

Writing Bisu: A Community-Based Approach to Orthography Development

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1.0 Introduction

This paper presents a tentative orthography for Bisu as spoken in Chiang Rai Province, Thailand. The orthography itself is the fruit of a workshop in which linguists, Thai government officials, and members of the language community came together to reach a consensus on how to write Bisu using the Thai script. This process revealed some interesting points about how the Bisu perceive their language and how it relates to the Thai writing system.

2.0 Background

Bisu was first “discovered” in the 1960s, as a result of Japanese linguist Tatsuo Nishida’s language survey work in Northern Thailand (Nishida 1973). At that time, Bisu was determined to be a language of the Loloish/Yiphoish branch of the Tibeto-Burman family.¹

The Bisu population in Thailand is concentrated in two villages in Chiang Rai Province: Doi Chomphuu (Amphoe Mae Lao, Tambon Pong Phrae) and Doi Pui (Amphoe Muang, Tambon Sa-a Dong Chai). There are a handful of Bisu speakers, middle aged and older, in Pha Daeng Village (Amphoe Phan, Tambon Doi Ngam). SIL’s *Ethnologue* (Grimes 1996)

¹ The term “Loloish” has been applied to this branch for many years, but has fallen out of favor recently because the word itself is Chinese in origin and has derogatory connotations. Yiphoish has been used in more recent publications as a more acceptable term (Hale, 1998).

estimates that there are less than 1000 Bisu speakers in Thailand, a figure the Bisu feel to be accurate.

The *Ethnologue* lists an additional 6000 Bisu in China where they are called Lao Mien, 'Old Burmese' in Yunnanese. From the viewpoint of the Chinese government, these are classified as Lahu due to the fact that they live in close proximity to the Lahu and have Lahu-like dress (Bradley 1998). It was only in 1991 that Chinese scholar Li Yongsui positively identified these people as Bisu (Grimes 1996).

While the Bisu in Thailand have had no knowledge of their relatives in China, the village elders tell of a related group in Myanmar. Some 50 years ago, a monk from Burma came into Thailand speaking what the Bisu refer to as "unclear Bisu" and saying he came from the "Pin" tribe. The Thai Bisu were able to understand this monk with some difficulty. Not long thereafter, a Pin couple came to the Bisu village to elope; they were of the same clan, and therefore their marriage would have been taboo among the Pin. The young man's father soon came after them and took them home. We suspect that these Pin are the same as the "Pyen" or "Pyin" mentioned in Scott and Hardiman's *Gazetteer of Upper Burma and the Shan States* (1900), a work that includes a list of approximately 250 Pyen words, many of which have close Bisu cognates.

Other related groups include the Phu Noi of Laos and the Coong of Vietnam. After listening to recorded word lists from one of the Phu Noi dialects, the Bisu of Thailand declared that they are "80% the same language" despite the fact that they were unable to understand recorded Phu Noi discourses. The immediate reaction to hearing the word lists was one of "We need to rent a taxi and go visit our relatives in Laos!"

We first came into contact with Bisu in 1996, while studying Northern Thai in Huay San Phlap Plaa Village, Amphoe Mae Lao, Chiang Rai, when our Northern Thai hostess hired a Bisu man, Noi Tong

Wongluwa, to serve as our Northern Thai language assistant.² Our initial shock at finding out that we were not working with a native speaker was tempered with curiosity as to what language he actually spoke. Noi Tong said that he spoke Lawa, a language we knew to be more concentrated in Chiang Mai Province. He said that his type of Lawa was confined to two or three villages in Chiang Rai Province and that they actually called themselves Bisu.

All of this led to our rediscovery of the fact that there are a number of groups in Northern Thailand who are called “Lawa” by the Northern Thai but, in fact, are not at all related to the Lawa or Wa of Chiang Mai and Myanmar. Indeed, Vacharee Nuamkaew, in her 1987 Mahidol University MA thesis on Bisu phonology, lists six groups that fall into this category!

