma-un (K), La. ma-un, Ra. mvwønshí.

<sup>&</sup>lt;sup>22</sup> 'a job or contract, where terms of payment are based on the entire contract'

<sup>&</sup>lt;sup>23</sup> The irregular correspondence between unaspirated and aspirated stops obscures the relationship.

<sup>&</sup>lt;sup>24</sup> Also found in other Kachin languages, e.g. Lh. o" za: (K), La. o" za, Ng. ohza.

<sup>&</sup>lt;sup>25</sup> 'outpost; post for collecting custom duties'

customs	kawk /kòk/	အကောက် WB akok, MB ?ăkau?; Sh.
		$7a^1kbk^3$
cutch <sup>26</sup>	sha ji /çájí/	ရှားစေး WB $rhar{a}^3ce^3$ , MB $cst zcute{e}\sim ccute{a}zcute{e}$ ; Sh.
		$s^h a a^4 t s e^4$
dengue	tuk kui /túkkúy/	တုတ်ကွေး WB tupkwe³, MB touʔkwé
depository <sup>27</sup>	dek /dèk/	တိုက် WB tuik 'bulilding', MB tai?; Sh.
		$txk^3$ 'building; any depository'
deputy com-	ăye bying /?əyébyiŋ/ $\sim$	အရေးပိုင် WB are³puiri, MB ʔăyébàin
missioner	ăye byeng /ʔəyébyeŋ/	
desk	săboi /səbóy/	စာဝွဲ WB cāpwai, MB zăbwé
detain	hkyuk /khyùk/	ချုဝ် WB khyup, MB chou?; Sh. kʰjuk³
detective	jum htawk /jùmthòk/	စုံထောက် WB cumthok, MB sòundau?;
		Sh. $tsug^2t^h \supset k^3$
disciple	săpe /səpé/	တပည့် WB $tapa ilde{n}^1$ , MB $d ilde{a}b\hat{e}\sim d ilde{a}bj\hat{i}$ ; Sh.
		$ta^1p\overline{\varepsilon^4}$
doctor	tsi săra wun /tsìsərawùn/	ဆရာဝန် WB charāwan, MB shəyəwùn;
		Sh. $s^h raa^2 wun^2$
emerald	mya /mya/	Θ WB mra, MB myâ; Sh. mjaa⁵
envelope	tsa ik /tsaʔík/	စာအိတ် WB $car{a}$ 'it, MB sà?ei?
epsom salts	săhka /səkhá/	ဆားခါး WB chā³khā³, MB shəkhá
era	lak htak /làkthàk/	လက်ထက် WB lakthak, MB l $\epsilon$ ? $th\epsilon$ ?; Sh.
		laak <sup>3</sup> t <sup>h</sup> aak <sup>3</sup>
event <sup>28</sup>	ăkyu ăkyawng	အကြိုးအကြောင်း WB akrui³akroiၢ³, MB
	/?əkyú?əkyóŋ/	?ăcó?ăcáun
explain	sang lang /sáŋláŋ/ $\sim$	ရှင်းလင်း WB rhaṅ³lan˙³, MB çínlín
	shang lang /cáŋláŋ/	
factory	jak rung /jàkrúŋ/	စက်ရုံး WB $cakru\dot{m}^3,^{29}$ MB $sarepsilon$ $7yóu$ N
favor	ăkyu /?əkyú/	အကျိုး WB akyui³, MB ?ăcó

Also found in other Kachin languages, e.g. Lh. *ca" jhi"* (K), La. *ca" jhi"*, Ra. *shází*.

27 Also found in other Kachin languages, e.g. Za.  $se^l dyek^l$ , Lh. *sadig* (K), Ra. *svdik*. This root, which is likely to be an old Chinese loan, is a widespread root shared by related and unrelated languages of Southeast Asia, such as Burmese, Mon and Thai (Jenny 2015:11-2). The same holds for 'plow' and 'spoon' below.

<sup>&</sup>lt;sup>28</sup> 'occurrences, affairs, events, the happenings, the drama, the action, the cause-and-effect of a situation, a state of affairs'

<sup>&</sup>lt;sup>29</sup> The first syllable is ultimately from Pali (see Section 0.2 below).

film dat shin /dátçìn/ ဓာတိရှင် WB dhātrhan, MB daʔcìn firearm³0 tung mi /tùngmí/ တူမီးသေနတ် WB tūmr³ senat, MB tùmíθănaʔ fisherman dam nga /dàmŋà/ တံငါ WB taminā, MB təŋà; Sh. tam² ŋaa³ flag dawng hkawn တံခွန် WB tamkhwan 'pennant', MB /dòngkhon/³¹ dăgun; Sh. tam⁴khɔn² France pyin tit /pyintít/ ပြင်သစ် WB pransac, MB pyìnθiʔ gain³² ămyat /ʔəmyàt/ အမြတ် WB amrat, MB ʔămyaʔ; Sh. mjaat³ gasoline dat si /dátsi/ ဓာတိဆီ WB dhātchī, MB daʔshì; Sh.	feast	poi /póy/	Ò WB pwai, MB pwé; Sh. pɔj⁴
fisherman dam nga /dàmnà/ တံငါ WB taṁnā, MB təŋà; Sh. tam²ŋaa³ flag dawng hkawn တံခွန် WB taṁkhwan 'pennant', MB /dòŋkhon/³¹ dăgun; Sh. tam⁴khɔn² France pyin tit /pyintít/ ပြင်သစ် WB praṅsac, MB pyìnθi? gain³² ămyat /ʔəmyàt/ အမြတ် WB amrat, MB ʔămyaʔ; Sh. mjaat³ gasoline dat si /dátsi/ ဓာတ်ဆီ WB dhātchī, MB daʔshì; Sh.	film	dat shin /dátçìn/	
flag dawng hkawn တံခွန် WB taṅkhwan 'pennant', MB /dòŋkhon/³¹ dăgun; Sh. tam⁴khɔn²  France pyin tit /pyintít/ ပြင်သစ် WB praṅsac, MB pyìnθi? gain³² ămyat /ʔəmyàt/ အမြတ် WB amrat, MB ʔǎmyaʔ; Sh. mjaat³ gasoline dat si /dátsi/ ဓာတ်ဆီ WB dhātchī, MB daʔshì; Sh.	firearm <sup>30</sup>	tung mi /tùŋmí/	·-
/dòŋkhon/³¹ dăgun; Sh. tam⁴khɔn² France pyin tit /pyintít/ ပြင်သစ် WB praṅsac, MB pyìnθi? gain³² ămyat /ʔəmyàt/ အမြတ် WB amrat, MB ʔǎmyaʔ; Sh. mjaat³ gasoline dat si /dátsi/ ဓာတ်ဆီ WB dhātchī, MB daʔshì; Sh.	fisherman	dam nga /dàmŋà/	_
France pyin tit /pyintít/ ပြင်သစ် WB praisac, MB pyìnθi? gain³² ămyat /ʔəmyàt/ အမြတ် WB amrat, MB ʔămyaʔ; Sh. mjaat³ gasoline dat si /dátsi/ ဓာတ်ဆီ WB dhātchī, MB daʔshì; Sh.	flag	dawng hkawn	တံခွန် WB <i>taṁkhwan</i> 'pennant', MB
gain <sup>32</sup> ămyat /ʔəmyàt/ အမြတ် WB amrat, MB ʔămyaʔ; Sh. mjaat³ gasoline dat si /dátsi/ ဓာတ်ဆီ WB dhātchī, MB daʔshì; Sh.		/dòŋkhon/ <sup>31</sup>	
mjaat³ gasoline dat si /dátsi/ ဓာတ်ဆီ WB dhātchī, MB da?shì; Sh.	France	pyin tit /pyintít/	ပြင်သစ် WB praṅsac, MB pyìnθi?
	gain <sup>32</sup>	ămyat /ʔəmyàt/	
	gasoline	dat si /dátsi/	ဓာတ်ဆီ WB dhātchī, MB daʔshì; Sh.
$t^{ m h}aat^3s^{ m h}i^2$			$t^h a a t^3 s^h i^2$
gecko tau te /tawté?/ တောက်တဲ့ WB toktai¹, MB tauʔtɛ̂; Sh.	gecko	tau te /tawté?/	တောက်တဲ့ WB $toktai^{1}$ , MB $tau$ ? $t\hat{\epsilon}$ ; Sh.
t  ightharpoonup k  i			$t > k^5 t \epsilon^5$
goal ban dung /bandùŋ/ ပန်းတိုင် WB pan³tuin, MB pándàin; Sh.	goal	ban dung /bandùŋ/	ပန်းတိုင် WB pan³tuin, MB pándàin; Sh.
paan <sup>4</sup> tuŋ <sup>4</sup>			paan <sup>4</sup> tuŋ <sup>4</sup>
goods for sale gun /gùn/ ကုန် WB kun, MB kòun; Sh. kun²	goods for sale	gun /gùn/	ကုန် WB kun, MB kòun; Sh. kun²
government <sup>33</sup> ăsuya /ʔခsúyà?/ အစိုးရ WB acui³ra, MB ʔăsóyâ; Sh.	government <sup>33</sup>	ăsuya /ʔəsúyàʔ/	အစိုးရ WB acui³ra, MB ʔǎsóyâ; Sh.
$7a^1 tso^4 jaa^5$			5
guess tak /tàk/ σρος WB twak, MB twε?; Sh. tak <sup>5</sup>	guess	tak /tàk/	
habit ăkyang /ʔəkyáŋ/ အကျင့် WB <i>akyaṅ¹</i> , MB ʔǎcîn; Sh.	habit	ăkyang /ʔəkyáŋ/	7
?a¹kjaaŋ⁵			
handcuffs lak htik /làkthík/ လက်ထိတ် WB <i>lakthit</i> , MB <i>lɛʔtheiʔ</i>	handcuffs	lak htik /làkthík/	_
herring nga u hpe /ŋáʔùphe/ ငါးဖယ် WB n̄ā³phay, MB ŋăphè	herring	nga u hpe /ŋá?ùphe/	_
hole pawk /pók/ အပေါက် WB apok, MB ?ăpau?	hole	pawk /pók/	
honor ărawng /ʔခroŋ/ အရောင် WB aroń 'color', MB ʔăyàun;	honor	ărawng /ʔəroŋ/	အရောင် WB aron 'color', MB ?ăyàun;
Sh. $7a^1ron^2$ 'color, brightness'			- 2
hose pyun /pyun/ ~ byawng မြန် WB prwan, MB pyùn	hose	pyun /pyun/ $\sim$ byawng	ပြွန် WB prwan, MB pyùn
/byóŋ/		/byóŋ/	

