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Phonology of Burmese loanwords in Jinghpaw

Keita KURABE

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

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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).
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. 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, 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

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).

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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 *ɲrǽy ‘hell’* and *me ‘ballot’*, where the former reflects the properties of WB (WB ɲəraï, MB ɲäyër), in contrast to the latter that reflects properties of MB (WB mai, MB mëř). 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 /ŋ/ in the modern language together with other final nasals (for more examples see Section 3).

(1) Examples representing separate loan strata

a. ‘measles’ Jg. wäksäk (from WB waksak, MB wrʔtəʔ)
b. ‘screw’ Jg. wɛʔwu (from WB wakˈũ, MB wrʔʔtũ)
c. ‘luck’ Jg. gàn (from WB kaṅ, MB kâɲ)
d. ‘pencil’ Jg. khédsn (from WB khaitaṅ, MB khédsn)

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) → 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 m@Pˆ un (cf. Shan maak\textsuperscript{2}Pun\textsuperscript{1}) with a Shan class term maak\textsuperscript{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 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
idiotic phrase bà dò pà dò ‘something like that’ are inserted:

(3) cáñthe cñdu ?ay gò yà? ná dzòn shānwín dò bà dò pà dò
c3pl cook NMLZ TOP now GEN like turmeric PL what PL COUP PL
n-bañ ?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 | s | sh | z | ð | h |
| Sh | p | phh | p | t | thh | t | k | khh | k | ts | shh | ts | s | h |
| Jg | p/b | ph | b | t/d | th | d | k/g | kh | g | c/j/ts | s | j/dk | s | kh/h |

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 phōi, MB phàux, Sh. pʰʔŋ², Jg. phoŋ
   b. ‘jail’ WB thoū, MB thàux, Sh. tʰʔŋ², Jg. thoŋ
   c. ‘bell’ WB khoi³loî³, MB kháusláiux, Sh. kʰʔŋ⁴l⁴ŋ⁴, Jg. khong⁴ŋ⁴
   d. ‘class’ WB tan⁵, MB tán⁴, Sh. taan⁴, Jg. tán
   e. ‘fort’ WB tap (from Mon), MB taʔ, Sh. tap⁵, Jg. där
   f. ‘rheumatism’ WB diūlå (from Sanskrit), MB diūlà, Sh. tuʔlaa⁵, 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] ~ [z]) correspondence appear to be of recent origin.

(5) Correspondences of affricates
   a. ‘machine’ WB cac (from Pali), MB seʔ, Sh. tsaaʔk³, Jg. jàk
   b. ‘envelope’ WB cāʔit, MB sāʔeiʔ, Jg. tsaiʔik
   c. ‘teacher’ WB charā, MB shayà, Sh. sʰraa², Jg. sora
   d. ‘Jataka’ WB jàt (from Pali), MB zaʔ, Sh. tsaa², Jg. jàt
   e. ‘spoon’ WB jwan³, MB zúnx, Jg. dzúnx

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 sanapkəhə, MB ṭənākhā, Sh. sʰənaapkəhə, Jg. sanapkəhə
b. ‘preach’ WB ho, MB ḥə, Sh. ḥə, Jg. ḥo ~ khō

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

Table 2 Correspondences between sonorants

<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>
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<tbody>
<tr>
<td>MB</td>
<td>m</td>
<td>mh</td>
<td>n</td>
<td>nh</td>
<td>ŋ</td>
<td>ŋ</td>
<td>r</td>
<td>rh</td>
<td>l</td>
<td>lh</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/j</td>
<td>sʰ</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/y</td>
<td>s/ə</td>
<td>l</td>
<td>l</td>
<td>w</td>
<td>–</td>
<td>y</td>
<td>–</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 jaluθi ‘bowl’ (MB zålôusə) that appears as jəruŋ in Jinghpaw (cf. Shan tsəl’hajə).
(7) Correspondences of sonorants
   a. ‘prince’ WB mān³sā³, MB mîstå, Sh. mây³š¹aa³, Jg. màypsà
   b. ‘intellect’ WB nāŋ (from Pali), MB pāx, Sh. jāa-r², Jg. nyàn
   c. ‘offer’ WB lhū, MB lhū, Sh. lū², Jg. lu
   d. ‘certificate’ WB lākm̥hat, MB lèʔhm̥aʔ, Sh. læk³maat³, Jg. lâkm̥at
   e. ‘office’ WB ruî³, MB yōu̯, Sh. ru̯³, Jg. ru̯
   f. ‘affair’ WB are³, MB ?āvé, Sh. ʔà¹je⁴, Jg. ṭaye
   g. ‘be messy’ WB rhup, MB couʔ, Sh. s⁸uk⁴, Jg. cûk ~ sûksûk

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

Table 3 Correspondences between consonant clusters

<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>kʰj</td>
<td>mj</td>
<td>p(y)</td>
<td>–</td>
<td>kj/t</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 khyam³să, MB châstå, Sh. kʰjaam³sh‘aa², Jg. khyâmsà
   b. ‘emerald’ WB nra, MB myâ, Sh. mjâ⁵, Jg. mya
   c. ‘school’ WB kyoù¹, MB câuv, Sh. kjòj¹, Jg. jòj

3.2 Open rhymes
Table 4 shows the correspondences of open rhymes between WB, MB, Shan, and Jinghpaw.
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 [ɔ] 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 toṣhatā).

(9) Correspondences of open rhymes

<table>
<thead>
<tr>
<th>WB</th>
<th>a</th>
<th>ā</th>
<th>i</th>
<th>ĭ</th>
<th>u</th>
<th>ū</th>
<th>e</th>
<th>ai</th>
<th>ay</th>
<th>o</th>
<th>u</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB</td>
<td>a</td>
<td>a</td>
<td>i</td>
<td>ĭ</td>
<td>u</td>
<td>ū</td>
<td>e</td>
<td>ai</td>
<td>ay</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Sh</td>
<td>a/aa</td>
<td>a/aa</td>
<td>i</td>
<td>u</td>
<td>u</td>
<td>ø</td>
<td>ø</td>
<td>ø</td>
<td>ø</td>
<td>ø</td>
<td>ø</td>
</tr>
<tr>
<td>Jg</td>
<td>a</td>
<td>a</td>
<td>i</td>
<td>u</td>
<td>i/e</td>
<td>ay/e</td>
<td>ay/e</td>
<td>o</td>
<td>u</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WB open rhymes /ai/ and /ay/ that have developed into MB /e/ are mapped to either /aa/ 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/

