Studies in Asian Geolinguistics

VI

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Tokyo University of Foreign Studies
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Cover photo:
The giant Marionette Watch at Melbourne Central, Melbourne, Australia; taken by Keita Kurabe on July 19, 2017.
Classifiers in Tungusic and Uralic

1. General feature
There are no classifiers in Tungusic and Uralic languages. Numerals function as both nouns and adjectives. Numerals decline the same as nouns, in which case the case endings are attached to them. They modify nouns by preceding them. In such modifying constructions, there are no particular grammatical words between the numeral and the following noun.

2. Grammatical feature
Numerals precede nouns, as adjectives do. In Balto-Finnic numerals above “2” appear with the nouns in partitive case and the numerals are in nominative:

Finn. yksi pieni tyttö
one NOM little NOM girl NOM
“one little girl (Nom.)”

Finn. kaksi pientä tyttöä
two NOM little PART girl PART
“two little girls (Nom.)”

Such grammatical constructions also exist in some Baltic and Slavic languages of the Indo-European family, which geographically neighbor the Balto-Finnic languages. Some research suggests that this construction results from linguistic contact with these Slavic languages.

3. Special derivational forms in Evenki and Ewen
Tungusic languages have abundant affixes, which include a few affixes that stand for collective nouns similar to classifiers.

Here are the Evenki derivational forms of the numeral ilan (ila-) “3”:

ilalla “3 days”
ilannu “3 yurts (= a tent for nomad people)”
ilanmusa “3 places”
ilaragda “3 pieces”
ilaŋna “3 animals”
ilani “3 people”
ilači “3-year-old”

These forms are not necessarily in use, for example ilalla can be expressed also by the analytic form as ilan anyani “3 days”, and are used as nouns or adverbs. (Ryo Matsumoto)
Map 1. Non-classifier languages in Tungusic and Uralic
Classifiers in Nivkh

1. General description

Nivkh is known for its rich inventory of classifiers. Kreinovich (1934: 202-203) counts twenty four classes and Panfilov twenty six (1962: 181-183). As these authors list different kinds of classes, the number of classes proliferates to at least thirty, as Mattisen (2003: 15) points out. These classes cover animacy (human being, dogs), shape (small round, thin flat, long objects, etc.), salient everyday objects (boats, sleds, nets, fishing equipment, poles, ropes, boards, etc.) or sets (pairs, portions of food, family, etc.). In addition, there are classifiers referring to abstract notions such as counting (in general) or multiplicity (once, twice...) (Kreinovich 1934).

Morphologically, a classifier forms a free morpheme with a preceding numeral element, which is itself a bound morpheme. For instance, ɲiɲ ‘one boat’ consists of a numeral element ɲi- and a classifier element -m, the latter associable to a free morpheme mu, meaning ‘boat’. This numeral-classifier complex is a free morpheme entering into a syntactic constellation with a head noun. The order of morphemes within this constellation differs per number: from one to five, the order is [head noun]-[numeral-classifier], as in ɲŋəya nik ‘one rouble’. This contrasts with the case of numbers above five, in which the order is reversed: ɲqŋ kumusk ‘six roubles’ (Kreinovich 1934: 204). According to Kreinovich, the latter is an innovation, which developed under the influence of Russian or Chinese, from the period that the Nivkh were engaged in the inter-ethnic trading (known as Santan trading in Japanese literature, see Sasaki 1996 for an overview). As a support for this hypothesis, Kreinovich points to the fact that the word for ‘money’ above five kumusk, which is a loan from the Russian bumazhka ‘bank note’, is absent in the Sakhalin dialect where ɲŋəya is the only word for money. In general, the Amur Nivkhs were more intensively engaged in this inter-ethnic than the Sakhalin Nivkhs (see Shiraishi and Tangiku forthcoming on the languages used in Santan trading).

2. Geographical distribution

The map illustrates the distribution of ‘one person’. Like any other class, this morpheme consists of a numeral element (coronal nasal stop+V) and a classifier element (coronal nasal). The latter is associable to ɲivx ‘human being’. There are seven forms reported in literature. We classify them into two types according to the type of vowel ([i] or [e]).

<table>
<thead>
<tr>
<th>Type A</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ɲiɲ</td>
<td>Khuzi, Kol-Nikol’sk</td>
</tr>
<tr>
<td>2. ɲin</td>
<td>Tyk</td>
</tr>
<tr>
<td>3. nin</td>
<td>Kal’ma</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type B</th>
<th>Place</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. ɲeɲ</td>
<td>Machula</td>
</tr>
<tr>
<td>5. ɲen</td>
<td>Ten’gi, Kuegda, Baidukov</td>
</tr>
<tr>
<td>6. ɲenŋ</td>
<td>Trambaus, Chir-Unvd, Nyjvo, Chaivo, Tygmuch</td>
</tr>
<tr>
<td>7. ɲɨɲ</td>
<td>Menshinikova</td>
</tr>
</tbody>
</table>

The geographic distribution of Type A and B follows the classic taxonomy of Nivkh dialects which dates back to Shternberg (1900) and Kreinovich (1934): the Amur dialect, spoken in the lower reaches of the Amur River and the Sakhalin dialect spoken on Sakhalin. Comparing the vowels, the Sakhalin dialect forms have [e] while the Amur dialect forms have [i], although there are some places which do not conform to this pattern, such as ɲen in Machula (Amur). The final –ŋ in the Sakhalin forms and its absence in Amur is a widely-observed inter-dialectal variation, e.g. qanŋ (Sakhalin) vs. qan (Amur) ‘dog’.

Keywords: Nivkh, classifier, numeral

(Hidetoshi Shiraishi)
‘one person’ in Nivkh
Means to count nouns in Ainu

1. Classification of word forms

Ainu has two numeral classifiers (CLFs) that provide a two-way division of nouns (Ns) into HUMAN and NON-HUMAN (Aikhenvald 2003: 286). For human nouns, the CLF -n after vowels or -iv after the consonant /n/ attaches to a numeral (NUM) as a suffix; for non-human nouns, the CLF -p after vowels or -pe after consonants is used (Tamura 2000: 255-257). The forms of CLFs are divided into three subtypes as follows:

- **A. N [NUM-CLF] type:**
  - A-1. -p/-pe; -n/-iw
  - A-2. -p/-pe; -n/-uy
  - A-3. -h/-pe; (-n/-iw)

Ending with the consonant /-n/ are the NUMs of six to ten, since they are thought to be made by counting distance from wan ‘ten’ (c.f. Tamura 2000: 254).

<table>
<thead>
<tr>
<th>NUM-CLFs</th>
<th>Origins</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. siné-p/-n</td>
<td>(&lt;i-ne ‘truly-COP’)</td>
</tr>
<tr>
<td>2. tú-p/-n</td>
<td></td>
</tr>
<tr>
<td>3. ré-p/-n</td>
<td></td>
</tr>
<tr>
<td>4. ine-p/-n</td>
<td>(&lt;i-ne ‘four-COP’)</td>
</tr>
<tr>
<td>5. askne-p/-n</td>
<td>(&lt; asik-ne ‘hand-COP’)</td>
</tr>
<tr>
<td>6. iwán-pe/-iw</td>
<td>(&lt;i-wan ‘four-ten’)</td>
</tr>
<tr>
<td>7. árw-an-pe/-iw</td>
<td>(&lt;ar-wan ‘three-ten’)</td>
</tr>
<tr>
<td>8. tupé-pa/-iw</td>
<td>(&lt;tu-pes-(w)an ‘two-piece-ten’)</td>
</tr>
<tr>
<td>9. siné-pes-(-w)an</td>
<td>(&lt; sine-pes-(w)an ‘one-piece-ten’)</td>
</tr>
<tr>
<td>10. wán-pe/-iw</td>
<td></td>
</tr>
<tr>
<td>20. hótne-p/-n</td>
<td>(&lt;hot-ne ‘twenty-COP’)</td>
</tr>
</tbody>
</table>

The boundary “six” is a special numeral that “is often used to express the idea ‘much’ or ‘many,’” since it is “greater than the number of fingers of one hand” (Tamura 2000: 260). iwán kotan ‘many villages (lit. six village).’ Ainu uses the vigesimal and decimal numeral system, and then “numbers such as eleven are made using ikásma” (Tamura 2000: 257).

The NUMs in Ainu are adnominally used, so that in the NUM plus N construction, the occurrence of CLFs is optional (Gil 2013) and depends on the word order: N [NUM-CLF] or NUM-N: a) double marked type, b) mixed type, c) none (NUM N type).

2. Geographical distribution and interpretation

The subtypes of A-1 to A-3 follow the phonological correspondences among the Ainu dialects. In Bihoro, the eastern-most Hokkaido dialect, /-uy/ of A-2 corresponding to /-iw/ of A-1, c.f., the word for ‘yellow’ is suynin in Bihoro, but siwnin in other Hokkaido dialects. Furthermore, /-h/ of A-3 in Sakhalin was phonetically changed from /-p, -t, -k, -r/ to /-n/ in Hokkaido. One speaker of the Raichishka dialect in Sakhalin often used the noun aynu ‘human’ instead of the human CLF -n/-iw (Hattori 1964, Murasaki 1979); however, in some materials of the other Sakhalin dialects, the human CLF seems to be used.

The non-human CLF, -p/-pe, means ‘thing,’ and this can be also used for a nominalizer. Tamura (2000: 256) mentions “it is sometimes also be used for people who are held in contempt.” Moreover, in Hokkaido, demonstrative and indefinite/interrogative pronouns are also suffixed with the same classifiers: tan-pe ‘this,’ ne-p ‘what, some-/any-thing,’ ne-n ‘who, some-/any-one.’

With respect to the word for units, see Table 1 and 2 (c.f. Tamura 1996, 2000, Murasaki 1979). Note that, regarding the units of Time on Table 1, to was used only for ‘one day’ around the 1960s and 1970s, e.g., siné to ‘one day,’ tukko ‘two days,’ rérko ‘three days,’ and ine rerro ‘four days.’ However, recently, to has been used to count days: e.g., siné to ‘one day,’ tu to ‘two days,’ re to ‘three days,’ and ine to ‘four days.’ (Tamura 2000: 258). Originally, tukko and rerro could be composed of tu-tu-ko ‘two-two-(day?)’ and re-re-ko ‘three-three-(day?)’ respectively, so that -ko may be also defined as an old CLF.

**Keywords:** numeral classifier, humanness

(Mika Fukazawa)
Table 1. Examples of the Unit in Ainu

<table>
<thead>
<tr>
<th>Word</th>
<th>Unit (Counting things)</th>
<th>Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ik</td>
<td>Length (about 3 cm)</td>
<td>J.</td>
<td>‘knot; node; joint’</td>
</tr>
<tr>
<td>wó/woo</td>
<td>Length (about 15 cm)</td>
<td>J.</td>
<td>‘the distance between the spread thumb and index finger’</td>
</tr>
<tr>
<td>tém</td>
<td>Length (about 5 feet)</td>
<td>J.</td>
<td>‘arm; the span or distance between the tips of fists when the arms are stretched out’</td>
</tr>
<tr>
<td>rérko</td>
<td>Time (day) &lt; ‘3 days’</td>
<td>J.</td>
<td></td>
</tr>
<tr>
<td>tó/too</td>
<td>Time (day) &lt; ‘1 day’</td>
<td>J.</td>
<td></td>
</tr>
<tr>
<td>-suy</td>
<td>Times (repetition of action)</td>
<td>J.</td>
<td>‘again; once more’</td>
</tr>
</tbody>
</table>

Table 2. Loanwords for units from Japanese (J)

<table>
<thead>
<tr>
<th>Word</th>
<th>Unit (Counting things)</th>
<th>Source</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>iciri</td>
<td>Distance (ri 里)</td>
<td>J.</td>
<td>‘1 ri = approx. 2.5 miles, 4km’</td>
</tr>
<tr>
<td>icicikan</td>
<td>Time (hour)</td>
<td>J.</td>
<td>‘1 hour’</td>
</tr>
<tr>
<td>tokii</td>
<td>Time (hour)</td>
<td>J.</td>
<td>‘time’</td>
</tr>
<tr>
<td>tará/tapara</td>
<td>Volume (hyô 年)</td>
<td>J.</td>
<td>‘straw bag’; 1 hyô = 60 kg for rice</td>
</tr>
<tr>
<td>cónpa/conpay</td>
<td>Volume (shô 件)</td>
<td>J.</td>
<td>‘counting house’; The accountant in cýoba used masu for measure; ‘1 shô = 1.8 litres’</td>
</tr>
<tr>
<td>icén</td>
<td>Money (sen 銀)</td>
<td>J.</td>
<td>‘1 sen = 0.01 yen’</td>
</tr>
<tr>
<td>iciryó</td>
<td>Money (ryô 両)</td>
<td>J.</td>
<td>‘1 ryô (old Japanese unit) = 1 yen’</td>
</tr>
</tbody>
</table>

Map 1. Means to count nouns in Ainu

A. N [NUM-CLF] type:
- A-1. -p/-pe; -n/-iw
- A-2. -p/-pe; -n/-uy
- A-3. -sh/-pe (; -n/-iw)
Means to count nouns in Korean

1. Syntactic construction of numeric expressions
Korean is a language with extensive use of classifiers. Before discussing what kind of classifiers there are and how they are used in this language, we would first briefly summarize numeric expressions in general in this language.