<sup>&#</sup>x27;flintlock firearm, a gun that takes loose black power'

31 The final velar nasal can be accounted for in terms of assimilation to the following syllable.

32 Also widely found in other Kachin languages, e.g. Za.  $myat^I$ , Lh.  $?ămyat^F$ , La.  $amyaid \sim amyed$ , Ng. myat, Ra. myet.

33 Also found in other Kachin languages, e.g. Lh.  $?ăts\underline{u}^Hya?^F$ , La. asu"ya, Ng. vsuya, Ra.  $suyaq \sim f$ 

vsúyaq.

hundred thou- sand <sup>34</sup>	sen /sèn/	သိန်း WB $sin^3$ , MB $\theta \acute{e}in$ ; Sh. $s^h \epsilon n^1$
hunter	muk hkyu /mùkkhyù/ <sup>35</sup>	မုဆိုး $\sim$ မုတ်ဆိုး WB muchui $^3$ $\sim$ mutchui $^3$ , MB mou $^2$ sh $\acute{o}$
interest	ătu /?ətú/	အတိုး WB atui³, MB ʔătó; Sh. ʔa¹to⁴
jail <sup>36</sup>	htawng /thoŋ/	ထောင် WB thon, MB thàun; Sh. $t^h$ ၁ $\eta^2$
knock	hkawk /khòk/	ခေါက် WB $khok$ , MB $khau$ ?; Sh. $k^h$ ၁ $k$ 4
land (v.)	sek /sék/	ဆိုက် WB chuik, MB shai?
large fish <sup>37</sup>	nga u bat /ŋáʔùbàt/	ငါးပတ် WB nंā³pat, MB ŋăba?
law <sup>38</sup>	tăra /tərá/	တရား WB tarā³, MB tăyá; Sh. ta¹raa⁴
lime	htun/thun/	ထိုး WB thuṁ³, MB thóun; Sh. tʰun¹
lime box	htun bu /thunbu/	ထုံးဘူး WB thuṁ³bhū³, MB thóunbú
linen cloth	pik /pík/	ပိတ် WB pit, MB pei?; Sh. pik <sup>3</sup>
loan (v.)	boi /boy/	ပွဲစား WB pwaicā³ 'broker', MB pwézá;
		Sh. pɔj⁴tsaa⁴ 'broker'
magic	myawk le /myòklè?/	မျက်လှည့် WB myaklhañ¹, MB myɛʔhlɛ̂; Sh. mjaak³lɛ⁵
mainspring of	nayi tanbat /nayitanbàt/	နာရီသံပတ် WB nārīsampat, MB
a watch		nàyìθànba?
manner	htung /thúŋ/	ထုံး WB $thu\dot{m}^3$ , MB $t\acute{o}uN$ ; Sh. $t^hu\eta^4$
marquee <sup>39</sup>	bu de /budé/	ဗိုလ်တဲ WB builtai, MB bòd $cute{e}$
master	săma /səmá/	သမား WB $samar{a}^3$ , MB $ heta$ ămá
measles	wak sak /wàksàk/	ဝက်သက် WB waksak, MB wɛʔθɛʔ
measure <sup>40</sup>	bye /bye/	$\circ$ WB pai, MB p $\acute{\epsilon}$ ; Sh. $p\epsilon^4$
measure <sup>41</sup>	dang /dàŋ/	တင်း WB taṅ³, MB tín; Sh. taaŋ¹

<sup>34</sup> Related numerals are widespread among Kachin languages, e.g. Lh. sen<sup>F</sup>, La. sen, Ng. dvsens', Ra. sèn.

<sup>&</sup>lt;sup>35</sup> Numhpuk Singpho, a Jinghpaw dialect spoken in northeastern India, has a form more faithful to its input, i.e. *muksu* /muk<sup>3</sup> suu<sup>4</sup>/ 'hunter' (Morey 2007:25).

<sup>&</sup>lt;sup>36</sup> Also widely found in other Kachin languages, e.g. Za. *tong*<sup>55</sup>, Lh. *thaung*: (K), La. *thung*:, Ng. *thung*, Ra. *tung*.

<sup>&</sup>lt;sup>37</sup> 'a species of large fish of the suborder *Siluroidea*'

<sup>&</sup>lt;sup>38</sup> Also found in other Kachin languages, e.g. Lh.  $t\underline{a}\underline{r}\underline{a}^H$ , La. tarha"  $\sim tara$ ", Ra.  $dvr\acute{a}$ .