<table>
<thead>
<tr>
<th>WB</th>
<th>ñaraí</th>
<th>MB</th>
<th>ñayé</th>
<th>Sh</th>
<th>ñaaraajá</th>
<th>Jg</th>
<th>ñayá</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>ūā</td>
<td>MB</td>
<td>ūā</td>
<td>Sh</td>
<td>ūā</td>
<td>Jg</td>
<td>ūā</td>
</tr>
<tr>
<td>b</td>
<td>‘pencil’</td>
<td>WB</td>
<td>khaitañ</td>
<td>MB</td>
<td>khédan</td>
<td>Sh</td>
<td>khédan</td>
</tr>
<tr>
<td>c</td>
<td>‘sea’</td>
<td>WB</td>
<td>pañlay</td>
<td>MB</td>
<td>písλé</td>
<td>Sh</td>
<td>pañña laaj</td>
</tr>
<tr>
<td>d</td>
<td>‘herring’</td>
<td>WB</td>
<td>ūā’play</td>
<td>MB</td>
<td>ūáphē</td>
<td>Jg</td>
<td>ūáuphe</td>
</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>WB</th>
<th>MB</th>
<th>Sh</th>
<th>Jg</th>
</tr>
</thead>
<tbody>
<tr>
<td>am</td>
<td>an</td>
<td>aam</td>
<td>am</td>
</tr>
<tr>
<td>aṁi</td>
<td>an</td>
<td>aṁi</td>
<td>am/aam</td>
</tr>
<tr>
<td>aṁ</td>
<td>i/e</td>
<td>e</td>
<td>e</td>
</tr>
</tbody>
</table>

Contrasts of WB final nasals (except ŋ) that have merged into /s/ in MB are often preserved in loans that entered Shan and Jinghpaw, as illustrated by (11a) to (d). WB rhyme aṁ that is reflected with three reflexes in MB appears as /e/ and /e/ in Shan and Jinghpaw respectively, as shown in (11e). There are also some instances where Jinghpaw has final /n/ for WB finals ŋ and ŋ 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 ŋ is of recent origin, having entered Jinghpaw directly from Burmese, while the form retaining WB final ŋ is a loan that entered Jinghpaw through Shan.

(11) Correspondences of nasal rhymes with WB a

a. ‘to work’ WB than³, MB tháx, Sh. ṭaam⁴, Jg. thám
b. ‘luck’ WB kañ (from Pali), MB kán, Sh. kaam², Jg. gám

c. ‘telescope’ WB mhanproi², MB hmànbyáun, Sh. maan²pjәŋ⁴, Jg. manpyoŋ
d. ‘capital’ WB araŋ³, MB ṭayín, Sh. ṭa’raŋ⁴, Jg. ṭárąŋ
e. ‘disciple’ WB tapaï¹, MB dàbë, Sh. ta’pe⁴, Jg. sopé
f. ‘oil’ WB renaŋ³, MB yènàx, Jg. yên

g. ‘bottle’ WB pulaï¹, MB pàlìx, Sh. pà¹læŋ⁴, Jg. poléŋ ~ polín

WB labialized rhymes -wan and -waũ that are reflected in MB by /un/ and /wın/ 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...
and Jg. *khyam* ‘snow’ (from PTB *kyaṃ, cf. WB *khaṃ*). 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 shayōwun, Sh. sʰraʔwun², Jg. tʃi-sarawun⁴
   b. ‘olive’ WB saɪlwaǐ, MB tʰaɪlwin, Sh. sʰaun²lun², Jg. tsanlun
   c. ‘to rest’ WB khyam¹sā, MB cháxṭa, Sh. kʰjaun¹sʰa防腐⁴, Jg. khyámsa

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

<table>
<thead>
<tr>
<th>WB</th>
<th>im</th>
<th>in</th>
<th>uin</th>
<th>un</th>
<th>oin</th>
<th>uin</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB</td>
<td>ein</td>
<td>ein</td>
<td>oun</td>
<td>oun</td>
<td>aun</td>
<td>ain</td>
</tr>
<tr>
<td>Sh</td>
<td>–</td>
<td>ij</td>
<td>uj</td>
<td>un</td>
<td>euj</td>
<td>uj</td>
</tr>
<tr>
<td>Jg</td>
<td>–</td>
<td>ij</td>
<td>uj</td>
<td>un</td>
<td>euj</td>
<td>uj</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 uin in Shan and Jinghpaw are thus /iŋ/ and /uŋ/, as illustrated by (13a) and (b). 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 uin, as exemplified by (13e), is usually mapped to /eŋ/ and /eŋ/ in Shan and Jinghpaw respectively. In (13f), it is adapted as /uŋ/ 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 ?acɛǐn, Sh. kʰɛŋ², Jg. khyiŋ
   b. ‘office’ WB ruin³, MB yōun, Sh. ruŋ⁴, Jg. ruŋ
   c. ‘goods for sale’ WB kun, MB kòux, Sh. kʊr⁷, Jg. giun

---

4 The first syllable tʃi refers to ‘medicine’ in Jinghpaw.
5 Exceptions include Jg. sin from WB cın ‘diamond’ (ultimately from Pali, cf. MB sɛiν), for which Shan presents a regular correspondence (i.e. tsɛŋ²), and Jg. thun ‘lime’ from WB thuin³ (cf. MB thōux, Sh. tʰun³), 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></th>
<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>t/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>
<td></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>
<td></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. tap\(^5\), Jg. dâp
b. ‘butter’ WB thopat, MB thɔba?, Sh. ʔe\(^4\)paat\(^3\), Jg. tʰɔbât
c. ‘era’ WB laktak, MB leʔθre’, Sh. laak\(^3\)ʔaak\(^2\), Jg. lâkthâk
d. ‘guilt’ WB aprac (from Pali), MB ?apyiʔ, Sh. ?aɿpɛt\(^3\), Jg. ?apyɛt

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.

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\(^6\) Some of the WB rhyme ac came from -yat (Professor Hideo Sawada, p.c., 2016).

\(^7\) A few exceptions include Jg. wùt ‘brick’ from WB ut (ultimately from Pali, cf. MB ?ou?, Sh. ?u?), and Jg. jarıt ‘provisions for a journey’ from WB carit (cf. MB zâyeiʔ, Sh. tsâɿrip\(^3\)).
rhyme illustrated by (14a) to (c). The final velar stop that is restricted in the Jinghpaw native phonology appears to be older. With front vowels seem to be of recent origin in contrast to forms with the back vowel that appears in various forms in Shan and Jinghpaw, where forms such as "taiP, MB tai?", Sh. p^i^k^2, Jg. th^ik" are well-preserved in Burmese loans that have entered Shan and Jinghpaw, as noted in Section 3.3, is also observed for nasal finals. The WB rhyme development, as illustrated by (15). A parallel development of which results from adaptation. Jinghpaw has a native phonotactic restriction on final velars that 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, 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 on final velars that 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).

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^8): (a) final /k/; (b) initial /h/; (c) /w/ before front vowels; (d) /ŋ/ before front vowels; (e) minor syllable /ŋ/.

<table>
<thead>
<tr>
<th>Table 8</th>
<th>Native constraints violated in loans</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(a)</td>
</tr>
<tr>
<td>native words</td>
<td>no</td>
</tr>
<tr>
<td>loanwords</td>
<td>yes</td>
</tr>
<tr>
<td>mimetic words</td>
<td>yes</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 on final velars that 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).

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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 /ɔ/. The sequence, however, was imported into Jinghpaw, as given in (16d), as an outcome of language contact.

(16) Examples of importation

a. ‘weapon’ Jg. ləknək (from WB ləknək, MB əʔnəʔ, Sh. ləak⁴naak⁵)
b. ‘preach’ Jg. hó ~ khó (from WB ho, MB hó, Sh. hɔ⁴)
c. ‘spirit’ Jg. wé nyi (from WB wínnǎŋ, MB wèiŋpìn, Sh. wîŋpìen²)
d. ‘hell’ Jg. ɲərây (from WB ɲəraʔ, MB ɲàyɛ, Sh. ɲəa⁴raaj⁴)

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 /hlə/ ‘be beautiful’ is thus more likely to be pronounced /lə/ by Jinghpaw speakers.