As time passed, Noi Tong told us more about his language and culture, including the fact that he had been trying for many years to figure out how to write Bisu. He was very concerned about language loss and felt that having written materials would help to preserve the language for his children and grandchildren. The Standard Thai script, however, lacked appropriate symbols for many Bisu sounds. When we told him that one of the things we linguists were trained to do was to help develop scripts for unwritten languages, he enthusiastically invited us to come study his language and help him develop a writing system. We moved into Noi Tong’s home village of Doi Chomphuu in November, 1997 to begin learning the Bisu language.

Background research for this project was carried out in the libraries of Mahidol and Payap Universities, as well as SIL’s Bangkok-based David

² Most of the Bisu, especially those under 40, are fully bilingual in Northern Thai, and are almost always perceived as native speakers. This process begins in early childhood, with the parents using both languages with the children. Shame is part of the motivation behind this; in the past, outsiders made fun of the Bisu for their unclear Northern Thai. Now the Bisu boast that their Northern Thai abilities are far superior to those of other hilltribe groups they have encountered!

Thomas Library. Previous works by Nishida (1973), Bradley (1979, 1985, 1988), and Vacharee (1987) were particularly helpful for understanding Bisu phonology as well as Bisu's historical connections to the wider context of the Yiphoish family.

From the beginning of this project, we have had the pleasure of interacting with Mr. Makkio Katsura, a student of Nishida's currently working in a Japanese corporation in Bangkok. Mr. Katsura's long-term contact with the Bisu and his keen linguistic mind were crucial to all these efforts. As a member of the Bangkok-based Foundation for Applied Linguistics, Mr. Katsura was able to encourage Thai linguists Acharn Wanna Tienmee and Dr. Apiluck Tumtavitikul, both of Kasertsart University, to become involved in the project.

Through these prior studies, as well as our observations and language learning experiences in the village, key orthography-related issues arose. In particular, it became apparent that Bisu had several sounds which technically could not be written with "normal" Thai spelling conventions.

3.0 Underlying principles and practices

In his *Phonemes and Orthography: Language Planning in Ten Minority Languages of Thailand* (1976), the late William Smalley outlined five criteria to which orthographies should aspire. As condensed by Malone and Malone (1998) and listed in descending order of importance, these criteria are:

1. Maximum motivation for the learner, and acceptance by his society and controlling groups such as the government: For whatever reasons, will the orthography stimulate the people to want to read and write?
2. Maximum (optimum) representation: Does the orthography accurately represent the language as it is spoken?

3. Maximum ease of learning: If the orthography is being developed so that speakers of the language can learn to read and write it, can they learn it with ease?
4. Maximum (optimum) transfer: Does the orthography facilitate an easy transfer of reading skills to and from the dominant language?
5. Maximum reproduction: Can the orthography be easily reproduced with the available publishing and printing technology?

Smalley also alludes to what we have termed a “sixth maximum”: “Maximum Participation and Ownership.” By this we mean that, whenever possible, the language community should be actively involved in all orthography decisions.³ Linguists can play a vital role in this process by helping the language community become aware of the various challenges involved and provide options for dealing with some of the problems whose answers might not be immediately obvious to the language community. In the end, however, the interests of “maximum motivation” will be best served if the community feels true ownership of the orthography.⁴

With these six “maximums” in mind, the Bisu leadership was approached with the idea of convening a workshop to reach a consensus on

³ This, of course, assumes availability of speakers who are reasonably literate in the national language--something that is not always the case.

