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## Words for 'one' in Báimǎ\*

Katia CHIRKOVA

This article describes different words for 'one' in Báimǎ, a language spoken at the border of Sìchuān and Gānsù provinces in China. According to Sūn Hóngkǎi, the profusion of words for 'one' in Báimǎ is one of the features that distinguish Báimǎ from Tibetan. This paper discusses the distribution of various words for 'one' in a corpus of Báimǎ stories collected during a fieldwork in 2003, and comments on their meanings and functions, on restrictions of their co-occurrence, and on their interchangeability and etymology. Contrary to Sūn's conclusion, it is argued that all forms are cognate with Tibetan.

*Key words* : Báimǎ, numeral 'one', indefinite marker, Classical Tibetan, Tibetan dialects, etymology.

Cet article décrit des mots différents signifiant 'un' en báimǎ, langue parlée à la frontière du Sìchuān et Gānsù en Chine. D'après Sūn Hóngkǎi, la profusion des mots pour 'un' est l'une des caractéristiques qui distinguent le báimǎ des dialectes du tibétain. Cet article examine la distribution des mots pour 'un' dans un corpus de légendes báimǎ recueilli sur le terrain. Sont ici exposées les principales valeurs sémantiques ainsi que les emplois des mots pour 'un'. Sont aussi exprimées des remarques sur leur interchangeabilité et leur étymologie. Contrairement à la conclusion de Sūn, il est ici montré que tous ces mots sont apparentés au tibétain.

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*Mots-clés* : Báimǎ, chiffre 'un', article indéfini, tibétain classique, dialectes tibétains, étymologie.

#### 1. INTRODUCTION: PREVIOUS STUDIES ON BÁIMǎ

Báimǎ 白马 is a Tibeto-Burman language, spoken by approximately 10.000 residents of three counties in Sìchuān 四川 Province and one county in Gānsù 甘肅 Province in the People's Republic of China (PRC). The Báimǎ people (autonym [pe<sup>53</sup>], Dwags-po in Tibetan) reside in mountainous areas (900 to 4.800 m. above sea level) at the borders of four counties (Jiǔzhàigōu 九寨沟, Sōngpān 松潘 (Zung-chu) and Píngwǔ 平武 in Sìchuān and Wénxiàn 文县 in Gānsù) in the immediate proximity of Qiāng 羌 (to their south-west), Chinese (east and south) and Tibetan ethnic groups (west and north).

The status of the Báimǎ language as either a separate language or a dialect of Tibetan is currently under dispute, partly due to a controversy surrounding the ethnic classification of the Báimǎ people. The Báimǎ were classified as Tibetans in the course of the PRC's State Ethnic Classification Project in 1951. They questioned this conclusion on numerous occasions in the 1960s and 1970s. Pointing out that they are different from grassland Tibetans in lifestyle, religion and folklore, the Báimǎ have repeatedly demanded reclassification. This appeal was granted in the late 1970s, when a group of PRC researchers conducted two surveys in the Báimǎ areas. As a result of these surveys of 12 (1978) and 25 (1979) days, the research group published two collections of papers (Sìchuān Shěng Mínzú Yánjiūsuǒ 1980, Zēng et al. 1987), in which the majority of researchers argued that the Báimǎ were descendants of the ancient Dī 氐 tribe (probably related to the Qiāng), which set up influential kingdoms in the 3rd through the 6th centuries CE in the areas currently inhabited by the Báimǎ.<sup>1</sup> At the beginning of the

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<sup>1</sup> Dictionaries of Chinese usage (e.g. Yáo 2000: 123, 124) list the character 氐 with two readings, *dī* and *dī*. The former is the name of an ancient ethnic minority; the

Tibetan Yarlung dynasty (7th century), Dī territory was occupied by the Tibetans, with the exception of present-day Píngwǔ County, which is therefore believed to have preserved a relatively unmixed form of the language originally spoken by the Dī.

Despite the conclusion that the Báimǎ people constitute a distinct ethnic group rather than a branch of Tibetans, they were never officially reclassified. Reclassification of ethnic groups listed as Tibetans remains a sensitive issue in the PRC and is considered by many Tibetans as an attack by the Chinese government on the Tibetan identity (for a discussion see Upton 2000: 3-6). Overshadowed by such political argumentation, the Báimǎ language remains poorly documented and described.<sup>2</sup> The following scholars have conducted Báimǎ research.

Sūn Hóngkǎi participated in the aforementioned surveys of the Báimǎ areas in the late 1970s. He wrote a sketch of Báimǎ phonology and grammar (Nishida and Sūn 1990: 109-168, 209-275; Sūn 1980: 15-25) and collected over 3.000 common vocabulary items (Nishida and Sūn 1990: 321-372). Based on these, Sūn argues that although Báimǎ has features similar to Tibetan, the differences between Báimǎ and Tibetan far exceed those between the three main Tibetan dialects spoken in the PRC. Therefore, Báimǎ should be considered an independent language, distinct from Tibetan but nonetheless part of the Tibetan branch of the Tibeto-Burman language family (cf. Sūn's diagram for Tibeto-Burman in 1983: 100; see also Sūn 2003a, 2003b).

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latter means 'foundation'. In spoken language, however, the latter form appears to have taken over the former, so that the name of the ethnic minority is nowadays typically pronounced *dī*. For example, at conferences on minority languages in Mainland China 'Di and Qiang' (ancient nomadic tribes in the western regions of China) are consistently named Dī Qiāng. In this article, I follow the prescriptive usage and give the name of the ethnic minority as Dī.

<sup>2</sup> For an overview of Báimǎ studies, see Huáng and Zhāng (1995: 79-81) and Sūn (2003a: 65-66, 2003b: 62-64).

Working in collaboration with Sūn Hóngkǎi in the late 1980s, Nishida Tatsuo studied records of what is currently named the Báimǎ language in the *Xīfān yìyǔ* 西番译语 [Vocabularies of Western Barbarian languages], made by Chinese officials during the Qiánlóng reign 乾隆 (1736-1796) of the Qīng dynasty. The results of their collaborative efforts were published in 1990 under the title *Hakuba yakugo no kenkyū: Hakuba no kōzō to keitō* [A study of the Báimǎ-Chinese vocabulary 'Báimǎ yìyǔ': the structure and affiliation of the Báimǎ language]. Nishida agrees with Sūn that Báimǎ should be considered an independent language and he likewise places it in the Tibetan branch.

Āwāng Cuòchéng and Wáng Jiànmin made a survey of 15 days in Píngwǔ County in 1988 and subsequently published a fieldwork report in which they label Báimǎ a dialect of Tibetan. They base this conclusion mainly on a vocabulary of 1000 words, only 150 of which have been published.

Based on language data collected by Sūn Hóngkǎi (1990), Zhāng Jichuān (1994a, 1994b, 1997) wrote three articles on Báimǎ, outlining regular correspondences between the phonological systems of Báimǎ and Classical Tibetan. He suggests that Báimǎ is related to the Khams Tibetan dialect group.

After one month of recording Báimǎ in Píngwǔ County in 1995, Huáng Bùfán and Zhāng Míng huì published an article in which they also propose a set of sound correspondences between Classical Tibetan and Báimǎ. They thus support Zhāng Jichuān's hypothesis that Báimǎ should be classified within the Khams dialect group.<sup>3</sup>

Currently, a vast scholarly majority regards Báimǎ, in Jackson Sun's (2003: 788 n. 29) words, as "merely an aberrant Tibetan dialect", while Sūn Hóngkǎi still maintains that it should be seen as an independent language.

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<sup>3</sup> For a critique of Huáng Bùfán and Zhāng Míng huì's (1995) and Zhāng Jichuān's (1994, 1997) analyses, see Sūn Hóngkǎi (2003a: 73-74, 2003b: 77-79).

On the whole, Báimǎ lexicon looks predominantly Tibetan, with some unusual developments and an admixture of words of unknown origin. Estimations of the percentage of this admixture vary. It is believed to be as high as 72% (out of 2000 basic words) by Sūn (1990: 45) and as low as 13% (out of over 3000 lexical items) by Zhāng (1994a: 114, with the reservation that there is another 25% of bisyllabic words, some syllables of which cannot be traced back to Tibetan) or 13.2% by Huáng and Zhāng (1995: 116). To my knowledge, no careful investigation into possible cognate relationships of these words with languages historically or presently surrounding Báimǎ has so far been made. Báimǎ grammar likewise exhibits some features dissimilar to Tibetan dialects (for an overview, see Huáng and Zhāng 1995: 112-115).

The question of the position of Báimǎ within Tibetan remains at this moment unanswered and more research is required before any definitive conclusions regarding the genetic affiliation of Báimǎ can be made.<sup>4</sup>

This article is based on my fieldwork with Báimǎ in October-December 2003. It addresses one of many issues still awaiting scholarly attention, i.e. the question why Báimǎ has so many words for 'one', as posed by Sūn (1990, 2003a, 2003b).