In Korean, there are four types of numeric expressions as shown in (1) (taken from Lee and Ramsey (2000: 97–98)):

(1)

a. Noun—Numeral
   Haksayng seys-i chac.a wassta.
   student 3-Nom. visit-came
   (Three students came to visit.)

b. Noun—Numeral—Classifier
   Haksayng sey myeng-i chac.a wassta.
   student 3 Cls.-Nom. visit-came

c. Numeral—Noun
   Sey haksayng-i chac.a wassta.
   3 student-Nom. visit-came

d. Numeral—Classifier—Genitive—Noun
   Sey myeng-uy haksayng-i chac.a wassta.
   3 Cls.-Gen. student-Nom. visit-came

In sentences in (1), the numeric expression appears in the nominative case but it can be used in any other cases as well as in (1b').

(1b')

a. Haksayng sey myeng-uy ttaylyessta. (Acc.)
   (I hit three students.)

b. Haksayng sey myeng-ekey cwuessta. (Dat.)
   (I gave (something) to tree students.)

c. Haksayng sey myeng-ulo kwuseng toyessta.
   (Inst.) (it is) made of three students.

d. Haksayng sey myeng-kwa kachi wassta. (Com.)
   (I came with three students.)

Samuel Martin (1992) lists as many as nine types of possible syntactic constructions but they include varieties that are differentiated by the presence or absence of case markers so that they can be grouped into the above four main types.

As can be seen from the above examples, sentences in (1b) and (1d) are constructed with a classifier, but (1a) and (1c) are not, so that the use of classifiers is not obligatory in this language.

However, sentences without a classifier have various restrictions. For example, the type in (1a) seems to allow only human nouns:

(2)

a. ?Kay seys-i wassta.
   dog 3-Nom. came (Three dogs came.)

b. ?Chayk twul-i issta.
   book 2-Nom. be (There are two books.)

Also, the type shown in (1c) has the following restrictions. For example, expressions in (3a) are used but (3b) are difficult or not used. (all taken from Lee and Ramsey (2000: 99))

(3)

a. twu nala (two countries)
   sey hakkyo (three schools)
   twu thokki (two rabbits), etc.

b. ?tases thokki (five rabbits)
   ?selhun haksayng (30 students)
   *sey sonamu (three pine trees)
   *tases yenphil (five pencils)

The difference between (3a) and (3b) is difficult to explain.

Lastly, the type in (1d) is mainly used in written language and not used in colloquial speech. Therefore, the type in (1b) is the most frequent and productive among the four possibilities.

2. Kinds of classifiers
Classifiers in Korean can be grouped based on various criteria such as attributes of an entity, kinds of words (native or borrowed) and so on.

Things in general: (concrete objects) kay, (abstract things, kinds) kaci, (issues) ken.
Animate things: (people) myeng, salam, (animals, birds, fish, insects) mali, (trees) kulwu.
Shape: (sheets) cang, (long objects (with a handle)) calwu, (small round things) al, etc.
Specific things: (books) kwen, (buildings) chay, (vehicles) tay, etc.
Sets: (cloths) pel, (books) pel, etc.
Thing in pairs: (shoes and socks) khyelley, etc.
Units: (volume) toi, mal, sek, (money) wen, (length)
The number of classifiers is difficult to tell because there are so many Sino-Korean morphemes that can be used as classifiers, and common nouns and even recent borrowings from English can be turned into classifiers (e.g., khep (cup), paksu (box), etc.).

3. Dialectal variation
Specific forms of classifiers may differ among dialects reflecting the phonetic characteristics of each dialect, but there seem to be no available data on dialectal variation so far.

(Rei Fukui)
Classifiers in Hmong-Mien

1. Classification of word forms

Classifiers in the Hmong-Mien language family, especially those of White Hmong (one of the Hmongic languages) have attracted attention in classifier studies. Based on the classification proposed by Grinevald (2000), the category of classifiers in these languages belongs to that of numeral classifier. It indicates the defining feature of numeral classifier: obligatory occurrence in nominal constructions containing numerals. The constituent order of numerals (NUM), classifiers (CLF) and nouns is NUM-CLF-NOUN. Among the four features that are to be described in “linguistic map of classifiers”, thus, the first, second, and third feature exhibit a uniform distribution as follows:

(a) Sortal numeral classifiers are obligatory
(b) Unmarked order of CLF and NUM is NUM-CLF
(c) Unmarked order of NUM-CLF and the semantic head noun (N) is NUM-CLF-N

As to the fourth feature, whether a classifier is used with demonstratives without numerals, Hmong-Mien’s behavior is also uniform, as far as we know:

(d) Classifiers can constitute a syntactic unit with demonstratives (DEM) without numerals

In the unmarked order of CLF and DEM, however, we find two patterns: CLF-DEM and DEM-CLF. If we add other possible constituents, NUM and N, we have the following two types:

A: NUM-CLF-N-DEM

B: DEM-NUM-CLF-N

This is the feature that we use in drawing the linguistic map of classifiers for Hmong-Mien.

2. Geographical distribution and interpretation

Type A lects are distributed in the northwest part of the Hmong-Mien area, and Type B lects in the southeast part of the area. Which type is the ancestral one? Type B is mainly observed in Mienic languages, but also seen in two Hmongic languages, Pa-hng and Ho-ne (aka She). Type A is restricted to Hmongic. In terms of phylogeny, Type B exhibits wider distribution, thus, it appears to be the ancestral one. However, if we take a closer look at the map, we notice that three of the Type A lects, You-mu, Kiong-nai, and Pa-na, are distributed inside the Type B area (circlef points in Map 1 below). Thus, it suggests that these lects might constitute relic areas, which means that Type A is more archaic, and Type B represents an innovation. Since Type B is also the feature of Sinitic languages, it seems reasonable to assume that this innovation has occurred under Chinese influence.

Map 1

(Yoshihisa Taguchi)
Means to count nouns in Tibeto-Burman

1. Classification

Our data on 491 Tibeto-Burman (TB) languages and dialects, including primary data on many Tibetic languages and dialects, show that there are TB languages both with and without numeral classifiers.

1. Non-classifier TB languages
   - Tibetic: Lhasa Tibetan, lCangdzong Tibetan
   - Kuki-Chin-Naga: Ao, Meithei
   - Qiangic: Situ
   - TGTM: Tamang, Nar-Phu, Chantyal, Prakaa

2. Classifier TB languages
   - Lolo-Burmese: Burmese, Zaiwa, Lahu, Hani, Lisu
   - Karenic: Geba, Kayah, Pwo, Sgaw
   - Qiangic: Qiang, Munya, nDrapa, sTau
   - Nungic: Trung, Anong, Rawang, Dulong
   - Kuki-Chin: Asho, Daai, Lai, Mizo, Tedim
   - Jinghpaw-Luish: Jinghpaw, Cak, Kadu, Ganan
   - Bodo-Garo: Boro, Garo, Kokborok, Usoi, Deori
   - Tani: Apatani, Bengni, Galo
   - Kiranti: Athpare, Belhare, Kham,
   - C. Himalayan: Kathmandu Newar
   - Bai: Bai

Some TB languages have small inventories of classifiers, where most nouns are directly quantified by numerals without classifiers. Jinghpaw, for example, is not a classifier-rich language unlike other neighboring languages, having a small set of classifiers such as maray ‘CLF for human beings’ and khiam ‘CLF for animals and fruits,’ which are optional (see below) but genuine sortal classifiers. We treat given cases as classifier languages when they have at least one example of a sortal numeral classifier.

In some TB languages, such as Jinghpaw and Tedim Chin, the occurrence of classifiers is optional, as shown in (1). In this paper, we do not distinguish classifier languages with optional classifier systems from those with obligatory systems because it is not always apparent from secondary sources.

(1) Tedim Chin (Kose Otsuka, p.c., 2017)
   a. vok thum (pig-3)
   b. vok gual thum (pig-CLF-3)

Some classifier TB languages employ classifiers only when small numbers are involved. For example, classifiers usually occur only with numerals ‘one’ and ‘two’ in sTau, as in (2), and ‘one’ to ‘nine’ in Mizo. These languages are also treated as classifier languages in the present paper.

(2) Daofu sTau (Huang 2009: 120)
   a. tei a-hu (hat-1-CLF)
   b. tei xsu (hat-3)

In classifier TB languages, as provided below, four word orders are attested, where Type A is especially widespread in contrast to Types C and D, which are marginal in TB, although Type C is quite common in adjacent Sinitic, Hmong-Mien, and Tai languages (see Sinitic, Hmong-Mien, and Tai-Kadai in this volume.)

A. N-NUM-CLF
B. N-CLF-NUM
C. NUM-CLF-N
D. CLF-NUM-N

Examples of each type include:

(3) a. Burmese (our field notes)
   lù j⁵ên yauʔ (person-3-CLF)
   b. Garo (Burling 2003: 247)
   a-chak mang-sa (dog-CLF-one)
   c. Camling (Ebert 2003: 536)
   sim-ra pyupa (3-CLF-cow)
   d. Deori (Brown1895: 14)
   mu-ja lipedru (CLF-1-goat)

The following list shows languages representing the four types divided in terms of genetic affiliation.

A. N-NUM-CLF
   Lolo-Burmese: Arakanese, Zaiwa, Lahu, Hani, Lisu
   Karenic: Qiang, rGyalrong, Munya, nDrapa, sTau
   Nungic: Trung, Anong, Rawang, Dulong
   Bai: Bai
   Tani: Apatani, Bengni, Galo
   Kiranti: Athpare, Belhare, Kham,
   C. Himalayan: Kathmandu Newar

B. N-CLF-NUM
C. NUM-CLF-N
D. CLF-NUM-N

Nungic: Trung, Anong, Rawang, Dulong
Karenic: Geba, Kayah, Pwo, Sgaw
Bai: Bai

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(1) Tedim Chin (Kose Otsuka, p.c., 2017)
   a. vok thum (pig-3)
   b. vok gual thum (pig-CLF-3)
B. N-CLF-NUM
Jinghpaw: Jinghpaw, Jingpo, Turung
Kuki-Chin: Asho, Daai, Lai, Mizo, Tedim
Tani: Apatani, Bengni, Galo
Bodo-Garo: Boro, Garo, Kokborok, Usoi

C. NUM-CLF-N
Kiranti: Athpare, Belhare, Kham,
C. Himalayan: Kathmandu Newar

D. CLF-NUM-N
Bodo-Garo: Meche, Deori

It should be noted that word orders are not always consistent, even within a single language. For example, Kadu, where the unmarked order is NUM-CLF, shows the CLF-NUM order when the numeral ‘one’ is involved, which appears to be Tai influence, as in (4). A similar situation, as shown in (5), holds for Pwo Karen and Burmese when the numeral ‘ten’ and multiples of it are involved. We classify these languages in terms of unmarked word orders that show wider distribution.

(4) Kadu (Sangdong 2012: 280)
  a. kâm hûk-à (plate-CLF-one)
  b. kâm kaling hûk (plate-two-CLF)

(5) Pwo Karen (Kato 2004: 115)
  a. lâ-yâ (1-CLF)
  b. ʔayâ lâchi (CLF-10)

As with other languages of East and Southeast Asia, the functional range of classifiers may go beyond counting in some TB languages, with classifiers occurring without numerals. In nDrapa, for example, classifier can occur with adjectives, as in (6).