⁴ Some of the Thai-based orthographies contained in the volume Smalley (1976) edited are not actively used today (Bradley 1998). Part of this may relate to the fact that many of those groups already had Roman-based orthographies which had been used for some time. In addition, while the Thai alphabet is wonderfully suited to Thai, efforts to write these Mon-Khmer and Sino-Tibetan languages in the Thai script necessitated some very complicated modifications of “ordinary” Thai conventions, such that the mental gymnastics involved may have seemed daunting to potential readers/writers. The fact that these orthographies sometimes seem to reflect more linguistic opinion than true language community consensus may also factor into their current lack of popularity. One of those orthographies, Northern Khmer, has since been extensively revised in a community-based forum with very encouraging results in terms of language community acceptance and vigorous use (Thomas 1989). Additional research would be very helpful here.

how Bisu might be written. The workshop would be sponsored by the Foundation for Applied Linguistics (FAL) in cooperation with Payap University's Applied Linguistics Training Program (PYU-ALTP) and the Summer Institute of Linguistics (SIL). These organizations would act as consultants, serving as informed resources able to help the Bisu work through various orthography and literacy issues.

The FAL and SIL linguists involved met with SIL International Literacy Consultants Drs. Dennis and Susan Malone, as well as SIL-Mainland Southeast Asia Group Literacy Committee chair Mary Peterson, for pre-workshop consultation. At that time, the linguists devised a set of suggestions for writing Bisu sounds which have no clear equivalents in the Thai script with the understanding that ultimate orthography decision-making power belonged solely to the Bisu themselves.

4.0 Workshop organization

The workshop was held on Monday, December 7, 1998. This date was chosen because many youth would be in the village during this time (all schools were closed for the duration of the Asian Games). In addition, this was a public holiday (His Royal Majesty the King's birthday being Saturday, December 5), thus allowing FAL members working in Bangkok and PYU-ALTP staff in Chiang Mai time to make the trip north.

All three Bisu villages agreed to send representatives and the Bisu themselves decided to call the workshop "Project for Preserving the Bisu Language of the Three Villages." The Doi Pui Village agreed to prepare the sticky rice, while the Housewives' Association from Doi Chomphuu Village was asked to prepare additional food, including the uniquely Bisu dish, *laap prik*. FAL sent invitations to several government offices, including the Social Welfare Department, the Department of Education, and

the Department of Hilltribe Welfare, as well as the local Nai Amphoe, Kamnaan, and elementary school principal.⁵

The workshop was held at the Doi Chompuu Village temple. Approximately twenty Bisu participants attended, including middle-aged males (literate in Standard Thai), middle-aged females (literate and non-literate), several elderly males and females (non-literate), and several teenagers (literate)--all in all, a reasonably representative group.⁶ Non Bisu attendees included the Palat Amphoe of Amphoe Mae Lao (on behalf of the Nai Amphoe), the nearby elementary school principal, a representative from the Department of Hilltribe Welfare, and the editor of a local cultural newsmagazine. FAL Director Acharn Wanna Tienmee attended, along with FAL member Mr. Makkio Katsura. Mr. Jeff German, Mrs. Florence Lau, Mr. Henry Lau, my wife Mrs. Suzanne Person, and I attended on behalf of PYU-ALTP and SIL, assisted by ALTP staff member Khun Nara Rithma.

Several individuals were involved in the opening ceremony. Mr. Duang Jetsadaakaisri, village headman of Doi Chompuu Village, welcomed the guests. FAL director Acharn Wanna Tienmee spoke of the goals of her organization and of the workshop. FAL member Mr. Makkio Katsura spoke of how he had known about the Bisu for some thirty years and how happy he was that the Bisu themselves were keen to develop an alphabet and create books in order to preserve their language. Finally, the Palat Amphoe, Mr. Ongaat Muangosai, on behalf of the Nai Amphoe,

⁵ Nai Amphoe: government appointed officer over the local amphoe unit, sometimes translated 'district officer.'

Palat Amphoe: government appointed officer directly under the Nai Amphoe.

Kamnaa: elected official over several villages.

⁶ An exact number of Bisu attendees is difficult to determine, since a number of people came and went during the course of the workshop. Additionally, the non-literates did not sign the registration sheet. Nonetheless, a core group of twenty was present for the entirety of the workshop.

expressed how interested he was to learn more about the Bisu, having never before heard about this group, and declared the workshop officially opened.