## 2. SIX WORDS FOR 'ONE'

Sūn Hóngkǎi (Nishida and Sūn 1990: 216) notes that Báimǎ has several words denoting the meaning 'one'. Three words for 'one'

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<sup>4</sup> As shown by Jackson Sun (2003a, 2003b), many Tibetan dialects (such as Zhongu and Chos-rje) spoken in northern Sichuan, a borderland between Tibetan and Qiāng, display, similar to Báimǎ, idiosyncratic phonological innovations and esoteric vocabulary. The position of these dialects within Tibetan remains likewise to be ascertained.

are already attested in the *Yiyǔ*: [tʃɿ<sup>53</sup>] 'one', [tʃo<sup>13</sup>te<sup>35</sup>]<sup>5</sup> 'one' and [(dʒɑ)ħɔ<sup>35</sup>] 'one (pound)'.<sup>6</sup> While [tʃɿ<sup>53</sup>] and [(dʒɑ)ħɔ<sup>35</sup>] are translated in Chinese as *yī* 'one', [tʃo<sup>13</sup>te<sup>35</sup>] is rendered as a combination of the numeral 'one' followed by the measure word for horses and cloth: 一疋 *yì pǐ*. In addition to these three words, Sūn mentions three more words for 'one': [ko<sup>53</sup>], [ʃɿ<sup>13</sup>] and [ʒɿ<sup>53</sup>].<sup>7</sup> As Sūn points out (2003b: 68-69):

In Baima, there are many different words for the numeral 'one' which can combine with classifiers. The only one which is cognate with Tibetan is [tʃɿ<sup>53</sup>], while the others include [ʃɿ<sup>13</sup>], [ko<sup>53</sup>] and [tʃo<sup>13</sup>te<sup>35</sup>]. [...] Currently, it is not clearly understood why there are so many different words for 'one' in Baima, nor is it clear why only certain

<sup>5</sup> I transcribe this word as [tʃu<sup>13</sup>te<sup>35</sup>]. Hereafter I will use the form [tʃo<sup>13</sup>te<sup>35</sup>] when quoting Sūn and [tʃu<sup>13</sup>te<sup>35</sup>] when referring to my own transcriptions.

<sup>6</sup> Bǎimǎ has four tones: low rising [13], high rising [35], high falling [53], and rising-falling [341]. The original tone of a monosyllabic word is subject to change to the low rising tone, when followed by the high rising or the high falling tone. Function words (particles, prepositions, conjunctions, modal and auxiliary verbs, etc.) follow the same sandhi rule. For instance, the coordinate conjunction [ʒe<sup>53</sup>] 'and' changes its original tone to the low rising when followed by a word in a high rising or high falling tone, as in example (3).

<sup>7</sup> Sūn Hóngkǎi's transcriptions oppose palato-alveolars [ʃ ʒ] and alveolo-palatals [ç ʒ̥], which contrast has been argued by Hall (1997a, 1997b) to be unattested in natural languages. Sūn's opposition between palato-alveolars [ʃ ʒ] and alveolo-palatals [ç ʒ̥] is described in Huáng and Zhāng (1995) as that between retroflexes [ʂ ʒ̥] and alveolo-palatals [ç ʒ̥], which analysis is adopted for my own transcriptions. To facilitate the present exposition which makes use of both Zhāng Jichuān's (1994a, 1997, based on Sūn's transcriptions) and Huáng and Zhāng's (1995) systems of sound correspondences, I preserve original transcriptions in quotations and follow Huáng and Zhāng's analysis in my transcriptions. Thus, the words for 'one' (here without tone marks) [ʃɿ] and [ʒɿ] in Sūn Hóngkǎi's (1990, 2003a, 2003b) and Zhāng Jichuān (1994a, 1994b, 1997) correspond to Huáng and Zhāng's (1995) [ʂə] and [ʒə] respectively. I am grateful to the anonymous *CLAO* reviewer for pointing out the problem with the palato-alveolar and alveolo-palatal opposition.

classifiers may combine with [tʃɪ<sup>53</sup>], and why others can only be used with [ʃɪ<sup>13</sup>], [ko<sup>53</sup>] or [tʃo<sup>13</sup>te<sup>35</sup>]. Among these classifiers, some may combine with different forms of 'one', but this kind of interchangeability is not always possible.

Sūn elicited these different words for 'one' by translating combinations of the numeral 'one' followed by a classifier from Chinese to Báimǎ. The frequency of these words in Sūn's data varies considerably:

'One'	Frequency
tʃɪ <sup>53</sup>	13
ʃɪ <sup>13</sup>	12
tʃo <sup>13</sup> te <sup>35</sup>	23
ko <sup>53</sup>	26
ɦɔ <sup>35</sup>	2
ʒɪ <sup>53</sup>	7

Table 1 - Frequency of words for 'one' in Nishida and Sūn (1990: 357-359)

As appears from this table, [tʃɪ<sup>53</sup>] and [ʃɪ<sup>13</sup>], on the one hand, and [tʃo<sup>13</sup>te<sup>35</sup>] and [ko<sup>53</sup>], on the other, appear frequently and are distributed evenly, whereas [ɦɔ<sup>35</sup>] and [ʒɪ<sup>53</sup>] are less common. [ko<sup>53</sup>] is the most frequent item on the list.

Moreover, according to the list of numerals and classifiers in Nishida and Sūn (1990: 357-359), only [tʃɪ<sup>53</sup>], [ʃɪ<sup>13</sup>] and [tʃo<sup>13</sup>te<sup>35</sup>] seem to allow some degree of interchangeability. In two instances, [tʃɪ<sup>53</sup>] is reportedly interchangeable with [ʃɪ<sup>13</sup>], e.g. 一匹 (布) 'one bolt (of cloth)' can be rendered as either [re<sup>13</sup>ʒy<sup>34</sup>tʃɪ<sup>53</sup>] or [re<sup>13</sup>ʒy<sup>34</sup>ʃɪ<sup>13</sup>] (p. 357). And in one instance, [tʃɪ<sup>53</sup>] is interchangeable with [tʃo<sup>13</sup>te<sup>35</sup>]: 一股 (份) 'one share' can be translated into Báimǎ as either [kie<sup>35</sup> tʃɪ<sup>53</sup>] or [kie<sup>35</sup> tʃo<sup>13</sup>te<sup>35</sup>] (*ibid.*). The word [ʃɪ<sup>13</sup>] is interchangeable with [tʃo<sup>13</sup>te<sup>35</sup>] in three instances,



e.g. 一盒 'one box' [i<sup>13</sup>xo<sup>53</sup> ʃi<sup>13</sup>] can also be rendered as [i<sup>13</sup>xo<sup>53</sup> tʃo<sup>13</sup>te<sup>35</sup>] (p. 357).

In sharp contrast to Sūn's findings, my elicitations from Chinese demonstrate a distinct preference for [ʃə<sup>13</sup>] (or [ʃi<sup>13</sup>] in Sūn's transcription), and my language consultants report it to be freely interchangeable with [tʃu<sup>13</sup>te<sup>35</sup>]. For instance, 一条狗 'one dog' was translated by my language consultants as [tɕ<sup>h</sup>i<sup>53</sup> ʃə<sup>13</sup>] or [tɕ<sup>h</sup>i<sup>53</sup> tʃu<sup>13</sup>te<sup>35</sup>]. Sūn lists this word only with [tʃo<sup>13</sup>te<sup>35</sup>] (p. 358). In other words, my elicitations lead to different frequencies and different degrees of interchangeability, see Table 2 further on.

Direct elicitation of expressions taken out of context cannot clarify potential differences of various lexical items for 'one'. Moreover, the contact language, Chinese, complicates the issue, as the distinction between the stressed numeral *yí ge* 'one' and its weakened counterpart *yi ge* (denoting indefinite reference; close in meaning and function to the English indefinite article *a*) is not always obvious to non-native speakers, because written Chinese does not distinguish between these two usages.<sup>8</sup> Hence, for speakers of a language with a special device to indicate indefinite reference, as is the case with Báimǎ, Chinese expressions containing the numeral 'one' can potentially be translated in their native language either with the corresponding word for 'one' or with the indefinite article.

In order to understand the differences between various words for 'one', I analyzed their distribution in a corpus of texts collected during my three months of fieldwork in 2003 in the Báimǎ Tibetan Township, Píngwǔ County, Sīchūān Province. The corpus consists of 31 Báimǎ legends and stories about Koshino village (Shuǐniújiā 水牛家 in Chinese), once a large and influential Báimǎ community. Sadly enough, Koshino no longer exists. Its population was relocated to other villages of the Báimǎ Tibetan Township in

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<sup>8</sup> On the semantic distinction between *yí ge* and its weakened counterpart *yi ge*, see Chao (1968: 567).

2003. The former location of Koshino will be flooded in the course of 2005 following construction of the Shuñiújiā dam 水牛家水坝. The legends and stories were narrated by Zhaga Tsere, a 69-year old native of Koshino, and translated into Chinese with the help of Lǐ Dégui 李德贵, a 64-year old native of Iarukhuai village (Luòtōngbà 洛通坝) and presently a resident of Píngwǔ. Hereafter I refer to the corpus as the Zhaga texts, after their narrator.

