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 → Shan → 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...
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.\(^1\) 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, 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.

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\(^1\) 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. 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).

2 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 \( \bar{n} \)ar\’ay ‘hell’ and me ‘ballot’, where the former reflects the properties of WB (WB \( \bar{n} \)r\’\( \acute{\text{a}} \)r\’\( \acute{\text{a}} \), MB \( \bar{n} \)\( \acute{\text{a}} \)y\’\( \acute{\text{e}} \)), in contrast to the latter that reflects properties of MB (WB \( \text{m} \)\( \text{a} \), MB \( \text{m} \)\( \text{a} \)). 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 /\( \text{s} \)/ in the modern language together with other final nasals (for more examples see Section 3).

(1) Examples representing separate loan strata

   a. ‘measles’ Jg. w\( \acute{\text{a}} \)ks\’\( \acute{\text{a}} \) (from WB waks\'ak, MB \( \text{w} \)\( \text{r} \)\( \text{t} \)\( \text{r} \))
   b. ‘screw’ Jg. w\( \text{c} \)\( \text{\`\text{u}} \)wu (from WB wak\’\( \text{\`\text{u}} \), MB \( \text{w} \)\( \text{r} \)\( \text{t} \)\( \text{t} \)\( \text{t} \))
   c. ‘luck’ Jg. \( \text{g} \)\( \text{\`\text{a}} \)m (from WB ka\( \text{\`\text{a}} \), MB k\( \text{\`\text{a}} \))
   d. ‘pencil’ Jg. kh\( \text{\`\text{e}} \)dan (from WB khait\( \text{\`\text{a}} \), MB kh\( \text{\`\text{e}} \)d\( \text{\`\text{a}} \))

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 Burmese 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) → Burmese (TB) → Shan (Tai) → Jinghpaw (TB) → 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 well-
established 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 ‘coconut’, for example, is borrowed into Jinghpaw as m@Pˆ un (cf. Shan maak2 Pun1) with a Shan class term maak2 ‘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 code-switching (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 sh˘anw´ın dˆo ‘turmerics’ and a Burmese
Phonology of Burmese loans in Jinghpaw

idiomatic phrase bà dō pà dō ‘something like that’ are inserted:

(3) cānte ĉ ṭu ?ay gò yá? nà dzôn shānwín dō bà dō pà dō

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.

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 phoñ, MB phàuv, Sh. pʰəŋ, Jg. phoñ
b. ‘jail’ WB thoñ, MB thàuv, Sh. tʰəŋ, Jg. thoñ
c. ‘bell’ WB khoñ³ loiñ³, MB kʰáuvláuv, Sh. kʰəŋ⁴ loŋ⁴, Jg. khojloŋ
d. ‘class’ WB tan³, MB táñ, Sh. taun⁴, Jg. tán
e. ‘fort’ WB tap (from Mon), MB taʔ, Sh. tap⁵, Jg. dāp
f. ‘rheumatism’ WB dûlā (from Sanskrit), MB dûlā, Sh. tu²lāa², 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/ in Jinghpaw, where words showing the WB /j/ vs. MB /z/ vs. Jg. /dz/ ([dz] ~ [z]) correspondence appear to be of recent origin.

(5) Correspondences of affricates
a. ‘machine’ WB cak (from Pali), MB sëʔ, Sh. tsaak³, Jg. jàk
b. ‘envelope’ WB căʔit, MB sàʔeiʔ, Jg. tsǎʔik
c. ‘teacher’ WB chară, MB shàvà, Sh. sʰraa², Jg. sora
d. ‘Jataka’ WB jāt (from Pali), MB zaʔ, Sh. tsaat³, Jg. jàt
e. ‘spoon’ WB jwán³, MB zûn, Jg. dzûn

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

a. ‘Murraya’ WB sanapkhā, MB thānākhā, Sh. sʰaʔnaap³kʰaʔ⁴, Jg. sənāpkhā
b. ‘preach’ WB ho, MB há, Sh. ha⁴, Jg. hó ~ kho

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

<table>
<thead>
<tr>
<th>WB</th>
<th>m</th>
<th>mh</th>
<th>n</th>
<th>nh</th>
<th>ŋ</th>
<th>ŋ</th>
<th>r</th>
<th>rh</th>
<th>l</th>
<th>lh</th>
<th>w</th>
<th>wh</th>
<th>y</th>
<th>yh</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB</td>
<td>m</td>
<td>lm</td>
<td>n</td>
<td>ln</td>
<td>ŋ</td>
<td>ŋ</td>
<td>y</td>
<td>c</td>
<td>l</td>
<td>hl</td>
<td>w</td>
<td>hw</td>
<td>y</td>
<td>c</td>
</tr>
<tr>
<td>Sh</td>
<td>m</td>
<td>m</td>
<td>n</td>
<td>n</td>
<td>ŋ</td>
<td>ŋ</td>
<td>r</td>
<td>j</td>
<td>l</td>
<td>l</td>
<td>w</td>
<td>–</td>
<td>j</td>
<td>–</td>
</tr>
<tr>
<td>Jg</td>
<td>m</td>
<td>m</td>
<td>n</td>
<td>n</td>
<td>ny</td>
<td>ŋ</td>
<td>r</td>
<td>y</td>
<td>s</td>
<td>l</td>
<td>l</td>
<td>w</td>
<td>–</td>
<td>y</td>
</tr>
</tbody>
</table>

The voiced nasal, liquid and glide of Burmese, as given in (7a) and (b), are faithfully preserved in Shan and Jinghpaw without any substitution.³ 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 /sʰ/ 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.

³ A few exceptions include WB jaluṁ ‘bowl’ (MB zālōuñ) that appears as jærɵŋ in Jinghpaw (cf. Shan tsà³i|haj⁵).
(7) Correspondences of sonorants
   a. ‘prince’ WB maññ³sa³, MB místha, Sh. maññ⁴sa⁴, Jg. mûpsâ
   b. ‘intellect’ WB ṃān (from Pali), MB pāx, Sh. paaº, Jg. nyân
   c. ‘offer’ WB ṁrû, MB ṁrû, Sh. ṁrû, Jg. lu
   d. ‘certificate’ WB laṁhaṭ, MB l̘̄hma³, Jg. làkmâṭ
   e. ‘office’ WB ruñ³, MB yûn, Sh. ruñ⁴, Jg. ruñ
   f. ‘affair’ WB are¹, MB ?ayé, Sh. ?a¹je¹, Jg. ?aye
   g. ‘be messy’ WB r̘u̘p, MB cou⁴, Sh. s̘búk⁵, Jg. cûk ∼ sûksûk

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

<table>
<thead>
<tr>
<th>WB</th>
<th>py</th>
<th>phy</th>
<th>ky</th>
<th>khy</th>
<th>my</th>
<th>pr</th>
<th>phr</th>
<th>kr</th>
<th>khr</th>
<th>mr</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB</td>
<td>py</td>
<td>phy</td>
<td>c</td>
<td>ch</td>
<td>my</td>
<td>py</td>
<td>phy</td>
<td>c</td>
<td>ch</td>
<td>my</td>
</tr>
<tr>
<td>Sh</td>
<td>–</td>
<td>–</td>
<td>kj</td>
<td>k̃j</td>
<td>mj</td>
<td>p(y)</td>
<td>–</td>
<td>kj/ts</td>
<td>–</td>
<td>mj</td>
</tr>
<tr>
<td>Jg</td>
<td>–</td>
<td>–</td>
<td>ky/gy/j</td>
<td>khy</td>
<td>my</td>
<td>py</td>
<td>–</td>
<td>ky/c</td>
<td>–</td>
<td>my</td>
</tr>
</tbody>
</table>

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 khyam⁴sā, MB chàstå, Sh. k̃jaam⁴sa⁴, Jg. khvaṁsā
   b. ‘emerald’ WB mura, MB myâ, Sh. mja⁵, Jg. mya
   c. ‘school’ WB kyoût¹, MB cǎux, Sh. kj̃jój⁵, Jg. jòj

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

<table>
<thead>
<tr>
<th>WB</th>
<th>a</th>
<th>ā</th>
<th>i</th>
<th>ī u</th>
<th>ē u</th>
<th>e</th>
<th>ai</th>
<th>ay</th>
<th>o</th>
<th>ui</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB</td>
<td>a</td>
<td>a</td>
<td>i</td>
<td>i u</td>
<td>u e</td>
<td>ē r</td>
<td>ē r</td>
<td>o</td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>Sh</td>
<td>a/aa</td>
<td>a/aa</td>
<td>i</td>
<td>u u</td>
<td>e</td>
<td>aaj/e</td>
<td>aaj</td>
<td>o</td>
<td>o</td>
<td></td>
</tr>
<tr>
<td>Jg</td>
<td>a</td>
<td>a</td>
<td>–</td>
<td>i</td>
<td>u u</td>
<td>i/e</td>
<td>ay/e</td>
<td>ay/e</td>
<td>o</td>
<td>u</td>
</tr>
</tbody>
</table>

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. dūsāt ‘animal’ (from Shan tošat).