(6) nDrapa (Shirai 2016: 29)
  yorâ l kembo3 teitei=jîl (that-bag-big.RED-CLF)

A more frequent pattern is that of classifiers occurring with demonstratives, as in (7).

(7) Lhaovo (Sawada 2012)
  pyî l chê-yaukî (person-this-CLF)

Although it is not always easy to tell whether a given language has such examples due to the lack of sufficient data from secondary sources, examples like (7) can be found at least in Lhaovo, Zaiwa, Bai, Nusu, Anong, Sadu, Yadu Northern Qiang, Mawo Northern Qiang, Southern Qiang, Daofu sTau, Munya, Luzu, Newar, Hani, and Northern, Southern, Southeastern and Eastern Yi. Note that languages belonging to a single genetic group do not always uniformly show this feature. Jino, for example, does not have this construction although it belongs to the Loloish branch like the Hani and Yi languages.

2. Geographical distribution and interpretation
Map 1 shows the distribution of classifier and non-classifier languages among TB. Languages tend to be non-classifier languages in the northern region, many of which are represented by Tibetan languages and dialects, while they tend to be classifier languages in the southern region.

Map 2 shows the distribution of classifier languages divided in terms of the relative order of N, NUM, and CLF. TB languages tend to be Type A (N-NUM-CLF) in eastern areas, Type B (N-CLF-NUM) in central areas, and Type C (NUM-CLF-N) in western areas. A notable exception is Pema, which exhibits Type B among neighboring languages belonging to Type A. The geographical boundary between noun-initial groups (Types A and B) and noun-final groups (Types C and D) generally correlates with that of languages exhibiting the noun-adjective and adjective-noun word orders (see Dryer 2008: 26-34). This distribution makes sense, as suggested by Dryer, in the context of neighboring non-TB languages. TB languages toward the east show similarity to Tai-Kadai and Mon-Khmer languages in contrast to TB languages toward the west that show similarity to Indic languages (see also Tai-Kadai and South Asia in this volume).

Keywords: Tibeto-Burman, classifiers

(Keita Kurabe, Hiroyuki Suzuki, Satoko Shirai, Kazue Iwasa, Shiho Ebihara, Ikuko Matsuse)
Map 1: Classifier and no-classifier languages in Tibeto-Burman

Classifier languages
Non-classifier languages
Map 2: Order of N, NUM, and CL in Tibeto-Burman

Type A  N-NUM-CL
Type B  N-CL-NUM
Type C  NUM-CL-N
Type D  CL-NUM-N
Means to count nouns in Tai-Kadai

1. Classification of word order types

In Tai-Kadai, a classifier is obligatory for counting nouns. There are two types regarding the word order of numeral (Num), classifier (Cl), and noun (N):

A. N + Num + Cl type
   ma4 sa:m1 to1 (Jinping Dai, Luo 2008:129)
   horse three Cl, "three horses"

B. Num + Cl + N type
   si3 to4 ma4 (Jinping Dai, Luo 2008:44)
   four Cl horse, "four horses"

In case of the number "one", there are two minor types:

A1. N + Cl + "one" type
    mu1 to1 num6 (Jinping Dai, Luo 2008:129)
    pig Cl one, "a pig"

C. Cl + N + "one" type
   tu2 kai3 diau24 (Wuming Yanqi Zhuang, Wei et al. 2011:78)
   Cl chicken one, "a chicken"

Further, there is a classifier construction without numeral, especially with demonstratives:

D. Cl + N (+ Dem) type
   pou31 vun42 ni42 (Wuming Yanqi Zhuang, Wei et Cl man this, "this man/woman")

2. Geographical distribution and interpretation

Type A (symbol | in the map) is mainly distributed in Thailand, Laos, Myanmar, and the dialects of Dehong and Xishuangbanna of the Dai language which are next to Southeast Asian countries. Type B (symbol *) is dominant among the other Tai-Kadai languages in China as well as Vietnam. There are sporadic appearances of Type A as a doublet in the Type B area, for example, in the Chadong language near Guilin or in the Lingao language in Hainan. It is noteworthy that the older generation over 70 years old used Type B, whereas the younger generation under 40 used Type A in Mashan Zhuang located near Nanning (Qin 1988, 2014:224). That means a replacement into the Chinese type word order occurred in the second half of the 20th century.

Many scholars infer that Type A is older than Type B, and this word order change came about under the influence of the Chinese model, which experienced the same direction of change in the course of its history (Qin 1988 among others). The above mentioned peripheral distribution supports this theory.

As for Type A1 (symbol /), the etymology of the number "one" num, diau etc. goes back to the meaning of "sole", so the word order follows the ordinary structure of adjectives which are located after the head. In Siamese or Lao and others, type A1 is an alternative form, in that both Type A and A1 are accepted.

The geographical distribution of Type A1 basically coincides with Type A, but is wider than it. While in Zhuang, Type C (symbol ○) is widely distributed, in which the classifier precedes the noun and followed by the numeral "one".

In Type D (symbol ☆), no numeral occurs; hence its function is no more counting, but serves as an "definite article" so to speak, denoting individual things. The geographical distribution of this type is narrower than Type C, so it should be due to the later innovation. In this area, the classifier is obligatory when a demonstrative modifies a noun.

Keywords: classifier, definite article, age difference, doublet, expansion of grammatical structure

(Mitsuaki Endo)
Word order of numeral, classifier, noun, and demonstrative in Tai-Kadai languages

A. (̀) N + Num + Cl type ma₄ sa:m₁ to₁, horse+three+Cl, "three horses"
B. (૦) Num + Cl + N type si² to₁ ma₄, four+Cl+horse, "four horses"
A1. (/) Num + Cl + "one" type mu¹ to¹ nuŋ⁶, pig+Cl+one, "a pig"
C. (〇) Cl + N + "one" type tu⁴² kai¹³ ʔde:u²⁴, Cl+chicken+one, "a chicken"
D. (☆) Cl + N (+ Dem) type pou⁴² vun⁴² ni⁴², Cl+man+this, "this man/woman"
Means to count nouns in Austroasiatic languages

1. Classification of quantifying expressions

Austroasiatic languages are grouped into four types, Type A to Type D, based on the noun phrase structure containing quantifying expressions. In the following classification, N denotes ‘noun, Num, ‘numeral’, and CL, classifier, respectively.

Type A: N+Num+CL
Type B: Num+CL+N
Type C: Num+N
Type D: unstable

Most of the data examined here are extracted from Jenny and Sidwell (eds) (2015). The data of Indian languages are supplemented from Bodding (1929-36) for Santali, and from Osada (2008) for Mundari.

It should be noted that distinction between Type B and Type C is not clear-cut since to what extent the use of classifiers is obligatory is not always clearly given in most of the descriptions.

The names of languages in each type are given below with the subgroup names in parenthesis, and the spoken places.

Type A languages: modern Mon (Monic) and Daraang (Palaungic) in Myanmar, Kui Ntua (Katuic) and Kammu (Khmuic) in Laos, Mlabri (Khmuic) in Laos and Thailand, modern Khmer (Khmeric) in Cambodia, and Bugan (Mangic) in Yunnan, China.

Type B languages: Khasi (Khasian) and Pnar (Khasian) in Meghalaya state of northeast India, Bunong (South Bahnaric) in Cambodia and Vietnam, Koho-Sre (South Bahnaric), Sedang (North Bahnaric), Pacoh (Katuic), and Vietnamese (Vietic) in Vietnam.

Type C languages: Santali (Munda) and Mundari (Munda) in Eastern India, Cheq Wong (Northern Aslian) and Semaq Beri (Northern Aslian) in Malaysia.

Type D languages: old Mon (Monic) in Myanmar, old Khmer (Khmeric) in Cambodia, and Chong (Pearic) in Thailand and Cambodia.

2. Geographical distribution and interpretation

Distribution of Austroasiatic languages is mainly divided into two regions. One is mainland Southeast Asia where the dominant word order is ‘Head+Modifier’, and the other, Indian subcontinent where the order is ‘Modifier+Head’. Many languages given in the map reflect the areal features respectively except in northeast India.

Type A languages with ‘Head+Modifier’ are in the inland areas of mainland Southeast Asia, that is, in Myanmar, Thailand, Cambodia, Laos. It is also in Yunnan province of China. It may be plausible that Type A represents the whole Austroasiatic language family. It should be noted, however, that not only two major languages, modern Khmer and modern Mon of Austroasiatic languages, but also adjacent Thai and Laotian of Tai-Kadai languages shares the same word order.

Distribution of Type B is divided; one is Meghalaya, and the other, Vietnam and its Cambodian border areas. Khasi and Pnar inhabit in the former, and Vietnamese and some other minority languages, in the latter. Although the Type B order of a noun phrase, a numeral preceding a head noun, such as in Khasi and in Pnar in Northeast India conforms to the common order in languages in Indian subcontinent, the use of classifiers is exceptional in India. Notice that these languages are surrounded with minority languages of the Tibeto-Burman language family, and use of classifiers among them is very common.

The other Type B languages with ‘Modifier+Head’ order are in Vietnam and its Cambodian border areas which are adjacent to East Asia where ‘Modifier+Head’ order is dominant. Although Vietnamese had been heavily influenced by Chinese, its extensive use of classifier is unique to the language.

Type C can be found only in Jharkhand and Bihar states in East India, and Malay Peninsula. Use of classifiers in Santali and Mundari is rather exceptional. Osada (2008) gives only three native ‘classifiers’ for ‘human’, ‘house’, and ‘head’, together with ‘jan/jon’ for ‘human’ of Indo-Iranian origin, all of which are common nouns. Type C is regarded as one of the areal features in Indian subcontinent, but the use of classifiers is not obligatory as is the case of most Indian languages.

Type D languages have unstable word order in that both N+Num+CL and Num+CL+N can be found in such languages. Jenny et al (2015) notes that both word orders are possible in old Khmer and old Mon. Num+CL+N order, however, needs to be further examined considering the characteristics of the data. Since old Khmer inscriptions contain inventories of donations and their quantity, they may have characteristics different from ordinary texts.

Keywords: quantifier, classifier

(Makoto Minegishi)
Map: Numeral Expressions in Austroasiatic Languages

- Type A: N+Num+CL
- Type B: Num+CL+N
- Type C: Num+N
- Type D: unstable

URL providing the data:
http://sealang.net/monkhmer/dictionary/
http://www.ling.hawaii.edu/austroasiatic/
Means to count nouns in South Asia (Aryan, Iranian, Nuristani, Dravidian, Andamanese, Nihali, and Burushaski)

1. Classification

Before arguing on whether the languages in South Asia have classifiers or not, I have stumbled with the question ‘What is classifier?’ In other words, ‘Must a classifier be a word?’ If yes, it must be that less languages having classifiers in SA. But if no, there are surely more languages with classifiers. Here, I classify them on the latter, wider viewpoint for now.

A. Language with classifiers
   A1. With classifiers for all kinds of noun
   A2. With classifiers only for some nouns

B. Language with class-sensitive numeral
   B1. For substantive classes
   B2. For grammatical genders

C. Language with neither classifiers nor class-sensitive numerals

All languages categorised into either A or B show the order Numeral + Classifier (or some classifying marker).

While there are two major types of ordering for numerals (with classifier) and noun. A few languages have flexibility in order.

α. Numeral + Noun
β. Noun + Numeral
γ. Language which allow both orders α and β

3. Relation between classifier and demonstrative

To discuss classifier languages, we must mention the relationship between classifiers and demonstratives of each language. There are 15 classifier languages in SA (including three Burushaski dialects) in conformity with my wider definition of classifier. Among them, however, only five languages, including the three Burushaskis, can use classifiers with demonstratives: Bengali (Aryan, A1) in Bangladesh, Kota (Dravidian, A1) in south India, Hunza Burushaski, Nager Burushaski, and Yasin Burushaski (isolate, B1) in north Pakistan, see Map 2.