All the words for 'one' listed in Nishida and Sūn (1990: 357-359) have been attested in the Zhaga texts, but their relative frequency is different. In addition, [tʃu<sup>13</sup>tɛ<sup>35</sup>] in the corpus exists also in the shorter (and perhaps original) form [tʃu<sup>53</sup>].

Form	Meaning	Frequency
tʃə <sup>53</sup>	'one'	7
ʂə <sup>13</sup>	indefinite marker	58
tʃu <sup>53</sup> , tʃu <sup>13</sup> tɛ <sup>35</sup>	'single, alone'	30
ko <sup>53</sup>	'full'	10
ɦɔ <sup>35</sup>	'full'	9
zə <sup>53</sup>	indefinite marker	9

Table 2 - Frequency of words for 'one' in the Zhaga texts<sup>9</sup>

[tʃə<sup>53</sup>], [ʂə<sup>13</sup>], [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] and [ko<sup>53</sup>] all co-occur with a wide variety of words, whereas [ɦɔ<sup>35</sup>] and [zə<sup>53</sup>] are restricted in distribution. Of the nine occurrences of [ɦɔ<sup>35</sup>], eight are in the same construction, 'one *chī* (Chinese unit measure, equivalent to 0.3 m)'. Likewise, of the nine occurrences of [zə<sup>53</sup>], seven are in combination with 'year' and two in combination with 'tael'.

<sup>9</sup> Zhāng (1997) already suggests that the forms [ko<sup>53</sup>] and [ɦɔ<sup>35</sup>] are cognate with the Tibetan *gang* 'full', whereas [tʃu<sup>53</sup>], [ʃu<sup>13</sup>] and [zɿ<sup>53</sup>] are all cognate with the Tibetan *gcig* 'one' (pp. 151-152). He does not, however, discuss the form [tʃu<sup>13</sup>tɛ<sup>35</sup>] or the precise relationship between [tʃu<sup>53</sup>], [ʃu<sup>13</sup>] and [zɿ<sup>53</sup>].

As was the case with my direct elicitations, [sə<sup>13</sup>] enjoys the highest frequency and [tʃu<sup>13</sup>tɛ<sup>35</sup>] is the second most favored way to express the meaning 'one'.

Let us now turn to the semantic distribution of these lexical items in the Zhaga texts. The generalizations below are mainly based on my fieldwork data, but I also rely on Sūn's data, whenever he reports lexical items not attested in my corpus.

### 3. SEMANTIC DISTRIBUTION OF WORDS FOR 'ONE' IN THE ZHAGA TEXTS

The following characteristics of words for 'one' have been taken into consideration in this analysis:

- (a) their meaning as understood from the context;
- (b) the type of classifiers with which each particular word for 'one' can co-occur.

For the convenience of the exposition, I divide Báimă classifiers into "container" and "non-container" classifiers. Container classifiers denote quantities of commodities and products, such as liquids and edibles, which normally require taking some kind of container (*cup, pot, pound, etc.*) as the measure classifier. For example, *cup* in the expression *one cup of tea* is a container classifier. Container classifiers may also function as nouns in their own right. Examples of container classifiers in Báimă are: [k<sup>h</sup>a<sup>53</sup>] 'mouth', [ka<sup>13</sup>zi<sup>341</sup>] 'bowl', [so<sup>13</sup>tfo<sup>35</sup>] 'pot', [tʃ<sup>h</sup>o<sup>13</sup>zə<sup>53</sup>] 'bucket', [dʒa<sup>341</sup>] 'pound', [sɔ<sup>53</sup>] 'tael'. Some measures of length (for instance, 'chi') can likewise function as container classifiers in Báimă.

As evidenced in the Zhaga texts, all lexical items for 'one' in Báimă have distinct meanings and functions.

#### 3.1. [tʃə<sup>53</sup>]

[tʃə<sup>53</sup>] appears in contexts where the exact number, 'one', of the entity spoken about is communicated. Thus, it can be accounted

for as having the meaning '(exactly) one (not two, three, etc.)'. [tʃə<sup>53</sup>] co-occurs with non-container classifiers, as in the following examples.<sup>10</sup>

In sentence (1), the protagonist of the story, a magic frog born into a human family, wants to bring lunch to his father, who is working in the fields. Since, as a frog, he does not have hands to carry lunch, he has to ask his mother to make a hole in one of the pancakes prepared for lunch and tie it with a rope to his neck.

- (1)    k<sup>h</sup>u<sup>53</sup>    kɛ<sup>13</sup>du<sup>35</sup>    kɛ<sup>53</sup>    t<sup>h</sup>o<sup>13</sup>ndzu<sup>35</sup>    tʃə<sup>53</sup>    ta<sup>55</sup>    ʂə<sup>53</sup>,  
       1S        neck        on        pancake        one        tie        IMP  
       ?        ske.?        kha        ?                    gcig        sdom        shog  
       fo<sup>13</sup>ru<sup>53</sup>    p<sup>h</sup>u<sup>53</sup>                    mbo<sup>13</sup>    zɛ<sup>13</sup>        dzɛ<sup>35</sup>.  
       hole        make.a.hole        COM        be        said  
       ?        phug                    ?        red        bzlas  
       'So he said, "Tie one pancake to my neck, make a hole in it".'

In the next example (taken from another story), the main character, a gifted Báimă scholar, travels in a company of friends to the county capital to take part in official examinations. On the way, they need to stay over in an inn.

- (2)    ʂa<sup>53</sup>    tʃə<sup>53</sup>    ndy<sup>13</sup>    ji<sup>53</sup>        ɕe<sup>13</sup>    de<sup>13</sup>    ʂə<sup>13</sup>,  
       day    one    reside    NOM    made    was.in    3PF  
       zhag    gcig    'dug    ?        byas    bsdad    ?  
       ko<sup>13</sup>wa<sup>35</sup>    zɛ<sup>53</sup>    ndzi<sup>53</sup>    ɕe<sup>13</sup>    de<sup>13</sup>    ni<sup>13</sup>,    ʂa<sup>53</sup>  
       leg        with    go        made    was.in    after    day

<sup>10</sup> This article represents work in progress; not all glosses and tone sandhi are final. As proposed by the anonymous *CLAO* reviewer, Classical Tibetan etymology is given for Báimă words in example sentences to make the article more accessible to Tibetologists. The "?" sign marks those cases where no good Classical Tibetan etymology can be proposed. In Tibetan transcriptions, I follow Wylie's (1959) standard system. Different verb stems are indicated in the gloss line by different tense forms of verbs.

rkang.ba	re	'gro	byas	bsdad	nas	zhag
tʃə <sup>53</sup>	ʂɑ <sup>53</sup>	ni <sup>341</sup>	ndy <sup>13</sup>	ʕe <sup>13</sup>	de <sup>13</sup>	ʂə <sup>13</sup> . <sup>11</sup>
one	day	two	live	made	was.in	3PF
gcig	zhag	gnyis	'dug	byas	bsdad	?

'So, they stayed for one day... they went on foot and stayed one or two days.'

In both example sentences, [tʃə<sup>53</sup>] is the numeral 'one'.

In two occurrences in the Zhaga texts, [tʃə<sup>53</sup>] is reduplicated so as to express the meaning 'one by one' or 'each other' (cf. Sūn 1990: 218-219). Sentence (3) derives from a story about the rivalry between the villages of Iadzy (Huángyángguān 黄羊关) and Koshino.<sup>12</sup> The bone of contention was the issue who had to pay taxes for land owned by wealthy Koshino people in Iadzy. This dispute cost many people their lives and at some point, a native of Koshino urged the people of these two villages to stop fighting.

(3)	ta <sup>53</sup>	Ia <sup>13</sup> dzy <sup>35</sup>	zə <sup>13</sup>	Ko <sup>13</sup> ʂə <sup>53</sup>	ni <sup>341</sup>	te <sup>53</sup>	ta <sup>53</sup>
	now	<i>Iadzy</i>	with	<i>Koshi</i>	two	DU	now
	da(.lta) PN	re	PN	gnyis	do	da(.lta)	
	tʃə <sup>53</sup> tʃə <sup>53</sup>	tʂo <sup>53</sup>	ma <sup>53</sup>	zo <sup>13</sup>	ʂe <sup>53</sup> .		
	one.one	mutually	not	manufacture	IMP		
	gcig.gcig	?	ma	bzo	shog		

'People of Iadzy and Koshino, do not do this to each other.'

<sup>11</sup> The third person verbal suffix [ʂə<sup>13</sup>] is homophonous (i.e. identical in form, but distinct in meaning) with the indefinite marker [ʂə<sup>13</sup>].

<sup>12</sup> Ia<sup>13</sup>dzy<sup>35</sup> used to be populated by the Báimǎ and this name is quoted in many Báimǎ stories and legends. The Báimǎ population of Ia<sup>13</sup>dzy<sup>35</sup> is now completely sinified. Only older speakers have some passive knowledge of Báimǎ. The element [nɔ<sup>53</sup>] in the name of the Koshino village means 'inside', thus Koshino means 'inside Koshi'. The village is variously referred to as Koshi and Koshino.