(9) Correspondences of open rhymes

a. ‘emerald’ WB mra, MB myā, Sh. mjaa, Jg. mya
b. ‘rank’ WB arā, MB ʔāyā, Sh. ?a1jaar2, Jg. ʔaya
c. ‘lottery’ WB thi, MB thi, Sh. ʔiʔi, Jg. thi
d. ‘work’ WB anhu, MB ʔāhumū, Sh. ?a1nur5, Jg. ʔamū
e. ‘offer’ WB lhū, MB lhū, Sh. lr2, Jg. lu
f. ‘affair’ WB are3, MB ʔāyé, Sh. ?a1je4, Jg. ʔaye
g. ‘law’ WB upade (from Pali), MB ʔūbodē, Sh. ʔuʔpa7te2, Jg. ʔūbodi
h. ‘deputy commissioner’ WB are3puinii, MB ʔāyēbāix, Jg. ʔoyēbyeq ~ ʔoyēhyeq
i. ‘preach’ WB ho, MB hō, Sh. ho2, Jg. kho ~ hō
j. ‘interest’ WB atui3, MB ʔātō, Sh. ?a1to4, Jg. ʔatū

WB rhymes ai and ay that have developed into MB /e/ are mapped to either /aaj/ or /e/ 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 ʔarai, MB ʔāvyē, Sh. ʔa2raaj2, Jg. ʔarāy
b. ‘pencil’ WB khaiṭaun, MB khēdān, Sh. kʰʌrpm2, Jg. khēdan
c. ‘sea’ WB paalay, MB pislē, Sh. paan2laa2, Jg. paalay
d. ‘herring’ WB ʔa2’phay, MB ʔāphē, Jg. ʔāʔuphe
3.3 Nasal rhymes

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

<table>
<thead>
<tr>
<th></th>
<th>WB</th>
<th>MB</th>
<th>Shan</th>
<th>Jinghpaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>am</td>
<td>an</td>
<td>an</td>
<td>a(\ddot{n})</td>
<td>a(\ddot{n})</td>
</tr>
<tr>
<td>a(\ddot{n})</td>
<td>i/ε/ε</td>
<td>iν</td>
<td>a(\ddot{n})/a(\ddot{n})</td>
<td></td>
</tr>
</tbody>
</table>

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

(11) Correspondences of nasal rhymes with WB \( a \)

a. ‘to work’ WB \( \text{tham}^3 \), MB \( \text{th\text{ān}}^3 \), Sh. \( \ddot{\text{aam}}^4 \), Jg. \( \text{th\text{ām}} \)

b. ‘luck’ WB \( \text{ka}\ddot{n}i \) (from Pali), MB \( \text{k\ddot{a}n} \), Sh. \( \text{k\ddot{a}m}^2 \), Jg. \( \text{g\ddot{a}m} \)

c. ‘telescope’ WB \( \text{mhan}\text{proi}^3 \), MB \( \text{hm\ddot{a}nby\text{\acute{a}u}}^\text{\acute{n}} \), Sh. \( \text{maa}\ddot{m}^3\text{\ddot{p}j\ddot{a}nf}^4 \), Jg. \( \text{ma\text{np\ddot{y}o}}^\text{\acute{h}} \)

d. ‘capital’ WB \( \text{a\ddot{ra}n}^3 \), MB \( ?\text{\acute{a}v\ddot{i}n} \), Sh. \( ?\text{\acute{a}r\ddot{a}n}^4 \), Jg. \( ?\text{\acute{a}r\ddot{a}y} \)

e. ‘disciple’ WB \( \text{t\ddot{a}p\ddot{a}i}^1 \), MB \( \text{d\ddot{a}b\ddot{e}} \), Sh. \( \text{t\ddot{a}l\text{\acute{e}}n}^4 \), Jg. \( \text{s\acute{p\ddot{e}}} \)

f. ‘oil’ WB \( \text{r\ddot{e}n\ddot{n}i} \), MB \( \text{\acute{y}e\ddot{n}n\ddot{x}} \), Jg. \( \text{y\ddot{e}n\ddot{a}n} \)

g. ‘bottle’ WB \( \text{p\ddot{u}l\ddot{a}i}^3 \), MB \( \text{\acute{p}\ddot{a}\ddot{l}\ddot{i}x} \), Sh. \( \text{p\ddot{a}\ddot{l}\ddot{e}\ddot{n}}^4 \), Jg. \( \text{p\ddot{\acute{e}}\ddot{\acute{y}}\ddot{\acute{e}}} \sim \text{p\ddot{l\acute{e}}n} \)

WB labialized rhymes -\( \text{w\ddot{a}n} \) and -\( \text{w\ddot{a}i} \) that are reflected in MB by /\ddot{u}n/ and /\ddot{w}i\ddot{n}/ appear as /\ddot{u}n/ and /\ddot{u}n/ respectively in Shan and Jinghpaw, as illustrated by (12a) and (b). WB palatalized rhyme -\( \text{y\ddot{a}m} \), as given in (12c), is retained as such in Shan and Jinghpaw. Note that the PTB palatalized rhyme *\( \text{y\ddot{a}m} \) has regularly developed into /\ddot{e}n/ in Jinghpaw (Benedict 1972:51, Matisoff 2003:252), e.g. Jg. \( \text{pyen} \) ‘fly’ (from PTB *\( \text{bh\ddot{a}m} \), cf. WB...
(12) Correspondences of WB labialized or palatalized nasal rhymes

a. ‘doctor’ WB charāwan, MB shəywín, Sh. sʰraa² wu₂, Jg. tʃi-sarəwín⁴
b. ‘olive’ WB sainlwain, MB thəxlwin, Sh. sʰaːnlum², Jg. tsalun

c. ‘to rest’ WB khyam³ sā, MB cháxtā, Sh. kʰjaam³ sʰaᵃ, Jg. khyámsā

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

<table>
<thead>
<tr>
<th>WB</th>
<th>in</th>
<th>iɲ</th>
<th>uɲ</th>
<th>oɲ</th>
<th>uɲ</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB</td>
<td>eɪn</td>
<td>eɪn</td>
<td>oun</td>
<td>oun</td>
<td>aʊn</td>
</tr>
<tr>
<td>Sh</td>
<td>–</td>
<td>iɲ</td>
<td>uɲ</td>
<td>oɲ</td>
<td>eɲ/uɲ</td>
</tr>
<tr>
<td>Jg</td>
<td>–</td>
<td>iɲ</td>
<td>uɲ</td>
<td>oɲ</td>
<td>eɲ/uɲ</td>
</tr>
</tbody>
</table>

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 uɲ in Shan and Jinghpaw are thus /iɲ/ and /uɲ/, as illustrated by (13a) and (b).⁵ A parallel development is also observed for checked rhymes with high vowels, e.g. WB ip, it → /ik/, WB up, ut → /uk/ (see Table 7 in Section 3.4). This “velarization”, however, does not hold for WB un, as in (13c). WB rhyme uɲ, as exemplified by (13e), is usually mapped to /eɲ/ and /eɲ/ in Shan and Jinghpaw respectively. In (13f), it is adapted as /eɲ/ 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 ?aːcɛiŋ, Sh. kʰiŋ², Jg. khyiŋ
b. ‘office’ WB ruŋ³, MB youŋ, Sh. ruŋ¹, Jg. ruŋ

c. ‘goods for sale’ WB kun, MB k’ouŋ, Sh. kʊr², Jg. giŋ

⁴ The first syllable tʃi refers to ‘medicine’ in Jinghpaw.
⁵ Exceptions include Jg. sin from WB cin ‘diamond’ (ultimately from Pali, cf. MB səev), for which Shan presents a regular correspondence (i.e. tsəŋ), and Jg. thun ‘lime’ from WB thuinn (cf. MB thəuŋ, Sh. ṭuŋ²), which seems to be of recent origin.
3.4 Checked rhymes