<sup>&</sup>lt;sup>39</sup> 'a marquee, a bungalow, a guest house, a tent or canopy set up for an exhibition or party, lit. a place for an officer to rest'

<sup>&</sup>lt;sup>40</sup> 'a unit of volume measurement (esp. of grain) equal to eight cups, 64 ounces, one-half gallon'

<sup>41 &#</sup>x27;a measure of volume or capacity roughly equal to a bushel'

messy	shuk /çúk/	ရှု၆ WB rhup, MB çou?; Sh. sʰuk⁵
messy <sup>42</sup>	suk sak /sùksàk/	ရှုပ်ရှုပ်ရှက်ရှက် WB rhuprhuprhakrhak,
		MB $cou?cou?ce?ce?$ ; Sh. $s^huk^5s^hak^5$
mile	deng/deŋ/	တိုင် WB tuiń 'post', <sup>43</sup> MB tàin
model <sup>44</sup>	ăbung /?əbuŋ/ $\sim$ ăbum	Ů WB puṁ, MB pòuN; Sh. pum²
	/?əbùm/	-
money <sup>45</sup>	kye daw /kyédò/	ကြေး WB $kre^3$ 'copper', MB $c\acute{e}\sim c\acute{i}$
month	la /là?/	○ WB la, MB lâ
Murraya	sănap hka /sənàpkhá/	သနပ်ခါး WB sanapkhā³, MB θǎnǎkhá;
plant <sup>46</sup>		Sh. $s^h a^l naap^3 k^h aa^4$
new hand	lak set /làksèt/	လက်သစ် WB $laksac$ , MB $larepsilon ? heta$ i?; Sh.
		$laak^3s^het^3$
nosegay	pan hkye /pankhye/	ပန်းချည် WB pan³khyañ, MB pánchì
offer <sup>47</sup>	sak /sàk/	ဆက် WB chak, MB shɛʔ; Sh. sʰaak³
offer	lu /lu/	റ്റ്വൂ WB <i>lhū</i> , MB <i>hlù</i> ; Sh. <i>lu</i> ²
offering <sup>48</sup>	alu /ʔàlu/	အလှူ WB alhū, MB ?ăhlù
office <sup>49</sup>	rung /ruŋ/	ຖ້ະ WB rum³, MB yóun; Sh. ruŋ⁴
oil	ye nan /yenan/	ရေနီ WB renam, MB yènàn
olive <sup>50</sup>	tsan lun /tsanlun/	သံလွင် WB saṁlwaṅ, MB θànlwìn; Sh.
		$maak^2s^haan^2lun^2$
order	ăming /ʔəmîŋ/	အမိန့် WB amin¹, MB ʔămêin; Sh.
		$7a^1 \text{min}^5$
other	dăhkya /dəkhya/	တခြား WB takhrā³, MB dăjá
pencil <sup>51</sup>	hke dan /khédan/	ອີວ່ WB khaitam, MB khédàn; Sh.
		$k^h \varepsilon^4 taan^2$

<sup>42</sup> Also found in other Kachin languages, e.g. Za. suk¹ suk¹ sak¹ sak¹, Lh. sug sag (K), La. sug sag.

<sup>&</sup>lt;sup>43</sup> 'post, pillar, unit of measure for distance (one thousand *tà* or approximately two miles)'

<sup>44 &#</sup>x27;a model, a pattern, or a template'

<sup>45 &#</sup>x27;a sum of money paid as revenue or tax to the authorities concerned'

<sup>&</sup>lt;sup>46</sup> Also found in other Kachin languages, e.g. Lh. sanab kha" (K), La. sa naid kha", Ra. dvnakká.

<sup>47 &#</sup>x27;to offer, present respectfully, as a present to a chief'

<sup>&</sup>lt;sup>48</sup> Also widely found in other Kachin languages, e.g. Lh. *alu*: (K), La. *alu*:, Ng. *vlu*, Ra. *vlu*.

<sup>&</sup>lt;sup>49</sup> Also widely found in other Kachin languages, e.g. Za. rung<sup>31</sup>, Lh. yuŋ<sup>H</sup>, La. yung", Ng. yungh muh, Ra. róng.

<sup>&</sup>lt;sup>50</sup> Also widely found in other Kachin languages, e.g. Lh. *tsan: lun:* (K), La. *zhan loin:*, Ng. *tsanlun*,

<sup>&</sup>lt;sup>51</sup> Found in other Kachin languages, e.g. Za.  $kue^{3l}dan^{35}$ , Lh.  $khe^{H}tan^{L}$ , La. khe" tain:, Ra.  $k\acute{e}dan$ .

petition (v.) <sup>52</sup>	shawk /çók/	လျှောက် WB <i>lhyok</i> , MB çau?
photograph	dat pung /dátpuŋ/	ဓာတ်ပုံ WB dhātpuṁ, MB daʔpòun; Sh.
		$t^h aat^3 pu g^2$
pickaxe	pawk tu /pòktú/	ပေါက်တူး WB poktū³, MB pauʔtú
plow (v.)	htai /thay/	ထယ် WB thay, MB th $\hat{c}$ ; Sh. $t^h a j^1$
power	dăgu /dəgú/	တန်ခိုး WB $tankhui^3$ , MB $dăgo$ ; Sh. $tan^4k^ho^4$
preach <sup>53</sup>	hkaw /khó/ $\sim$ haw /hó/	ဟော WB ho, MB há; Sh. hɔ <sup>4</sup>
present <sup>54</sup>	lak sawng /làksòŋ/	လက်ဆောင် WB lakchon 'present', MB
		$le?sh\`{a}un$ ; Sh. $laak^3s^h$ $og^2$ 'present'
prince <sup>55</sup>	mang sa /máŋsá/	မင်းသား WB $ma\dot{n}^3s\bar{a}^3$ , MB $min\theta \acute{a};$ Sh.
		$ma\eta^4 s^h aa^4$
princess <sup>56</sup>	mang sămi /máŋsəmí/	မင်းသမီး WB maii³samī³, MB mínðămí
provisions <sup>57</sup>	jărit /jərìt/	စရိတ် WB carit, MB zăyei?; Sh. tsa¹rip³
raft	hpawng /phoŋ/	ဖောင် WB phon, MB phàun; Sh. $p^h$ ၁ $\eta^2$
rank <sup>58</sup>	ăya /?əya/	အရာ WB arā, MB ʔǎyà; Sh. ʔa¹jaa²
read <sup>59</sup>	hpat /phàt/	ဖတ် WB phat, MB pha?; Sh. phat <sup>4</sup>
recover <sup>60</sup>	sak sa /sáksà/	သက်သာ WB saksā, MB θεʔθà; Sh.
		$s^haak^3s^haa^2$
rest <sup>61</sup>	hkyam sa /khyámsà/	ချမ်ိဳးသာ WB <i>khyam³sā</i> 'be rich', MB
		$ch$ á $n\theta$ à; Sh. $k^h$ jaa $m^4s^h$ aa $^2$
robber <sup>62</sup>	dămya /dəmyà?/	တေးပြ WB dhā³pra, MB dămyâ
room <sup>63</sup>	hkan /khàn/	ခန်း WB khan³, MB khán; Sh. kʰaan⁴

<sup>&</sup>lt;sup>52</sup> 'to petition a court of justice, to sue, bring a law suit, to prosecute'

<sup>&</sup>lt;sup>53</sup> Also found in other Kachin languages, e.g. Lh. kho" (K), La. kho", Ra. kó.

<sup>&</sup>lt;sup>54</sup> 'property or money used as a bride'

<sup>55 &#</sup>x27;the man who plays the part of the prince in a dramatic presentation, a dancer'

<sup>&</sup>lt;sup>56</sup> 'the woman who plays the part of a princess in a dramatic presentation, a dancer'

<sup>&</sup>lt;sup>57</sup> 'provisions for a journey, expenses while on the road'

Also found in other Kachin languages, e.g. Lh. 7 "aya", La.  $aya: \sim akhang" aya:$ , Ng. vya, Ra. ya

<sup>&</sup>lt;sup>59</sup> Used especially in Jinghpaw dialects spoken in northern parts of the Jinghpaw-speaking area.