Thereafter, a packet of pictures designed to elicit the initial consonants found in Bisu was distributed to each participant. These pictures had been prepared in advance in consultation between myself and a young Bisu artist, Mr. Ploy Wongluwa. The fact that these pictures were drawn by a member of their own group was a point of pride for the Bisu. In addition, Ploy's emic view of the Bisu environment enabled him to craft pictures whose content was immediately obvious to other Bisu. When confronted with the problem of drawing a red ant (color printing not being an option), Ploy drew a picture of that particular type of ant's rather unique nest (Figure 1, below), something that is immediately recognizable to most Bisu.

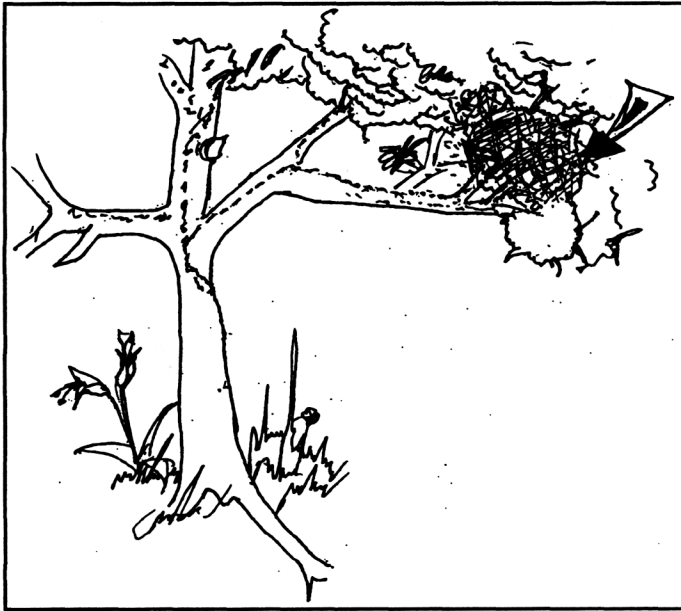


Figure 1. Elicitation poster for
ùu kjaŋ 'red ant' (reduced size)

The Bisu attendees discussed how to write the word featured by each picture, their suggestions being noted on a large whiteboard by Mr. Thon Taajaan, security coordinator of Doi Chomphuu Village. I moderated the first few words, with Thon naturally taking leadership of the discussion once he understood the process. Thon initially tried to get people to vote on alternate spellings by a show of hands; this failed, as no one would raise their hand for anything when the time came. Thereafter, Thon used more traditional means to arrive at group consensus on most of the words.⁷

At the conclusion of the orthography workshop, the pictures and their agreed-upon spellings were assembled into an alphabet book entitled *කට්ඨ කඳුකුප K is for Owl*. These books were distributed to the workshop participants, and will eventually be revised and made available to the Bisu community at large.

5.0 Results

The actual orthography decisions made by the Bisu provide some fascinating insight into the way they perceive their language.

⁷ This seemed to entail putting various suggested spellings on the board, then asking which the group would prefer. Some discussion on the merits of each suggestion followed. Sometimes the superior spelling would be obvious, sometimes less so. When things came to an impasse, Thon would usually pick his favorite, then say “How about this one.” He then seemed to read the audiences’ faces, looking for reactions one way or another. If he deemed the reaction positive, we went on to the next word. If the reaction seemed less decisive, Thon would repeat the question another time or two, sometimes giving his preference in a sentence culminating with a mild imperative particle. Thon’s suggestions usually won out, unless people expressed strong feelings to the contrary. I have observed this same method of building consensus at work in Bisu village meetings.