For example, see the following Hunza Burushaski numerals (1) and demonstrative pronouns (2), note that human-male and female nominal classes are neutralised for these word classes:

(1) Numerals
   ‘1’: hin (human class) vs. hik (for count)
   ‘2’: altán (human class) vs. altó (for count)
‘3’: iskén (human class) vs. iski (for count)

(2) Demonstrative pronouns
‘this’: khin (human class) vs. khos (concrete class)
‘that’: in (human class) vs. es (concrete class)
‘who/what’: men (h. class) vs. bes (c. class)

Every form for human class seems to have the class-sensitive morpheme -in, like a classifier. While some languages, including Bengali and Kota in SA, use classifiers not only with numerals but also with demonstratives, why should morphemes functioning in the same way, such as the -in of Burushaski, be treated as grammatical elements of a different category? Thinking so, I employ the wider definition of classifier in this paper. (YOSHIOKA Noboru)
Means to count nouns: Arabic languages

1. Classification of word forms

The word forms of “iron” are classified as follows.

A. Numeral-Noun type

B. Noun-Numeral type

C. Numeral-Noun / Noun-Numeral type

D. Numeral-of-the-Noun type

2. Geographical distribution and interpretation

A. Numeral-Noun type

This type is widely distributed. The nouns take the plural form when the numeral is 3 to 10, and take the singular form when the numeral is 11 or more. In Caireen arbaʕ kutub (4 books) “4 books”, Syrian ẓams sniːn (5 years) “5 years”, Palestinian talat saj QAːʕ (3 cars) “3 cars”, Bedouin dialect in the North of Israel ḏoːm aʃwaːl (8 sacks) “eight sacks”.

And also in peripheral dialects: Bukhari in Uzbekistan ẓams ajjaːm (5 days) “5 days”, Anatolian ʃafa w s4as ḍeːl (10 and 3 men) “13 men”, Maltese tliːt idjaːr (3 houses) “3 houses”, Cypriot ārpaːa vārak (4 books [collective]) “4 books”.

In these sequences the numerals are in the construct forms without -a ending arbaʕ “4” instead of the absolute form with -a ending arbaʕa.

In the definite state, the word order changes to Noun-Numeral in Ḥassāniya: laː-μūːt əθ-0lāʊ (the-girls the-three) “the three girls” (Cohen 1963: 168). While in the other dialects the order does not change: it-talat kutub hadoːl (the 3 books these) in Jerusalem (Israel 2012: 133), il-talat kutub doːl in Cairene “the 3 books”.

B. Noun-Numeral type

This type is found in the Nubi of Kibera: yalā taʕta (children three) “3 children”.

C. Numeral-Noun / Noun-Numeral type

This type is found in Chad Arabic: both ridQAːl talaːta (men 3) and talaːta ridQAːl (men 3) “3 men” are available.

D. Numeral-of-the-Noun type

This type is found in Moroccan only: tlaːta də-l-kiːsaːn (3 of the cups) “3 cups”. In Moroccan this combination is applied to “two” as in ẓuːʒ də-ktub (2 of the books) “2 books” while in the most of the other dialects the dual form of nouns are used.

(Youichi Nagato)
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Arabic


Mapping the Minority Languages of the Eastern Tibetosphere

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Abstract

This article presents a map of the minority languages of the eastern Tibetosphere and provides background on how the map was researched, designed, and created. We define the Tibetosphere as the region that is demographically dominated by, and culturally and linguistically influenced by, Tibetic languages. The minority languages of this region are the non-Tibetic languages of this otherwise Tibetan-dominated area. The map shows the location for 48 minority languages spoken in the eastern Tibetosphere, within China. Our map is intended to serve as a ‘counter-map’ to other representations of the area that portray it as monolingual or otherwise limit the linguistic diversity of the region. In focusing on the region’s minority languages, we aim to bring visibility to these languages and reveal the area’s ‘hidden multilingualism.’

Keywords: Tibet, China, linguistic diversity, minority language, counter-mapping

1 Introduction: Counter-Mapping the Linguistic Diversity of the Tibetosphere

The Tibetosphere refers to a large linguistic and cultural region, stretching over six countries in Asia (China, Pakistan, India, Nepal, Bhutan, and Burma), which is demographically dominated by, and culturally and linguistically influenced by, speakers of Tibetic languages. The term eastern Tibetosphere here includes Tibetan cultural areas in Qinghai, Gansu, Sichuan, and Yunnan; the eastern part of the Tibet Autonomous Region (TAR) is, however, excluded.\textsuperscript{1}

The minority languages of the Tibetosphere are the region’s non-Tibetic languages (Roche 2017; Roche and Suzuki 2017). These languages may be divided into two groups according to their speakers: linguistic minorities and ethnolinguistic minorities. The ethnolinguistic minorities are not formally identified as Tibetans, nor do they speak a Tibetic language, but they do live within the Tibetosphere. The linguistic minorities, on the other hand, are identified as Tibetans, but do not speak a Tibetic language.

Furthermore, we can also divide the minority languages (as opposed to their speakers) into three sociolinguistic groups, based on language management practices in China (Spolsky 2014): unrecognized languages, extra-territorial languages, and enclaved languages (Roche 2017; Roche and Suzuki 2017, Roche 2017). Enclaved and extra-territorial languages are spoken only by ethnolinguistic minorities; they differ from each other in that enclaved languages are spoken by populations that have a designated, recognized ethnic autonomous territory inside the Tibetosphere, whereas extra-territorial languages do not. Both types of languages, however, are recognized by the state as the legitimate language of a formally recognized ethnic group. Unrecognized languages, on the other hand, are typically considered ‘dialects,’ and thus not legitimate languages, by the state, which usually operates under the assumption of a one-to-one relationship between language and ethnicity so that, for example, the ‘Tibetan’ language is recognized as the language of Tibetan people. Unrecognized languages are therefore not embedded in or reproduced by any state institutions, such as education.\textsuperscript{2}

\textsuperscript{1} The region here defined therefore denotes a broader area than that defined in Suzuki (2015b).
\textsuperscript{2} Appendix 3 provides a table that classifies all the minority languages of the Eastern Tibetosphere according to categories of speaker (linguistic and ethnolinguistic minorities) and language (unrecognized, enclave, and
The Chinese state’s categories of recognition, and administration of these categories through the system of territorial autonomy, are the main factors determining the vitality of these languages. We suggest that within the Tibetosphere, recognized (enclave and extraterritorial) languages are less likely to be endangered than unrecognized languages, but that all minority languages are more likely to be endangered than ‘Tibetan’.3 Studies on the vitality of individual languages in the region have thus far borne out this general pattern (van Way and Bkra shis Bzangpo 2015; Tunzhi 2017; Balogh 2017; Roche and Yudru Tsomu forthcoming), though much research remains to be done.

Despite its complex language ecology, the Tibetosphere is typically viewed as either monolingually Tibetan, or, when the minority languages of the region are acknowledged, they are assumed to be irrelevant to the predominantly Tibetan nature of the region, and insignificant to its social and political dynamics. Therefore, both in state policy and academic discourses, minority languages of this region, are individually ‘invisible’ (Sellwood and Angelo 2013; Roche and Yudru Tsomu forthcoming), and collectively constitute the region’s ‘hidden multilingualism’ (Tamburelli 2014). The aim of our map is to uncover this hidden multilingualism and bring visibility to the region’s invisible languages.

This cartographic exercise was inspired by practices of ‘counter-mapping’—cartography that aims to render visible that which powerful actors have erased (Peluso 1995; Hodgson and Schroeder 2002; Culcasi 2012). However, whilst other counter-maps are typically created with extensive participation of subaltern populations, ours, for the most part (see below), was not. Nonetheless, we still feel that our map is a ‘counter map’ in the sense that it attempts to counter hegemonic visions of the region as monolingual.

In addition to general practices of counter-mapping, we were also inspired by linguistic maps of other regions that have attempted to highlight diversity that has been erased (both in representations and, sometimes, in reality). One example is Tindale and Jones’s (1974) map of Australia, which ‘counters’ both the ‘Great Australian Silence’ concerning the place of Aboriginal peoples in national history (Stanner 1969), and what came to be known as the Australian ‘monolingual mind-set’ (Clyne 2005), by showing the diversity of the country’s Indigenous languages. Another example can be seen in the linguistic maps of France which included ‘invisible’ languages such as Breton, Occitan, and Basque, created by linguistic activists and designed to “challenge … contemporary incarnations of national unity and centralist power” (McDonald 1989:7) which associated the French nation-state with a single French language. As with these maps, we hope that our map will lead to conversations that positively impact the vitality of the region’s minority languages.

Below, we introduce the map by discussing the decisions we made whilst designing the map, and how these influenced the appearance of the version presented here. Following this, we discuss the sources we drew on to create the map, and the processes we employed. In the final sections, we outline broad patterns of diversity rendered visible by this map, and explore how these patterns suggest avenues for further research into the minority languages of the Tibetosphere.

2 Designing the Map

Our original aim in creating this map was to show all of the Tibetan regions in China, but, for reasons we shall see shortly, we were not able to publish such a map. We thus began by delimiting the Tibetan areas according to a definition we have used in our previous work (Roche and Suzuki 2017). We first included all areas that are officially designated as Tibetan autonomous units (the Tibet Autonomous Region, plus the Tibetan autonomous prefectures and counties in Qinghai, Gansu, Sichuan, and Yunnan provinces). To this area, we added any counties where a significant number of Tibetans live as long-term inhabitants (though we did not define specifically what ‘significant numbers’ or ‘long-term’ habitation entailed). We define this area as the Chinese Tibetosphere, or the Tibetan-inhabited regions of China, but, for brevity’s sake, refer to it as ‘Tibet’.

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3 This does not suggest that ‘Tibetan’ is not endangered, but that its vitality is relatively higher than the region’s minority languages.
During our collaboration (outlined below in the section ‘Creating the Map’) we originally mapped all languages spoken in the area, both Tibetic and non-Tibetic. And although we originally mapped all the languages of this area according to the available literature, we decided against publishing a complete map of this region for three main reasons. The first was that we felt we did not have sufficiently detailed or reliable data that would enable us to map certain languages outside the eastern Tibetosphere. For example, although we were able to obtain information about the counties where Oirat varieties are spoken in western Qinghai Province, we were not able to obtain a more detailed picture beyond this. A second reason why we chose to publish only a map of the eastern Tibetosphere, rather than the whole of Tibet, relates to the on-going nature of research on some newly recorded languages of the region, and continuing consultation with communities in the area about whether they wish the location of their language to be known.

A final issue that prevented us from publishing a full map showing all the minority languages of Tibet relates to the disputed territory that China refers to as Zangnan (‘South Tibet’), and India as Arunachal Pradesh. The political sensitivities of this dispute are such that a map showing the region as Indian territory would be censored in China, whereas a map showing it as Chinese territory would make it illegal in India. Furthermore, such maps can be used by states to support territorial claims, and by local actors to intervene in localized power struggles. Given the contested nature of the territory and the volatile, sometimes violent nature of instability in the area, we decided not to create a map that could be used either by states or local actors in the region for political purposes that might involve violence, marginalization, and so on.

The final product of our collaboration, then, is a map of the eastern Tibetosphere, rather than the entire Tibetosphere or the Chinese Tibetosphere, which shows only the minority languages of the region rather than the minority languages with the dominant Tibetic languages.

We had two aims in creating this map. The first was to highlight the linguistic diversity of the region. In order to do this, it was necessary to draw on the most-up-to-date linguistic research available, rather than on standard reference works such as the Ethnologue (Lewis et al 2015). This is due to the fact that linguistic research in the region is on-going, and previously un-described languages continue to be recorded. Roche and Suzuki (2017) give an idea of how this recent literature expands on information communicated via references works: whereas Ethnologue lists 43 minority languages in Tibet, the authors’ survey of the broader literature, including monographs, journal articles, and MA and doctoral theses, identified 60 documented varieties. Since we aimed to create a map that highlighted the region’s diversity, we drew on this literature in deciding which languages to include. This map therefore includes languages that have not previously been mapped.

Our general principle of ‘erring on the side of diversity’ can be seen in our mapping of the Rgyalrongic languages. In Tibetan folk linguistics, these languages are considered dialects of Tibetan. The Ethnologue, and Chinese reference literature, meanwhile, list ‘Jiarong’ as a single independent language (rather than a dialect). Guillaume Jacques (2017:583), meanwhile, in an entry under ‘Rgyalrong Language’ in the Encyclopaedia of Chinese Language and Linguistics, states that “Rgyalrong is a group of four languages”: Situ, Japhug, Tshobdun, and Zbu. Gates (2012), meanwhile, argues that ‘Rgyalrong’ should include five, not four, languages. In addition to the four recognized by Jacques, he adds Southern Rgyalrong. Our map therefore reflects the most detailed classification of Rgyalrongic languages, i.e., that proposed by Gates.