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

<table>
<thead>
<tr>
<th>WB</th>
<th>ap</th>
<th>at</th>
<th>ac</th>
<th>ak</th>
<th>ip</th>
<th>it</th>
<th>up</th>
<th>ut</th>
<th>ok</th>
<th>uik</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sh</td>
<td>ap/aap</td>
<td>at/aat</td>
<td>rt/et</td>
<td>ak/aak</td>
<td>ik</td>
<td>ik</td>
<td>uk</td>
<td>uk</td>
<td>ok</td>
<td>ik/ek/uk</td>
</tr>
<tr>
<td>Jg</td>
<td>ap</td>
<td>at</td>
<td>et</td>
<td>ak</td>
<td>ik</td>
<td>ik</td>
<td>uk</td>
<td>uk</td>
<td>ok</td>
<td>ik/ek/uk</td>
</tr>
</tbody>
</table>

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 /rt, et/ and /et/ in Shan and Jinghpaw respectively, as in (14d).6

(14) Correspondences of checked rhymes with WB a

a. ‘fort’ WB tap (from Mon), MB ta?, Sh. tap5, Jg. dâp
b. ‘butter’ WB thopat, MB thâba?, Sh. ë6s4paat3, Jg. thôbât
c. ‘era’ WB lakthak, MB le?the?, Sh. laak5ë4aak5, Jg. lâkthåk
d. ‘guilt’ WB aprac (from Pali), MB ?apyiʔ, Sh. ?a1pet3, Jg. ?apyèt

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).7 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.

6 Some of the WB rhyme ac came from -yat (Professor Hideo Sawada, p.c., 2016).
7 A few exceptions include Jg. wît ‘brick’ from WB ut (ultimately from Pali, cf. MB ?ou?, Sh. ?u?), and Jg. jari ‘provisions for a journey’ from WB carit (cf. MB zäyeiʔ, Sh. tsâ1rip3).
(15) Correspondences of checked rhymes with vowels other than WB:

a. ‘stamp’ WB taɪnchìp, MB dāζeïʔ, Sh. tar²sʰik³, Jg. ḏoζik
b. ‘linen cloth’ WB pit, MB peiʔ, Sh. pìk³, Jg. pìk

c. ‘be messy’ WB rhup, MB couʔ, Sh. sʰuik⁵, Jg. cùk ~ sùksàk
d. ‘camphor’ WB parut, MB payouʔ, Sh. paɾuk³, Jg. payùk

e. ‘cannon’ WB amrok, MB ʔànyauʔ, Sh. ʔa¹mjɔk³, Jg. ʔэmyòk
f. ‘paisa’ WB puikchaui (from Hindi), MB paiʔshàx, Sh. pek⁵¹sʰaun², Jg. pyèksan
g. ‘fit’ WB tuik, MB taiʔ, Sh. ʇ⁵uk², Jg. thùk

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 words⁸): (a) final /k/; (b) initial /h/; (c) /w/ before front vowels; (d) /ŋ/ before front vowels; (e) minor syllable /ŋə/.

<table>
<thead>
<tr>
<th>Table 8 Native constraints violated in loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a)</td>
</tr>
<tr>
<td>native words</td>
</tr>
<tr>
<td>loanwords</td>
</tr>
<tr>
<td>mimetic words</td>
</tr>
</tbody>
</table>

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

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. làknāk (from WB lāknak, MB lēʔurʔ, Sh. laakŋ naak)
   b. ‘preach’ Jg. hō ∼ khō (from WB ho, MB hō, Sh. hɔ)
   c. ‘spirit’ Jg. wé nyi (from WB wiǔnū, MB wēŋpì, Sh. wù̆j̃pen)
   d. ‘hell’ Jg. ŋārāy (from WB ńarai, MB Ḿāy, Sh. ńaas raaaj)

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 /hlā/ ‘be beautiful’ is thus more likely to be pronounced /lā/ by Jinghpaw speakers.

(17) Voicing of voiceless sonorants
   a. ‘certificate’ Jg. làkmät (from WB lākmhat, MB leʔmuʔ, Sh. laakŋ maat)
   b. ‘strike’ Jg. nāk ∼ nāk (from WB ῦhak, MB ῦmrʔ, Sh. naak)
   c. ‘offer’ Jg. lū (from WB lhū, MB lhū, Sh. lu)

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.
Phonology of Burmese loanwords in Jinghpaw

→ 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 ʃka ‘car’, MB kā, Sh. kaa⁴, Jg. ká, and the mapping of English /f/ to /ph/, e.g. WB phöntin ‘fountain pen’, MB phàuntin, Jg. phöntin.

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

<table>
<thead>
<tr>
<th>English</th>
<th>Jinghpaw</th>
<th>Burmese</th>
<th>Shan</th>
</tr>
</thead>
<tbody>
<tr>
<td>affair</td>
<td>ñaye /?aye/</td>
<td>မြန်မာဘာသာ သီးလှား</td>
<td>Sh. သီးလှား</td>
</tr>
<tr>
<td>age</td>
<td>ñak /?asak/</td>
<td>မြန်မာဘာသာ သီး</td>
<td>Sh. သီး</td>
</tr>
<tr>
<td>amulet</td>
<td>ဗုဒ္ဓေဂျင် /lak-hpoj/</td>
<td>မြန်မာဘာသာ လက်ဖာ အောင်</td>
<td>Sh. လက်ဖာ အောင်</td>
</tr>
</tbody>
</table>

→ ဗုဒ္ဓေဂျင် /lak-hpoj/ with front vowels that arose as a result of a sound change (Kurabe 2014a, 2014b). Such illicit combinations in the native phonology were relatively recent origin. This fact is due to borrowing chains, i.e. Burmese loans in Jinghpaw especially focusing on their segmental phonology. Our findings in-
anticipate  htang /tʰàŋ/  WB thañ ‘think’, MB thìn; Sh. tʰaŋ²
antique  lak hawng /làkkʰôŋ/  WB lakho¨i³, MB leʔhâuⁿ
apologize  tawng ban /tʰŏŋban/  WB tò˘i³pan, MB tá˘nbà˘n; Sh. tʰang²paan²
asafoetida¹⁰  hkying hku/khyînkhu/  WB rhîn’khûi, MB cêixkhô; Sh. sʰiŋ²kʰi²
auger  lun bu /lunbu/  WB lwanpû, MB li˘nung
ballot  me /me/  WB ma˘i, MB me
be closed  pyìk /pyìk/  WB pit, MB pei³; Sh. pik⁵
be destroyed  byak /bîyak/  WB pyak, MB pyê³
be deterred  a na /a˘na/  WB a˘nä, MB ?äna; Sh. ?aa⁴₉aar²
be important  âhkîyak /ʔəkkʰîyk/  WB akhyak ‘point’, MB ?aŋch³; Sh. ?a¹kʰjaak³ ‘subject’
be lucky  htîk /θîk/  WB thuik, MB dai³
bell  hkawng lawng /khaŋlôŋ/  WB khaŋg³lo˘i³, MB khá˘lǔ˘au˘n; Sh. kʰoŋ⁴lôŋ⁴
bottle¹¹  pûlin /pûlin/  WB pula˘i³, MB pûlin; Sh. pa¹leŋ⁴
/orê˘n/
bowl  járuŋg /ʃàɾuŋ/  WB jalu˘i˘, MB zàlò˘un; Sh. tsa¹li˘ŋ²
bread¹²  mûk /mûk/¹³  WB mun¹, MB mû˘un
bucket  ye bung /ʃe˘bûŋ/  WB repu˘i³, MB yèbû˘un; Sh. puŋ⁴
butter  htaw bat /thîbàt/  WB thopat, MB thó˘ba³; Sh. tʰaŋ²paat³
camphor  pàyûk /pàyûk/  WB parut, MB payou⁴; Sh. pa¹rûk³