(17) Voicing of voiceless sonorants

a. ‘certificate’ Jg. ləkmət (from WB ləkmət, MB əʔkəʔ, Sh. ləak⁴maat⁵)
b. ‘strike’ Jg. nāk ~ nāk (from WB nək, MB nəʔ, Sh. naak⁵)
c. ‘offer’ Jg. lu (from WB lhù, 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 ƙa‘ ‘car’, MB ká, Sh. kaa’, Jg. ká, and the mapping of English /f/ to /ph/, e.g. WB phoítin ‘fountain pen’, MB phàuñtin, Jg. phôytn.

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>òye /?aye/</td>
<td>ပစ္ စည်း ဗုဒ္ဓဗောဓာ</td>
<td>ငှါးဗောဓာ</td>
</tr>
<tr>
<td>age</td>
<td>òsak /?asâk/</td>
<td>အသေချ်</td>
<td>အသေချ်</td>
</tr>
<tr>
<td>amulet</td>
<td>lak hpoi /lækphoy/</td>
<td>ဦးလျင် လူမှု</td>
<td>ဦးလျင် လူမှု</td>
</tr>
</tbody>
</table>

Appendix B: Lexicon of Indic 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 ƙa‘ ‘car’, MB ká, Sh. kaa’, Jg. ká, and the mapping of English /f/ to /ph/, e.g. WB phoítin ‘fountain pen’, MB phàuñtin, Jg. phôytn.

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.
anticipate  
htang /thây/  

antique  
lak hawng /lákʰôŋ/  

apologize  
tawng ban /tôŋban/  

asafotida\(^{10}\)  
hkying hku /kʰyîŋkʰu/  

auger  
lun bu /lûnbu/  

ballot  
me /mê/  

be closed  
pyìk /pêyìk/  

be destroyed  
byìk /bêyìk/  

be deterred  
a na /ănâ/  

be important  
ähkyäk /ähìkàìk/  

be lucky  
hìk /hêk/  

bell  
hkawng lawng /kʰoŋlòŋ/  

bottle\(^{11}\)  
pàiìn /pàiin/  

bowl  
jàrung /jàrung/  

bread\(^{12}\)  
muk /mûk/\(^{13}\)  

bucket  
ye bung /yêbûŋ/  

butter  
htàw bat /htôbàt/  

camphor  
pàiûk /pêûk/  

\(^{9}\)This verb is used especially in Jinghpaw dialects distributed in northern Shan State, Burma.

\(^{10}\)‘asafotida, 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. pálin\(^{10}\), La. pa rheiŋ" , Ng. pvlinha, Ra. bvlinha \~ bvlin.

\(^{12}\)Also widely found in other Kachin languages, e.g. Za. muk\(^{1},\) Lh. mûk\(^{10}\), La. mûn, Ra. mûk.

\(^{13}\)The irregular final -k in Jinghpaw may reflect the falling or ‘creaky’ tone in Burmese which is articulated with a glottal constriction.

\('\)
<table>
<thead>
<tr>
<th>English</th>
<th>Jinghpaw</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>cannon</td>
<td>myawk /tamyök/</td>
<td>MB anrok, MB ?amyauʔ; Sh. ?a' mjok³</td>
</tr>
<tr>
<td>capital</td>
<td>arang /tärän/</td>
<td>MB araɪ³, MB ?oyín; Sh. ?a' raŋ⁴</td>
</tr>
<tr>
<td>carpenter</td>
<td>lak sāma /làksamā/</td>
<td>MB laksamā³, MB lrʔāmā;</td>
</tr>
<tr>
<td></td>
<td>lāsāma /lasomā/</td>
<td>Sh. laak³sʰa¹ maa⁴</td>
</tr>
<tr>
<td>catfish</td>
<td>ngächyawng /pocoŋ/</td>
<td>MB nāk'kroɪ³, MB ŋājāun</td>
</tr>
<tr>
<td>catfish</td>
<td>ngāmyin /tʃmyín/</td>
<td>MB nā' mraɪ³, MB ŋāmyin</td>
</tr>
<tr>
<td>certificate</td>
<td>lak mat /lākmāt/</td>
<td>MB lakhat, MB lrʔunaʔ;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sh. laak³maat³</td>
</tr>
<tr>
<td>chief</td>
<td>sāgyi /səgyi/</td>
<td>MB sükri³, MB ŋājī</td>
</tr>
<tr>
<td>cigar</td>
<td>sālik /solik/</td>
<td>WB che³lip, MB shéleiʔ;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sh. sʰe³lik³</td>
</tr>
<tr>
<td>city</td>
<td>myu /myûʔ/</td>
<td>MB mruɪ³, MB myó</td>
</tr>
<tr>
<td>class</td>
<td>tan /tán/</td>
<td>MB tan³, MB tán; Sh. taan⁴</td>
</tr>
<tr>
<td>clerk</td>
<td>chyāre /cəre/ ~ tsāri /tsori/</td>
<td>MB cäre³, MB sāyè; Sh. tsəre⁴</td>
</tr>
<tr>
<td>coconut</td>
<td>mā-un /moʔûn/</td>
<td>MB un³, MB ŋōun; Sh. maak²un¹</td>
</tr>
<tr>
<td>contract</td>
<td>buk pyat /bûkpyät/</td>
<td>MB putrat, MB pouʔpyaʔ</td>
</tr>
<tr>
<td>copy (v.)</td>
<td>ku /kû/</td>
<td>MB kù³, MB kû; Sh. ku⁴</td>
</tr>
<tr>
<td>cork</td>
<td>paw /po/</td>
<td>MB phɔ³, ² Sh. pʰɔ⁵</td>
</tr>
<tr>
<td>custard</td>
<td>aw za /tódza/</td>
<td>MB ojä, MB ŋōzâ</td>
</tr>
<tr>
<td>customs</td>
<td>kang /kəŋ/</td>
<td>MB kan³, ²⁵ MB kïn; Sh. kaŋ¹</td>
</tr>
</tbody>
</table>

14 Also found in other Kachin languages, e.g. Lh. amyaung (K), La. amyoyug, Ng. vmyauq.
15 Also found in other Kachin languages, e.g. Za. a’ranɡ³¹, Lh. arang (K), La. arang⁴.
16 Also found in other Kachin languages, e.g. Lh. lag sama (K), La. lag sama⁴, Ra. ḳvksmvá.
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. mvyyu⁴, Lh. myu’ (K), La. myu, Ra. myuq ~ myuq.
20 Also found in other Kachin languages, e.g. Lh. cäre¹¹, La. jiri, Ra. jeré.
21 Also found in other Kachin languages, e.g. Lh. ma-un (K), La. ma-un, Ra. mvwɔnʃí.
22 ‘a job or contract, where terms of payment are based on the entire contract’
23 ‘outpost; post for collecting custom duties’
24 'also found in other Kachin languages, e.g. Lh. o’ zå: (K), La. o’ zå, Ng. ohza.'
25 ‘outpost; post for collecting custom duties’
Kachin languages, e.g. Za. se1dyek1, 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. 