In addition, the reduplication of [tʃə<sup>53</sup>] 'one' is sometimes used to emphasize the number 'one', as in the next example:

- (4) zə<sup>341</sup>pu<sup>13</sup>sə<sup>35</sup> je<sup>13</sup> zə<sup>53</sup> ɲe<sup>53</sup> tʃə<sup>53</sup>tʃə<sup>53</sup> ndʒa<sup>13</sup>  
 python year one person one.one eat  
 sbrul.? lo zhig mi gcig.gcig 'cha  
 ji<sup>53</sup> ɕe<sup>13</sup> de<sup>13</sup>.  
 NOM made was.in  
 ? byas bsdad  
 'Every year the python ate one human being.'

### 3.2. [ʂə<sup>13</sup>]

[ʂə<sup>13</sup>] is normally used when a person or thing is newly introduced in the story. It does not report the exact number 'one', but seems to act as an indefinite marker, narrowing down the reference of the preceding noun to a single member of a class. For example:<sup>13</sup>

- (5) ta<sup>53</sup> na<sup>53</sup>na<sup>53</sup> dʒe<sup>341</sup>ka<sup>13</sup>tʂi<sup>53</sup> ʂə<sup>13</sup> tse<sup>53</sup> ɕ<sup>h</sup>o<sup>13</sup>.  
 now here Chinese.beggar<sup>14</sup> INDF arrive appeared  
 da(.lta) ('di.)na rgya.LW shig sleb byon  
 'A beggar came here today.'
- (6) tɕ<sup>h</sup>ø<sup>53</sup> wɛ<sup>13</sup>wɑ<sup>35</sup> ʂə<sup>13</sup>, pu<sup>13</sup>ndʒa<sup>53</sup>... wɛ<sup>13</sup>wɑ<sup>35</sup>  
 2S frog INDF wife frog  
 khyod sbal.ba shig ? sbal.ba  
 wɑ<sup>13</sup>gɛ<sup>35</sup>, tɕ<sup>h</sup>ø<sup>53</sup> pu<sup>13</sup>ndʒa<sup>53</sup> ts<sup>h</sup>ə<sup>35</sup> ndʒi<sup>53</sup>  
 frog.old 2S wife search go

<sup>13</sup> The indefinite marker [ʂə<sup>13</sup>] is homophonous (i.e. identical in form, but distinct in meaning) with the third person verbal suffix [ʂə<sup>13</sup>].

<sup>14</sup> [-ka<sup>13</sup>tʂi<sup>53</sup>] is probably a loan from Chinese, cf. Sichuanese 讨口子 [t<sup>h</sup>au<sup>53</sup> k<sup>h</sup>əu<sup>53</sup>tʂi<sup>53</sup>] 'beggar'.

(sbal.)ba.rgas khyod ? 'tshol 'gro  
 kɑ<sup>35</sup>(lɑ<sup>53</sup>) ts<sup>h</sup>ə<sup>35</sup> ndzi<sup>53</sup> ze<sup>13</sup>, dze<sup>35</sup>.  
 where search go be said  
 ga(.na) 'tshol 'gro red bzlas  
 "'You are a frog, a wife... an old frog, where are going to  
 look for a wife?" he said.'

- (7) La<sup>13</sup>nga<sup>53</sup> tɕiouʂɪ a<sup>13</sup>ji<sup>53</sup> gɛ<sup>13</sup>gu<sup>35</sup>  
 Langa just.be grandmother old  
 PN LW a.yis rgas.rgas  
 ʂə<sup>13</sup> de<sup>13</sup> ʂə<sup>13.15</sup>  
 INDF was.in 3PF  
 shig bsdad ?  
 'In Langa, eh... there was an old lady.'

[ʂə<sup>13</sup>] co-occurs with non-container classifiers and can co-occur with two other words for 'one', [ko<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>], as seen in the following sections.

### 3.3. [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>]

[tʃu<sup>13</sup>tɛ<sup>35</sup>] exists in two variants, the short form [tʃu<sup>53</sup>], as in sentence (8), and the long form [tʃu<sup>13</sup>tɛ<sup>35</sup>], as in sentence (9). The syllable [tʃu<sup>53</sup>] in [tʃu<sup>13</sup>tɛ<sup>35</sup>] changes its original high falling tone to the low rising tone when accompanied by a syllable in the high rising tone (see footnote 8). [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] have a wide range of meanings. In this section, I will provisionally gloss [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] according to their meaning in each particular sentence.

- (8) k<sup>h</sup>u<sup>53</sup> tʃu<sup>53</sup> ɦo<sup>13</sup>ja<sup>35</sup> ʂə<sup>13</sup>.  
 1S only.one be.over 3PF

<sup>15</sup> [tɕiouʂɪ] (or *jiu shi* in Pinyin transcription) is a loan from Chinese.

? gcig.pu ? ?

'I was the only one left.' (literally, 'There was only me left.')

Sentence (8) is taken from a story about two brothers, one rich and the other poor. The poor brother leads a happy life despite his poverty, for he is always laughing and playing with his children; the rich brother feels lonely and unhappy. One day, the rich brother attempts to entertain himself and his wife by playing a ball game. Since they are very wealthy, they use lumps of silver as balls, but this does not cheer them up:

- (9)    tɕ<sup>h</sup>ø<sup>53</sup>    kə<sup>13</sup>ta<sup>53</sup>,    ŋɑ<sup>53</sup>    kə<sup>13</sup>ta<sup>53</sup>,    tʃu<sup>13</sup>tɕ<sup>35</sup>  
 2S    piece    1S    piece    one.item  
 khyod    LW    nga    LW    gcig
- tɕε<sup>55</sup>    tɕ<sup>h</sup>ε<sup>35</sup>,    tʃu<sup>13</sup>tɕ<sup>35</sup>    t<sup>h</sup>ɔ<sup>13</sup>tɕo<sup>35</sup>  
 DIR: vertically.up    set.out    one.item    DIR:down.the.slope  
 ?    chas    gcig    ?
- tɕ<sup>h</sup>ε<sup>35</sup>    mbo<sup>13</sup>,    ga<sup>341</sup>    ji<sup>53</sup>    me<sup>13</sup>    de<sup>53</sup>    ʃə<sup>13.16</sup>  
 set.out    COM    laugh    NOM    not    was.in    3PF  
 chas    ?    dgod    ?    ma    bsdad    ?
- 'You - a lump, I - a lump, one up, one down, but it did not make them laugh.'

- (10)    ɑ<sup>13</sup>ma<sup>53</sup>,    ɑ<sup>13</sup>pa<sup>53</sup>    tʃu<sup>13</sup>tɕ<sup>35</sup>    sø<sup>35</sup>    ma<sup>53</sup>  
 mother    father    one.entity    gave.birth    NOM  
 a.ma    a.pha    gcig    gsos    ma
- zε<sup>13</sup>    dze<sup>35</sup>    ʃə<sup>13</sup>.  
 be    said    3PF  
 red    bzlas    ?
- 'We are born of the same parents, he said.'

<sup>16</sup> [kə<sup>13</sup>ta<sup>53</sup>] 'lump' is a Chinese loan, *gēda* 'lump, knot' (cf. Zhāng 1994b: 57).



Similar to [tʃə<sup>53</sup>] and [ʂə<sup>13</sup>], [tʃu<sup>13</sup>tɛ<sup>35</sup>] does not co-occur with container classifiers. Unlike all other words for 'one' it can be used not only as an attributive, but also as a nominal phrase, e.g. in examples (9) and (11), which usage accounts for over a half of its occurrences in the Zhaga texts (19 instances out of 38). On three occasions, [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] co-occur with the indefinite marker [ʂə<sup>13</sup>], for example:

- (11) k<sup>h</sup>ɛ<sup>53</sup> ma<sup>13</sup>mu<sup>35</sup>          ɲi<sup>341</sup>    tɛ<sup>53</sup>    tʃu<sup>53</sup>    ʂə<sup>13</sup>  
 1P    mother.daughter    two    DU    single    INDF  
 ?    ma.ʔbu(.mo)    gnyis    do    gcig.po    shig  
 ndʒa<sup>13</sup> ʃi<sup>53</sup>    ze<sup>13</sup>.  
 eat    NOM    be  
 'cha    ?    red  
 '(The python) is going to eat one of the two of us.' (literally,  
 'a single one of the two of us')

### 3.4. [ko<sup>53</sup>]

The original meaning of [ko<sup>53</sup>] is 'full', as in [tʃ<sup>h</sup>u<sup>53</sup> ndi<sup>13</sup> ko<sup>53</sup>] 'so full of water'. In the Zhaga texts, it co-occurs with container classifiers exclusively.