<sup>60 &#</sup>x27;to be relieved, to recover (e.g. as from sickness), to regain comfort'

<sup>61 &#</sup>x27;happiness, rest, pleasure, respite'

<sup>&</sup>lt;sup>62</sup> Also widely found in other Kachin languages, e.g. Za. de<sup>1</sup>myaq<sup>1</sup>, Lh. damya, (K), La. damya,

<sup>63 &#</sup>x27;a flat (an apartment), a room in a boarding house'

rupee <sup>64</sup>	kyap /kyàp/	ကျဝ် WB kyap, MB ca?; Sh. kjaap³
salary	la hka /là?khà?/	လခ WB lakha, MB lâgâ
satin	hpe /phé/	$ \overset{\circ}{\circ} $ WB phai, MB ph $\overset{\circ}{\varepsilon}$ ; Sh. $p^h\varepsilon^4$
school <sup>65</sup>	jawng /jòŋ/	ကျောင်း WB <i>kyoi</i> r³, MB <i>cáu</i> n; Sh. <i>kjɔŋ</i> ⁴
screw	we wu /wé?wu/	ဝက်ိအူ WB wak' $\bar{u}$ , MB w $\varepsilon$ ? $7\hat{u}$ ; Sh. waak $^3$ $7u^2$
sea <sup>66</sup>	pang lai /paŋlay/	ပင်လယ် WB paṅlay, MB pìnlè; Sh. paaŋ²laaj²
semi-divine	ărawng /ʔəróŋ/	အလောင်း WB aloii <sup>3</sup> 'corpse; Bod-
being	ara mig / Torog/	hisattva', MB <i>?ăláu</i> n; Sh. <i>?a¹lɔŋ⁴</i>
shark	ngăman /ŋəmán/	ငါးမန်း WB nā³man³, MB ŋəmán; Sh.
		$paa^1\eta a^1maan^4$
shop <sup>67</sup>	seng /seŋ/	ဆိုင် WB <i>chuin</i> , MB <i>shàin</i> ; Sh. $s^h \varepsilon \eta^2$
spoon	zun /dzún/	ဇွန်း WB jwan³, MB zún
stake (v.) <sup>68</sup>	lawng /lóŋ/	လောင်း WB lon່³, MB láun; Sh. lɔŋ⁴
stamp <sup>69</sup>	dăzik /dədzìk/	တံဆိပ် WB tamchip, MB dăzei?; Sh.
		$tan^4s^hik^3$
stew (v.)	chyaw /có/	ကြော် WB $kro^2$ , MB $c$ ò; Sh. $ts$ ၁ $^4$
strike (v.)	nak /nák/ $\sim$ nak /nàk/	$ \frac{1}{8} \stackrel{\frown}{\text{ob}} $ WB nhak, MB hn $\varepsilon$ ?; Sh. naak <sup>3</sup>
strugglingly	kuk kuk /kùkkùk/	ကုတ်ကုတ် WB kutkut, MB kou?kou?
tax <sup>70</sup>	kawn /kòn/	အခွန် WB akhwan?, MB ăkhùn; Sh.
		$7a^1k^h$ on <sup>2</sup>
teacher (f)	săra ma /səramá?/	ဆရာမ WB charāma, MB shəyàmâ
teacher (m) <sup>71</sup>	săra /səra/	ဆရာ WB $char\bar{a}$ , MB $shəy\grave{a}$ ; Sh. $s^hraa^2$
telescope	man pyawng /manpyóŋ/	မှန်ပြောင်း WB mhanpronံ³,
		MB hmànbyáun; Sh. maan²pjɔŋ⁴

<sup>64</sup> 'kyat, Myanmar unit of money'

<sup>65</sup> Also widely found in other Kachin languages, e.g. Za. zyong<sup>11</sup>, Lh. cuŋ<sup>F</sup>, La. jung, Ng. jungs,

Also found in other Kachin languages, e.g. Lh. paŋ<sup>L</sup>lay<sup>L</sup>, La. pang: lai:, Ra. banglay.
 Found in other Kachin languages, e.g. Za. sueng<sup>55</sup>, Lh. seyn<sup>L</sup>, La. sain:, Ng. sen, Ra. sing.

<sup>68 &#</sup>x27;to stake, wager, bet, as in gambling'

<sup>&</sup>lt;sup>69</sup> Also found in other Kachin languages, e.g. Lh. *tătsit<sup>F</sup>*, La. *dazid*, Ra. *dvzøk*.

<sup>&</sup>lt;sup>70</sup> 'a tax paid to a chief, esp. the thigh of any piece of large game caught by a villager'
<sup>71</sup> Also widely found in other Kachin languages, e.g. Za. se<sup>1</sup>ra<sup>35</sup>, Lh. săra<sup>L</sup>, La. sara:, Ra. svra.

time	hkying /khyiŋ/ $\sim$ ăhkying /ʔəkhyiŋ/	အချိန် WB akhyin, MB ?ăchèin; Sh. $k^h$ iŋ²
torchlight <sup>72</sup>	dat mi /dátmí/	ဓာတ်မီး WB dhātmī³, MB daʔmí
truely	ăman /?əman/	အမုန် WB amhan, MB ?ăhmàn
tube <sup>73</sup>	pyawng /pyóŋ/	ပြောင်း WB proir³, MB pyáun; Sh. pjɔŋ⁴
turmeric <sup>74</sup>	sănwi /sənúy/	နနိုင်း $\sim$ စနိုင်း WB nanwa $\dot{n}^3 \sim canwa\dot{n}^3$ ,
		MB nănwín $\sim$ sănwín
two-anna bit	mu/mu/	មុះ WB mū³, MB mú
use (v.)	sung /súŋ/	သုံး WB suṁ³, MB θóun; Sh. sʰuŋ⁴
usefulness	ăsung /ʔəsúŋ/	အသုံး WB asum်³, MB ʔăθόuν
vessel <sup>75</sup>	kye dawk /kyédòk/	ကျည်တောက် WB kyañtok, MB cìdau?
violin	daw raw /dòrò/	တရော $\sim$ တယော WB $taro \sim tayo, MB$
		tăyó; Sh. ta¹rɔ⁴
washbowl	ang dung /?aŋduŋ/	အံတုံ WB aṅtuṁ, MB ʔìndòun; Sh. ʔaaŋ²
water basin	ang /?aŋ/	အင် WB aṁ 'tray', MB ʔìn; Sh. ʔaaŋ²
weapon	lak nak /làknàk/	လက်နက် WB <i>laknak</i> , MB <i>lɛʔnɛʔ</i> ; Sh.
		laak <sup>3</sup> naak <sup>3</sup>
week <sup>76</sup>	bat /bàt/	ပတ် WB pat, MB pa?; Sh. paat³
withdraw <sup>77</sup>	htuk /thùk/	ထုတ် WB thut, MB thou?; Sh. $t^h uk^3$
work	ămu /ʔəmú/	အမှု WB amhu¹ 'matter', MB ʔăhmû; Sh.
		$7a^1mu^5$
X-ray	dat man /dátman/	ဓာတ်မှန် WB dhātmhan, MB daʔhmàn;
		Sh. thaat³maan²
zinc	san pyaw /sanpyo/	သံဖြူ WB saṁphrū, MB θànbyù

## 0.2 Loans of Indic origin

almond bătan bătan Hin.  $b\bar{a}d\bar{a}m$  'almond' (from Per.  $b\bar{a}d\bar{a}m$ ); 23 WB  $b\bar{a}dam$ , MB  $b\check{a}t\grave{a}n$ 

<sup>&</sup>lt;sup>72</sup> Also found in other Kachin languages, e.g. Za.  $dat^5$ - $mi^{11} \sim tat^5$ - $mi^{11}$ , Lh. dad' mi" (K), La. daid mi:, Ra. datmí.

<sup>&</sup>lt;sup>73</sup> 'a tube, a pipe, a barrel (e.g. as of a gun)'

<sup>&</sup>lt;sup>74</sup> Also found in other Kachin languages, e.g. Lh. sanun" (K), La. sa noin", Ra. svnýn.

<sup>75 &#</sup>x27;ordinary bamboo drinking vessel, made with a handle'

<sup>&</sup>lt;sup>76</sup> Also found in other Kachin languages, e.g. Za. *bat*<sup>1</sup>, Lh. *bad* (K), La. *bad*.