28 ‘occurrences, affairs, events, the happenings, the drama, the action, the cause-and-effect of a situation, a state of affairs’

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

feast /póy/ use  /póy/ /póy/  
film /dètʃinet/ use /dètʃinet/ 
firearm /tømi/ use /tømi/ 
fisherman /dàngjìa/ use /dàngjìa/ 
flag /dæŋkhu/ use /dæŋkhu/  
France /pijniti/ use /pijniti/ 
gain /jìmyà/ use /jìmyà/  
gasoline /dàtsi/ use /dàtsi/ 
gecko /tawe/ use /tawe/  
goal /bændý/ use /bændý/  
goods for sale /gyú/ use /gyú/ 
government /jìsùyà/ use /jìsùyà/ 
guess /tak/ use /tak/ 
habit /jìkyán/ use /jìkyán/ 
handcuffs /kìkthìk/ use /kìkthìk/ 
herring /hàpi/ use /hàpi/ 
hole /pòk/ use /pòk/ 
honor /jìroŋ/ use /jìroŋ/ 
hose /pyûn/ use /pyûn/  

30 '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, Lh. thàmyà, La. amyâid ~ amyad, Ng. myat, Ra. myêt.
33 Also found in other Kachin languages, e.g. Lh. tâtsi'[yar]*, La. asu'ya, Ng. vsuya, Ra. súyaq ~ vsúyaq.
hundred thousand: sen /sèn/

hunter: muk hkyu /mùkkhyù/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

interest: ātu /ʔātu/ Also widely found in other Kachin languages, e.g. Lh. alu: (K), La. alu:, Ng. vlu, Ra. zanl'un

jail: hthawng /ʔthon/ Also widely found in other Kachin languages, e.g. Lh. tsan: lun: (K), La. zhan loin:, Ng. tsanlun, Sh. hte'ndan.

knock: hkañk /ʔkhòk/ Also found in other Kachin languages, e.g. Za. tong55, Lh. thaung: (K), La. thung:, Ng. muk hkyu.

land (v.): ñek /sèk/ Also widely found in other Kachin languages, e.g. Za. kue31dan35, Lh. alu:, Ng. muk hkyu.

large fish: nga u bat /nāʔūbåt/ Also found in other Kachin languages, e.g. Za. rung31, Lh. sug sag (K), La. sug sag.

law: tàra /tərə/ Also widely found in other Kachin languages, e.g. Lh. atm'ing, Ra. atm'ing.

lime: htn /ʔthon/ Also found in other Kachin languages, e.g. Za. rung31, Lh. sug sag (K), La. sug sag.

lime box: htn bu /ʔthonbu/ Also found in other Kachin languages, e.g. Za. rung31, Lh. sug sag (K), La. sug sag.

linen cloth: pik /pik/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

loan (v.): ñoi /ʔboi/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

magic: myawk le /myòklèʔ/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

mainspring of a watch: nayi tanbat /nayitanbåt/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

manner: htn /ʔthon/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

marquee: bu de /buðèʔ/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

master: sámã /sòmà/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

measles: wak sak /wåksåk/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

measure: bye /ʔbye/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

measure: dang /dåŋ/ Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

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'

4 The measure of volume or capacity roughly equal to a bushel

45 'a sum of money paid as revenue or tax to the authorities concerned'

44 'a model, a pattern, or a template'

42 Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.

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

4 A measure of volume or capacity roughly equal to a bushel

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

4 Also found in other Kachin languages, e.g. Za. suk1suk1sak1sak1, Lh. sug sag (K), La. sug sag.
<table>
<thead>
<tr>
<th>English</th>
<th>Jinghpaw</th>
<th>Pinyin</th>
</tr>
</thead>
<tbody>
<tr>
<td>messy</td>
<td>suk /sú/k</td>
<td>रुप, बियौ, बियौ</td>
</tr>
<tr>
<td>messy²</td>
<td>suk sak /súksák/</td>
<td>रुप / बियौ / बियौ</td>
</tr>
<tr>
<td>mile</td>
<td>deng /den/</td>
<td>बियौ, बियौ, बियौ, बियौ</td>
</tr>
<tr>
<td>model¹⁴⁴</td>
<td>ābung /tābuŋ/ ~ ābum</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>money</td>
<td>kye daw /kyédbó/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>month</td>
<td>la /lāʔ/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>Murray</td>
<td>sānāp hka /sənāphkā/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>plant</td>
<td>offer /lū/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>new hand</td>
<td>lak set /lāksĕt/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>nosegay</td>
<td>pan hlye /pánkhye/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>offer¹⁴⁷</td>
<td>sak /sák/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>offer</td>
<td>lu /lú/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>offering</td>
<td>oil /yên/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>office</td>
<td>run /rún/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>olive</td>
<td>ye nan /yenan/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>order</td>
<td>āming /tāmīn/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>other</td>
<td>dāhkya /dákhyā/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
<tr>
<td>pencil¹⁵¹</td>
<td>hke dan /khedan/</td>
<td>बियौ / बियौ / बियौ</td>
</tr>
</tbody>
</table>

---

42 Also found in other Kachin languages, e.g. Za. suk¹ suk¹ sak¹ sak¹, 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”.
47 Also found in other Kachin languages, e.g. Lh. sanab kha” (K), La. sa naid kha”.
48 Also found in other Kachin languages, e.g. Lh. alu: (K), La. alu:, Ng. vlú, Ra. vlú.
49 Also found in other Kachin languages, e.g. Za. run’n¹, Lh. yu:n¹, Lh. yu:n”, Ng. yungh muh, Ra. róng.
50 Also found in other Kachin languages, e.g. Lh. tsan: lun: (K), La. zhan loin:, Ng. tsan: lun, Ra. zan: lun.
51 Found in other Kachin languages, e.g. Za. kue³¹ dan³¹, Lh. khe¹ tain”, La. khe” tain:; Ra. kédan.
petition (v.)

‘to petition a court of justice, to sue, bring a law suit, to prosecute’

Also found in other Kachin languages, e.g. Lh. kho” (K), La. kho”, Ra. kó.

provisions

‘property or money used as a bride’

Also found in other Kachin languages, e.g. Lh. kho” (K), La. kho”, Ra. kó.

Prince

‘the man who plays the part of the prince in a dramatic presentation, a dancer’

Also found in other Kachin languages, e.g. Lh. kho”, Ra. kó.

preacher

‘the woman who plays the part of a princess in a dramatic presentation, a dancer’

Also found in other Kachin languages, e.g. Lh. kho” (K), La. kho”, Ra. kó.

plow (v.)