- (12) a<sup>13</sup>ɲi<sup>35</sup>,    tʃ<sup>h</sup>ɛ<sup>35</sup>    ko<sup>53</sup>    t<sup>h</sup>e<sup>13</sup>,    dze<sup>35</sup>.  
 grandfather    tobacco    full    smoke    said  
 a.mes    ?    gang    'then'<sup>17</sup>    bzlas  
 'Sir, smoke a pipe, he said.' (literally, 'a pipe full of tobacco')

Examples of [ko<sup>53</sup>] given in Nishida and Sūn (1990: 357-359) support the hypothesis that the usage of [ko<sup>53</sup>] is restricted to container classifiers. For instance, 一锅 [sɔ<sup>13</sup>tʃo<sup>35</sup> ko<sup>53</sup>] 'pot-full' (compare 一个锅 [sɔ<sup>13</sup>tʃo<sup>35</sup> tʃi<sup>53</sup>] 'one pot', 1990: 357), 一把(米)

<sup>17</sup> 'then' means 'pull, draw' and is also used in the meaning 'smoke', cf. similar usage in Zhongu (Sun 2003a: 825).

[pa<sup>53</sup>ri<sup>13</sup> ko<sup>53</sup>] 'hand-full (of rice)' (1990: 358), 一口 [k<sup>h</sup>a<sup>53</sup> ko<sup>53</sup>] 'mouth-full', 一碗 [ka<sup>13</sup>ʒi<sup>341</sup> ko<sup>53</sup>] 'bowl-full', 一桶 [tɔ<sup>13</sup>ʒi<sup>53</sup> ko<sup>53</sup>] 'bucket-full', 一缸 [dza<sup>13</sup>nbo<sup>53</sup> ko<sup>53</sup>] 'vat-full' (ibid.).

### 3.5. [ɦɔ<sup>35</sup>]

In Sūn's examples (Nishida and Sūn 1990: 359), [ɦɔ<sup>35</sup>] appears to co-occur with only two nouns, 'pound' and '*chi*', i.e. 一斤 [dʒa<sup>13</sup>ɦɔ<sup>35</sup>] 'one pound', 一尺 [k<sup>h</sup>a<sup>13</sup>ɦɔ<sup>35</sup>] 'one *chi*'. In my corpus, it is attested in combination with '*chi*' (8 occurrences) (e.g. [jɑ<sup>13</sup>ʕi<sup>53</sup> k<sup>h</sup>a<sup>13</sup>ɦɔ<sup>35</sup>ʂə<sup>13</sup>] 'a handkerchief of one *chi*') and on one occasion, with the word 'trough, manger', i.e. [tʃ<sup>h</sup>u<sup>53</sup> ɣɑ<sup>13</sup>ɦɔ<sup>35</sup>] 'one trough of water'. On three other instances of the use of 'trough, manger' in the Zhaga texts, this word rather co-occurs with [ko<sup>53</sup>] 'full', i.e. [ʃɑ<sup>53</sup>mɑ<sup>53</sup> ɣɑ<sup>13</sup> ko<sup>53</sup>] 'one manger of peas', [tʃ<sup>h</sup>u<sup>13</sup>ndʒa<sup>35</sup> ɣɑ<sup>13</sup> ko<sup>53</sup>] 'one through of water'. 'Pound', '*chi*' and 'trough' are all container classifiers.

### 3.6. [zə<sup>53</sup>]

Similar to [ɦɔ<sup>35</sup>], [zə<sup>53</sup>] is restricted in distribution. In Sūn's examples (Nishida and Sūn 1990: 359, 'year' p. 324), it is used in the following expressions:

- 一斗 [ʃo<sup>13</sup>ʒi<sup>53</sup>] 'one bushel',
- 一两 [ʃɔ<sup>13</sup>ʒi<sup>53</sup>] 'one tael',
- 一驮 [k<sup>h</sup>i<sup>35</sup>tʃ<sup>h</sup>a<sup>13</sup>ʒi<sup>53</sup>] 'one sack (load carried on the back)',
- 一对 (一对手) [tʃ<sup>h</sup>a<sup>13</sup>ʒi<sup>53</sup>] 'one pair (one pair of hands)',
- 一夜 [go<sup>13</sup>ʒi<sup>53</sup>] 'one night',
- 一个月 [dza<sup>13</sup>ʒi<sup>53</sup>] 'one month'
- 一年 [iɛ<sup>53</sup>ʒi<sup>53</sup>] 'year'.

Of these words, three are container classifiers ('bushel', 'tael' and 'sack') and four non-container classifiers ('pair', 'night' 'month' and 'year').

In the Zhaga texts, [zə<sup>53</sup>] co-occurs seven times with 'year', as in sentence (4), and two times with the word for 'tael', as in sentence (13):

- (13) tʃ<sup>h</sup>ε<sup>35</sup>    ʂα<sup>53</sup>    mbo<sup>13</sup>    zε<sup>13</sup>,    tʃ<sup>h</sup>ε<sup>35</sup>    ʂo<sup>13</sup>    zə<sup>53</sup>  
 tobacco    burn    COM    be    tobacco    tael    one  
 ?            ?sregs ?        red    ?            srang    zhig
- jɔ<sup>35</sup>k<sup>h</sup>u<sup>53</sup>                            zε<sup>13</sup>.  
 take.bring                            be  
 ?.khur                                red  
 'When the tobacco was used up, one used to borrow one  
 tael of it.'

An explanation of the difference between [zə<sup>53</sup>] and other words for 'one' follows in §4.2.

#### 4. COUNTERPARTS OF BÁIMǼ WORDS FOR 'ONE' IN CLASSICAL TIBETAN AND TIBETAN DIALECTS

The distribution of various words for 'one' as outlined in the previous section, with the numeral 'one', [tʃə<sup>53</sup>], an indefinite marker, [ʂə<sup>13</sup>] and the word 'full' used with container classifiers in the meaning of 'one', [ko<sup>53</sup>], partly resembles the various usages of 'one' in Classical Tibetan and modern Tibetan dialects.

For the comparisons in this section, I use Classical Tibetan sources, in the tradition of BáimǼ studies (Zhāng 1994, 1997; Huáng and Zhāng 1995) and various Tibetan dialect data with an emphasis on the Khams group, to which BáimǼ allegedly belongs.

In Classical Tibetan, the numeral 'one' develops into the indefinite article, which has three phonologically conditioned forms: (1) *cig*, used if the preceding word ends in *ga*, *da*, or *ba*, as in *khab cig* 'a needle'; (2) *shig*, used after *sa*, as in *ras shig* 'a cloth'; and (3) *zhig* in all other cases (cf. Jäschke 1954: 19-20). Spoken

varieties of Tibetan usually have one form for the indefinite article, for instance [tɕi] in Khams (Mǎ and Hú 1987, vol 2, p. 7, Häsler 1999: 95).

The word for 'full', *gang* in Classical Tibetan, combines with container classifiers in the meaning 'one' in Classical Tibetan and modern Tibetan dialects. For instance, the *Zàng-Hàn dà cídiǎn* [Comprehensive Tibetan-Chinese dictionary], edited by Zhāng Yísūn (1993), gives the second meaning of the word *gang* 'full' as 'one', which is illustrated with the following examples: *rgya-ma gang* 'one pound', *dkhar-yol gang* 'one bowl' and *gom-pa gang* 'one step' (Zhāng 1993, vol. 1, p. 339).<sup>18</sup> The expression 'one bowl' is listed in the *Tibeto-Burman lexicon* (Huáng et al. 1992) as a combination of the words 'bowl' and 'full' for, among others, Lhasa (Central) Tibetan, [p<sup>h</sup>o:<sup>55</sup>pa<sup>55</sup> (k<sup>h</sup>aŋ<sup>13</sup>)] and 'Ba'-thang (Khams) Tibetan, [p<sup>h</sup>u<sup>55</sup>ru<sup>55</sup> (kō<sup>13</sup>)].

The three remaining Báimǎ words for 'one', [fɔ<sup>35</sup>], [zə<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>], do not appear to have counterparts in Tibetan. Indigenous numeral systems are often among the earliest features lost when a language becomes endangered. They are susceptible to attrition through contact with another language even within an otherwise robust language, as argued by Comrie (2004). Do [fɔ<sup>35</sup>], [zə<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] reflect some kind of substratum numeral system of Báimǎ which survived intensive contact of the Báimǎ with the Tibetans and the Chinese?

#### 4.1. [fɔ<sup>35</sup>]

As mentioned in §2.5, [fɔ<sup>35</sup>] co-occurs with container classifiers ('pound', 'chi', 'trough'). The word 'trough' can be used with both [fɔ<sup>35</sup>] and [ko<sup>53</sup>]. Let us consider the possibility that [fɔ<sup>35</sup>] is a phonologically conditioned allomorph of [ko<sup>53</sup>]. Further scrutiny of the list of words with which [ko<sup>53</sup>] and [fɔ<sup>35</sup>] co-occur,

<sup>18</sup> Compare Bacot (1948: 30): *nga la ja dkar-yul gang 'khyer shog* "Apporte-moi une (pleine) tasse de thé."

reveals that [ko<sup>53</sup>] is normally not used after the low back vowel [ɑ], when the latter is not preceded by the nasal [nb] cluster, for instance, 一包(东西) 'one package' [tɕi<sup>53</sup>nbɑ<sup>53</sup>ko<sup>53</sup>] (Sūn 1990: 358). Hence, it is plausible that [ɦɔ<sup>35</sup>] is an allomorph of [ko<sup>53</sup>] 'full' after the low back vowel [ɑ], e.g. [dʒɑ<sup>13</sup>ɦɔ<sup>35</sup>] 'one pound', [k<sup>h</sup>ɑ<sup>13</sup>ɦɔ<sup>35</sup>] 'one *chi*', [ɣɑ<sup>13</sup>ɦɔ<sup>35</sup>] 'one trough'. That the word 'trough' can now co-occur with both [ɦɔ<sup>35</sup>] and [ko<sup>53</sup>] probably evidences erosion of this earlier distinction. It remains, however, unclear why [ko<sup>53</sup>] and [ɦɔ<sup>35</sup>] are dissimilar in their tonal contour. Unfortunately, the origin of this tonal dissimilarity is difficult to determine, given the limited set of examples.