<sup>77 &#</sup>x27;to draw, as a salary or money from a bank'

<sup>&</sup>lt;sup>78</sup> Found in other Kachin languages, e.g. Lh. *ba: dan:* (K), La. *ba tain*  $\sim$  *ba tan*, Ng. *batan zains*.

betel	gang ze /gàŋzè/	P. kamuka 'areca'; ကွမ်းသီး WB kwam³sr̄³ 'betel nut', MB kúnðí
bless	mang găla /màŋgəlà/	P. maṅgala 'auspicious'; అౚఄఀఄఄఄఄఄఄఄఄఄఄఄ WB maṅgalā, MB mìngəlà; Sh. maŋ²ka¹laa²
brick	wut /wùt/	P. itthakā 'burnt brick'; ప్రాంక్ WB ut, MB ?ou?; Sh. ?ut²
brimstone	kan /kán/	Sk. gandhaka 'brimstone'; ကန့် WB kan <sup>1</sup> , MB kân; Sh. kaan <sup>5</sup>
Buddha* <sup>79</sup>	hpăra /phərá/	ဘုရား WB bhurā³, MB phăyá; Sh. pʰraa⁴
camel <sup>80</sup>	gawla-uk /gola?úk/	P. kula-oṭṭha; $^{81}$ ကုလားအုတ် WB kul $\bar{a}^3$ ut,
	-	MB kălă?ou?; Sh. ka¹laa⁴?uk⁵
causion <sup>82</sup>	sădi /sədì?/	P. sati 'recognition'; သတိ WB sati, MB
		ðădî; Sh. $s^h a^l ti^5$
Ceylon	tihu /tihu/	P. sīhaļa 'Ceylon'; သီတိုဠ် WB sīhuiļ, MB θìhò; Sh. sʰi²ho²
clock <sup>83</sup>	nayi /nayi/	P. nāļī 'tube', Hin. nāṭī 'pulse'; နာရီ WB
CIOCK	nayi/nayi/	nārī, MB nàyì; Sh. naa <sup>2</sup> ri <sup>2</sup>
coin	dengga /déŋgá/	Sk. ṭaṅka 'stamped coin'; ဒင်္ဂ WB
		daigā <sup>3</sup> , MB díngá; Sh. teŋ <sup>4</sup> kaa <sup>4</sup>
creator	săgya ∕səgyà/ ∼ săhka	Sk. sakrá 'Indra'; သိကြား WB sikrā³ 'In-
	/səkha/	dra', <sup>84</sup> MB <i>ðăjá</i>
diamond	sin /sin/	P. vajīra 'diamond'; စိန် WB cin, MB sèin;
		Sh. $tsi\eta^2$
element <sup>85</sup>	dat /dát/	P. dhātu 'element'; නෙරී WB dhāt, MB
		$da?$ ; Sh. $t^haat^3$

<sup>&</sup>lt;sup>79</sup> Items whose corresponding Indic forms are not identified are marked with asterisks.

<sup>&</sup>lt;sup>80</sup> Also found in other Kachin languages, e.g. Lh.  $ko^L la^L ?uk^F$ , La. goo: la: ug, Ra. golawu.

<sup>&</sup>lt;sup>81</sup> WB kulā³ut (lit. Indian-camel), whose roots are not combined in the donor language, seems to be a novel compound coined in Burmese.

<sup>&</sup>lt;sup>82</sup> Also found in other Kachin languages, e.g. Lh. săti?<sup>F</sup>, La. sa di, Ra. svdiq.

Also found in other Kachin languages, e.g. Za.  $na^{35}i^{55}$ , Lh. na: yi: (K), La. na: yi:, Ra. nari.

4 'the Hindu god Indra which appears in Buddhist Scriptures as Sakka, the lord of the first and second levels of existence of the *nat devas*'

<sup>&</sup>lt;sup>85</sup> 'an element, constituent part, particle, member: the four grand elements, i.e. air, earth fire, water'

embroidery <sup>86</sup>	za /dza/	P. jāla 'netting', Hin. jāl; @ WB jā, MB
		zà; Sh. tsaa <sup>2</sup>
figure	ruk /rùk/	P. rūpa 'form', Hin. rūp; ရှS် WB rup, MB
		you?; Sh. ruk <sup>3</sup>
foreigner	kăla /kəlá/	P. kula 'family, clan'; ကုလား WB kulā,
		MB kəlá; Sh. ka¹laa⁴
glorious	hpung gam /phùŋgam/ <sup>87</sup>	P. bhaga 'luck', kamma 'deed'; ဘုန်းကံ
		WB bhun <sup>3</sup> kaṁ, MB phóunkàn
glory <sup>88</sup>	hpung /phúŋ/ ~ hpung	P. bhaga 'luck'; ဘုန်း WB bhun³, MB
	/phuŋ/	phóun; Sh. $p^h u \eta^4$
grace*	chyeju /céjú/	ကျေးရူး WB $kye^3jar{u}^3$ , MB $c\acute{e}z\acute{u}$ ; Sh.
		$ke^4tsu^4$
greed	law hpa /lóphá/	P. lobha 'greed'; လောဘ WB lobha, MB
		$l\acute{o}b\hat{a}$ ; Sh. $lo^4p^haa^5$
guaranty*	ama /?amá?/	නෙවෙම WB āmakhaṁ, MB ?amâkhàn;
		Sh. $2aa^2maa^5k^haam^2$
guilt*	ăpyet /?əpyét/	အပြစ် WB aprac, MB ?əpyi?; Sh. ?a¹pɛt³
hell	ngărai /ŋəráy/	P. niraya 'hell'; ငရဲ WB narai, MB ŋăyɛ́;
		Sh. ŋaa⁴raaj⁴
hundred mil-	gădi /gədì/	P. koṭi 'the end'; ભૃદ્ધ WB kuṭe 'ten mil-
lion		lion', <sup>89</sup> MB gădè
intellect	nyan /nyàn/	P. ñāṇa 'knowledge'; ညဏီ WB ñāṇ, MB
		pàn; Sh. paan²
jaggery	nam htan /nàmthan/	P. tāla 'palmyra tree'; ∞\$: WB than³
		'toddy-palm', MB thán; Sh. nam <sup>5</sup> thaan <sup>1</sup>
jasper	năga htoi /nəgathòy/	P. nāga 'serpent'; နဂါးသွဲ့ WB nagā³swai¹,
		MВ пăgă $\theta$ w $\hat{\varepsilon}$
jewel	seng /seŋ/	P. vajīra 'diamond'; 🖇 WB cin 'dia-
		mond', MB $s\grave{e}iN$ ; Sh. $s^h \epsilon \eta^I$

 $<sup>\</sup>overline{^{86}}$  Also found in other Kachin languages, e.g. Za.  $za^{35}$ , Lh.  $tsa^L$ , La. za: Rachin languages, e.g. Za.  $za^{35}$ , Lh.  $tsa^L$ , La. za: One can be accounted for in terms of progressive assimilation.

<sup>&</sup>lt;sup>88</sup> Also found in other Kachin languages, e.g. Lh. phung" (K), La. pung", Ng. phunk, Ra.