¹⁰ ‘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)
¹¹ Also found in other Kachin languages, e.g. Lh. pûlin⁴, La. pa rheing”, Ng. pvlinh, Ra. bvlûng ~ bvlûn.
¹² Also widely found in other Kachin languages, e.g. Za. mûk¹, Lh. mûk⁴, La. mug, Ra. mug.
¹³ The irregular final -k in Jinghpaw may reflect the falling or ‘creaky’ tone in Burmese which is articulated with a glottal constriction.
16 Also found in other Kachin languages, e.g. Za. a‘rang³, Lh. arang (K), La. arang”.  
17 ‘the long-headed catfish, Mystus aor’  
18 ‘the short-headed catfish, Danio nigrofasciatus’  
19 Also widely found in other Kachin languages, e.g. Za. mvyuq³, Lh. myu’ (K), La. myu, Ra. myoq ~ myuq.  
20 Also found in other Kachin languages, e.g. Lh. cāre¹, La. jiri, Ra. jeré.  
21 Also found in other Kachin languages, e.g. Lh. ma-un (K), La. ma-un, Ra. mvwónshi.  
22 ‘a job or contract, where terms of payment are based on the entire contract’  
23 The irregular correspondence between unaspirated and aspirated stops obscures the relationship.  
24 Also found in other Kachin languages, e.g. Lh. o” za: (K), La. o” za, Ng. ohza.  
25 ‘outpost; post for collecting custom duties’
Also found in other Kachin languages, e.g. Lh. "jhi" (K), La. "jhi", Ra. "sázi".

Also found in other Kachin languages, e.g. Za. "myat"1, Lh. "cažé ~ cázi"; Sh. "s@kÉt"4, tse4.

'occurrences, affairs, events, the happenings, the drama, the action, the cause-and-effect of a situation, a state of affairs'.

The first syllable is ultimately from Pali (see Section 0.2 below).
Phonology of Burmese loanwords in Jinghpaw

feast poi /pōy/  WB pwai, MB pwé; Sh. pɔj
film dat shin /dātɕin/  WB dhātənä, MB daʔɕin
firearm tung mi /tūm菊/  WB tūm^3 senat, MB tūmʔänä?
fisherman dam nga /dāmŋ̂a/  WB tæinuä, MB tɔŋ̂a; Sh. tam^3 jaa
flag dawng hkawn  WB tæinhkwan ‘pennant’, MB /dɔŋkhon/  dāgu; Sh. tam^4 kʰon
France pyin tit /pyiŋtī/  WB prausac, MB pyixθī?
gain āmyat /ʔɔmyat/  WB amrat, MB ?āmya?; Sh. mjaa?
gasoline dat si /dātsi/  WB dhātχi, MB daʔshi; Sh. təaṭ^3 sʰi
gecko tau te /tawτʔi/  WB toktai^1, MB tauʔtē; Sh. takτ^5 te
goal ban dung /baŋdʊŋ/  WB paŋtuŋ, MB pάsḍain; Sh. paan^4 tuŋ
goods for sale gun /gʊn/  WB kun, MB kʊxn; Sh. kun^2
government āsuya /ʔɔsuyəʔ/  WB acui^ra, MB ʔāsōyä; Sh. ?a^1 tso^4 jaa^5
guess tak /tɑʔk/  WB twak, MB twr?; Sh. tak^5
habit ākyang /ʔɔkyāŋ/  WB akyai^1, MB ʔācïn; Sh. ?a^1 jaaŋ^5
handcuffs lak htik /lakθik/  WB lakhtit, MB leʔreiʔ?
herring nga u hpe /ŋaʔuʔpʰe/  WB ŋaʔphay, MB ŋphalt
hole pawk /pōk/  WB apok, MB ʔāpau?
honor ārawng /ʔʔarøŋ/  WB arøn ‘color’, MB ʔāyən; Sh. ?a^1 røy^2 ‘color, brightness’
hose pyun /pyʊn/  WB pɾwana, MB pyün
/byōŋ/
hundred thousand

sand

hunter

interest

jail

knock

land (v.)

large fish

law

lime

lime box

linen cloth

loan (v.)

magic

mainspring of

a watch

manner

marquee

master

measles

measure

measure

verbs

41 a measure of volume or capacity roughly equal to a bushel

40 a unit of volume measurement (esp. of grain) equal to eight cups, 64 ounces, one-half gallon

41 found in other Kachin languages, e.g. Za. tsuk1suk1, Lh. sug sag (K), La. sug sag.

40 Also found in other Kachin languages, e.g. Za. ton1, Lh. thau2; Sh. t’a to4

39 Also widely found in other Kachin languages, e.g. Za. ton1, Lh. thau2; Sh. t’a to4

38 Also found in other Kachin languages, e.g. Za. ton1, Lh. thau2; Sh. t’a to4

37 Also found in other Kachin languages, e.g. Za. ton1, Lh. thau2; Sh. t’a to4

36 Also found in other Kachin languages, e.g. Za. ton1, Lh. thau2; Sh. t’a to4

35 Also found in other Kachin languages, e.g. Za. ton1, Lh. thau2; Sh. t’a to4

34 Also widely found in other Kachin languages, e.g. Za. ton1, Lh. thau2; Sh. t’a to4
Phonology of Burmese loanwords in Jinghpaw

<table>
<thead>
<tr>
<th>Word</th>
<th>Transcription</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>messy</td>
<td>shuk /cúk/</td>
<td>WB rhup, MB cou?; Sh. s̩uk̩</td>
</tr>
<tr>
<td>messy</td>
<td>suk sak /sûksûk/</td>
<td>WB rhuphuphakhrak, MB cou?cou?cr?cr?; Sh. s̩uk̩s̩uk̩</td>
</tr>
<tr>
<td>mile</td>
<td>deng /den/</td>
<td>WB tuín 'post'; MB tàiñ</td>
</tr>
<tr>
<td>model</td>
<td>ābung /tāibun/</td>
<td>WB puin, MB poun; Sh. pun</td>
</tr>
<tr>
<td>money</td>
<td>kye daw /kyédō/</td>
<td>WB kre³ 'copper', MB cê ~ cí</td>
</tr>
<tr>
<td>month</td>
<td>la /lāʔ/</td>
<td>WB la, MB là</td>
</tr>
<tr>
<td>Murray</td>
<td>sānap hka /sɔn̩əphkʰa/</td>
<td>WB sanaphkʰa¹, MB thānakhā; Sh. s̩a¹naap³kʰaa⁴</td>
</tr>
<tr>
<td>plant</td>
<td>new hand</td>
<td>laak⁵s̩t⁶ et³</td>
</tr>
<tr>
<td>nosegay</td>
<td>pan hkiye /pankindye/</td>
<td>WB panye³khyaïn, MB páschi</td>
</tr>
<tr>
<td>offer</td>
<td>sak /sāk/</td>
<td>WB chak, MB shr?; Sh. s̩aak³</td>
</tr>
<tr>
<td>offering</td>
<td>lu /lu/</td>
<td>WB lhû, MB hlû; Sh. lu²</td>
</tr>
<tr>
<td>office</td>
<td>rung /runj/</td>
<td>WB ruin³, MB yōun; Sh. ru⁴</td>
</tr>
<tr>
<td>oil</td>
<td>ye nan /yenan/</td>
<td>WB renaïn, MB yênān</td>
</tr>
<tr>
<td>olive</td>
<td>tsan lun /tsanlan/</td>
<td>WB sanilwaïn, MB ðânilwin; Sh. maak²s̩t⁶ləun²</td>
</tr>
<tr>
<td>order</td>
<td>āming /tãmîn/</td>
<td>WB amin¹, MB ðämêin¹; Sh. ða¹mîn⁵</td>
</tr>
<tr>
<td>other</td>
<td>dāhgya /dakgya/</td>
<td>WB takhrâ³, MB dâjá</td>
</tr>
<tr>
<td>pencil</td>
<td>hke dan /khêdan/</td>
<td>WB khaitain, MB khêdān; Sh. kʰe⁴tān²</td>
</tr>
</tbody>
</table>