#### 4.2. [zə<sup>53</sup>]

[zə<sup>53</sup>] co-occurs with both container ('bushel', 'tael', 'sack') and non-container classifiers ('pair', 'night', 'year' and 'month'). To compare, in Tibetan dialects, the first three words would be used with the word for 'full'. For example, 'one bushel (of barley)' is [nɛ<sup>13</sup>mbo<sup>53</sup>kō<sup>13</sup>], literally, 'barley bushel full', in Sde-dge Tibetan (Gésāng 2002: 151). 'One tael of gold' is [ser<sup>53</sup>saŋ<sup>53</sup>k<sup>h</sup>aŋ<sup>13</sup>], literally, 'gold tael full', in Gzhis-ka-rtse (Central) Tibetan (*ibid.*, p. 54).

The words 'pair', 'night', 'year' and 'month' are used with the numeral 'one' in Classical Tibetan and modern Tibetan dialects. For instance, 'one night' is *zhag gcig* in Classical Tibetan and [xɑ<sup>ʔ231</sup>(tɕi<sup>ʔ53</sup>)] in 'Ba'-thang Tibetan; 'one month' is [zla ba (gtɕiq)] in Classical Tibetan and [ndɑ<sup>13</sup>(tɕi<sup>ʔ53</sup>)] in 'Ba'-thang Tibetan (Huáng et al. 1992: 304).

The modern Báimǎ situation does not suggest any particular feature which would unite the words that co-occur with [zə<sup>53</sup>] 'one' in one group, except, maybe, their relatively high frequency of occurrence. However, so are also 'pound' and '*chi*' which co-occur with [ɦɔ<sup>35</sup>].

If we examine Classical Tibetan cognates of the Báimǎ words that co-occur with [zə<sup>53</sup>], on the other hand, we find out that

all of them can be grouped together by taking the phonologically conditioned form of 'one', *zhig* 'a'. Consider the following table:

English	Báimǎ		Tibetan	
'one bushel'	ʂo <sup>13</sup>	zə <sup>53</sup>	'bo	zhig
'one tael'	ʂo <sup>13</sup>	zə <sup>53</sup>	srang	zhig
'one sack'	k <sup>h</sup> i <sup>35</sup> tʃ <sup>h</sup> a <sup>13</sup>	zə <sup>53</sup>	khal-cha	zhig
'one pair'	tʃ <sup>h</sup> a <sup>13</sup>	zə <sup>53</sup>	cha	zhig
'one night'	qo <sup>13</sup>	zə <sup>53</sup>	dgong	zhig
'one month'	dza <sup>13</sup>	zə <sup>53</sup>	zla-ba	zhig
'one year'	je <sup>53</sup>	zə <sup>53</sup>	lo	zhig

Table 3. Classical Tibetan cognates for 'bushel', 'tael', 'sack', 'pair', 'night', 'year' and 'month' in Báimǎ

In these (high frequency) combinations, Báimǎ probably retained the original phonologically conditioned form of the Classical Tibetan weakened form of 'one', even after Báimǎ underwent phonological change and simplification of syllables. The form [ʂə<sup>13</sup>] pervasively took over other forms as the standard rendering of the indefinite marker.

#### 4.3. [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>]

The case of [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] is more complex than that of [ʃo<sup>35</sup>] and [zə<sup>53</sup>], given the frequent occurrence of the former as a nominal phrase. [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] appears to be more than merely the numeral 'one'. Is it perhaps, as suggested in the *Yiyǔ*, some kind of fusion of the numeral 'one' (of which the initial cluster, [tʃ], is still present) and a classifier (cf. §2)?

Cross-linguistically, the numeral 'one' often undergoes such fusions with classifiers, as is, for instance, the case in Peking Mandarin, where the numeral 'one' *yī*, fuses with the general

classifier *ge* 'item' into the form *yí* 'one item' (see Dǒng 2003, Liú 2004, Chirkova 2004). In Malayic languages, which like Báimǎ, have a large variety of forms for the numeral 'one', this multiplicity is the result of combining proclitic 'one' with a numeral classifier, which is then further reanalyzed as a simple numeral 'one' (Gil 2004). Such a scenario is, nonetheless, unlikely for Báimǎ, given its classifier-numeral word order.

Since the use of numerals in Báimǎ resembles that in Classical Tibetan and Tibetan dialects, it is reasonable to expect that [tʃu<sup>13</sup>tɛ<sup>35</sup>] is a fusion of the numeral 'one' and a nominalizing suffix or a demonstrative. In fact, Classical Tibetan has at least two forms derived from the numeral 'one', which correspond to the meaning and function of [tʃu<sup>13</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] in Báimǎ. One of these candidates is the noun *gcig-po* 'only, sole, alone, another', as for instance in *kho rang gcig-por yong-ba red* 'He came alone.' (Zhāng 1993, vol. 1, p. 740). Another form is the adverb *gcig-pu* 'alone, single, on one's own', as in *nga gcig-pur lus-pa* 'I am the only one left' (ibid.).

Overall, the relationship between Báimǎ [tʃu<sup>13</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] with Tibetan *gcig-po* or *gcig-pu* is complex. The meaning of [tʃu<sup>13</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] overlaps with that of *gcig-po* or *gcig-pu*, but is not restricted to it. [tʃu<sup>13</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] can mean not only 'single' or 'alone', but also more generally 'one'. For instance, of the examples of [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] given in §3.3, [tʃu<sup>13</sup>] in sentence (8) would correspond to Tibetan *gcig-pu*, [tʃu<sup>13</sup>tɛ<sup>35</sup>] in example (11) to *gcig-po*, while [tʃu<sup>13</sup>tɛ<sup>35</sup>] in sentences (9) and (10) corresponds to the numeral *gcig* 'one' (or the numeral followed by the definite article *de* 'that'). However, given the frequent occurrence of [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>] as a nominal phrase, suggesting a nominalized form of 'one' being their origin, as well as their resemblance to *gcig-po* or *gcig-pu*, I propose to explore the possibility of the former being derived from the latter. In the reconstruction below, I take the shorter form, [tʃu<sup>13</sup>], to be the original form and the longer one, [tʃu<sup>13</sup>tɛ<sup>35</sup>], a later development.

Based on systematic correspondences of Báimǎ to Classical Tibetan listed in Zhāng (1994a, b, 1997) and Huáng and Zhāng (1995), let us reconstruct what possible changes *gcig* on the one hand and the suffixes *po* and *pu* might have undergone in Báimǎ.

(1) words ending in *-ig* in Classical Tibetan systematically correspond to words ending in [i/ɿ] (Zhāng 1994a: 16) or [i/ə] (Huáng and Zhāng 1995: 94) in Báimǎ. For instance, [t<sup>h</sup>igs] 'drop' in Tibetan becomes [t<sup>h</sup>i<sup>53</sup>] in Báimǎ (Huáng and Zhāng 1995: 94), *gcig* 'one' becomes [tʃi<sup>53</sup>] in Sūn's or [tʃə<sup>53</sup>] in Huáng and Zhāng's transcription.

(2) The bilabial unvoiced stop *p* in the Tibetan suffixes *pa* and *po* changes to the bilabial semivowel *w* in Báimǎ, as pointed out by Huáng and Zhāng (1995: 88). For example, Tibetan [k<sup>h</sup>aŋ pa] 'house' is [ŋgo<sup>21</sup>wa<sup>53</sup>] in Báimǎ (ibid.). When the Tibetan suffixes *pa* and *po* are preceded by *m-* or *n-*, *p* becomes *mb*. For example, 'alive' is [gson po] in Tibetan and [sə<sup>21</sup>mbu<sup>53</sup>] in Báimǎ (ibid.).

Further examination of the examples of Tibetan-Báimǎ correspondences, listed in Zhāng (1994b) and Huáng and Zhāng (1995), suggests the following developments relevant for the present analysis:

(1) The suffix *po* systematically changes to *wu* (Huáng and Zhāng's transcription) or *u* (Sūn's transcription used by Zhāng Jichuān). When *po* is preceded by a nasal, it changes to *mbu*. For instance, Tibetan 'finely grinded (flour)' [ndz̥am po] corresponds to [ndz̥a<sup>21</sup>mbu<sup>53</sup>] in Báimǎ (Huáng and Zhāng 1995: 93), *sel-po* 'a basket carried on the back' is [she<sup>13</sup>u<sup>53</sup>] (Zhāng 1994b: 66).