 $<sup>\</sup>begin{array}{l} p \grave{u} n g b \grave{a} n g \sim p \grave{o} n g b \grave{a} n g. \\ 89 \text{ All borrowed round numbers over hundred thousand in Jinghpaw exhibit semantic shifts (see} \end{array}$ Kurabe to appear).

law	u pa di /ʔúbədi/	P. upadesa 'indication'; ഉഠദേ WB upade,
		MB $?\hat{u}b \rightarrow d\hat{e}$ ; Sh. $u^5pa^5te^2$
luck <sup>90</sup>	gam /gàm/	P. kamma 'deed'; ကိ WB kaṁ, MB kàn;
		Sh. kaam <sup>2</sup>
machine <sup>91</sup>	jak /jàk/	P. $cakka$ 'wheel'; $oob$ WB $cak$ , MB $se?$ ;
		Sh. tsaak <sup>3</sup>
mantra <sup>92</sup>	ga hta /gatha/	P. gāthā 'verse'; nloon WB gāthā, MB
		găthà; Sh. kaa² thaa²
mantra <sup>93</sup>	mandan/màndan/	P. manta 'charm'; မန္တန် WB mantan, MB
		màndàn; Sh. maan² taan²
merit	ku su /kú?su/	P. kusala 'merit'; ကုသိုလ် WB kusuil, MB
		$k\hat{u}\delta\dot{o}$ ; Sh. $ku^5s^ho^2$
mission	sasana /sasənà/	P. sāsana 'teaching'; သာသနာ WB sāsanā
work <sup>94</sup>		'teaching', MB $\theta$ àðanà; Sh. $s^haa^2s^ha^1$ naa²
$\mathrm{monk}^{95}$	hpung kyi /phùŋkyì/ <sup>96</sup>	P. bhaga 'luck'; ဘုန်းကြီး WB bhun³krī³,
		MB phóunjí
nutmeg	za di hpu /dzadí? phu/ $\sim$	P. jāti puppha 'nutmeg'; ဧ၁ဒိပ်ဖိုလ်
	jadihpu /jadìphu/	WB jādipphuil, MB zàdei?phò; Sh.
		$tsaa^2ti^5p^ho^2$
ocean <sup>97</sup>	nam muk dăra	P. samudda 'ocean'; သမုဒ္ဒရာ
	/nàmmùkdəra/ <sup>98</sup>	WB samuddarā, MB θămou?dăya
officer	bu /bu/	P. bala 'power, army'; දී  WB buil, MB
		bò; Sh. po²
		· •

<sup>90</sup> Also found in other Kachin languages, e.g. Za. gvyam<sup>11</sup>, Lh. kam<sup>F</sup>, La. gam, Ra. gàm.

<sup>91</sup> Also found in other Kachin languages, e.g. Za. zyak<sup>1</sup>, Lh. cak<sup>F</sup>, La. jag, Ra. jvk.

<sup>&</sup>lt;sup>92</sup> 'magic spell or incantation, a verse or stanza of four lines each of which has eight syllables'

<sup>&</sup>lt;sup>93</sup> Also found in other Kachin languages, e.g. Lh. man: dan: (K), La. man tan, Ng. mandan, Ra. mandan,

<sup>&</sup>lt;sup>94</sup> Also found in other Kachin languages, e.g. Lh. sa: sana: (K), La. sa: sana:, Ra. sasvna.

<sup>&</sup>lt;sup>95</sup> Also found in other Kachin languages, e.g. Za. bung<sup>11</sup>ki<sup>11</sup>, La. phung gyi, Ng. bunggyis, Ra.

The second syllable is of Burmese origin, i.e. WB  $kr\bar{r}^3$  'be big'.

<sup>&</sup>lt;sup>97</sup> Also found in other Kachin languages, e.g. Za.  $nam^{31}moq^{1}de^{1}ra^{35}$ , Lh.  $nam\ mug\ dara$ : (K), La. nam mug dara:, Ng. nvmuk-dra, Ra. nvmukdvra.

<sup>&</sup>lt;sup>98</sup> The first syllable is of Shan origin, i.e. Shan *nam*<sup>5</sup> 'water'.

officer	tha na up /thana?úp/ <sup>99</sup>	P. thāna 'place'; ဌာနအုပ် WB thānā'up,
omen	nămik /nəmìk/	MB thànà?ou? P. nimitta 'omen'; နိမိတ် WB nimit, MB nămei?; Sh. ni <sup>5</sup> mik <sup>3</sup>
paisa <sup>100</sup>	pyek san /pyèksan/	Hin. paisā 'copper coin'; ပိုက်ဆံ WB puik-chaṁ, MB pai?shàn; Sh. pɛk⁵-sʰaan²
period	gap/gàp/	P. kappa 'fixed time'; mo WB kap, MB ka?; Sh. kaap <sup>3</sup>
policeman <sup>101</sup>	pya da /pyada/	Hin. pyādā 'messenger' (from Per. piyāda); Sh. pjaa²taa² 'messenger', MB pyàtà; Sh. pjaa²taa² 'messenger'
punishment <sup>102</sup>	dam /dàm/ $\sim$ dan /dan/	P. daṇḍa 'stick as means of punishment';
representative*	<sup>103</sup> amat /?àmàt/	အမတ် WB amat, MB ?əma?; Sh. ?a¹maat³
rheumatism*	du la /dula/	ຊຸດວາ WB dūlā, MB dùlà; Sh. tu²laa²
rich man <sup>104</sup>	săhti /səthí/	P. seṭṭhi 'treasurer'; മൂട്ടേ: WB sūṭhe $^3$ , $^{105}$ MB $\theta$ ăthé; Sh. $s^ha^5t^he^4$
ruby	bat dămya /bàtdəmyà/	Sk. padma-rāga 'ruby'; ပတ္တမ္သြား WB pattamrā <sup>3</sup> , MB bădămyá; Sh. pat <sup>3</sup> ta <sup>1</sup> mjaa <sup>4</sup>
saffron robe <sup>106</sup>	shang gan /çaŋgàn/	P. sankāra-cola 'rag'; သင်္ကိန်း WB sankan³, MB θìngán; Sh. sʰaaŋ² kaan⁴
sapphire <sup>107</sup>	ni la /nila/	P. nīla 'blue'; \$\infty WB nīlā, MB nìlà; Sh. ni²laa²
ship; papa- ya* <sup>108</sup>	sanghpaw /sáŋphó/	သင်္ဘော WB saṅbho, MB $\theta$ ínb $\acute{o}$ ; Sh. maak $^2s^h$ aaŋ $^4p^h s^4$

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 $<sup>^{99}</sup>$  The second syllable is of Burmese origin, i.e. WB up 'to cover'.

<sup>&#</sup>x27;a pice or *paisa*, the small unit of currency under the British'

Also found in other Kachin languages, e.g. Lh. pyaLtaL, La. pya: da:, Ng. pyada, Ra. byadā.

Also found in other Kachin languages, e.g. Lh dan (K), La. dam, Ra. dvm zí.

<sup>&</sup>lt;sup>103</sup> 'a representative of the people elected to the state council, national parliament, or some assembly'

Also found in other Kachin languages, e.g. Lh.  $s \check{a} the^H$ , La. sa the  $\sim sa$  thi", Ra.  $svt\acute{e}$ .

The first syllable of Pali *setthi* that does not convey any meaning is replaced by  $s\bar{u}$  'person' in Burmese as a result of folk etymology.

<sup>106 &#</sup>x27;the saffron robe of a Buddhist priest'

Also found in other Kachin languages, e.g. Lh. ni: la:, La. ni: la:, Ng. nila luk.

Also found in other Kachin languages, e.g. Za.  $sang^3 lpo^{31}$ , Lh.  $san^F pho^F$ , La. sang phoo', Ng.

sin	yu bak /yùbàk/	P. upaddava 'misfortune'; ဥဝဒီ WB upad,
		MB ?ùba?; Sh. wi <sup>5</sup> paak <sup>3</sup>
socks <sup>109</sup>	maw za /moza/	Hin. mozā 'sock' (from Per. moza); မော်
		⊛ WB mo²jā, MB mòzà
spirit	hpuk /phùk/ <sup>110</sup>	P. $bhar{u}ta$ 'ghost'; ဘုတ် $\sim$ ဖုတ် WB $bhut$ $\sim$
		phut, MB phou?; Sh. $p^h u k^5$
spirit	we nyi /wényi/	P. viññāṇa 'mind'; ဝိညာဉ်, WB wiññāñ,
		MB wèinnìn; Sh. wi <sup>5</sup> nen <sup>2</sup>
state <sup>111</sup>	jat /jàt/	P. jāti 'rebirth', jātaka 'birth story'; ලාරි
		WB jāt, MB za?; Sh. tsaat <sup>3</sup>
topaz*	u tăphăya /?utəphəya/	ဥသာဖရား WB usāpharā³, MB
		?ou?θăphăyá
unhappiness	duk hka /dùkkhà?/	P. dukkha 'unpleasant'; ദുറ്റ്ല് WB dukkha,
		MB dou?khâ; Sh. tuk <sup>5</sup> k <sup>h</sup> aa <sup>5</sup>
university	dakkăsu /dàkkəsú/	P. takkasilā 'Taxila';¹¹² တက္ကသိုလ် WB
		$takkasuil$ , MB $t\varepsilon$ ? $k\check{a}\theta\grave{o}$ ; Sh. $tak^5ka^1s^ho^2$
water festival	shang gyen /cáŋgyen/	Sk. saṃ-krānti 'Sankranti'; သင်္ကြိန် WB
		sankran, MB $\theta$ ínjàn $\sim$ ðăjàn; Sh. $s^h$ aa $\eta^4$ -
		kjaan <sup>2</sup>
wheat	jung /juŋ/	Hin. gehūṁ 'wheat'; ਨ੍ਹੀਂ WB gyuṁ, MB
		jòun; Sh. cuŋ²
wisdom	byeng ya /byèŋyà/	P. paññā 'of wisdom'; opo WB paññā,
		MB pyìnɲà; Sh. piŋ²ɲaa²
witness <sup>113</sup>	sak se /sàksè/	Sk. sâkshin 'witness'; သက်သေ WB
		sakse, MB $\theta \varepsilon ? \theta \dot{e}$ ; Sh. $s^h aak^3 s^h e^2$