5.1 Initial Consonants

5.1.1 Voiceless Stops

Bisu has four initial voiceless stops: /p, t, c, k/. All of these are found in Standard Thai, so the Bisu renderings were non-controversial, as shown below:

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
p	ป	ป	ปองหนา	pɔŋ hnaa	water buffalo
t	ต	ต	ตอลอ	tɔɔlɔɔ	butterfly
c	จ	จ	จ็อก จ็อก	cɔk cɔk	lizard
k	ก	ก	ก่องกูป	kɔŋkúp	owl

Table 1. Initial voiceless stops

5.1.2 Aspirated Stops

Bisu has three initial aspirated stops, /p^h, t^h, k^h/. Standard Thai has several different consonants for each of these sounds since certain letters carry inherent tonal qualities in the Thai five-tone system. Bisu has only three tones, so it was decided that the Thai “low” consonants (which carry an inherent mid tone) would be employed for all of these phonemes. Tone would be indicated by the addition of *maj eek* (ˊ) or *maj too* (ˋ) to indicate low and high tones, respectively. The exception to the “low” consonant rule was /k^h/, as shown below:

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
p ^h	พ	พ	แพด่อง	p ^h æɔŋ	bag
t ^h	ท	ท	ท่าง	t ^h aaŋ	sword
k ^h	ค	ช / ค	ช่าเลา	k ^h aalaw	shirt

Table 2. Aspirated stops

The issue of /k^h/ seems to touch on the cognition of mother tongue speakers. Although the linguists present at the workshop pointed out that the technical phonetic values of k^h๖๖ k^hwaaj (ค) and k^h๖๖ k^huat (ช) are identical, and that the use of the “low” consonant k^h๖๖ k^hwaaj would keep spelling simple (in line with the other aspirated stops), many workshop participants felt that “high” consonant k^h๖๖ k^huat was somehow more appropriate in at least some words. One youth later commented, “k^h๖๖ k^huat is more beautiful.” Hence, both k^h๖๖ k^hwaaj and k^h๖๖ k^huat were admitted into the orthography. At the same time, suggestions that the Bisu use both “low” and “high” consonants pairings for /p^h/ and /t^h/, were rejected by the Bisu: they seemed sure that “high” consonants would not be needed for these two sounds. Perhaps future literary endeavors will help the Bisu decide whether they want all low consonants that consistently use Thai diacritics to mark tone, an unsymmetrical mix as at present, or a more symmetrical mix of “low” and “high” aspirated consonants.

5.1.3 Voiced Stops

Bisu has three voiced stops, /b, d, g/. The first two are found in Standard Thai, while /g/ is not. The linguists, following Smalley (1976), suggested the Bisu use ข *k^hɔɔ rak^haŋ* -- a letter which carries the contemporary value of /k^h/, but was probably voiced in ancient Thai (Brown 1965, Gedney 1973). The workshop participants reluctantly agreed. Later that evening, however, some alternative spellings were suggested, including *ก๖๖ kaj* plus *ก๖๖ ๓๓ (กง)* and *ก๖๖ kaj* plus *จ๖๖ ják* plus *ล๖๖ liŋ (กษล)*. In a later writers workshop sponsored by the Applied Linguistics Training Program at Payap University, *ก๖๖ kaj* plus *ก๖๖ ๓๓ (กง)* became the agreed-upon symbol. It seems that, to the Bisu, this combination aptly captures the velar and voiced components of /g/.

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
b	บ	บ	แบ๋	bææ	to lick
d	ด	ด	แดทยา	dææjâa	ghost
g	ข	กง	กงา	gaa	I

Table 3. Voiced stops

5.1.4 Fricatives and Affricates

Bisu has three initial fricatives, /s, h, ʃ/ and three initial affricates /ts, ts^h, tʃ^h/. Of these six sounds /s, h, tʃ^h/ are found in Thai, while /ʃ, ts, ts^h/ are not.