(2) both *pa* and *po* correspond to a syllable in the high falling tone (53) in Báimǎ. For example, Tibetan 'ug-*pa* 'owl' changes into [u<sup>35</sup>u<sup>53</sup>] (Zhāng 1994a: 14), *bzang-po* 'good' into [ze<sup>13</sup>u<sup>53</sup>]



('excellent' in Báimǎ), *mang-po* 'much, many' into [mɛ<sup>13</sup>u<sup>53</sup>] (ibid., p. 13), [rtsam pa] 'roast barley flour' into [tsa<sup>21</sup>mba<sup>53</sup>] (Huáng and Zhāng 1995: 88).

On the basis of the above, the original Tibetan *gcig-po* 'only, sole, alone' yields \*[tʃɪ<sup>53</sup>u<sup>53</sup>] in Báimǎ.

Another probable candidate for the origin of [tʃu<sup>13</sup>] in Báimǎ, *gcig-pu*, is likely to undergo similar changes. I could not find any words with the suffix *pu* in either Zhāng's or Huáng and Zhāng's lists of Tibetan-Báimǎ correspondences. Given the above pattern, it is nonetheless reasonable to postulate that such a combination in Tibetan would again yield the \*[tʃɪ<sup>53</sup>u<sup>53</sup>] form in Báimǎ.

Hence, both *gcig-po* 'lonely, single' and *gcig-pu* 'single, the only one' are likely to develop into the Báimǎ form \*[tʃɪ<sup>53</sup>u<sup>53</sup>]. This combination is then expected to collapse into [tʃu<sup>53</sup>] through frequent usage. The transformation of [tʃu<sup>53</sup>] into [tʃu<sup>13</sup>tɛ<sup>35</sup>] would tentatively proceed along the following lines.

In Báimǎ, topics are often marked by the word [tɛ<sup>53</sup>] 'that', as in the following sentence:

- (14)    ɕe<sup>13</sup>lo<sup>35</sup>    tɛ<sup>53</sup>    gu<sup>13</sup>ka<sup>53</sup>    ndze<sup>35</sup>    tse<sup>53</sup>    ze<sup>13</sup>  
           bird.eagle that evening night arrive be  
           bya.glag de dgongs.kha mtshan sleb red  
           je<sup>13</sup>ke<sup>35</sup>    tɛ<sup>53</sup>    ɕe<sup>13</sup>lo<sup>35</sup>    ti<sup>53</sup>       ʃue<sup>35</sup>pa<sup>53</sup>  
           everyday that bird.eagle that.OBL wing  
           ?        de bya.glag de.?        gshog.pa  
           zu<sup>341</sup>        zu<sup>35</sup>        ʃə<sup>13</sup>.  
           under keep.warm 3PF  
           zhabs        ?            ?

'As for the eagle, in the evening, at night... every day, the eagle was keeping the child warm under its wings.'

[tʃu<sup>53</sup>] (and [tʃu<sup>13</sup>tɛ<sup>35</sup>]) are often used as topics, cf. examples (8) to (10), in which function it commonly co-occurs with [tɛ<sup>53</sup>]. The juxtaposition of [tʃu<sup>53</sup>] and [tɛ<sup>53</sup>] led to the change of the original high falling tone of [tʃu<sup>53</sup>] to the low rising tone, i.e. [tʃu<sup>13</sup>]. As was the case with [ɦɔ<sup>35</sup>], in this model, I again cannot explain why the high falling tone of the second syllable, [tɛ<sup>53</sup>] changes to the high rising tone, [tɛ<sup>35</sup>]. The same pattern (variation between the high falling and the high rising tone in the second syllable of a bisyllabic word) is observed in a number of words in Báimǎ, e.g. [so<sup>53</sup>] 'three', but [tʃo<sup>13</sup>so<sup>35</sup>] 'thirteen' (Nishida and Sūn 1990: 356); 'to augment' is [k<sup>h</sup>ɛ<sup>53</sup>nɛ<sup>53</sup>] or [ʃu<sup>53</sup>nɛ<sup>35</sup>], 'to devaluate' is [ko<sup>53</sup>ʒɑ<sup>53</sup>tʃø<sup>53</sup>] and [ko<sup>53</sup>ʒɑ<sup>53</sup>tʃo<sup>35</sup>] (ibid., p. 371). The underlying mechanism of this alternation will hopefully be understood in due time.

Being reanalyzed as one form, [tʃu<sup>13</sup>tɛ<sup>35</sup>] is in turn frequently followed by [tɛ<sup>53</sup>] when acting as sentence topic, for example:

- (15)    na<sup>53</sup>            ʒo<sup>13</sup>ɦu<sup>35</sup>    ɲe<sup>53</sup>            tɕ<sup>h</sup>ø<sup>13</sup>nɔ<sup>53</sup>    pu<sup>53</sup>  
          here        rich            person        family        son  
          ('di.)na    ɸyug.po    mi            khyim.nang    bu  
  
          tʃu<sup>13</sup>tɛ<sup>35</sup>        tɛ<sup>53</sup>            ʒə<sup>53</sup>            mbo<sup>13</sup>ʒə<sup>13</sup>.  
          only            that            die            COM 3PF  
          ɸcig.po        de            shi            ?            ?  
          'The only son of a rich family here passed away.'

Hence, [tʃu<sup>13</sup>tɛ<sup>35</sup>] is [tʃu<sup>53</sup>] used as topic. After having coincided into the same form, the originally distinct meanings of *ɸcig-po* and *ɸcig-pu* are expected to get obscured with the possibility that the new form is reanalyzed into a more general word 'one'.

## 5. CONCLUSION

The six words for 'one' in Báimǎ, [tʃə<sup>53</sup>], [ʒə<sup>13</sup>], [tʃu<sup>53</sup>] and [tʃu<sup>13</sup>tɛ<sup>35</sup>], [ko<sup>53</sup>], [ɦɔ<sup>35</sup>] and [zə<sup>53</sup>], all have distinct meanings and

functions. The form [tʃə<sup>53</sup>] is the numeral 'one', the form [ʂə<sup>13</sup>] the indefinite marker, the form [ko<sup>53</sup>] means 'full'. In the meaning 'one', [ko<sup>53</sup>] is restricted to co-occurrence with container classifiers. The form [ɦɔ<sup>35</sup>] is possibly a phonologically conditioned allomorph of [ko<sup>53</sup>] 'full', whereas the form [zə<sup>53</sup>] appears to retain earlier phonologically conditioned form of the Classical Tibetan indefinite marker. Finally, the form [tʃu<sup>13</sup>tɛ<sup>35</sup>] means '(single) one' and is frequently used as a nominal phrase.

As for the co-occurrence and interchangeability of the forms, [tʃə<sup>53</sup>] and [ʂə<sup>13</sup>] are in a complementary relationship. They do not co-occur for the obvious reason that indefinite reference is incompatible with an exact number reference. [tʃu<sup>13</sup>tɛ<sup>35</sup>] is a fusion of the numeral 'one' with a nominalizing suffix and a demonstrative. Serving as a noun, i.e. 'one entity', it can take the indefinite article [ʂə<sup>13</sup>]. In expressions without context, it is used as a synonym for (and thus interchangeable with) the word [tʃə<sup>53</sup>] 'one'. Finally, [ʂə<sup>13</sup>] freely co-occurs with expressions with the word [ko<sup>53</sup>] 'full'.

As far as the usage of various words for 'one' is concerned, Báimă resembles Tibetan. This suggests that Báimă and Tibetan share a common origin and that the former is perhaps even a dialect of the latter. At present, no one disputes the common origin of Báimă and Tibetan. As for Báimă as a Tibetan dialect, more research is required to determine the precise position of Báimă within Tibetan. This investigation promises to become one of the most exciting directions in Báimă studies.

#### *Abbreviations*

1, 2, 3	first, second, third person personal pronouns
COM	completion expressed by the suffix [mbo <sup>13</sup> ]
DIR	direction of the action
DU	dualis expressed by the form [te <sup>53</sup> ] 'two'
IMP	imperative
INDF	indefinite reference expressed by the word [ʂə <sup>13</sup> ]

*Words for 'one' in Baima / CLAO 34(2005) pp-pp*

INST	instrumental expressed by the form [re <sup>53</sup> ]
LW	loan word
NOM	nominalizer expressed by [ji <sup>53</sup> ] and [ma <sup>53</sup> ]
OBL	oblique case form
P	plural
PF	perfective aspect
PN	place name
S	singular

#### REFERENCES

- ĀWĀNG Cuòchéng 阿旺措成 & WÁNG Jiànmín 王建民 (1988). Báimǎ zàngzú yǔyán diàochá jìshí 白马藏族语言调查纪实 [Report on the language survey of the Báimǎ Tibetans]. *Xīnán mínzú xuéyuàn xuébào* 《西南民族学院学报》 [Journal of the Southwestern Institute for National Minorities] *Zhéxué Kēxuébǎn* 哲学科学版: *Mínzú yǔyán wénxué yánjiū zhuānjī*, 6, pp. 11-32, 58.
- BACOT Jacques (1948). *Grammaire du tibétain littéraire : Index morphologique (Langue littéraire et langue parlée)* [A grammar of literary Tibetan: Morphological index (Literary and spoken language)]. Paris : Librairie d'Amérique et d'Orient.
- CHAO Yuen Ren (1968). *A grammar of spoken Chinese*. Berkeley : University of California Press.
- CHIRKOVA Katia (2004). On *yí* 'one item', *liǎ* 'two items', and *sā* 'three items'. *Journal of the Chinese Language Teachers Association*, (39), 2, pp. 19-34.
- COMRIE Bernard (2004). "Endangered numeral systems". Paper presented at the Workshop on Numerals in the World's Languages, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany, 30th March.