sang-pho, Ra. sàngpò.

This item, which appears to have entered Burmese during the colonial period, is rarely known by modern Burmese speakers, but words derived from the same etymon is retained in minority languages as in Jinghpaw and other Kachin languages, e.g. Za. mo<sup>35</sup>-za<sup>35</sup>, Lh. mo<sup>L</sup>tsa<sup>L</sup>, La. moo: za:, Ra. moza, and Chin languages as in Tedim Chin mawza and Mizo mawza tawi (Dr. Kosei Otsuka, p.c., 2016).

<sup>&</sup>lt;sup>110</sup> 'a *nat* that has the power to take possession of a corpse and appear in the apparently living body of a deceased person, a zombie'

<sup>&#</sup>x27;state of existence, of which there are three divisions past, present, and future'

<sup>&#</sup>x27;ia town situated in present-day Pakistan considered to be one of the earliest universities'

Also found in other Kachin languages, e.g. Lh. sag se: (K), La. sag se:, Ra. svkse  $\sim$  shvkse.

## 0.3 Loans of English and other origin

ball <sup>114</sup>	baw lung /bòlúŋ/	En. ball; ဘောလုံး WB bholuṁ³, MB
		bólóun; Sh. pɔ²luŋ⁴
bomb <sup>115</sup>	bawm /bòm/	En. bomb; 🔥 WB buṁ³, MB bóun; Sh.
		$maak^2pom^4$
camera <sup>116</sup>	kemmara /kemməra/	En. camera; ကင်မရာ WB kaṅmarā, MB
		kìnmărà; Sh. kaa²ma¹raa²
car	ka /ká/	En. car; നാാം WB kā <sup>3</sup> , MB ká; Sh. kaa <sup>4</sup>
car <sup>117</sup>	mawdaw /modo/	En. motor; မော်တော် WB mo²to² 'mo-
		torboat', MB màtà
car	mawdaw ka /modoká/	En. motorcar; မော်တော်ကား WB
		$mo^2to^2k\bar{a}^3$ , MB $m\grave{o}t\grave{o}k\acute{a}$ ; Sh. $mo^2to^2kaa^4$
Christ <sup>118</sup>	hkri sădu /khrísədù?/	En. Christ; ခရစ်တော် WB kharacto²,
		MB $kh$ ări $?t$ $\hat{o}$ ; Sh. $k^h a^1 rit^3$
Christmas <sup>119</sup>	hkri sămat /khrísəmát/	En. Christmas; ခရစ္စမတ် WB kharacca-
		mat, MB khări?săma?
college	kaw lik /kólík/	En. college; ကောလိပ် WB kolip, MB
		13lei?
company <sup>120</sup>	gung măni /guŋməni/	En. company; ကုမ္ပဏီ WB kumpaṇī, MB
		kòunbănì; Sh. kuŋ²pa¹ni²
England <sup>121</sup>	Inggălan /?iŋgəlan/	En. England; အင်္ဂလန် WB aṅgalan, MB
		?ìngəlàn; Sh. ?iŋ²ka¹lan²
English <sup>122</sup>	inglik /ʔíŋlík/ $\sim$ inggălik	En. English; အင်္ဂလိပ် WB aṅgalip, MB
	/?íŋgəlìk/	?ìngəlei?; Sh. ?iŋ <sup>4</sup> ka <sup>1</sup> let <sup>3</sup>
fit	htuk /thúk/	Mon thek; ထိုက် WB thuik, MB thai?; Sh.
		$t^h u k^2$

Also found in other Kachin languages, e.g. Za. bo<sup>11</sup>lung<sup>31</sup>, Lh. bo: lung" (K), La. boo: lung",

Also found in other Kachin languages, e.g. Lh. bom, La. boem, Ra. bòm  $\sim$  bùm.

Also found in other Kachin languages, e.g. Lh.  $kem^L ra^L$ , La. kem ra:, Ra. kemvra.

Found in other Kachin languages, e.g. Za.  $mo^{35}to^{35} \sim to^{55}$ , Lh.  $mo^L to^L$ , La. moo doo, Ra. modo.

Also found in other Kachin languages, e.g. Lh. khye" stu,, La. khri sa du, Ra. kristuq.

Also found in other Kachin languages, e.g. Lh. khye" smad, La. khri sa mad, Ra. kristmat.

<sup>&</sup>lt;sup>120</sup> Also found in other Kachin languages, e.g. Lh. *gung: mani:*, La. *gung ma ni:*, Ra. *gungbvni*.

<sup>&</sup>lt;sup>121</sup> Also found in other Kachin languages, e.g. Lh. *In ga lan:*, La. *in ga lan*, Ra. *inggvlan*.

<sup>&</sup>lt;sup>122</sup> Also found in other Kachin languages, e.g. Lh. *In ga lid*, La. *in ga lid*, Ra. *engvlik*.

fort <sup>123</sup>	dap /dàp/	Mon dap; တစ် WB tap, MB ta?; Sh. tap <sup>5</sup>
fountain pen	hpawng tin /phontin/	En. fountain; ဖောင်တိန် WB phonitin,
		MB phàuntìn
furlong	hpa lung /phaluŋ/	En. furlong;
		phàlòun
grape <sup>124</sup>	tsăbyi /tsəbyí?/	Arb. zabīb 'raisin'; စပျစ် WB capyac, MB
		zăbyi?; Sh. tsa <sup>1</sup> pit <sup>3</sup>
guava <sup>125</sup>	măli ga /məlîga/	Malay Melaka 'Malacca'; ജാസനാ WB
		mālagā, MB màlăgà; Sh. maak²kaa²
gun	sănat /sənát/	Por. espinharda; <sup>126</sup> သေနတ် WB senat,
		MB θăna?
Jesus <sup>127</sup>	Yesu /yesú?/	En. Yes; ယေရှု WB yerhu, MB yèçû; Sh.
		$je^2s^hu^5$
lottery <sup>128</sup>	hti /thi/	En. lottery; $\overset{\circ}{\infty}$ WB thī, MB thì; Sh. $t^h i^2$
magazine	mekgăzin/mékgədzín/	En. magazine; မဂ္ဂဇင်း WB maggajan³,
		MB mɛʔɡəzín; Sh. mɛk³ka¹tsin⁴
mile	mai /may/	En. mile; pc WB muin, MB màin; Sh.
400		meŋ²
minute <sup>129</sup>	mănit /mənìt/	En. minute; မိနစ် WB minac, MB mini?
motorcycle	mawdaw saike /modo-	En. motorcycle; မော်တော်ဆိုင်ကယ် WB
	sayke/	mo²to²chuiṅkay, MB mɔ̀tɔ̀shàinkɛ̀; Sh.
120		$mo^2 to^2 tsaaj^2 k x^2$
number <sup>130</sup>	nambat /námbát/	En. number; နံပါတ် WB nampāt, MB
		nànba?