The linguists initially suggested that /ʃ, ts, ts^h/ be represented with the seldom-used Thai letters *tʃɔɔ tʃəə* (ฉ), *t^hɔɔ p^huu taw* (พ) and *t^hɔɔ t^hoŋ* (ฮ), respectively. Although this solution was posited in Smalley (1976) for other groups in Thailand, it was unacceptable to the Bisu workshop participants. There was a heavy insistence that the phonetic values of Thai letters should not be changed, lest the Thais accuse the Bisu of pronouncing those letters incorrectly. Finally, the Bisu leader Thon suggested that these sounds be written with the nearest Thai equivalent (as perceived by the Bisu) plus *rɔɔ rua* (ร), a letter which is often silent in Standard Thai words such as *จริง* *ciŋ* 'real.' This proved to be an ingenious way to deal with all three problem phonemes and was readily accepted by the group.⁸

⁸ This use of *rɔɔ rua* may also make Bisu texts appear somewhat prestigious to the readers inasmuch as many Thai words that have clusters involving silent *rɔɔ rua* are of Indic origin, relating to religious, royal, and otherwise prestigious terms.

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
s	ซ	ส	สี่จ๋อ	sɕɕk ^h ɔ̀	cucumber
h	ฮ	ฮ	ฮอด้ม	hoo ^h tà ^m	rat
tʃ ^h	ช	จ	จ๋อชยาแจะ	tʃ ^h oo ^h jaasæ̀æ̀	yawn
ʃ	ฉ	ชร	ชรี	ʃri	blood
ts	ฒ	จร	จร่า	tsàa	to eat
ts ^h	ฐ	ชร	ชระถ่า	ts ^h alàa	tiger

Table 4. Fricatives and affricates

There was some discussion between the linguists and the workshop participants as to when /s/ becomes /ʃ/. The Bisu were insistent that many of the words which the linguists who have written about Bisu had transcribed as [s] are actually [ʃ] sounds. This does not seem to be a case of free variation, since all the participants seemed in complete agreement as to which sounds were /s/ and which /ʃ/. The linguists in attendance at the workshop could not discern the difference. Instrumental analysis could be helpful in determining what additional acoustic factors might be part of this perceptual picture.⁹

⁹ There was likewise some discussion about the difference between /j/ and /hj/ (the latter sound is discussed in 5.1.8). Again, the many words which linguists have traditionally transcribed as /j/ were /hj/ to Bisu ears. These cases of differing perception underline the need to utilize mother-tongue intuition in orthography decisions. Although good phonology attempts to approximate mother-tongue speaker phonemic divisions, 100% matches cannot be assumed.

5.1.5 Laterals

Bisu has two laterals, /l/ and /hl/. The former corresponds to the Thai *ลว* *liŋ* (ล) as shown below, while the latter will be discussed under section 5.1.8.

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
l	ล	ล	ลอบา	ลวบaa	stone

Table 5. Laterals (excluding /hl/)

5.1.6 Nasals

Bisu has eight nasal sounds, /m, n, ɲ, ŋ, hm, hn, hɲ, hŋ/. /m, n, ŋ/ are found in Standard Thai. While /ɲ/ is not found in Standard Thai, it is common in Northern Thai, where it is often transcribed with *ญ* *juw* *p^huujiŋ*. This proved acceptable to the Bisu. The four voiceless nasals will be discussed in section 5.1.8.

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
m	ม	ม	หม่อง หม่อง	มดอŋ มดอŋ	mango
n	น	น	นั่ง	naŋ	you (sg)
ɲ	ญ	ญ	ญ่มไป๋	ɲàmpàj	grasshopper
ŋ	ง	ง	เง	ŋèe	to be struck by a falling tree

Table 6. Nasals (excluding voiceless nasals)

5.1.7 Approximants

Bisu has three approximants /w, j, hj/. The first two are found in Standard Thai, while the third will be discussed in section 5.1.8.

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
w	ว	ว	ว่า	wàa	pig
j	ย	ย	ย่าบี	jàabii	young woman

Table 7. Approximants

5.1.8 Pre-aspirates

Bisu has four voiceless nasals /hm, hn, hn̥, hj/. The Bisu associate these voiceless nasals with /hl/ and /hj/. Nishida (1973) terms these six sounds “voiceless on-glides” while Bradley (1985) notes that the “voiceless” nasals “start voiceless and end voiced.” Here, the term “pre-aspirates” is invoked to reflect the way the Bisu describe these sounds: “Sounds in which a little puff of air comes out first.” In any event, Standard Thai has none of these sounds. The workshop participants thus decided to write all these sounds as a combination of *h๑๑ nokhuuk* (ฮ) plus the nearest Thai consonant.