‘to be relieved, to recover (e.g. as from sickness), to regain comfort’

Also widely found in other Kachin languages, e.g. Za. de’myaq¹, Lh. damya, (K), La. damya, Ra. dmyaq.

point

‘happiness, rest, pleasure, respite’

also widely found in other Kachin languages, e.g. Za. de’myaq¹, Lh. damya, (K), La. damya, Ra. dmyaq.

room

‘a flat (an apartment), a room in a boarding house’

also widely found in other Kachin languages, e.g. Za. de’myaq¹, Lh. damya, (K), La. damya, Ra. dmyaq.
rupee\textsuperscript{64} kyap /kyəp/ ☞ WB kyap, MB caʔ; Sh. kjaap\textsuperscript{3}  
salary la hka /làʔkhàʔ/ ☞ WB lakha, MB làgà  
satin hpe /phè/ ☞ WB phai, MB phè; Sh. pʰ\textsuperscript{4}  
school\textsuperscript{65} jawng /jìŋ/ ☞ WB kyoʊ\textsuperscript{3}, MB càu̯; Sh. kjo\textsuperscript{4}  
screw we wu /wèʔwu/ ☞ WB wakʻu̯, MB weʔʔu̯; Sh. waak\textsuperscript{3}ʔu̯\textsuperscript{2}  
sea\textsuperscript{66} pang lai /paŋlc̯ay/ ☞ WB paŋla, MB pinlè; Sh. paŋlə\textsuperscript{2}  
semi-divine ārawng /ʔərɒŋ/ ☞ WB aloʊ\textsuperscript{3} ‘corpse; Bodhisattva’; MB ?láu̯n; Sh. ?a\textsuperscript{1} łaŋ\textsuperscript{4}  
shark ngāman /ŋɔmáu̯/ ☞ WB ŋa̯mən\textsuperscript{3}; MB ŋɔmáu̯; Sh. paa\textsuperscript{1}ŋa\textsuperscript{1}maa\textsuperscript{4}  
shop\textsuperscript{67} seng /seŋ/ ☞ WB chuï̯n, MB shài̯n; Sh. sʰ\textsuperscript{3} əŋ\textsuperscript{2}  
spoon zun /dzùň/ ☞ WB jwən\textsuperscript{1}, MB zûn  
stake (v.)\textsuperscript{68} lawng /lòŋ/ ☞ WB loʊ\textsuperscript{3}, MB láu̯n; Sh. ləŋ\textsuperscript{4}  
stamp\textsuperscript{69} dázık /ɗəʣík/ ☞ WB tətɪɾ̱ɨp̥, MB dəʒɛʔi; Sh. tan\textsuperscript{4}sʰ\textsuperscript{3}ɪk\textsuperscript{3}  
stew (v.) chyaw /cóʊ/ ☞ WB kро̯\textsuperscript{2}, MB cɔ; Sh. tsɔ\textsuperscript{4}  
strike (v.) nak /nãːk/ ~ nak /nãːk/ ☞ WB nək, MB hrňʔ; Sh. naak\textsuperscript{3}  
strugglingly kuk kuk /kúŋkúk/ ☞ WB kʊktʊ, MB kʊʔkʊʔ?  
tax\textsuperscript{70} kawn /kùn/ ☞ WB akhwanʔ, MB ākhu̯n; Sh. ?a\textsuperscript{1}kʰ\textsuperscript{2}nj\textsuperscript{2}  
teacher (f) sāra ma /sɔram̌ʔ?/ ☞ WB charə̯mə, MB shɔyə̯mə  
teacher (m)\textsuperscript{71} sāra /sɔrə/ ☞ WB charə̯, MB shɔyə; Sh. sʰraʔ\textsuperscript{2}  
telescope man pyawng /manpyoŋ/ ☞ WB mhanpø̯ň, MB mâŋbyàu̯n; Sh. maan\textsuperscript{2}pjoŋ\textsuperscript{4}

\textsuperscript{64} ‘kyat, Myanmar unit of money’
\textsuperscript{65} Also widely found in other Kachin languages, e.g. Za. zyong\textsuperscript{11}, Lh. cuʃ\textsuperscript{4}, La. jung, Ng. jungs, Ra. zìŋ.
\textsuperscript{66} Also found in other Kachin languages, e.g. Lh. paŋ\textsuperscript{1}lai\textsuperscript{4}, La. pang: lai; Ra. bang\textsuperscript{lay}.
\textsuperscript{67} Found in other Kachin languages, e.g. Za. sueng\textsuperscript{2}, Lh. seyn\textsuperscript{4}, La. sain; Ng. sen, Ra. sing.
\textsuperscript{68} ‘to stake, wager, bet, as in gambling’
\textsuperscript{69} Also found in other Kachin languages, e.g. Lh. tātsɪf, La. dzaid, Ra. dəvzok.
\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. seˈʈəʔ, Lh. sārə, La. sara; Ra. svra.
time: hkyhing /kh’iŋ/ ~ ahkying /a’kiŋ/ MB akhyin, MB ?ächéiŋ; Sh. kʰiŋ’

torchlight: dat mi /dātmi/ MB dātmi, MB daʔmi

truely: ōman /ʔəman/ MB amhan, MB ?āhmān

tube: pyawng /py’ōŋ/ MB pyāuŋ; Sh. pjaŋ’

turmeric: sānwi /sən’iŋ/ MB nānwīn ~ sānwi

two-anna bit: mu /mu/ MB mū, MB mū

use (v.): sung /sūŋ/ MB sūŋ, MB thōun; Sh. s’ūŋ’

usefulness: āsung /ʔəsəŋ/ MB asuiŋ, MB ?əθouŋ

vessel: kye dawk /kyēdōk/ MB kyaŋtok, MB cidau?

violin: daw raw /dōr’ō/ MB tāy; Sh. təl’yā

washbowl: ang dung /ʔaŋdung/ MB aãtuũ, MB ?iŋdōun; Sh. ?aaŋ’

water basin: ang /ʔaŋ/ MB aã ‘tray’, MB ?iŋ; Sh. ?aaŋ’

weapon: lak nak /lãknāk/ MB laŋk, MB leʔne?; Sh. laak3’naak3

week: bat /bāt/ MB pat, MB paʔ; Sh. paat’

withdraw: htuk /ʔhūk/ MB thut, MB thouʔ; Sh. tʰuk3

work: āmu /ʔəm’u/ MB amhu’ ‘matter’, MB ?əhmī; Sh. ?əm’u

X-ray: dat man /dātm’iŋ/ MB dātm’han, MB daʔhmān;

zinc: san pyaw /sānpyaw/ MB sānphrū, MB bāxhiyu

0.2 Loans of Indic origin

almond: bātan /bətan/ Hin. bādām ‘almond’ (from Per. bādām);

Also found in other Kachin languages, e.g. Za. dat⁴-mi⁴ ~ tat⁴-mi⁴, Lh. dad’ mi” (K), L.a. daid mi; Ra. datmi.

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

Also found in other Kachin languages, e.g. Lh. sanun” (K), L.a. sa noin”, Ra. svnän.

‘ordinary bamboo drinking vessel, made with a handle’

Also found in other Kachin languages, e.g. Za. bat’, Lh. ba (K), L.a. bad.