42 Also found in other Kachin languages, e.g. Za. suk¹ suk¹ suk¹ suk¹, Lh. sug sag (K), La. sug sag.
43 'post, pillar, unit of measure for distance (one thousand tà or approximately two miles)'
44 'a model, a pattern, or a template'
45 'a sum of money paid as revenue or tax to the authorities concerned'
46 Also found in other Kachin languages, e.g. Lh. sanab kha” (K), La. sa naid kha”, Ra. dvnakká.
47 'to offer, present respectfully, as a present to a chief'
48 Also widely found in other Kachin languages, e.g. Lh. alu: (K), La. alu; Ng. vlû, Ra. vlû.
49 Also widely found in other Kachin languages, e.g. Za. rung³¹, Lh. yu¹y, La. yung”, Ng. yungh muh, Ra. róng.
50 Also widely found in other Kachin languages, e.g. Lh. tsan: lun: (K), La. zhan loin; Ng. tsanlun, Ra. zanlún.
51 Found in other Kachin languages, e.g. Za. kue³¹ dan³¹, Lh. khe²¹ tan², La. khe” tain; Ra. kédan.
petition (v.)\textsuperscript{52} shawk /cök/  
photograph  dat pung /dátpų̰̋̂ŷ/  
pickaxe  pawk tu /pòktų̰̂̂/  
plow (v.)  htau /thay/  
power  dągu /dągų̰̂̂/  
preach\textsuperscript{53} hkw /khó̰̂/ ～ haw /hó̰̂/  
present\textsuperscript{54} lak sawng /lākŝ̨Ơ̂̂ŋ/  
prince\textsuperscript{55} mang sa /māŋsà̠̂/  
princess\textsuperscript{56} mang sāmi /māŋsāmî̱/  
provisions\textsuperscript{57} jārit /jārit/  
raft  hpawng /pʰhɒ̱̂ŷ/  
rack\textsuperscript{58} āya /ʔayà/  
recovery  sak sa /sāksā̠̂/  
rest\textsuperscript{61} hkyam sa /khyāmsā̠̂/  
robber\textsuperscript{62} dāmya /dāmyā̠̂ʔ/  
room\textsuperscript{63} hkan /khān/  

\textsuperscript{52} ‘to petition a court of justice, to sue, bring a law suit, to prosecute’
\textsuperscript{53} Also found in other Kachin languages, e.g. Lh. kho’ (K), La. kho”, Ra. kó.
\textsuperscript{54} ‘property or money used as a bride’
\textsuperscript{55} ‘the man who plays the part of the prince in a dramatic presentation, a dancer’
\textsuperscript{56} ‘the woman who plays the part of a princess in a dramatic presentation, a dancer’
\textsuperscript{57} ‘provisions for a journey, expenses while on the road’
\textsuperscript{58} Also found in other Kachin languages, e.g. Lh. ʔāyâ̱, La. aya: ～ akhang’ aya; Ng. vya, Ra. ya ～ vya.
\textsuperscript{59} ‘to be relieved, to recover (e.g. as from sickness), to regain comfort’
\textsuperscript{60} ‘happiness, rest, pleasure, respite’
\textsuperscript{61} Also widely found in other Kachin languages, e.g. Za. de’myaq̲, Lh. damya, (K), La. damya, Ra. dvmyaq.
\textsuperscript{62} ‘a flat (an apartment), a room in a boarding house’
rupee\textsuperscript{64} kyap /kyāp/  
salary la hka /läʔkhāʔʔ/  
satin hpe /plēʔ/  
school\textsuperscript{65} jawng /jōŋ/  
screw we wu /wēʔwu/  
sea\textsuperscript{66} pang lai /paŋlai/  
semi-divine ārawng /ʔərōŋ/  
shark ngāman /ŋəmān/  
shop\textsuperscript{67} seng /ṣeŋ/  
spoon zun /dzūn/  
stake (v.)\textsuperscript{68} lawng /lōŋ/  
stamp\textsuperscript{69} dāzik /dāʣik/  
stew (v.) chyaw /cō/  
strike (v.) nak /nāk/  
strugglingly kuk kuk /kūkūkū/  
tax\textsuperscript{70} kawn /kōn/  
teacher (f) sāra ma /səramāʔʔ/  
teacher (m)\textsuperscript{71} sāra /səra/  
telescope man pyawng /manpyōŋ/  

\textsuperscript{64} ‘kyat, Myanmar unit of money’  
\textsuperscript{65} Also widely found in other Kachin languages, e.g. Za. zyong\textsuperscript{11}, Lh. cuŋ\textsuperscript{9}, La. jung, Ng. jungs, Ra. zūŋ.  
\textsuperscript{66} Also found in other Kachin languages, e.g. Lh. paŋlai\textsuperscript{4}, La. pang: lai:, Ra. banglay.  
\textsuperscript{67} Found in other Kachin languages, e.g. Za. sueng\textsuperscript{15}, Lh. seyn\textsuperscript{4}, La. sāin:, Ng. sen, Ra. sing.  
\textsuperscript{68} ‘to stake, wager, bet, as in gambling’  
\textsuperscript{69} Also found in other Kachin languages, e.g. Lh. tāςṭīʔ, La. dazid, Ra. dvzok.  
\textsuperscript{70} ‘a tax paid to a chief, esp. the thigh of any piece of large game caught by a villager’  
\textsuperscript{71} Also widely found in other Kachin languages, e.g. Za. səʔaʔ\textsuperscript{15}, Lh. sāra\textsuperscript{14}, La. sara:, Ra. svra.
Items whose corresponding Indic forms are not identified are marked with asterisks.

72 Also found in other Kachin languages, e.g. Za. dat⁵-mi¹¹ ~ tat⁵-mi¹¹, Lh. dad’ mi” (K), L.a. daid mi; Ra. datmi.

73 ‘a tube, a pipe, a barrel (e.g. as of a gun)’

74 Also found in other Kachin languages, e.g. Lh. sanun” (K), La. sa noin”, Ra. s vn’in.

75 ‘ordinary bamboo drinking vessel, made with a handle’

76 Also found in other Kachin languages, e.g. Za. bat’, Lh. bad’ (K), La. bad.

77 ‘to draw, as a salary or money from a bank’

78 Found in other Kachin languages, e.g. Lh. ba: dan: (K), La. ba tain ~ ba tan, Ng. batan zains.

0.2 Loans of Indic origin

almond⁷⁸ bätan /batan/ Hin. bādām ‘almond’ (from Per. bādām);

⁷² Also found in other Kachin languages, e.g. Za. dat⁵-mi¹¹ ~ tat⁵-mi¹¹, Lh. dad’ mi” (K), L.a. daid mi; Ra. datmi.

⁷³ ‘a tube, a pipe, a barrel (e.g. as of a gun)’

⁷⁴ Also found in other Kachin languages, e.g. Lh. sanun” (K), La. sa noin”, Ra. s vn’in.

⁷⁵ ‘ordinary bamboo drinking vessel, made with a handle’

⁷⁶ Also found in other Kachin languages, e.g. Za. bat’, Lh. bad’ (K), La. bad.