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
hm	ชม	ชม	ชมยา	hmjaa	knife
hn	ชน	ชน	เฮน่า	hnàw	mucus
hn̩	ชญ	ชญ	ชญา	hn̩aaŋ	fishing pole
hŋ	ชง	ชง	เฮง	hŋèe	leech
hl	ชล	ชล	ชูล่อง	ʔùuhlòŋ	pot
hj	ชย	ชย	ชยา	hjaa	chicken

Table 8. Pre-aspirates

5.1.9 Palatalized and Labialized Consonants

Various researchers have come to different conclusions as to the number of palatalized and labialized consonants in Bisu. In our conversations with the Bisu to date, some fourteen have come to light: /pl, p^hl, bl, hml, kl, k^hl, kw, pj, p^hj, bj, hmj, kj, k^hj, k^hw/.¹⁰ These are all written as clusters, as shown below:

¹⁰ We tried repeatedly to elicit words for some of the other clusters described by other researchers, but failed to gain any positive response from the Bisu. Most of the sounds concerned were reported to occur very rarely. Should the Bisu encounter these sounds in later writing efforts, they should be able to write them fairly easily using the conventions employed here.

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
pl	ปล	ปร	น้ำเปราะ	nàmplaʔ	round cucumber
p ^h l	พล	พร	พรุบ	p ^h lúp	to expectorate
bl	บล	บร	บร่า	blàa	arrow
hml	ฮมล	ฮมล	ฮมล่าง	hmlàaŋ	long time
kl	กล	กร	กรา	klaa	to fall
k ^h l	คล	คร	เคริก	k ^h ək	to be broken
kw	กว	กว	กว่า	kwàa	to hunt
k ^h w	คว	คว	ควาด	k ^h wáat	water channel
pj	ปย	ปย	ปย่า	pjàa	bee
p ^h j	พย	พย	ยุมพยา	jum p ^h jaa	to tear down a house
bj	บย	บย	บย้า	bjáa	to clear a field
hmj	ฮมย	ฮมย	ดอง ฮมยาง	loŋ hmjaa	shrimp
kj	กย	กย	อู่กย้ง	?ùukjaŋ	tree-dwelling ant
k ^h j	คย	คย	อู่กย้า	?ùuk ^h jàa	field crab

Table 9. Palatalized and Labialized Consonants

Several interesting points should be noted here. First, in clusters whose second element is transcribed as /l/, the Thai script transcriptions (with the exception of /hml/) contain *รจจ รุา* (ร) (phonetic value in Thai of /r/).¹¹ This seems to be another area where native speaker intuitions did not quite match the outsiders' perspective. One plausible explanation lies in the fact that there is no contrast between /l/ and /r/ in Bisu. These sounds are technically distinct in written Standard Thai, but that contrast is often lost in the everyday spoken language. Less-educated or rural people in particular are likely to pronounce their Standard Thai /r/s as [l]s. This is even more acute in Northern Thai, the second language of all Bisu, where /r/s are almost entirely absent.¹² Thus the outsider could argue that the Bisu use of /r/ in these clusters represents a bit of over-compensation for a perceived shortcoming in their Standard Thai pronunciations!

In these clusters the Bisu interpreted the palatalization as a consonantal process. Before the workshop, the linguists had wondered whether they would employ the Thai vowel *ia* (เีย) in words such as *bjáa* 'to clear a field', which would have then been spelled เีย instead of ย้า.