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

Found in other Kachin languages, e.g. Lh. ba: dan: (K), L.a. ba tain ~ ba tan, Ng. batan zains.
<table>
<thead>
<tr>
<th>Word</th>
<th>Meaning</th>
<th>Indic Form(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>betel</td>
<td>‘areca’; P. kamuka ‘areca’; MB kwam1 si3 ‘betal nut’, MB kǔnśi</td>
<td></td>
</tr>
<tr>
<td>bless</td>
<td>‘auspicious’; P. maṅgala ‘auspicious’; MB maṅgalā, MB mūngalā; Sh. maŋka1 laa2</td>
<td></td>
</tr>
<tr>
<td>brick</td>
<td>‘burnt brick’; P. iṭṭhakā ‘burnt brick’; MB ʔouʔ; Sh. ʔut</td>
<td></td>
</tr>
<tr>
<td>brimstone</td>
<td>Sk. gandhaka ‘brimstone’; MB kān; Sh. kaan</td>
<td></td>
</tr>
<tr>
<td>Buddha</td>
<td>MB bhūṛa; MB phāyā; Sh. pʰraa4</td>
<td></td>
</tr>
<tr>
<td>camel</td>
<td>P. kula-ūṭha; MB kūlā’ut, MB kālāʔouʔ; Sh. ka1 laa4 ʔuk5</td>
<td></td>
</tr>
<tr>
<td>causion</td>
<td>P. sati ‘recognition’; MB sati, MB dāḍi; Sh. sʰa1 ti5</td>
<td></td>
</tr>
<tr>
<td>Ceylon</td>
<td>P. sīhala ‘Ceylon’; MB sīhuil, MB thihō; Sh. sʰi2 ho2</td>
<td></td>
</tr>
<tr>
<td>clock</td>
<td>P. nāřī ‘tube’, Hin. nārī ‘pulse’; MB nārī, MB nāyī; Sh. nau2rī</td>
<td></td>
</tr>
<tr>
<td>coin</td>
<td>Sk. taũka ‘stamped coin’; MB daṅgā3, MB dīsgā; Sh. teŋkāa4</td>
<td></td>
</tr>
<tr>
<td>creator</td>
<td>Sk. sākra ‘Indra’; MB sikrā3 ‘Indra’, MB dājā</td>
<td></td>
</tr>
<tr>
<td>diamond</td>
<td>P. vajīra ‘diamond’; MB cin, MB sēin; Sh. tsįy2</td>
<td></td>
</tr>
<tr>
<td>element</td>
<td>P. dhātu ‘element’; MB dhāt, MB daʔ; Sh. ṭaat3</td>
<td></td>
</tr>
</tbody>
</table>

* Items whose corresponding Indic forms are not identified are marked with asterisks.
* Also found in other Kachin languages, e.g. Lh. ko$la$ʔuk$, La. goo: la: ug, Ra. gola$wu$.
* WB kula$ut (lit. Indian-camel), whose roots are not combined in the donor language, seems to be a novel compound coined in Burmese.
* Also found in other Kachin languages, e.g. Lh. sāti$ʔ$, La. sa $di$, Ra. svdiq.
* Also found in other Kachin languages, e.g. Za. na$35$, Lh. na: yi: (K), La. na: yi:; Ra. nari.
* ‘the Hindu god Indra which appears in Buddhist Scriptures as Sakkā, the lord of the first and second levels of existence of the nat devas’
* ‘an element, constituent part, particle, member: the four grand elements, i.e. air, earth fire, water’
embroidery za /dza/ P. jāla ‘netting’, Hin. jāl; WB jā, MB zā; Sh. tsaa²

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

foreigner kāla /kōlā/ P. kula ‘family, clan’; WB kūlā, MB kōlā; Sh. ka’laa⁴

glorious hpung gam /phiunggam/ P. bhaga ‘luck’, kamma ‘deed’; WB bhun¹kān, MB phiongān

glory hpung /phûŋ/ ~ hpung /phûŋ/ P. bhaga ‘luck’; WB bhun³, MB phûng

grace* chyeju /cējû/ WB kye³jū³, MB cēzù; Sh. ke⁴tsu⁴

greed law hpa /lōphá/ P. lobha ‘greed’; WB lobha, MB lōbā; Sh. lo³paa⁵

guaranty* ama /?amáʔ/ WB amakhin, MB ?amakkhàn;

hell ngārai /tāraí/ P. niraya ‘hell’; WB tāraí, MB yārê; Sh. yaa⁴raaj⁴

hundred million gādi /gōdi/ P. kojì ‘the end’; WB kuṭe ‘ten million’; MB gādè

intellect nyan /nyān/ P. nāṇa ‘knowledge’; WB nāṇ, MB pāṇ; Sh. pāṇ²

jaggery nam htan /numthan/ P. tāla ‘palmyra tree’; WB than³ ‘toddy-palm’, MB thán; Sh. nam³thān¹

jasper nāga htoi /nagathôy/ P. nāga ‘serpent’; WB nāga⁴swai¹, MB nāgāthwê

jewel seng /sêŋ/ P. vajīra ‘diamond’; WB cin ‘diamond’, MB sēix; Sh. sêix¹

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86 Also found in other Kachin languages, e.g. Za. za³⁵, Lh. tsal¹, La. za:.
87 The final -n can be accounted for in terms of progressive assimilation.
88 Also found in other Kachin languages, e.g. Lh. phung” (K), La. pungi”, Ng. phunk, Ra. pûngbâng ~ pûngbâng.
89 All borrowed round numbers over hundred thousand in Jinghpaw exhibit semantic shifts (see Kurabe to appear).
### Phonology of Burmese loanwords in Jinghpaw

<table>
<thead>
<tr>
<th>English</th>
<th>Jinghpaw</th>
<th>Burmese</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>law</td>
<td>u pa di</td>
<td>u pade</td>
<td>‘indication’</td>
</tr>
<tr>
<td>luck</td>
<td>gam</td>
<td>kaun</td>
<td>‘deed’</td>
</tr>
<tr>
<td>machine</td>
<td>jak</td>
<td>kak</td>
<td>‘wheel’</td>
</tr>
<tr>
<td>mantra</td>
<td>ga hta</td>
<td>gatha</td>
<td>‘verse’</td>
</tr>
<tr>
<td>mission</td>
<td>sasana</td>
<td>sasana</td>
<td>‘teaching’</td>
</tr>
<tr>
<td>work</td>
<td>hpung kyi</td>
<td>phung</td>
<td>‘teaching’</td>
</tr>
<tr>
<td>nutmeg</td>
<td>za di hpu</td>
<td>jati</td>
<td>‘nutmeg’</td>
</tr>
<tr>
<td>ocean</td>
<td>nam muk dāra</td>
<td>samudda</td>
<td>‘ocean’</td>
</tr>
<tr>
<td>officer</td>
<td>bu</td>
<td>bala</td>
<td>‘power, army’</td>
</tr>
</tbody>
</table>

---

90 Also found in other Kachin languages, e.g. Za. gvyam, Lh. kaun, La. gam, Ra. gam.
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: dan: (K), La. man tan, Ng. mandan, Ra. mandan,
94 Also found in other Kachin languages, e.g. Lh. sa: sana: (K), La. sa: sana:, Ra. sasvna.
95 Also found in other Kachin languages, e.g. Za. bung1 ki1, Lh. phung gyi, Ng. bunggyis, Ra. pönggwi.
96 The second syllable is of Burmese origin, i.e. WB kri3 ‘be big’.
97 The first syllable is of Shan origin, i.e. Shan naur ‘water’.