Related to this aim of depicting the diversity of minority languages in the region is the decision to show languages as polygons rather than points. First, it is important to distinguish between two methods that use points to locate languages. One method, such as that used by Glottologue, uses single points to locate individual languages. We considered this method as insufficiently detailed for our purposes. A second method is to use points to identify individual communities where a language is spoken. We rejected this method because, on the one hand, we could not be sure that we had sufficient data for all the languages we wished to include on the map, particularly in the case of larger languages. Secondly, we felt that it would reduce the visibility of languages at a regional scale, whereas polygons,
which included not only villages where people lived but also the surrounding territory where they undertake subsistence activities, made the languages visible at a larger scale, and thus enabled us to create a map that represented the full diversity of the entire region.

A second aim in creating this map was to depict the complexity and fragility of this diversity. Previous maps often inflate the area where a language is spoken, because they rely on administrative boundaries to draw linguistic boundaries. Therefore, the distribution of small languages tends to be exaggerated. One example of this is the Mangghuer language, spoken in Minhe Hui and Tu Autonomous County in Qinghai Province. Previous maps have shown the language as being spoken throughout the county. However, it is confined to a few townships in the county’s south, making up about a third of the county’s territory, in an area traditionally known to Mangghuer-speakers as Sanchuan – the three valleys. In order to overcome the tendency of previous maps to inflate language distributions by using administrative boundaries, we used geographical features, such as mountain ridges, rivers, and valley basins, to more accurately define the areas where speakers of a language live.

The outcome of these two aims is a map that is strikingly different from previous efforts. It shows far more languages than any other similar map, and also shows languages as having much more restricted distributions. The resulting pattern is a complex, discontinuous mosaic made up of ribbons and specks rather continuous blobs.

Another design feature of the map that we wish to highlight here is the choice of languages names that are displayed (Haspelmath 2017). Unlike previous maps and other reference works, we have tried to avoid using names for the languages that are exonyms, usually derived from Chinese sources and thus representing a Pinyin rendering of terms from Tibetan or other languages. In many cases, we were able to find such names in the extant literature, such as the case for Rgyalrong varieties: Zbu, Japhug, Tshobdun, etc. In other cases, it was necessary to consult with members of the community. This is the case, for example, for Ngandehua, which in the literature, has been referred to as Wutun (Janhunen et al. 2008). The name Wutun is unknown to community members, whereas Ngandehua, a term meaning ‘our language’ is regularly used within the community (Tshe ring skyid 2015). Another example is the language name Khroskyabs, which replaces the former Lavrung; the new term is advocated by Lai Yunfan and G.yu lha (a Khroskyabs speaker and linguist) (Lai and Yina 2016). In other cases, it was necessary to innovate new names, mostly based on place-names. This was the case, for example, with Lhagang Choyu (Suzuki and Sonam Wangmo 2016). Although such name changes are controversial, and further revisions may be necessary in the future, we agree with Tunzhi (2017) that the choice of name for a language has implications for community attitudes towards that language, and thus on its vitality. We have endeavoured to choose names that will make positive contributions to communal attitudes and linguistic vitality.

As a final note on the design of the map, it is important to note what has been excluded. Namely, we have not included regional varieties of Tibetan or Chinese – more accurately referred to as the Tibetic and Sinitic languages. These languages would occupy the vast majority of white space on the map (though there are also uninhabited areas on the map). There were two main reasons for excluding these languages. The first is that the distribution of these varieties is actually less well understood than the minority languages; the Tibetic varieties of the Gansu-Sichuan border region, for example, are still being actively researched (Suzuki 2015a). A second reason for excluding these languages from the map is that it would have drawn attention from the minority languages of the region. Although the Tibetic and Sinitic languages of the region tend to have much larger distributions that the minority languages, showing them on the map would have nonetheless involved adding several more colors to the map, thus diffusing the diversity throughout the region, and perhaps effacing or diminishing the currently obvious patterning of diversity amongst the minority languages.

A second element that was necessarily excluded from the map was the bi- and multilingualism of individuals and communities (Roche 2017). This took place, for example, in areas that are mosaics of communities speaking two minority languages. An example of this was in Li County, where the distribution of South-Central Rgyalrong and Southern Rmaic overlapped; we chose to represent this by dividing the overlap between the two languages. A far more common phenomenon, and significant issue, however, is showing bi- and multilingualism in dominant languages – Tibetan and Chinese. The map cannot show the extent to which these languages are used in various communities, and how this varies
spatially. It was impossible to show this not only due to the difficulties of representing such patterns cartographically, but also because of a lack of data.

With these design choices and their underlying rationale in mind, we now turn to a description of the sources used to create the map.

3 Sources

As stated above, we relied on a variety of linguistics publications to decide which languages to include in the map. Most of these sources contained a description of where the language was spoken according to administrative divisions; most did not contain a map. In addition to the descriptive linguistic publications, we relied on a number of other sources. These sources included reference works such as the *Language Atlas of China* (Wurm et al. 1987; ZGYYDTJ-II 2012) and *Ethnologue* (Lewis et al. 2015). We also drew on materials presented on the website rGyalrongic Languages Database, which maps varieties in the region. We also compared our maps to those available on the ‘Sichuan Ethnic Corridor’ website. When we could not find reliable information in these published sources, we consulted with experts who have worked on specific languages. Several people, cited in Appendix 2, generously shared their insights, including unpublished maps. A final source of information for the maps was our own fieldwork experience. Roche has primarily worked in Amdo (in Qinghai Province), whereas Suzuki has worked extensively throughout Khams (in Sichuan and Yunnan). A full list of sources is provided in Appendix 2.

4 Creating the Map

This map was created during a one-week visit by Suzuki to the University of Melbourne in November 2016. Prior to this, we had collated a series of maps that we could refer to for guidance, as well as sources in Chinese and English we could refer to. Roche and Suzuki were aided during their collaboration by Libu Lhaki and Sonam Lhundrop, speakers of Namuyi and Rta’u, respectively, who each joined the mapping effort for a day to offer their feedback based on their personal experience as speakers of languages that we were mapping, and also as linguists.

Our methods for creating the map were somewhat crude. We were unable to obtain access to GIS databases for the region, and even if we had been able to, we were not confident that we had sufficiently abundant and detailed data to undertake our mapping exercise using GIS. We therefore used Adobe Photoshop to create the map. We relied on a base map we had created for an earlier article (Roche and Suzuki 2017) that consisted of all the Tibetan-inhabited counties of China. This map, in turn, was based on a map of all Chinese counties, available on Wikipedia under a Creative Commons Attribution Share Alike 3.0 Unported License.

We then created two separate layers for each language we included on the map. One layer was the base layer for that language. This was typically created by tracing a polygon on GoogleEarth, or by using screen captures from the Tibetan and Himalayan Library Interactive Map. As outlined above, we traced distribution polygons with reference to natural features such as rivers, mountain ridges, and valley edges, in accordance with our own knowledge of the languages and the region, and in consultation with a range of previously published maps. Using these base maps, we then traced the language distribution onto a transparent layer, and positioned it on the regional map in reference to county boundaries.

After creating and positioning layers in this way for all 48 languages, we delivered a PSD file to professional cartographer Chandra Jayasuriya, who created the final version of the map. We then placed a draft of the map online, at Academia.edu, and collected feedback from experts in the field regarding the distribution of languages which they had knowledge of, and modified the map accordingly. The final

6 www.sichuanzoulang.com
7 https://en.wikipedia.org/wiki/Counties_of_the_People%27s_Republic_of_China#/media/File:China_County-level.png
8 http://www.thlib.org/places/maps/interactive/
version of the map was produced in time for International Mother Language Day, the 21st of February 2017, when it was circulated via social media platforms: Twitter, Facebook, and WeChat.

5 Patterns of Diversity in the Eastern Tibetosphere

In viewing the map, it is immediately clear that the linguistic diversity is found primarily in the eastern part of the eastern Tibetosphere. For example, there seem to be no minority languages spoken in the western counties of Dkar mdzes (Ganzi) Prefecture: Ser shul (Shiqu), Sde dge (Dege), Dpal yul (Baiyu), 'Ba' thang (Batang), 'Dab pa (Daocheng), Sde rong (Deirong), or Phyag phreng (Xiangcheng) (though future research may still reveal minority languages in this area).

It is important that the ‘peripheral’ nature of this diversity not be taken metaphorically, as indicative of social or historical marginality. To do so would be equivalent to, for example, assuming that Beijing or New York are of marginal significance because of their locations on the periphery of China or the USA. Despite the obvious fallacy of conflating peripherality with marginality, there continues to be a tendency, both within Sinology and Tibetology, to treat this region as purely a bi-product of two dynamic centres of political power and cultural prestige: Tibet and China (Roche 2016). The linguistic diversity of the region suggests that this area needs to be understood in terms that, while taking into account broader regional contexts, are local rooted. What political conditions prevailed that enabled this diversity to emerge and be maintained? What language ideologies and practices were employed by local populations and how did they differ from areas where linguistic diversity was significantly lower?

Furthermore, any attempt to understand this region on its own terms must also take into account the substantial diversity that existed within the eastern Tibetosphere. We might start by recognizing that the region can be roughly divided into three sub-regions from north to south: a northern, central, and southern region. Each of these regions has been subject to different historical experiences, has different demographic profiles, and is subject to different regimes of ethnic identification and language management.

The northern region falls firmly within the Tibetan cultural region of Amdo, within the area known by linguists as the Amdo Sprachbund or language area (Rona-Tas 1966; Dede 2003; Slater 2003; Janhunen et al. 2007; Sandman 2012; Dwyer 2013; Simon 2015; Sandman and Simon 2016). The minority languages of this region are all long-term immigrant languages. They arrived on the northern Tibetan Plateau between the 13th and 17th centuries, are all Turkic or Mongolic, and arrived from the north, east, and west. Most of the speakers of these languages do not identify as Tibetans (the exception being the speakers of Manegacha and Ngandehua, and, perhaps, Henan Oirat); this is particularly the case of the Muslim populations. Despite their distinct identities, these populations have interacted intensively with Amdo Tibetans, leading to many shared linguistic and cultural features among the populations of the region. However, the contemporary regime of ethnic politics is now leading to divergence amongst these populations, both linguistically and culturally. The previous role of Amdo Tibetan as a lingua franca, and as a model language within the sprachbund, is now being replaced by Putonghua (Modern Standard Chinese).

The central area encompasses southern Rnga ba (Aba) and northern Dkar mdzes. It includes the Tibetan populations who speak a variety of Rgyalrongic languages, as well as the Rmaic speaking Qiang peoples in the east of this region and the Baima-speaking Tibetans of the same area (languages 10-19). It also includes portions of northern Dkar mdzes, and speakers of Rta’u, Geshtsa, Daohua, nDrapa, Choyu, Nyagrong Minyag, Lhagang Choyu, Gochang, and Darnmo Minyag (languages 20-28). Within this region, all the minority languages (with exception of Daohua) are indigenous, in the sense that they likely predate the arrival of Tibetan-speakers in the region. Nonetheless, unlike in the Amdo Sprachbund, speakers of most minority languages profess a Tibetan identity. And also unlike the Amdo Sprachbund, there appears to have been no single dominant language in the region. This is likely due to the fact that the region was at the interface of the larger Amdo and Kham regions, but also because it was home to such extensive linguistic diversity (18 languages). Nonetheless, literary Tibetan was a prestige language used in the oral tradition of all populations. We provisionally refer to this area as the Rgyalrong-Minyag region.
Except for the northern parts of Yunnan, the southern area has never been politically or demographically dominated by Tibetans. Instead, the majority populations in this area are Yi/ Nosu in the east, and Naxi in the west. Most linguistic minorities in this area were likely to have venerated Tibetan texts as objects, but had oral traditions that were not based on literary Tibetan. As with the central area just described, there appears to have been no single dominant language in this area, although Nosu prevailed in the east, and (various forms of) Naxi in the west. The contours of identity appear more complex here than in the Amdo Sprachbund and Rgyalrong-Minyag area. Whilst the first has a dominant Tibetan identity acting as a matrix for smaller minorities, and the second a dominant trans-language Tibetan identity, Tibetan identity here competes with other dominant ethnic groups – Nosu and Naxi – resulting in a complex mosaic of ascribed and professed identities. We provisionally refer to this region as the Nosu-Naxi region.