- DǒNG Xiùfāng 董秀芳 (2003). Běijīnghuà míngcí duányǔ qián yángpíng 'yí' de yúfǎhuà qīngxiàng 北京话名词前阳平'一'的语法化倾向 [On the grammaticalization of *yí* used before a nominal phrase in Pekinese]. In : WÚ Fúxiáng 吴福祥, HÓNG Bō 洪波, eds. *Yúfǎhuà yǔ yǔfǎ yánjiū* 语法化与语法研究 [Grammaticalization and studies in grammar]. Peking : Shāngwù yīnshūguǎn. Pp. 166-180.
- GÉSĀNG Jūsān 格桑居冕 (Skal-bzang 'gyur-med) & GÉSĀNG Yāngjīng 格桑央京 (Skal-bzang dbyangs-chan) (2002). *Zàngyǔ fāngyán gāilùn* 《藏语方言概论》 / *Bod kyi yul-skad rnam-bshad* / *An introduction to Tibetan dialects*. Beijing : Mínzú Chūbǎnshè.
- GIL David (2004). The grammaticalization of 'one' plus classifiers in Malayic languages. Paper presented at the Workshop on Numerals in the World's Languages, Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany, 29th March.
- HALL T. Alan (1997a). *The phonology of coronals*. Amsterdam : John Benjamins Publishing Co
- HALL T. Alan (1997b). The historical development of retroflex consonants in Indo-Aryan. *Lingua*, 102, pp. 203-221.
- HÄSLER Katrin Louise (1999). *A grammar of the Tibetan Sde.dge dialect*. Berne University : Ph.D. dissertation.
- HUÁNG Bùfán 黄布凡 & ZHĀNG Míng huì 张明慧 (1995). Báimǎhuà zhīshǔ wèntí yánjiū 白马话支属问题研究 [A study of the genetic affiliation of Báimǎ]. *Zhōngguó zàngxué*, 2, pp. 79-118.
- HUÁNG Bùfán 黄布凡, editor-in-chief, XU Shòuchūn 许寿椿, CHEN Jiāyīng 陈嘉瑛, WANG Huìyín 王会银, asst. editors-in-chief (1992). *Zàngmián yǔ zú yǔ yán cíhuì* / *A Tibeto-Burman lexicon* 藏缅语族语言词汇. Beijing : Zhōngyāng Mínzú Xuéyuàn Chūbǎnshè.

- JÄSCHKE Heinrich August (1954). *Tibetan grammar*. [Based on the 2nd edition as prepared by H. Wenzel, 1883, London : Trübner]; Supplement of readings with vocabulary by John L. Mish. New York : Frederick Ungar Publishing. Originally published in 1865 under the title: *A short practical grammar of the Tibetan language*.
- LIÚ Xiángbó 刘祥柏 (2004). Běijīnghuà 'yī + míng' jiégòu fēnxī 北京话 '一+名' 结构分析 [An analysis of the "yī 'one' + N" construction in Pekinese]. *Zhōngguó yǔwén*, 1, pp. 36-39.
- Mǎ Yuèhuá 马月华 & HÚ Shūjīn 胡书津 (1987). *Jīchǔ zàngyǔ kèběn (Kāng fāngyán)/Bod kyi skad-yig gshi-rtsa'i slob-deb (Kham.skad) 基础藏语课本 (康方言) [Basic (Kham dialect)]. Chéngdū : Xīnán mínzú xuéyuàn.*
- NISHIDA Tatsuo 西田龙雄 & SŪN Hóngkāi 孙宏开 (1990). *Hakuba yakugo no kenkyū: Hakuba no kōzō to keitō 白馬譯語の研究: 白馬語の構造と系統 [A study of the Báimǎ-Chinese vocabulary 'Báimǎ yiyǔ': the structure and affiliation of the Báimǎ language]. Kyoto : Shokado.*
- SÌCHUĀN SHĚNG MÍN ZÚ YÁN JIŪ SUŌ 四川省民族研究所 [Sichuan Nationalities Research Institute] (1980). *Báimǎ Zàng rén zúshǔ wèntí tāolùn jí 白马藏人族属问题讨论集 [A collection of discussions on the question of the ethnic classification of Báimǎ Tibetans]. Chéngdū : Sìchuān Shěng Mín zú Yán jiū suŌ.*
- SŪN Hóngkāi 孙宏开 (1980). *Báimǎ rén de yǔyán 白马人的语言 [The language of the Báimǎ]. In : Sìchuān shěng mínzú yán jiū suŌ 四川省民族研究所 [Sichuan Nationalities Research Institute], ed. *Báimǎ Zàng rén zúshǔ wèntí tāolùn jí 白马藏人族属问题讨论集 [A collection of discussions on the question of the ethnic classification of Báimǎ Tibetans]. Chéngdū : Sìchuān mínzú yán jiū suŌ. Pp. 15-26.**

- SŪN Hóngkāi 孙宏开(1983). Liùjiāng liúyù de mínzú yǔyán jí qí xìshǔ fēnlèi 六江流域的民族语言及其系属分类 [Minority languages of the six river valley and their genetic classification]. *Mínzú xuébào*, 3, pp. 99-273.
- SŪN Hóngkāi 孙宏开(2003a). Báimáyǔ shì Zàngyǔ de yí ge fāngyán huò túyǔ ma? 白马语是藏语的一个方言或土语吗? [Is Báimǎ a dialect or vernacular of Tibetan]. *Yǔyán kēxué*, 1(2), pp. 65-75.
- SŪN Hóngkāi 孙宏开(2003b). Is Baima a dialect or vernacular of Tibetan? *Cahiers de Linguistique - Asie Orientale*, 32(1), pp. 61-81.
- SUN Jackson T.-S. 孙天心 (2003a). Phonological profile of Zhongu: A new Tibetan dialect of Northern Sichuan. *Yǔyán jì yǔyán yánjiū*, 4(4), pp. 769-836.
- SUN Jackson T.-S. 孙天心 (2003b). Qiújí Zàngyǔ de yǔyīn tèzhēng 求吉藏语的语音特征 [Phonological characteristics of Chos-rje Tibetan]. *Mínzú yǔwén*, 6, pp. 1-6.
- UPTON Janet L. (2000). Notes toward a native Tibetan ethnology: Dmudge bSan gtan's "Dwags-po (Baima)". *The Tibet Journal*, 25(1), pp. 3-26.
- WYLIE Turrell (1959). A standard system of Tibetan transcription. *Harvard Journal of Asiatic studies*, 22, pp. 261-267.
- YÁO Nǎiqiáng 姚乃强, editor-in-chief (2000). *Hàn-Yīng shuāng jiě Xīnhuá zìdiǎn/Xinhua dictionary with English translation 汉英双解新华字典*. 2000. Beijing : Shāngwù Yīnshūguǎn.
- ZÈNG Wéiyì 曾维益 & XIǎO Yóuyuán 萧猷源, editors-in-chief (1987). *Báimǎrén zúshǔ yánjiū wénjí 白马人族属研究文集* [A collection of research papers on the genetic affiliation of the Báimǎ]. Píngwǔ : Píngwǔxiàn Báimǎrén zúshǔ yánjiūhuì.

- ZHĀNG Jìchūān 张济川 (1994a). Báimǎhuà yǔ Zàngyǔ 白马话与藏语 (上) [Báimǎ language and Tibetan]. *Mínzú yǔwén*, 2, pp. 11-24.
- ZHĀNG Jìchūān 张济川 (1994b). "Báimǎhuà yǔ Zàngyǔ" 白马话与藏语 (下) [Báimǎ language and Tibetan]. *Mínzú yǔwén*, 3, pp. 58-67.
- ZHĀNG Jìchūān 张济川 (1997). Particularités phonétiques du Baima. *Cahiers de Linguistique – Asie orientale*, 26(1), pp. 131-153.
- ZHĀNG Yísūn 张怡荪, editor-in-chief (1993). *Bod-Rgya tshig mdzod chen-mo / Zàng-Hàn dà cídiǎn* 《藏藏大辞典》 [Tibetan-Chinese dictionary]. Beijing : Mínzú Chūbǎnshè in 2 vol.

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