⁷⁷ ‘to draw, as a salary or money from a bank’

⁷⁸ Found in other Kachin languages, e.g. Lh. ba: dan: (K), La. ba tain ~ ba tan, Ng. batan zains.
Phonology of Burmese loanwords in Jinghpaw

betal  gang ze /gàŋʐè/  P. kämnà ‘areca’; OP:WB kwam³ si³
        ‘betel nut’, MB kómï

bless  mang gāla /màngòːlà/  P. māṅgāla ‘auspicious’; OP:WB māŋgālā, MB mìnggālā; Sh. māŋgàka¹ laa²

brick  wut /wùt/  P. āṭhakā ‘burnt brick’; OP:WB ut, MB ūou?; Sh. ūut²

brimstone  kan /kàːn/  Sk. gāndhaka ‘brimstone’; OP:WB kan¹, MB kàːn; Sh. kaan⁶

Buddha⁷⁹  hparà /fhorá/  OP:WB bhūrā³, MB phāyā; Sh. pʰraa⁴

camel⁸⁰  gawla-uk /ɡoɭaʔuk/  P. kula-ōṭha; OP:WB kula³ ut, MB kālāʔou?; Sh. ka¹ laa² uk⁵

causio²  sādi /sɔdiʔ/  P. sāti ‘recognition’; OP:WB sāti, MB dādi; Sh. sʰa¹ ti⁵

Ceylon  tihu /tìhu/  P. sīhāla ‘Ceylon’; OP:WB sīhùl, MB ñīhò; Sh. sʰi² hò²

clock⁸³  nayi /nɔyi/  P. nārī ‘tube’, Hin. nārī ‘pulse’; OP:WB nārī, MB nayi; Sh. nər² ri³

coin  dengga /dëɡgà/  Sk. tāika ‘stamped coin’; OP:WB daŋgà³, MB ñìsgā; Sh. têj¹ kaa⁴

creator  sāgya /sɔgyà/ ~ sāhka /sɔkha/  Sk. sàkra ‘Indra’; OP:WB sikrā³ ‘Indra’; MB dājā

diamond  sin /sìn/  P. vajrā ‘diamond’; OP:WB cin, MB sèin; Sh. tsiŋ²

element⁸⁵  dat /dàːt/  P. dhātu ‘element’; OP:WB dhāt, MB dàʔ; Sh. ʰəa’t³

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⁷⁹ Items whose corresponding Indic forms are not identified are marked with asterisks.
⁸⁰ Also found in other Kachin languages, e.g. Lh. ko¹ la² uk⁴, La. goo: la: ug, Ra. gowaru.
⁸¹ WB kula³ ut (lit. Indian-camel), whose roots are not combined in the donor language, seems to be a novel compound coined in Burmese.
⁸² Also found in other Kachin languages, e.g. Lh. sāti², La. sa di, Ra. svdiq.
⁸³ Also found in other Kachin languages, e.g. Za. na³⁵, Lh. na: yi: (K), La. na: yi:; Ra. nari.
⁸⁴ ‘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’
⁸⁵ ‘an element, constituent part, particle, member: the four grand elements, i.e. air, earth fire, water’
embroidery za /za/ P. jāla ‘netting’, Hin. jāl; ə WB já, MB zà; Sh. tsaa2

figure ruk /rūk/ P. rūpa ‘form’, Hin. rūp; əə WB rup, MB you?; Sh. ruk3

foreigner kāla /kəlā/ P. kula ‘family, clan’; əəəə WB kula, MB kəlā; Sh. ka'la4

glorious hpung gam /phunggam/ P. bhaga ‘luck’, kamma ‘deed’; əəəə WB bhun3kaṁ, MB phounkān

glory hpung /pʰùŋ/ ~ hpung /plun/ P. bhaga ‘luck’; əəəə WB bhun3, MB phoun; Sh. pʰunb

grace* chyeju /cʃi/ju/ əəəə WB kye3jù3, MB cēzū; Sh. ke4tsu4

greed law hpa /lóphá/ P. lobha ‘greed’; əəəə WB lobha, MB lóba; Sh. lóp’hąa5

guaranty* ama /ʔanáʔ/ əəəə WB āmakhaṁ, MB ʔamákhan; Sh. ʔaaʔmaaʔkəamuʔ2

guilt* ãpyet /ʔapỳɛt/ əəəə WB aprac, MB ʔapỳiʔ; Sh. ʔa1pet3

hell ngārai /nɾaɪʔ/ P. niraya ‘hell’; əə WB ēraɪ, MB ʔaɪrɛ; Sh. ēaʔraaj4

hundred million gādi /ɡədi/ P. kofi ‘the end’; əəəə WB kuṭe ‘ten million’,99 MB gādè

intellect nyan /ɲyān/ P. ɲāpa ‘knowledge’; əəəə WB ɲān, MB ɲān; Sh. ɲaana2

jaggery nam htan /nəmθaːn/ P. tāla ‘palmyra tree’; əəəə WB than3 ‘toddy-palm’, MB thán; Sh. nam3tʰaːn1

jasper nāga htoi /nəɡaθɔy/ P. nāga ‘serpent’; əəəə WB nagəʔswai’, MB nāgəθwè

jewel seng /sɛŋ/ P. vaʃīra ‘diamond’; əə WB cin ‘diamond’, MB sēix; Sh. sʰɛj1

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86 Also found in other Kachin languages, e.g. Za. za55, Lh. tsa1, La. za.:  
87 The final -ŋ can be accounted for in terms of progressive assimilation.  
88 Also found in other Kachin languages, e.g. Lh. phung” (K), La. pung”, Ng. phunk, Ra. pùngbang ~ pùngbān.  
89 All borrowed round numbers over hundred thousand in Jinghpaw exhibit semantic shifts (see Kurabe to appear).
Phonology of Burmese loanwords in Jinghpaw

law u pa di /ʔūbdɔ/ P. upadesa ‘indication’; _)WB upade, MB ʔūbdɔ; Sh. ʔūbdɔ
luck /gàm/ P. kamma ‘deed’; 0 WB kàin, MB kàv; Sh. kàm
machine /jàk/ P. cakkə ‘wheel’; 0 WB cak, MB seʔ; Sh. tsaak
mantra /gàthə/ P. gàthə ‘verse’; 0000 WB gàthə, MB gàthə; Sh. kaŋtəa
mission /sàsànà/ P. sàsànà ‘teaching’; 0000 WB sàsànà
work /hpàng kyi /phìŋkya/ P. bhaga ‘luck’; 0000 WB bhurkri, MB phòwji
nutmeg /a dì hpu /dzádìʔphu/ ~ P. jàti puppha ‘nutmeg’; 0000 WB jàti
ocean /nàmmùk ðàra/ P. samudda ‘ocean’; 0000 WB samuddarà, MB ðàmuñdàya
officer /bu /bʊ/ P. balà ‘power, army’; 0000 WB bul, MB bò; Sh. po

90 Also found in other Kachin languages, e.g. Za. gvyam, Lh. kau, La. gam, Ra. gım.
91 Also found in other Kachin languages, e.g. Za. zyak, Lh. cak, La. jag, Ra. jvk.
92 ‘magic spell or incantation, a verse or stanza of four lines each of which has eight syllables’
93 Also found in other Kachin languages, e.g. Lh. man: dàn: (K), La. man tan, Ng. mandan, Ra. mandan,
94 Also found in other Kachin languages, e.g. Lh. sa: sàna: (K), La. sa: sàna:, Ra. sasvna.
95 Also found in other Kachin languages, e.g. Za. bung ki, Lh. phung gi, Ng. bunggyis, Ra. pòànggwi.
96 The second syllable is of Burmese origin, i.e. WB kri ‘be big’.
97 Also found in other Kachin languages, e.g. Za. nam moq de’ra, Lh. nam mug dara: (K), La. nam mug dara:, Ng. nvmuk-dra, Ra. nvmukdvra.
98 The first syllable is of Shan origin, i.e. Shan nam ‘water’.