What this preliminary analysis of the spatial distribution of Tibet’s minority languages suggests, is that although these languages share common features – they are typically not used in government-sponsored institutions, are not recognized officially or socially as ‘real’ languages, they exist as demographic minorities – there are also significant historical, social, and historical differences between the sub-regional areas. These differences must be taken into consideration if we want to understand the unique predicaments faced by each language, and the conditions leading to the widespread endangerment and shift taking place across the region. So, although thinking about Tibet’s minority languages as a group is helpful and draws our attention to certain salient features, it also covers up regional differences that also play significant roles.

6 Conclusion: Directions for Future Research

This map should be regarded as a provisional representation of the diversity of minority languages of the eastern Tibetosphere. It is one possible representation of a range of specific linguistic hypotheses, designed to demonstrate the extent and fragility of the region’s linguistic diversity, in ways that deliberately counter dominant representations of the region as monolingual. It does not, on the one hand, tell us anything about the views of speakers of these documented varieties regarding how they interpret the relationship between their practices of speaking and their ascribed and professed identities. Furthermore, it does not tell us about the relationships between these spoken varieties, linguistically or socially.

We nonetheless hope that this article helps advance an emerging conversation about the fate of linguistic diversity in Tibet beyond a simple discussion of the survival of a single ‘Tibetan’ language in the context of an intrusive and equally monolithic ‘Chinese’ language. In particular, we hope it draws attention to the ways in which this binary view of Tibet’s language ecology may have submerged the perspectives and voices of the most vulnerable populations in the region, i.e., those whose linguistic interests are not represented by either the Chinese state or the Tibetan nation. What do these populations want and hope for? What do they expect from the state and from the broader Tibetan community and its supporters? How are these expectations and hopes structured by current political and economic conditions?

Beyond raising these questions, we also wish to propose further avenues for research on these languages.

The first avenue for research would be to further explore the sub-regional breakdown proposed in this article. In addition to the features described above for the sub-regions, what other features might minority languages share in terms of a common sociolinguistic context? To what extent do the different sub-regional profiles correspond to differing patterns of endangerment and shift? What further nuancing of the sub-regions might be possible – for example, dividing the southern sub-region into a western and eastern sub-region, dominated by Nosu and Naxi respectively.

Furthermore, having a map showing the complexity and fragility of linguistic diversity in the region raises for the first time the possibility of exploring the relationship between linguistic diversity and environmental correlates. These might include, for example, biodiversity, topography, or climate, all of which have been demonstrated to bear on ethno-linguistic diversity. Another potential avenue for research that this map raises is to look at the relationship between pre-modern political units, such as
principalities and other minor domains, and linguistic diversity, an avenue of research already explored by Gates (2012) and Roche (2016). Understanding the ways in which linguistic diversity correlated with environmental and political factors in the past might provide useful insights that will aid in maintaining these languages into the future.

Following our present study, the linguistic diversity in the eastern Tibetosphere is more complicated than what the Studies in Asian Geolinguistics Project reflects. The density of plots of the Tibeto-Burman group is one of the highest language groups in the project; however, the present project does not cover all the Tibeto-Burman languages that we give in the map. Geolinguistics highly respects human geographical features to analyse a historical development of languages. In order to produce better interpretations of language change in the eastern Tibetosphere, it is indispensable to take a precise situation of the linguistic diversity in this region into consideration, by focusing on linguistic minorities.
Appendix 1: Map

Minority Languages of the Eastern Tibetosphere

Cartography: Chandra Jayasuriya. Language data: Gerald Roche and Hiroyuki Suzuki.
## Appendix 2: Sources

<table>
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<tr>
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<th>Map Source</th>
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</tr>
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<td>27</td>
<td>SCZL</td>
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<td>28</td>
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<td>Katia Chirkova (p.c.); SCZL</td>
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<td>39</td>
<td>Michaud et al. 2017</td>
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*p.c. = personal communication; f.w. = fieldwork*
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Appendix 3: Minority Languages of the Eastern Tibetosphere Classified According to Speaker Status and Sociolinguistic Status of Language

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<td></td>
<td>Rta’u</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shimian Minyag</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Shuhing</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Situ</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Southern Rgyalrong</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Stodsde</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>Tshobdun</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zbu</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Acknowledgements

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Historical Development of Bodgrong [Bingzhongluo] Tibetan (Gongshan, Yunnan): From a Geolinguistic Perspective

Hiroyuki Suzuki

IKOS, University of Oslo / National Museum of Ethnology

Abstract

There are Tibetans and Nu Nationality people living together in Bingzhongluo and Bangdang townships in the north of Gongshan County, Nujiang Prefecture, Yunnan Province. Several of them are speakers of Khams Tibetan, divided into two dialects called Bodgrong and Dimalo. This article primarily discusses linguistic characteristics and historical development of the Bodgrong dialect (vernacular of Rithang Hamlet). According to oral histories transmitted by Tibetan-speakers of Bingzhongluo, their ancestors came from Deqin County, the neighbouring county, especially from two villages Yongzhi (gYanggril) of Yunling Township and Cizhong (Tshodrug) of Yanmen Township. A comparative analysis among Bodgrong, gYanggril, and Tshodrug reveals that the Bodgrong dialect is closer to the Tshodrug dialect even though there have already been not a few differences.

1 Introduction

This article will discuss a development of Bodgrong Tibetan spoken in Bingzhongluo [Bod-grong] Township, Gongshan Trung and Nu Autonomous County, Nujiang [rGyal-mo rNgul-chu] Lisu Autonomous Prefecture, Yunnan Province, based on the oral story of the speakers’ migration history, using other dialectal materials of the dialects spoken in Diqing [bDe-chen] Prefecture. Bodgrong Tibetan may have several vernaculars, of which I deal with the vernacular of Rithang [Ri-thang].

Fig.1: Bingzhongluo Village (2013)
Bodgrong Tibetan is spoken by Tibetans and Nu-nationality people living in the central area of Bingzhongluo Township, Gongshan County, Nuijiang Prefecture, Yunnan Province. Bingzhongluo Township contacts Cawalong Township of Tibet Autonomous Region and Yunling County and Yanmen villages of Deqin County, Diqing Prefecture, both of which belong to the Tibetan cultural area. In Nuijiang, Tibetan dialects merely distribute in Bingzhongluo and Bangdang townships, and they are a minority language in this area, where Lisu, Nung (a.k.a. Anu, regarded as a dialect of Dulong; see Qin & Suzuki 2016), and Chinese are spoken. There is to some extent dialectal divergence inside of the two townships, and there are at least three varieties: Bodgrong (Bingzhongluo [Bod-grong]; ‘luo’ is a Lisu word which designates ‘place’), Chunagthang (Qiunatong [Chu-nag-thang] and Dimalo (Dimalu [迪麻洛]).

It is said that the Tibetans living in Nuijiang are people who migrated from Yanggril (Yongzhi [Glang-sgril] 永支, Yunling) and Tshodrug (Cizhong [Tsho-drug] 茨中, Yanmen) villages in the present Deqin County before several generations, around 200 years ago. On the other hand, no specific relationship between Bodgrong and Tshawarong (Cawalong [Tsha-ba-rong]) has not been attested.

According to Suzuki (2013, 2014a), the dialectal position of Bodgong Tibetan is an independent subgroup of the sDerong-nJol group of Khams Tibetan. The dialects of the sDerong-nJol group spoken in Yunnan are classified into five subgroups: West Yunling Mountain, mBalhag, sPomtserag, gYagrwa, and Bodgrong. Of the dialects spoken in the area mentioned above, almost all dialects belong to the West Yunling Mountain group. The Tshawarong dialect is, however, of another dialectal group, which is still unclear and temporarily classified into the rDzayul dialect group including the sGola (Gula [sGo-la] 古拉) dialect spoken to the north of Tshawarong.

The dialects belonging to the West Yunling Mountain subgroup possess various characteristics on the sound development; hence they do not seem to be able to form ‘one’ group (Suzuki forthcoming-b). The difference within this group is to be discussed in Section 3. Additionally, other dialects spoken in Gongshan County, Chunagthang and Dimalo, also belong to West Yunling Mountain subgroup. Their ancestors, same as the speakers of Bodgrong Tibetan, came from Yunling and Yanmen villages, Deqin County, Diqing Prefecture; however, all of them have already to some extent differed from each other.
This article consists of two parts: a brief phonological description of Bodgrong Tibetan, and a discussion on its historical development. Firstly, an overview of the phonological system of Bodgrong Tibetan and a brief description of sound correspondences with Written Tibetan (henceforth WrT), which is regarded as a historical development pattern of its phonological status, are presented. This is the basic material of Bodgrong Tibetan. Secondly, two kinds of comparison with the cases of the gYanggril and Tshedrug dialects are provided. The one is regarding sound correspondences with WrT, and the other is regarding dialectal lexical forms. The discussion includes linguistic maps, which display differences attested within the dialects spoken along the Lancangjiang River (the West Yunling Mountain subgroup). These maps clarify typological differences of the gYanggril and Tshedrug dialects.

The data used to create the linguistics maps within the article (Figures 4 - 10) only includes first-hand materials collected by the author. The linguistic maps reflect so-called ‘regiolects’, i.e. dialects with regional differences. Sociolects, which certainly exist in the given area, are not dealt with in this article. All the maps were designed with ArcGIS online except for Figures 2 and 3, which were produced by another online geocoding method provided in http://ktgis.net/gcode/lonlatmapping.html.

2 Bodgrong Tibetan: phonology and basic sound correspondence with WrT

2.1 Phonological system

The phonological inventory of Bodgrong Tibetan (vernacular of Rithang) is as follows:

<table>
<thead>
<tr>
<th>Table 1: Consonantism</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
</tr>
<tr>
<td>plosive</td>
</tr>
<tr>
<td>non-aspirated</td>
</tr>
<tr>
<td>voiced</td>
</tr>
<tr>
<td>affricate</td>
</tr>
<tr>
<td>non-aspirated</td>
</tr>
<tr>
<td>voiced</td>
</tr>
<tr>
<td>fricative</td>
</tr>
<tr>
<td>non-aspirated</td>
</tr>
<tr>
<td>voiced</td>
</tr>
<tr>
<td>nasal</td>
</tr>
<tr>
<td>voiceless</td>
</tr>
<tr>
<td>liquid</td>
</tr>
<tr>
<td>voiceless</td>
</tr>
<tr>
<td>semi-vowel</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>


Table 2: Vocalism

<table>
<thead>
<tr>
<th>i</th>
<th>ù</th>
<th>ùu</th>
</tr>
</thead>
<tbody>
<tr>
<td>e</td>
<td>ç</td>
<td>o</td>
</tr>
<tr>
<td>ç</td>
<td>ç</td>
<td></td>
</tr>
<tr>
<td>a</td>
<td>o</td>
<td></td>
</tr>
</tbody>
</table>

Tones

A four-way distinction in word tone. The following phonemic signs will be used at the beginning of a word:

- high level \([55/44]\)
- rising \([24/35]\)
- falling \([31/32]\)
- rising-falling \([12]\)

For details of the sound structure of Bodgrong Tibetan, see Suzuki (2014b).
2.2 Sound correspondence with WrT
For the sake of simplicity and explicitness, I just display several peculiar sound correspondences of Bodgrong Tibetan with WrT as follows:

2.2.1 WrT voiced obstruents
The sound correspondence of Bodgrong Tibetan with WrT voiced obstruent simplexes is voiceless non-aspirated simplex in low-tone (rising or rising-falling), as:

`\( /\text{'pa}/ \) ‘cow’ \( /\text{ba} /\)`
`\( /\text{t\ddot{a}}/ \) ‘bear’ \( /\text{dom} /\)`
`\( /\text{'c\ddot{u}}/ \) ‘field’ \( /\text{zhing} /\)`
`\( /\text{si}/ \) ‘dew’ \( /\text{zil ba} /\)`

When any of the initials of this category appears on the second syllable, it will be voiced, as:

`\( /\text{'c\text{\textasciicircum}a}/ \) ‘tea’ \( /\text{ja} /\)`
`\( /\text{m\text{\textasciicircum}e}/ \) ‘butter tea’ \( /\text{mar ja} /\)`
`\( /\text{'s\text{\textasciicircum}e}/ \) ‘meal’ \( /\text{zan} /\)`
`\( /\text{\text{\textasciicircum}c\text{\textasciicircum}o}/ \) ‘breakfast’ \( /\text{zhogs zan} /\)`