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119
officer
tha na up /thanaʔup/99
P. ṭhāna ‘place’; ṭhānā’up, MB ṭhānāʔou?

omen
nāmik /nāmik/
P. nimitta ‘omen’; nimit, MB nāmeiʔ; Sh. niʔmik3

paesa100
pyek san /pyeʔsan/
Hi. paiśi ‘copper coin’; sah-ra piši, MB paiśiʔan; Sh. piš-siʔaunt2

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

policeman101
pya da /pyada/
Hi. pyādā ‘messenger’ (from Per. piyāda); sah-ra pya- daʔ, MB pyāt; Sh. pjaʔtaunt2

punishment102
dam /dām/ ~ dan /dān/
P. danḍa ‘stick as means of punishment’; dān, MB dān; Sh. taam2

representative*103
amat /ʔamat/
MB amat, MB ʔomaʔ; Sh. ʔaʔmaat3

rheumatism*
du la /dula/
MB dukṣā ‘Taxila’; dukṣa, MB dukṣā; Sh. tuʔlaa3

rich man104
sāhti /səthi/
P. sṭhī ‘treasurer’; sṭhī, MB sūthe3,105

ruby
bat dāmya /bātāmeyā/
Sk. padma-rāga ‘ruby’; pādamrā, MB pādamrā; Sh. pāʔmaaI4

saffron
shang gan /canggān/
P. sankāra-cola ‘bag’, MB sankāra-colī; MB sankāra-colī, Sh. sankāra-colī

robe106
sapphire107
ni la /nila/
P. nila ‘blue’; nila, MB nilā; Sh. nilʔaunt2

ship; papa-
sanghpaw /sāŋphoʃ/108
sāŋphoʃ, MB thūhok; Sh. maak2sʔaung534

99 The second syllable is of Burmese origin, i.e. WB up ‘to cover’.
100 ‘a piece or paesa, the small unit of currency under the British’
101 Also found in other Kachin languages, e.g. Lh. pya-ʔa, La. pya: da:, Ng. pyada, Ra. byadā.
102 Also found in other Kachin languages, e.g. Lh dan (K), La. dam, Ra. dven zi.
103 ‘a representative of the people elected to the state council, national parliament, or some assembly’
104 Also found in other Kachin languages, e.g. Lh. sāthi4, La. sa the” ~ sa thi”, Ra. svté.
105 The first syllable of Pali sṭhī that does not convey any meaning is replaced by sā ‘person’ in Burmese as a result of folk etymology.
106 ‘the safron robe of a Buddhist priest’
107 Also found in other Kachin languages, e.g. Lh. ni: la:, La. ni: la:, Ng. nila luk.
108 Also found in other Kachin languages, e.g. Za. singbart3, Lh. saŋ phoʃ, La. sang phoo’, Ng.
### Phonology of Burmese loanwords in Jinghpaw

<table>
<thead>
<tr>
<th>Burmese Loanword</th>
<th>Jinghpaw Equivalent</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>sin</td>
<td>yu bak /yùbāk/</td>
<td>P. upaddava ‘misfortune’; ṣapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>socks</td>
<td>maw za /moza/</td>
<td>Hin. mozā ‘sock’ (from Per. moza); ṣapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>spirit</td>
<td>hpuk /phūk/</td>
<td>P. bhūta ‘ghost’; ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>state</td>
<td>jat /jàt/</td>
<td>P. jāti ‘rebirth’, jātaka ‘birth story’; ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>topaz*</td>
<td>u tāphāya /ṭutāphaya/</td>
<td>ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>unhappiness</td>
<td>duk hka /diukkhaʔ/</td>
<td>P. dukkha ‘unpleasant’; ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>university</td>
<td>dakkāsu /dākkasū/</td>
<td>P. takkasilā ‘Taxila’; ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>water festival</td>
<td>shang gyen /cānggyen/</td>
<td>Sk. saṃ-krānti ‘Sankranti’; ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>wheat</td>
<td>jung /juŋ/</td>
<td>Hin. gehūṁ ‘wheat’; ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>wisdom</td>
<td>byeng ya /byēŋyə/</td>
<td>P. paṇṇā ‘of wisdom’; ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
<tr>
<td>witness*</td>
<td>sak se /sāksē/</td>
<td>Sk. sākshin ‘witness’; ṭapā ṭhat / P. ṭhata; Sh. ṭhātə?</td>
</tr>
</tbody>
</table>

---

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. mow /zaw; Lh. mo-ta; La. moo /za; Ra. moza, and Chin languages as in Tedim Chin mawza and Mizo mawza tawi (Dr. Kosei Otsuka, p.c., 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. svkse ~ shvkse.
0.3 Loans of English and other origin

<table>
<thead>
<tr>
<th>English</th>
<th>Kachin</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>ball</td>
<td>baw lung /böluy/</td>
<td>En. ball; အိုးမြေ WB bholuìn³, MB bölouṁ; Sh. ၾပြုပြေး</td>
</tr>
<tr>
<td>bomb</td>
<td>bawm /bóm/</td>
<td>En. bomb; ၿ WB hùuⁿ³, MB bóʊn; Sh. maak²-pom⁴</td>
</tr>
<tr>
<td>camera</td>
<td>kemmar/ /kemmara/</td>
<td>En. camera; အိုးမြေ WB kàmarā, MB kınmarā; Sh. kaar¹-ma rā²</td>
</tr>
<tr>
<td>car</td>
<td>ka /ká/</td>
<td>En. car; အိုး WB ká³, MB ká⁴, Sh. kā⁴</td>
</tr>
<tr>
<td>car</td>
<td>mawdaw /modo/</td>
<td>En. motor; အိုး WB mo²-to² ‘motorboat’, MB mōṭō</td>
</tr>
<tr>
<td>Christ</td>
<td>hkrì sàdu /khrìsàduʔ/</td>
<td>En. Christ; အိုး WB kharacto², MB khārìʔtò; Sh. kʰa¹-ri³</td>
</tr>
<tr>
<td>Christmas</td>
<td>hkrì sàmat /khrìsàmat/</td>
<td>En. Christmas; အိုး WB kharacca-mat, MB khārìʔsàmaʔ</td>
</tr>
<tr>
<td>college</td>
<td>kaw lik /kólük/</td>
<td>En. college; အိုး WB kolip, MB lìleiʔ</td>
</tr>
<tr>
<td>company</td>
<td>gung māni /gušmonyi/</td>
<td>En. company; အိုး WB kumpani, MB kòmbāni; Sh. kunp¹-pa¹-ni²</td>
</tr>
<tr>
<td>England</td>
<td>Inggàlan /tìnggòlan/</td>
<td>En. England; အိုး WB aìgalan, MB tìnggòlan; Sh. tìŋ²ka¹-làn²</td>
</tr>
<tr>
<td>English</td>
<td>inglik /tìŋgòlik/</td>
<td>En. English; အိုး WB aìgalip, MB tìnggòleíʔ; Sh. tìŋ²ka¹-le³</td>
</tr>
<tr>
<td>fit</td>
<td>htkúk /thúk/</td>
<td>Mon thek; အိုး WB thuikt, MB thaiʔ; Sh. th³uk²</td>
</tr>
</tbody>
</table>

114 Also found in other Kachin languages, e.g. Za. boⁿ-lung³², Lh. bo: lung” (K), La. boo: lung”, Ra. bō̂lṓng.
115 Also found in other Kachin languages, e.g. Lh. bom, La. boem, Ra. bōm ~ bûm.
116 Also found in other Kachin languages, e.g. Lh. kem²-ra³, La. kem ra; Ra. kemvra.
117 Found in other Kachin languages, e.g. Za. mo³-to⁵ ~ to⁵⁵, Lh. mo³-to³, La. moo doo, Ra. modo.
118 Also found in other Kachin languages, e.g. Lh. khye” stu, La. khrì sa du, Ra. krìstug.
119 Also found in other Kachin languages, e.g. Lh. khye” smad, La. khrì sa mad, Ra. krìstmat.
120 Also found in other Kachin languages, e.g. Lh. gung: mani:, La. gung ma ni:, Ra. gungbyñi.
121 Also found in other Kachin languages, e.g. Lh. In ga lan:, La. in ga lan, Ra. inggvlan.
122 Also found in other Kachin languages, e.g. Lh. In ga lid, La. in ga lid, Ra. engvlik.
also found in other Kachin languages, e.g. Lh. in ga lid, La. in ga lid, Ra.