– 119 –
officer  the na up /tha naʔ up/  P. ṭhāna ‘place’;  jsonObject WB ṭhānāʔ up, MB ṭhānāʔ ou?

omen  nāmik /nāmik/  P. nimitta ‘omen’;  jsonObject WB nimit, MB nāmeʔ; Sh. niʔmik³

paisa  pyek san /pyẽksan/  Hin. paisā ‘copper coin’;  jsonObject WB puik-chain, MB paiʔshān; Sh. pek³-s³aaru²

period  gap /gāp/  P. kappa ‘fixed time’;  jsonObject WB kap, MB kaʔ; Sh. kaap³

policeman  pya da /pyada/  Hin. pyādā ‘messenger’ (from Per. piyāḍā);  jsonObject WB prāṭā ‘messenger’, MB pyātā; Sh. pjāʔtu² ‘messenger’

punishment  dam /dām/ ~ dan /dan/  P. daŋda ‘stick as means of punishment’;

representative*  amat /ʔamät/  jsonObject WB amat, MB ōmaʔ; Sh. ōmaʔ³

rheumatism*  du la /dula/  jsonObject WB dūlā, MB dūlā; Sh. tu²laay²

rich man  sāhti /sŏthi/  P. sēthi ‘treasurer’;  jsonObject WB sūṭhe³,(jsonObjectWB jāthē³, MB ṭhāṭhē; Sh. s⁴a⁴e⁴

ruby  bat dāmya /bātdāmya/  Sk. padma-rāga ‘ruby’;  jsonObject WB pattamrā², MB bādamyā; Sh. pa⁷ta⁴mja⁴

saffron  shang gan /cangːan/  P. sankāra-colā ‘rag’;  jsonObject WB saṅkāran³, MB ṭhingān; Sh. s³aau⁴kaan⁴

sapphire  ni la /nila/  P. nīla ‘blue’;  jsonObject WB nīlā, MB nilā; Sh. ni²laay²

ship;  papa-  sanghpaw /sāŋphō/  jsonObject WB saṅbhō, MB ṭīnhō; Sh. maak²s³aau⁴p³⁴
### Phonology of Burmese loanwords in Jinghpaw

<table>
<thead>
<tr>
<th>Word</th>
<th>Burmese</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>sin</td>
<td>yu bak</td>
<td>P. upaddava ‘misfortune’; WB upad, MB ṭubaḷ; Sh. wiṭ paak</td>
</tr>
<tr>
<td>socks</td>
<td>maw za</td>
<td>Hin. moza ‘sock’ (from Per. moza); WB mozā, MB možā</td>
</tr>
<tr>
<td>spirit</td>
<td>hpuk</td>
<td>P. bhūta ‘ghost’; WB bhut ~ phut, MB phou; Sh. pʰuk</td>
</tr>
<tr>
<td>spirit</td>
<td>we nyi</td>
<td>P. viññāṇa ‘mind’; WB viññāṇ, MB weṅśiṅ; Sh. wiethnic</td>
</tr>
<tr>
<td>state</td>
<td>jat</td>
<td>P. jāti ‘rebirth’, jātaka ‘birth story’; WB jāt, MB zaṟ; Sh. tsaat</td>
</tr>
<tr>
<td>topaz</td>
<td>u tāphāya</td>
<td>WB uṣāpharā, MB ṭawṭāphāya</td>
</tr>
<tr>
<td>unhappiness</td>
<td>duk hka</td>
<td>P. dukkha ‘unpleasant’; WB dukkha, MB douṅkha; Sh. tuk⁵</td>
</tr>
<tr>
<td>university</td>
<td>dakkāsu</td>
<td>P. takkasīḷā ‘Taxila’; WB takkasūl, MB tr̥kāṭh; Sh. ṭak⁵ka⁴</td>
</tr>
<tr>
<td>water festival</td>
<td>shang gyen</td>
<td>Sk. saṅ-krāṇī ‘Sankranti’; WB saṅkraṇ, MB thōṅjan ~ dājān; Sh. saṅja⁴</td>
</tr>
<tr>
<td>wheat</td>
<td>jung</td>
<td>Hin. gehūṁ ‘wheat’; WB gyuṇ, MB jōn; Sh. euŋ²</td>
</tr>
<tr>
<td>wisdom</td>
<td>byeng ya</td>
<td>P. paṅṅā ‘of wisdom’; WB paṅṅā, MB piyṣṇā; Sh. piy⁴jaṛaat²</td>
</tr>
<tr>
<td>witness</td>
<td>sak se</td>
<td>Sk. sākshin ‘witness’; WB sakṣe, MB ṭeʔo; Sh. saṅja⁴jaṛaat³</td>
</tr>
</tbody>
</table>

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109 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. mo⁶za⁴, Lh. mo⁴tsa⁴, La. moov. za.; Ra. moza, and Chin languages as in Tedim Chin mawza and Mizo mawza tawi (Dr. Kosei Otsuka, p.e., 2016).

110 ‘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’

111 ‘state of existence, of which there are three divisions past, present, and future’

112 ‘a town situated in present-day Pakistan considered to be one of the earliest universities’

113 Also found in other Kachin languages, e.g. Lh. sag se: (K), La. sag se; Ra. svkse ~ svhṅkse.
### 0.3 Loans of English and other origin

<table>
<thead>
<tr>
<th>English</th>
<th>Lh.</th>
<th>La.</th>
<th>Ra.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ball</strong>&lt;sup&gt;114&lt;/sup&gt;</td>
<td>baw lung /bólüŋ/</td>
<td>סקס misplaced 3, MB bóloun&lt;sup&gt;3&lt;/sup&gt;, Sh. pɔ̀3luy&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>bomb</strong>&lt;sup&gt;115&lt;/sup&gt;</td>
<td>bawm /böm/</td>
<td>セックス misplaced 3, MB bóun, Sh. maak&lt;sup&gt;2&lt;/sup&gt;poon&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>camera</strong>&lt;sup&gt;116&lt;/sup&gt;</td>
<td>kemmarə /kemmara/</td>
<td>セックス misplaced</td>
<td></td>
</tr>
<tr>
<td><strong>car</strong>&lt;sup&gt;117&lt;/sup&gt;</td>
<td>ka /ká/</td>
<td>セックス misplaced, MB ká, Sh. kaa&lt;sup&gt;4&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>car</strong>&lt;sup&gt;117&lt;/sup&gt;</td>
<td>mawdaw /mardo/</td>
<td>セックス misplaced, MB mor&lt;sup&gt;2&lt;/sup&gt;torboat', MB mòtub'</td>
<td></td>
</tr>
<tr>
<td><strong>Christ</strong>&lt;sup&gt;118&lt;/sup&gt;</td>
<td>hkrí samat /khrísamát/</td>
<td>セックス misplaced, MB khracto&lt;sup&gt;2&lt;/sup&gt;,</td>
<td></td>
</tr>
<tr>
<td><strong>Christmas</strong>&lt;sup&gt;119&lt;/sup&gt;</td>
<td>hkrí sádu /khrísodüʔ/</td>
<td>セックス misplaced, MB khàri?it; Sh. kha&lt;sup&gt;1&lt;/sup&gt;tir&lt;sup&gt;3&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>college</strong></td>
<td>kaw lik /kòlik/</td>
<td>セックス misplaced, MB lòlei?</td>
<td></td>
</tr>
<tr>
<td><strong>company</strong>&lt;sup&gt;120&lt;/sup&gt;</td>
<td>gung máñi /gùmoni/</td>
<td>セックス misplaced, MB kùmpaŋi, Sh. kürfpa&lt;sup&gt;1&lt;/sup&gt;nut&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
</tr>
<tr>
<td><strong>England</strong>&lt;sup&gt;121&lt;/sup&gt;</td>
<td>Ingqəlan /Ingqolan/</td>
<td>セックス misplaced, MB Ingqalan, Sh. Ingqulan&lt;sup&gt;2&lt;/sup&gt;,</td>
<td></td>
</tr>
<tr>
<td><strong>English</strong>&lt;sup&gt;122&lt;/sup&gt;</td>
<td>inglik /itúlik/ ~ inggàlik</td>
<td>セックス misplaced, MB itúlik</td>
<td></td>
</tr>
<tr>
<td><strong>fit</strong></td>
<td>htuk /thúk/</td>
<td>セックス misplaced, MB thài?, Sh. tihan&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
</tr>
</tbody>
</table>

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<sup>114</sup> Also found in other Kachin languages, e.g. Za. bó̂n<sup>111</sup>lung<sup>3</sup>, Lh. bo: lung<sup>” (K), La. bo: lung”</sup>, Ra. bólung.

<sup>115</sup> Also found in other Kachin languages, e.g. Lh. bom, La. boem, Ra. bóm ~ bùm.

<sup>116</sup> Also found in other Kachin languages, e.g. Lh. kem<sup>2</sup>rə<sup>2</sup>, La. kem ra, Ra. kemvra.

<sup>117</sup> Found in other Kachin languages, e.g. Za. mo<sup>30</sup>to<sup>39</sup> ~ to<sup>59</sup>, Lh. mo<sup>15</sup>to<sup>4</sup>, La. moo doo, Ra. modo.

<sup>118</sup> Also found in other Kachin languages, e.g. Lh. khye” stë, La. khri sa du, Ra. kristrq.