When WrT voiced obstruents have a glide, they correspond to voiceless non-aspirated simplex in low-tone as well:

`\( /\text{\text{\textasciicircum}c}/ \) ‘chicken’ \( /\text{bya} /\)`
`\( /\text{\text{\textasciicircum}t\text{\textasciicircum}a}/ \) ‘cliff’ \( /\text{bra} /\)`
`\( /\text{\text{\textasciicircum}c}\text{\textasciicircum}s}/ \) ‘wall’ \( /\text{gyang} /\)`
`\( /\text{\text{\textasciicircum}t\text{\textasciicircum}\text{\textasciicircum}e}/ \) ‘think’ \( /\text{dran} /\)`

There are some exceptional examples; however, they are common to the dialects of the sDerong-nJol group:

`\( /\text{\text{\textasciicircum}ts}\text{\textasciicircum}a}/ \) ‘dog’ \( /\text{khyi} /\)` (a denti-alveolar affricate appears)
`\( /\text{\text{\textasciicircum}t\text{\textasciicircum}a}/ \) ‘six’ \( /\text{drug} /\)` (a falling pitch appears)

2.2.2 WrT including a glide, y, r, or c/ch/j/sh/zh
These series are systematically analysed, for it is more comprehensive to understand the merger and divergence of their sound correspondence. The summary of the sound correspondence is as follows:

Table 3: Principal sound correspondence of Bodgrong Tibetan with WrT

<table>
<thead>
<tr>
<th>WrT</th>
<th>Basic corresponding sound (articulation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>c/ch/j</td>
<td>palatal affricates</td>
</tr>
<tr>
<td>Ky-series</td>
<td>prepalatal affricates</td>
</tr>
<tr>
<td>Py-series, sh/zh</td>
<td>prepalatal fricatives</td>
</tr>
<tr>
<td>r-glide included</td>
<td>retroflex plosives</td>
</tr>
</tbody>
</table>

Examples of c/ch/j

`\( /\text{\text{\textasciicircum}}c\text{\textasciicircum}h\text{\textasciicircum}u}/ \) ‘water’ \( /\text{chu} /\)`
`\( /\text{\text{\textasciicircum}}c\text{\textasciicircum}c\text{\textasciicircum}u}/ \) ‘ten’ \( /\text{bcu} /\)`
`\( /\text{\text{\textasciicircum}}j\text{\textasciicircum}j\text{\textasciicircum}o}/ \) ‘world’ \( /\text{jig rten} /\)`

Examples of Ky-series

`\( /\text{\text{\textasciicircum}}d\text{\textasciicircum}z\text{\textasciicircum}a}/ \) ‘hundred’ \( /\text{brgya} /\)`
Examples of Py-series
/‘ca/ ‘chicken’ bya
/‘vəx/ ‘rich’ phyug po
/hv5 kʰa/ ‘wolf’ spyang kha

Examples of sh/zh-series
/cʰa/ ‘meat’ sha
/‘zə/ ‘four’ bzhi
/‘co: le/ ‘morning’ zhogs legs

Examples of r-glide ( Kr-, Pr-, and dr-series)
/tʃ pʰw/ ‘knife’ gri
/tʃal/ ‘hair’ skra
/tʃu/ ‘go’ gro
/tʃ/ ‘write’ bri
/tʃi/ ‘snake’ sbrul
/tʃi/ ‘cloud’ sprin
/xədʒ/ ‘evil’ sngags ’dre
/tʃ/ ‘ask’ dri

Other than them, WrT sr corresponds to an aspirated fricative /ʃ/ as follows:
/sʰa/ ‘life’ srog
/sʰow/ ‘thin’ srgb
/sʰa ‘to/ ‘solid’sra

2.2.3 WrT l and y
These series are systematically analysed, for it is more comprehensive to understand the merger and divergence of their sound correspondence. The summary of the sound correspondence is as follows:

Examples of l
/lu/ ‘road’ lam
/lʰi/ ‘bull’ glang
/lʰa ge/ ‘moon’ zla dkar

Examples of y
/ji/ ‘rabbit year’ yos
/jel/ ‘have’ yod
/ja/ ‘yak’ g.yag

2.2.4 WrT w-glide included
The WrT w-glide does not have a corresponding sound in dialect forms, as follows:
2.2.5 List of sound correspondence with WrT rhymes
The summary list of the sound correspondence with WrT rhyme is as follows:

<table>
<thead>
<tr>
<th>#/-'</th>
<th>b</th>
<th>d</th>
<th>g</th>
<th>m</th>
<th>n</th>
<th>ng</th>
<th>r</th>
<th>l</th>
<th>s</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>a</td>
<td>ow?</td>
<td>ow?</td>
<td>e?</td>
<td>a?</td>
<td>â</td>
<td>~/ê</td>
<td>ɔ</td>
<td>e:</td>
</tr>
<tr>
<td>i</td>
<td>ɔ</td>
<td>i?</td>
<td>i?</td>
<td>i?</td>
<td>ê</td>
<td>ê</td>
<td>i?</td>
<td>i?</td>
<td>i:</td>
</tr>
<tr>
<td>u</td>
<td>u/u</td>
<td>ü?</td>
<td>i?</td>
<td>u?</td>
<td>ü</td>
<td>~</td>
<td>~</td>
<td>ɔ:</td>
<td>i:</td>
</tr>
<tr>
<td>e</td>
<td>i/e</td>
<td>ej?</td>
<td>ow?</td>
<td>e?</td>
<td>i?</td>
<td>~</td>
<td>ê</td>
<td>ê</td>
<td>e:</td>
</tr>
<tr>
<td>o</td>
<td>u</td>
<td>e?</td>
<td>o?</td>
<td>ɔ</td>
<td>~</td>
<td>~/û</td>
<td>u/u</td>
<td>e:</td>
<td>i:</td>
</tr>
</tbody>
</table>

From a typological viewpoint of Khams Tibetan, sound correspondences of WrT -u in open syllable, -or, -os, etc. are noteworthy, for example:

/ʰbczę/ ‘ten’ bcu
/ʰg魑/ ‘round’ sgor sgor
/ʰgi/ ‘need’ dgos

3 Comparison of Bodgrong with gYanggril and Tshodrug dialects of Khams
Based on the description of 2.2, I will discuss the similarity and difference between Bodgong and other two dialects spoken in bDechen County: gYanggril and Tshodrug. Sound correspondences with WrT and lexical forms are compared.

3.1 Overview of the dialects of the West Yunling Mountain subgroup: a geolinguistic description
I am responsible for making a dialectal classification provided in Suzuki (2013); however, the subgroup named West Yunling Mountain (WYM) includes so various dialects that it seems that a more detailed classification is possible. Indeed, this group can be divided into two major groups with one continuum-like transitional group, which can be displayed in Figure 6, drawn based on two following criteria provided in Figures 4 and 5, i.e., X: sound correspondence of WrT lag-pa ‘hand’, and Y: pronunciation of the word ‘go’ (WrT gro). This analysis is also provided in Suzuki (2016/7).
Fig. 4: WrT l as in lag ‘hand’ (=X)
   A  /j/      A  /˅/
   B  /l/      B  /غg/

Fig. 5: Word ‘go’ (WrT ‘gro’) (=Y)
   A  /d/      A  /g/
There are several descriptive studies on these dialects, for example, Suzuki (2008, 2011, 2012), Suzuki & rTa-mgrin Chos-mtsho (2012), Chos-mo (2013), Ikeda & Pad-ma mTsho-mo (2014), etc. In the 1950s, the China’s survey on the ethnic minority languages has recorded a variety belonging to the West Yunling Mountain subgroup according to Zhang (1996). A part of the description of Les Missionnaires Cathoriques du Thibet (1899) and Giraudeau & Goré (1956) includes data of this subgroup. However, the dialectal varieties are so complex as in Figure 4; previous works are insufficient to provide comprehensive understandings on the WYM group.

The two dialects to be compared with Bodgrong Tibetan, gYanggril, and Tshodrug, belong to 1. and 3. respectively, in the next subsection.

### 3.2 Comparison

Based on the description provided in 2.2, the three dialects Bodgrong, gYanggril, and Tshodrug are compared from the viewpoint of sound correspondences with WrT in Table 5, and of dialectal lexical forms in Table 6.
Table 5: Dialectal comparison regarding the sound correspondence with WrT

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 ba ‘cow’</td>
<td>/pa/</td>
<td>/pa/</td>
<td>/pa/</td>
<td>quasi-common to Y/T</td>
</tr>
<tr>
<td>2 bya ‘chicken’</td>
<td>/ca/</td>
<td>/sa/</td>
<td>/ca/</td>
<td>common to T</td>
</tr>
<tr>
<td>3 ja ‘tea’</td>
<td>/tsa/</td>
<td>/tsa/</td>
<td>/tsa/</td>
<td>different from Y/T</td>
</tr>
<tr>
<td>4 zan ‘meal’</td>
<td>/sē/</td>
<td>/sē/</td>
<td>/sē/</td>
<td>common to Y/T</td>
</tr>
<tr>
<td>5 brgyad ‘eight’</td>
<td>/dzl/</td>
<td>/dzl/</td>
<td>/dzl/</td>
<td>similar to Y/T</td>
</tr>
<tr>
<td>6 hzh ‘four’</td>
<td>/za/</td>
<td>/za/</td>
<td>/za/</td>
<td>different from Y/T</td>
</tr>
<tr>
<td>7 skra ‘hair’</td>
<td>/tʃa/</td>
<td>/tʃa/</td>
<td>/tʃa/</td>
<td>similar to Y</td>
</tr>
<tr>
<td>8 bri ‘write’</td>
<td>/tʃ/</td>
<td>/tʃ/</td>
<td>/tʃ/</td>
<td>common to Y/T</td>
</tr>
<tr>
<td>9 srog ‘life’</td>
<td>/ʃu/</td>
<td>/ʃu/</td>
<td>/ʃu/</td>
<td>different from Y/T</td>
</tr>
<tr>
<td>10 lam ‘road’</td>
<td>/lā/</td>
<td>/lā/</td>
<td>/lā/</td>
<td>common to T</td>
</tr>
<tr>
<td>11 zla dkar ‘moon’</td>
<td>/la ge/</td>
<td>/la ge/</td>
<td>/la ge/</td>
<td>similar to T</td>
</tr>
<tr>
<td>12 yod ‘have’</td>
<td>/je/</td>
<td>/je/</td>
<td>/je/</td>
<td>similar to T</td>
</tr>
<tr>
<td>13 g.yag ‘yak’</td>
<td>/ja/</td>
<td>/ja/</td>
<td>/ja/</td>
<td>common to T</td>
</tr>
<tr>
<td>14 zhwa ‘hat’</td>
<td>/za mo/</td>
<td>/ṣa wa/</td>
<td>/ṣa wa/</td>
<td>different from Y/T</td>
</tr>
</tbody>
</table>

Table 6: Dialectal comparison on dialectal lexical forms

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>15 ja ‘rainbow’</td>
<td>/bza/</td>
<td>/bza/</td>
<td>/bza /bʒ/</td>
<td>similar to Y/T</td>
</tr>
<tr>
<td>16 a myes ‘grandfather’</td>
<td>/la k/5/</td>
<td>/la mi/</td>
<td>/la mi/</td>
<td>totally different</td>
</tr>
<tr>
<td>17 phag phrug ‘piglet’</td>
<td>/pʰa la/</td>
<td>/pʰa la/</td>
<td>/pʰa lje/</td>
<td>similar to T</td>
</tr>
<tr>
<td>18 bya de ‘cock’</td>
<td>/da bgu/</td>
<td>/ko te/</td>
<td>/ko te/</td>
<td>totally different</td>
</tr>
<tr>
<td>19 byi la ‘cat’</td>
<td>/na me/</td>
<td>/li la/</td>
<td>/na me/</td>
<td>identical to T</td>
</tr>
<tr>
<td>20 nas ‘qingke barley’</td>
<td>/ko ra/</td>
<td>/ko ra/</td>
<td>/ko ra/</td>
<td>similar to Y/T</td>
</tr>
<tr>
<td>21 rtswa ‘grass’</td>
<td>/po za/</td>
<td>/bṣa wa/</td>
<td>/btsa wa/</td>
<td>totally different</td>
</tr>
<tr>
<td>22 gnys ‘two’</td>
<td>/ni/</td>
<td>/ma/</td>
<td>/ni/</td>
<td>similar to T</td>
</tr>
</tbody>
</table>

I will make an interpretation of the data of Tables 5 and 6.
Table 5 shows that:
(A) Bodgrong Tibetan is completely different from gYanggril Tibetan on the sound correspondence of WrT l and y (10, 11, 12, 13);
(B) there are no examples which merely correspond to those of gYanggril;
(C) on the contrary, there are several examples which merely correspond to those of Tshodrug (2, 10, 11, 12, 13); and
(D) some examples do not correspond to both of two (3, 6, 9, 14).