Also found in other Kachin languages, e.g. Lh. gung: mani: , La. gung ma ni: , Ra.

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

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

also found in other Kachin languages, e.g. Za. mo35to35

Found in other Kachin languages, e.g. Za. bo11lung31, Lh. bo: lung" (K), La. boo: lung" ,

Also found in other Kachin languages, e.g. Za. bo11lung31, Lh. bo: lung" (K), La. boo: lung" ,

Also found in other Kachin languages, e.g. Za. bo11lung31, Lh. bo: lung" (K), La. boo: lung" ,

Also found in other Kachin languages, e.g. Za. bo11lung31, Lh. bo: lung" (K), La. boo: lung" ,

Also found in other Kachin languages, e.g. Za. bo11lung31, Lh. bo: lung" (K), La. boo: lung" ,

Phonology of Burmese loanwords in Jinghpaw

fort123 dap /däp/ Mon dap; dio WB tap, MB ta?; Sh. tap5

fountain pen hpawng tin /phoa?tin/ En. fountain; dioWB phoa?tin, MB phoa?tin

furlong hpa lung /phalun/ En. furlong; dioWB phalun, MB phaloun

grape124 tsäbyi /tsäby?i/ Arb. zabiβ ‘raisin’; dioWB capyac, MB zäbyi?; Sh. tsa1 podi3

guava125 mäli ga /moli?ga/ Malay Melaka ‘Malacca’; dioWB målaqä, MB målaqä; Sh. maak2 kar2

gun sänat /sa?nåt/ Por. espinharda;126 dioWB senat, MB thåna?

Jesus127 Yesu /yesu?/ En. Yes; dioWB yerhu, MB yèci; Sh. je2 sh i5

lottery128 hiti /thi/ En. lottery; dioWB thi, MB thi; Sh. th i2

magazine mekgäzin /mekädzin/ En. magazine; dioWB magga?n3, MB mr?gazin; Sh. mrk3 ka1 tsin4

mile mai /ma?/ En. mile; dioWB mui, MB mäi; Sh. mr?2

minute129 mänit /ma?nit/ En. minute; dioWB minac, MB mini?

motorcycle mawdaw sai ke /mødaw sai ke/ En. motorcycle; dioWB mødaw sai ke, MB mødaw saikë; Sh. mä2 ts i2 tsa2 jë2

number130 nambat /nämbat/ En. number; dioWB na?pät, MB näxha?

123 Also found in other Kachin languages, e.g. Lh. kye5 tap5, La. gye; Ng. jesdvp, Ra. dap.
124 Also found in other Kachin languages, e.g. Lh. sabyi’, La. za b yi’, Ng. zviaq.
125 Also found in other Kachin languages, e.g. Lh. ma: laga; La. ma: laga, Ra. mälgigù.
126 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).
127 Also found in other Kachin languages, e.g. Lh. Ye: su’, La. Ye su, Ra. yesu.
128 Also found in other Kachin languages, e.g. Lh. thi’, La. thi’, Ra. ti.
129 Also found in other Kachin languages, e.g. Lh. mû3 ni4’, La. myi: nid, Ra. minot ~ mvi3.
130 Also found in other Kachin languages, e.g. Za. nam5bat’, Lh. nam: bad (K), La. nam bed, Ra. nivnibv. 
Also found in other Kachin languages, e.g. Za. bya11-sa11, L. sa” pya; Ng. sapya, Ra. sapbyá. 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).

The second syllable is of Burmese origin, expressing ‘to boil’.


### 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

<table>
<thead>
<tr>
<th>Burmese</th>
<th>Jinghpaw</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. WB lakteun ‘gift’ &gt; Jg. laksöŋ ‘property or money used as a bride’</td>
<td>a. Jg. laksöŋ ‘property or money used as a bride’</td>
</tr>
<tr>
<td>b. WB tainkhwan ‘pennant’ &gt; Jg. dönkhun ‘flag’</td>
<td>b. Jg. dönkhun ‘flag’</td>
</tr>
<tr>
<td>c. WB aroŋ ‘color’ &gt; Jg. ṭaron ‘honor’</td>
<td>c. Jg. ṭaron ‘honor’</td>
</tr>
<tr>
<td>d. WB prätā ‘messenger’ &gt; Jg. pyada ‘police officer’</td>
<td>d. Jg. pyada ‘police officer’</td>
</tr>
<tr>
<td>e. WB kaŋ3 ‘post for collecting custom duties’ &gt; Jg. kâŋ ‘custom duties’</td>
<td>e. Jg. kâŋ ‘custom duties’</td>
</tr>
</tbody>
</table>

131 Also found in other Kachin languages, e.g. Za. bya11-sa11, L. sa” pya; Ng. sapya, Ra. sapbyá. 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).

132 The second syllable is of Burmese origin, expressing ‘to boil’.

133 From Mon according to Myanmar Language Commission ed. (2009:2).
f. WB khyam⁴sā (ultimately from Pali) ‘be rich; have peace and quiet’ > Jg. khyāmsā ‘to rest; be cheap’
g. WB sāsanā ‘teaching’ > Jg. sasanā ‘mission work’

WB lakchoṅ ‘gift’ (cf. Shan laak⁴shญา ‘gift’), narrowing its range of referent, is specialized to mean ‘property or money used as a bride’ in Jinghpaw. WB tainkhwan ‘pennant’ (cf. Shan tam⁴khwan ‘flag offered in worship’), on the other hand, is generalized to encompass any kinds of flags in Jinghpaw. WB aroṅ ‘color’ (cf. Shan ʔa⁴rəf ‘color, brightness’) underwent melioration in Jinghpaw, gaining a more positive sense of ‘honor’. A similar shift can also be observed in WB prāṅ (ultimately from Persian through Hindi) ‘office boy; messenger’ (cf. Shan pja⁶̊r taa² ‘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 kāy ‘duties’, having its diachronic source in WB kaṇ³ ‘post for collecting custom duties’, illustrates metonymic transfer. WB khyam⁴sā ‘be rich; have peace and quiet’ is introduced through Shan (i.e. kʰjaam⁴shఉ ‘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 sāsanā ‘teaching, dispensation’ (cf. Shan sʰa⁶̊r sʰa¹naa² ‘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 cihuixue (Jinghpo lexicology). Beijing: Cen-

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→ジャン語→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、ビルマ語とジンポー語とも長い接触の歴史を持つジャン語を介して、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。