<sup>119</sup> Also found in other Kachin languages, e.g. Lh. khye” smad, La. khri sa mad, Ra. kristmat.

<sup>120</sup> Also found in other Kachin languages, e.g. Lh. gung: maní, La. gung ma ní, Ra. gungbøni.

<sup>121</sup> Also found in other Kachin languages, e.g. Lh. In ga lan, La. in ga lan, Ra. inggvlän.

<sup>122</sup> Also found in other Kachin languages, e.g. Lh. In ga lid, La. in ga lid, Ra. eingvlík.
Phonology of Burmese loanwords in Jinghpaw

<table>
<thead>
<tr>
<th>Loanword</th>
<th>Transcription</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>fort</td>
<td>dāp/dāp</td>
<td>Mon: dāp; ကြက်း ၏ ၏ေ ၌ား MB  တာ၎ာ၁; Sh. တာ၎ာ၂</td>
</tr>
<tr>
<td>fountain pen</td>
<td>hpaung tin /phônjtin/</td>
<td>En. fountain; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB ပြံုး</td>
</tr>
<tr>
<td>furlong</td>
<td>hpa lung /phalun/</td>
<td>En. furlong; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB ပြံုး</td>
</tr>
<tr>
<td>grape</td>
<td>tsābyi /tsābyi/</td>
<td>Arb. zābīb ‘raisin’; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, Sh. စော်ပါ</td>
</tr>
<tr>
<td>guava</td>
<td>māli ga /mōlĩga/</td>
<td>Malay Melaka ‘Malacca’; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB များ, Sh. များ</td>
</tr>
<tr>
<td>gun</td>
<td>sānāt /sōnāt/</td>
<td>Por. espinharda; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB သံ</td>
</tr>
<tr>
<td>Jesus</td>
<td>Yesu /yesū/?</td>
<td>En. Yes; ကြက်း ၏ ဗုဒ္ဓလေး, MB ယုံ; Sh. ယုံ</td>
</tr>
<tr>
<td>lottery</td>
<td>hti /thi/</td>
<td>En. lottery; ကြက်း ၏ ဗုဒ္ဓလေး, MB သံ; Sh. သခ</td>
</tr>
<tr>
<td>magazine</td>
<td>mekgāzin /mēkgōdzēn/</td>
<td>En. magazine; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB မိစာကျစာ</td>
</tr>
<tr>
<td>mile</td>
<td>mai /may/</td>
<td>En. mile; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB မိစာကျစာ</td>
</tr>
<tr>
<td>minute</td>
<td>mānit /mōnit/</td>
<td>En. minute; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB မိစာကျစာ</td>
</tr>
<tr>
<td>motorcycle</td>
<td>mawdaw saike /modo-sayke/</td>
<td>En. motorcycle; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB မိစာကျစာ, MB မိစာကျစာ</td>
</tr>
<tr>
<td>number</td>
<td>nambat /nāmbāt/</td>
<td>En. number; ကြက်း ဗုဒ္ဓလေး ၏ ဗုဒ္ဓလေး, MB မိစာကျစာ</td>
</tr>
</tbody>
</table>

123 Also found in other Kachin languages, e.g. Lh. kye⁵ta⁵, La. gye: dab, Ng. jesdvp, Ra. dap.
124 Also found in other Kachin languages, e.g. Lh. kye⁵ta⁵, La. gye: dab, Ng. jesdvp.
125 Also found in other Kachin languages, e.g. Lh. kye⁵ta⁵, La. gye: dab, Ng. jesdvp.
126 Also found in other Kachin languages, e.g. Za. nambar, Lh. nam: bad (K), La. nam bed, Ra. nāmbāt.
party pati /pati/ En. party; ภักดี WB ปที, MB ปที; Sh. paat2ti
pawn pawng /pauŋ/ En. pawn; ภักดี WB ปลาว, MB ปลาว; Sh. pauŋ2
radio rediyu /rediyu/ En. radio; ภักดี WB เรดิโอ, MB เรดิโอ; Sh. red2ti2jo
second tsekkan /tsekkan/ En. second; ภักดี WB สอง, MB se2kcan
soap sap bya /sábya/ ~ sa bya Por. sabão; ภักดี WB ช่าวร, MB sha2pja2
sabâya/ ~ ศาบยา /sâbya/ soup sup /sùp/ En. soup; ภักดี WB ซุป, MB su2pyou?
stylus* ganyit /ganyit/ ภักดี WB แกนต, MB ka2ni?
tamarind mägyeng /mägyeng/ Mon แมงลิ้น; ภักดี WB แมงลิ้น, MB maji; Sh. maak2kri4
velvet gâdi ba /godiba/ Arb. qatita; ภักดี WB กัตตา, MB gadi2ba; Sh. ka2ti2paa2
whale we la nga /welâŋa/ En. whale; ภักดี WB เวลาญ, MB welang

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 lakchoi ‘gift’ > Jg. လှိုင် ‘property or money used as a bride’
b. WB tainkhwan ‘pennant’ > Jg. တိုင် ‘flag’
c. WB aroin ‘color’ > Jg. မှတ် ‘honor’
d. WB prata ‘message’ > Jg. pyada ‘police officer’
e. WB ka9i3 ‘post for collecting custom duties’ > Jg. ကား ‘custom duties’

131 Also found in other Kachin languages, e.g. Za. բայա ~ sa11-բայա11, La. sa” pya; Ng. sapyâ, Ra. sapbya. 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 North America (see Bauer 1992).
132 The second syllable is of Burmese origin, expressing ‘to boil’.
133 From Mon according to Myanmar Language Commission ed. (2009:2).
f. WB khyam\textsuperscript{1}sā ‘be rich; have peace and quiet’ > Jg. khyāmsā ‘to rest; be cheap’
g. WB sāsanā ‘teaching’ > Jg. sasanā ‘mission work’

WB lakoñ ‘gift’ (cf. Shan laak\textsuperscript{2}s\textsuperscript{h}y\textsuperscript{2} ‘gift’), narrowing its range of referent, is specialized to mean ‘property or money used as a bride’ in Jinghpaw. WB tainkhwañ ‘pennant’ (cf. Shan tam\textsuperscript{4}kh\textsuperscript{2}n ‘flag offered in worship’), on the other hand, is generalized to encompass any kinds of flags in Jinghpaw. WB aroñ ‘color’ (cf. Shan ?a\textsuperscript{2}rañ ‘color, brightness’) underwent melioration in Jinghpaw, gaining a more positive sense of ‘honor’. A similar shift can also be observed in WB prāñ (ultimately from Persian through Hindi) ‘office boy; messenger’ (cf. Shan pjaa\textsuperscript{2}taa\textsuperscript{2} ‘peon; messenger’), which is borrowed into Jinghpaw first with the meaning of ‘police force serving as the chief’s messengers\textsuperscript{134} and then with the meaning of ‘police officer’ in general today. Jinghpaw kāy ‘duties’, having its diachronic source in WB kan\textsuperscript{3} ‘post for collecting custom duties’, illustrates metonymic transfer. WB khyam\textsuperscript{1}sā ‘be rich; have peace and quiet’ is introduced through Shan (i.e. k\textsuperscript{h}jaam\textsuperscript{4}s\textsuperscript{h}ar ‘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 sasanā ‘teaching, dispensation’ (cf. Shan s\textsuperscript{h}a\textsuperscript{2}a\textsuperscript{2}s\textsuperscript{h}a\textsuperscript{n}a ‘religious system’; ultimately from Pali) is adopted by Jinghpaw as terminology of Christianity (i.e. Jg. sasanā ‘mission work’).

References


Dai, Qingxia and Xu Xijian. (1995) Jingpoyu cihuixis (Jinghpo lexicology). Beijing: Cen-

\textsuperscript{134} “[A]ll gumrawng gumsa chiefs maintain a regular police force serving as the chief’s messengers or agents of law enforcement” (Maran 1964:39).


Phonology of Burmese loanwords in Jinghpaw


ジンボ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、ジンボ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。ジンボ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、ビルマ語とジンボー語の言語接触の歴史は比較的新しいにも関わらず、ジンボ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→ジンボ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、ビルマ語とジンボ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ボー語に導入されたのである。第二に、ジンボ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、ジンボ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。