The results (A, B, C) imply that Bodgrong Tibetan is typologically close to Tshodrug Tibetan. Regarding the result (D), more investigations are needed.
Table 6 shows a more complex situation than Table 5: there are a number of dialectal words which do not clearly correspond to WrT; however, the difference among the dialects belonging to the WYM group of the sDerong-nJol group is small. We can find some examples which have different word forms in gYanggril and Tshodrug such as (18, 19, 20), but the word forms in Bodgrong correspond either to those of gYanggril (20) or those of Tshodrug (19), or do not correspond to both (18, 22). Such examples as (16, 21) must be loanwords obtained in the Nuijiang region. However, the existence of the word forms...
such as (15, 17) as well as (19, 20) implies that Bodgrong Tibetan is related to dialects of the WYM subgroup.

To summarise the discussion, Bodgrong Tibetan is close to dialects of the WYM subgroup. However, as shown in Figure 6, the “WYM subgroup” originally has various types of dialects. We should evaluate how Bodgrong shares word forms in phonetic and morphological aspects with various dialects spoken along the Lancangjiang River.

3.3 Geolinguistic analysis
Among the words in Table 6, I will display linguistic maps regarding ‘piglet’, ‘cat’, ‘highland barley’, and ‘two’ as Figures 7 to 10 below. These are also discussed in Suzuki (forthcoming-b); however, the present version includes more data. Figure 7 displays a vowel variation of the second syllable of the word for ‘piglet’ (see also Suzuki 2012a). Figure 8 presents the first initial of the word for ‘cat’ (see also Suzuki 2014b, Qin & Suzuki 2016). Figure 9 deals with the difference of the word form for ‘highland barley’. Figure 10 notes a difference of the initial of the word form for ‘two’ (see also Suzuki 2009a, 2014d).

![Fig. 7: Word ‘piglet’](image1)

A /u - a/ (2nd syl.)
B /a/ (2nd syl.)
C /i/ (2nd syl.)
D /e/ (2nd syl.)

![Fig. 8: Word ‘cat’](image2)

A lateral initial
B nasal initial

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These maps reflect a difficulty in dividing a group into gYanggril and Tshodrug with a bundle of isoglosses. More data might be helpful to find out a clearer classification with isoglosses.

3.4 Another view and remaining questions
We will see another source of data, 100 words of the Swadesh list (Swadesh 1971:283), to check the proportion of the lexical similarity. The data and interpretation themselves are provided in Suzuki (forthcoming-a); thus, I briefly recapitulate here simple statistic points as follows:

Of the 100 word forms of the List:
- 50 are common or quasi-common to the three dialects;
- 4 are only similar to gYanggril;
- 16 are only similar to Tshodrug;
- 25 in Bodgrong are independent of the other two; and
- 5 data non-available.

The data suggest that Bodgrong Tibetan is relatively different from the two dialects compared here; however, it shares more basic words with Tshodrug than gYanggril.

To sum up, we can conclude that Bodgrong Tibetan is relatively closer to Tshodrug Tibetan than gYanggril Tibetan based on two aspects: (1) it does not undergo the innovation regarding WrT l and y attested in gYanggril; and (2) it has more shared word forms shared only with Tshodrug Tibetan.

However, questions still remain. For instance, does this conclusion accurately reflect a historical development of Bodgrong? It is not guaranteed that the present phonological system of the two dialects Tshodrug and gYanggril is the same as what it was at the time of the beginning of the migration of the
ancestors of the Bodgrong-Tibetan speaker. A possibility is that gYanggril Tibetan has experienced a great sound development after their immigration. However, even though it has multiple peculiar features, it is not so peculiar as a dialect, because it shares multiple similar features with the dialects spoken from Yungling to nJol (quite equivalent to Yunling Village and Shengping Town of Deqin County). Therefore, it is difficult to say that only gYanggril Tibetan changed much.

Another possibility is that Tibetan immigrants from Deqin to Bingzhongluo selected the type of Tshodrug Tibetan as their communication language in spite of the variegation of languages when the ancestors came to the place. This hypothesis is also possible, but at present stage, it is still difficult to describe a concrete history of Bodgrong Tibetan. Using multiple linguistic maps as Figure 4 may advance discussions more in detail. A basic wordlist of Bodgrong Tibetan is published in Suzuki (2014c), which may be useful for a next investigation.

4 Conclusion

This article presented an overview of phonological characteristics of Bodgrong Tibetan, a Khams Tibetan dialect spoken in Nujiang Prefecture, Yunnan, and discussed its historical position through a dialect comparison with the gYanggril and Tshodrug dialects spoken along Lancangjiang River, which are regarded as those that have the strongest relation to Bodgrong Tibetan.

The result shows that Bodgrong Tibetan is more similar to Tshodrug Tibetan than gYanggril Tibetan. It may imply that the people from southern Yanmen area were dominant among the ancestors of speakers of Bodgrong Tibetan. The description of Bodgrong Tibetan is an indispensable step to understanding the dialectal development of Khams Tibetan spoken in Yunnan.

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Additional Remarks on Counting ‘One’ Noun in Lhagang Tibetan

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Abstract

This short essay describes how to express ‘one NOUN’ in the Lhagang dialect of Minyag Rabgang Khams. It presents the existence of various forms for ‘one,’ and a classifier-like syllable which denotes ‘single’ for an emphasis. This description clarifies that Lhagang Tibetan has no functional sortal classifiers, as in other Tibetic languages presented in ‘Means to count nouns in Tibeto-Burman’ in this volume.

1 Forms of ‘one’ in noun phrases in Lhagang Tibetan

Kurabe et al. (this volume) describe the use of classifiers when counting nouns in Tibeto-Burman languages, and mention that Tibetic languages do not have a grammatical system of classifiers. However, one can find that some specific Tibetic languages sometimes use classifier-like morphemes when counting nouns. It is a question whether they have a classifier system in their grammar or not. This article supplementarily describes a case of Lhagang Tibetan and claim the classifier-like morpheme attested in this language is not a classifier.

Lhagang Tibetan\textsuperscript{1} is a dialect of Minyag Rabgang Khams spoken in the easternmost area of the Tibetosphere, and it has a word /\textit{ʰtei}/ for ‘one’ as a cardinal numeral form. However, it has following forms for ‘one’ when it is combined with a noun. Let’s count, for instance, a pig:\textsuperscript{2}

\begin{enumerate}
\item[(1a)] pʰ\textit{ʰtei} \{\textit{ʰtei} / \textit{ʰtei}\}  
pig-INDEF  
‘a pig’
\item[(1b)] pʰ\textit{ʰtei} \textit{ʰtei}  
pig  
‘one pig’
\item[(1c)] pʰ\textit{ʰtei} \textit{ʰtei}  
pig  
‘one pig’
\item[(1d)] pʰ\textit{ʰtei} \textit{ʰtei}  
pig  
‘one single pig’
\end{enumerate}

In these sentences of (1), the sense of ‘one’ gradually gets strong from (1a) to (1d). The gloss INDEF is not equivalent to indefinite article as in English, but a simple marking of uncertainty. The article as a

\textsuperscript{1} The variety which we describe in the article is a language called Lhagang-B in Suzuki & Sonam Wangmo (2015) and its grammar sketch is provided in Suzuki & Sonam Wangmo (2016).

\textsuperscript{2} [Abbreviations for glossing] CONJ: conjunction; EXV: existential verb; INDEF: indefinite marker; LOC: locative; PFT.NSEN: perfect non-sensory.

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grammatical category does not simply express uncertainty. Hence, (1a) does not include a meaning of ‘one.’ Sentences (1b) and (1c) express an intention of counting the number of pigs in an utterance. Finally, (1d) is an example which needs a detailed explanation of the construction. A simple description of the word /ʰdʰʰ tʰiːʔ/ is that the form is inseparable, which means ‘single’; the part /ʰdʰ/ is not a kind of sortal classifiers, which are absent or appear in an extremely marginal way (cf. Tournadre 2014, Hoshi 2016:65). Additionally, /ʰdʰ tʰiːʔ/ does not function as a numeral, and it is not used when one counts the number of objects (pigs in the context of Example 1). If one counts pigs, for example, when looking at Figure 1 in which we can find two pigs, one cannot use the form /ʰdʰ tʰiːʔ/, but simply uses /ʰtʰiːʔ/. The disyllabic form cannot replace /ʰtʰiːʔ/ when one lists numbers as “one, two.”

Fig. 1: Morning scenery of the main street of Lhagang Village (2016)

2 Describing the word for ‘single’

The word /ʰdʰ tʰiːʔ/ ‘single’ is a fixed expression. Even though the second syllable seems to be equivalent to the form for a cardinal number ‘one’ /ʰtʰiːʔ/, one cannot divide or analyse the form /ʰdʰ tʰiːʔ/ to derive other words. Thus, Lhagang Tibetan does not allow us to derive other forms, e.g., */ʰdʰ tʰiːŋ/ (intended meaning: ‘two, dual’). The first syllable is of an unclear origin; however, this disyllabic word is widely used to describe ‘one.’

As presented in the sentence (1d), the position of /ʰdʰ tʰiːʔ/ in a noun phrase is just after the head noun, which is the same as ordinary adjectives. Since this word is counted as a quantifier, it cannot co-occur with other numerals.

3 See Sekiguchi (1960-62) for article of European languages, especially that of German.
4 Cf. Example (6).
Each English translation uses ‘single’; however, this is a too emphasised form as an English expression, and ‘one’ is sufficient as a translation in many cases. It is easy to understand that (3d) is unacceptable; however, we should note that (3e) is also unacceptable due to the concept of the word /'teh5 ts5/ ‘family’, which is not considered as a countable object. Nevertheless, the nature of unacceptability of (3d) and (3e) is different: the head noun ‘water’ of (3d) cannot occur with a simple /'htɕiʔ/ as in (1b) and (1c), whereas the head noun ‘family’ of (3e) can do. Let’s cite an opening sentence of a narrative story:

(4)  `ni ma 'na-la 'dz:a: po 'teh5 ts5 'h-tei? ^jo2-k^c:
old time-LOC king family one EXV-PFT.NSEN
‘Once upon a time, there was a king’s family.’ (from Prince’s wife become a lark)

In the case of (4), ‘family’ is a countable noun followed by a numeral. However, this numeral ‘one’ cannot alter with /'htɕiʔ/.

When one uses a classifier-like morpheme, /'htɕiʔ/ cannot appear, as in:

(5a)  `xaj ^do? 'h-tei?
shoe single
‘one single shoe’
Example (5c) suggests that the element /\doo?\tei\?/ is a kind of classifier, the expression /\doo?\tei\?/ in Lhagang Tibetan has been already fixed as it is. However, there is a way to describe more than one by using the syllable /\doo?/. We will cite an example from a narrative story:

(6)  \doo? \doo? \doo? ma \s\stu\k\un\n\e\o:
  clump  piece  three  bring-CONJ  come (imperative)

‘Come and bring three (pieces of) clumps!’ (from *Sheep and the wolf*)

Example (6) has a word /\doo? ma/ ‘piece,’ which functions as a measurement unit for an uncountable noun /\doo?\doo?/ ‘clump.’ \(^5\) Hence, this case is not an example with a sortal classifier. When one uses /\doo? ma/, any cardinal numerals can follow it in principle.

Based on the data presented above, we conclude that it is unnecessary to count /\doo?/ as a classifier in the grammar of Lhagang. There are measurement units which seem to behave as classifiers; however, a classifier as a grammatical category is not needed.

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5 The English word *clump* is a countable noun. Hence, we cannot exactly explain this phenomenon with an English translation.
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