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<sup>&</sup>lt;sup>123</sup> Also found in other Kachin languages, e.g. Lh. kyĕ<sup>F</sup>tap<sup>F</sup>, La. gye: dab, Ng. jesdvp, Ra. dap.

<sup>&</sup>lt;sup>124</sup> Also found in other Kachin languages, e.g. Lh. sabyi', La. za byi', Ng. zvbiq.

<sup>&</sup>lt;sup>125</sup> Also found in other Kachin languages, e.g. Lh. ma: laga:, La. ma: laga, Ra. malvgashí.

<sup>&</sup>lt;sup>126</sup> This widespread root, which found its way into many other Tibeto-Burman, Mon-Khmer and Tai languages, ultimately has its source in a slang of Portuguese soldiers in the 16th century, i.e. *espinharda* 'musket' (Matisoff 1988:747). The Burmese form appears to have a direct connection with Dutch *snaphaan* (Myanmar Language Commission ed. 2009:500).

Also found in other Kachin languages, e.g. Lh. Ye: su', La. Ye su, Ra. yesu.

<sup>&</sup>lt;sup>128</sup> Also found in other Kachin languages, e.g. Lh. thi:, La. thi:, Ra. ti.

Also found in other Kachin languages, e.g. Lh.  $mi^F nit^H$ , La. myi: nid, Ra.  $min \emptyset t \sim mvnit$ .

Also found in other Kachin languages, e.g. Za. nam<sup>35</sup>bat<sup>5</sup>, Lh. nam: bad (K), La. nam bed, Ra. nýmbvt.

party	pati /pati/	En. party; ဝါတီ WB pātī, MB pàtì; Sh. paa²ti²
pawn	pawng /poŋ/	En. pawn; colê WB poń, MB pàun; Sh.
radio	rediyu/rediyu/	En. radio; ရေဒီယို WB redīyui, MB redijo; Sh. re²ti²jo²
second	tsekkan /tsèkkan/	En. second; စက္ကန့် WB cakkan <sup>1</sup> , MB
soap <sup>131</sup>	sap bya /sápbya/ ~ sa bya /sàbyà/ ~ săbya /səbya/	Por. sabão; εδίος WB chapprā, MB sha?pyà; Sh. shap5pjaa²
soup	sup /súp/	En. soup; စုပ်ပြုတ် WB cwapprut, 132 MB su?pyou?
stylus*	gănyit /gənyìt/	ကညစ် WB kaññac, <sup>133</sup> MB kăṇi?
tamarind	măgyeng /məgyêŋ/	Mon maṅglan; မန်ကျည်း WB mankyañ³, MB məjí; Sh. maak²kɛŋ⁴
velvet	gădi ba /gədiba/	Arb. qatifa; നാറ്റ്റീ WB kattīpā, MB gădìbà; Sh. kat³ti³paa²
whale	we la nga /weláʔŋá/	En. whale; ဝေလငါး WB welanā³, MB wèlâŋá

# **Appendix B: Semantics of Burmese loans**

Burmese loanwords, as exemplified in (1), sometimes underwent semantic changes in Jinghpaw, illustrating such changes as specialization, generalization, and melioration.

- (1) Examples of semantic shifts between Burmese and Jinghpaw
  - a. WB lakchoń 'gift' > Jg. làksòŋ 'property or money used as a bride'
  - b. WB tamkhwan 'pennant' > Jg. dònkhon 'flag'
  - c. WB aron 'color' > Jg. ?əron 'honor'
  - d. WB prātā 'messenger' > Jg. pyada 'police officer'
  - e. WB kaii<sup>3</sup> 'post for collecting custom duties' > Jg. kàŋ 'custom duties'

Also found in other Kachin languages, e.g. Za.  $bya^{11} \sim sa^{11}$ - $bya^{11}$ , La. sa" pya:, Ng. sapya, Ra.  $sapby\acute{a}$ . This item, ultimately derived from an etymon of Proto-Indo-European, was adopted by a massive number of genetically related and unrelated languages across Europe, Africa, the Middle East, South, East and Southeast Asia, the Pacific, and Northe America (see Bauer 1992).

<sup>&</sup>lt;sup>132</sup> The second syllable is of Burmese origin, expressing 'to boil'.

<sup>&</sup>lt;sup>133</sup> From Mon according to Myanmar Language Commission ed. (2009:2).

f. WB  $khyam^3s\bar{a}$  'be rich; have peace and quiet' > Jg.  $khy\acute{a}ms\grave{a}$  'to rest; be cheap' g. WB  $s\bar{a}san\bar{a}$  'teaching' > Jg.  $sasan\grave{a}$  'mission work'

WB lakchon 'gift' (cf. Shan laak $^3$ s $^h$  $\supset \eta^2$  'gift'), narrowing its range of referent, is specialized to mean 'property or money used as a bride' in Jinghpaw. WB tamkhwan 'pennant' (cf. Shan  $tam^4khn^2$  'flag offered in worship'), on the other hand, is generalized to encompass any kinds of flags in Jinghpaw. WB aron 'color' (cf. Shan  $7a^{1}rzn^{2}$ 'color, brightness') underwent melioration in Jinghpaw, gaining a more positive sense of 'honor'. A similar shift can also be observed in WB prātā (ultimately from Persian through Hindi) 'office boy; messenger' (cf. Shan pjaa²taa² 'peon; messenger'), which is borrowed into Jinghpaw first with the meaning of 'police force serving as the chief's messengers' 134 and then with the meaning of 'police officer' in general today. Jinghpaw kàŋ 'duties', having its diachronic source in WB kaii<sup>3</sup> 'post for collecting custom duties', illustrates metonymic transfer. WB khyam<sup>3</sup>sā 'be rich; have peace and quiet' is introduced through Shan (i.e.  $k^h jaam^4 s^h aa^2$  'be at ease; ease') into Jinghpaw, where it underwent further semantic shift meaning not only 'happiness, rest, pleasure' but also 'be cheap, inexpensive'. As the majority of the Jinghpaw people today are Christian, Buddhism terminology such as WB  $s\bar{a}san\bar{a}$  'teaching, dispensation' (cf. Shan  $s^haa^2s^ha^l$   $naa^2$  'religious system'; ultimately from Pali) is adopted by Jinghpaw as terminology of Christianity (i.e. Jg. sasənà 'mission work').

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<sup>&</sup>lt;sup>134</sup> "[A]ll gumrawng gumsa chiefs maintain a regular police force serving as the chief's messengers or agents of law enforcement" (Maran 1964:39).

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# ジンポー語におけるビルマ語借用語音韻論

## 倉部 慶太

## 要旨

本稿の目的は、ジンポー語のビルマ語借用語を対象に、特に分節音に注目しながら、その借用語音韻論の記述的説明を行うことにある。本稿は、複雑な文化接触地域を成す東南アジアにおける言語接触の一つの事例を提供する。ジンポー語のビルマ語借用語音韻論は特に次の2点で注目に値する。第一に、ビルマ語とジンポー語の言語接触の歴史は比較的新しいにも関わらず、ジンポー語のビルマ語借用語の多くは現代ビルマ語で失われた保守的な音特徴を示す点である。この事実は、ビルマ語→シャン語→ジンポー語という語族を超えた借用の連鎖を想定することにより説明可能となる。すなわち、ビルマ語ともジンポー語とも長い接触の歴史を持つシャン語を介して、多くのビルマ語がジンポー語に導入されたのである。第二に、ジンポー語のビルマ語借用語が、古いビルマ語と現代ビルマ語の両方の音特徴を示す点である。この事実は、ジンポー語のビルマ語借用語が多層的性質を持つことを示す。附録 A ではビルマ語借用語語彙を提示し、附録 B ではビルマ語借用語に観察される音変化の記述を行う。

受領日 2016年10月1日 受理日2016年12月26日