¹¹ Further discussions with Bisu speakers attending writers workshops have revealed a sense that /hml/ should definitely be spelt as Thai *หิ ลจจ ลิη*, while the others are more like Thai *หิ รจจ รุา*. Again, it is difficult for linguists to hear the difference. Perhaps the nasalization in /hml/ makes the letter sound more lateral-like.

¹² Most word initial /r/ in Standard Thai become /h/ in Northern Thai, while some become /l/.

5.2 Final Consonants

The six final consonants in Bisu /p, t, k, m, n, ŋ/ are all found in Standard Thai, although Standard Thai usually writes /p, t, k/ as voiced sounds.¹³

Phonetic Symbol	Linguists' Suggestion	Workshop Agreement	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
p	บ	บ	ก่องกูป	kòŋkúp	owl
t	ด	ด	กวาด	k ^h wáat	water channel
k	ก	ก	จ็อก จ็อก	cók cók	lizard
m	ม	ม	สอด้ม	hoo ^t àm	rat
n	น	น	อ้งอาน	?aŋ ?aan	old materials
ŋ	ง	ง	อู่ฮ่ล่อง	?ùuhlòŋ	pot

Table 10. Final consonants

5.3 Vowels

Like Standard Thai, Bisu has nine vowels: /i, ɛ, u, e, ə, o, æ, a, ɔ/. Two diphthongs, /aw/ and /aj/, occur frequently.¹⁴ Unlike Thai, Bisu vowels do not have phonemic length contrast. For this reason, the linguists present suggested using only short vowels. Length is an issue

¹³ The Bisu seem to perceive final /w/ and /j/ as vowels and have written them as such. These sounds are covered under section 5.3.

¹⁴ Additional diphthongs are mentioned by Beaudouin in STEDT (Namkung 1996). These would seem to be very rare, sometimes the result of borrowing.

phonetically, however, and the Bisu felt strongly that vowels that sound long should be written long. From the examples used during the workshop, it appears that vowel length almost always depends on vowel position. For words ending in a stop, short vowels are usually employed; syllable final vowels are usually written as long vowels. The Bisu were inconsistent in the use of long versus short vowels in words ending in nasals (see ‘praying mantis’ and ‘bracelet’ in Table 11¹⁵, below). This is an area for further observation and discussion in an effort to establish consistent spelling conventions. Final /w/ and /j/ are perceived as diphthongs and are written accordingly.

¹⁵ In Table 11, the linguists’ suggestions of short vowels are not included due to limitations of space. The “Thai Script” column represents the workshop agreement.

Phonetic	Thai Script	Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
i	ิ	จิงโกงหมาด่าง	ciŋkoŋmàalàaŋ	praying mantis
ii	ี	ขี้	ʃii	blood
u	ึ	น่าขี้	nàaʃiiŋ	ear
uu	ื	สือข่อ	sùuk ^h òo	cucumber
u	ู	พรว	p ^h lúp	expectorate
uu	ุ	อู่ชด่อง	?ùuhlòŋ	pot
e	เ็	เล็กโก่น	lékkòn	nail
ee	เอ	เ่ง	ŋèe	to be struck by a falling tree
ə	เอะ	เคอะ	k ^h ə?	to, toward
əə	เะ	จระเก็ง	tsàakəŋ	dish eaten
o	โอะ	โยะ	jo?	yonder
oo	โ	ระโก่ง	rakòŋ	bracelet
æ	แอะ	แค้นแระ	p ^h ææra?	goat
ææ	แ	แบ่ง	bææ	to lick
a	ั	นัง	naŋ	you (sg)
aa	ำ	ว่า	wàa	pig
ɔ	อ็	จ็อก จ็อก	cók cók	lizard
ɔɔ	อ	ตอลอ	tooloo	butterfly
aw	เำ	เฮน่า	hnàw	mucus
aj	ไ	ตั้มไป	ŋàmpàj	grasshopper

Table 11. Vowels and diphthongs

5.4 Tones

As mentioned in section 5.1.2, there are three tones in Bisu: high, mid, and low. While minimal triads illustrating this contrast in identical environments are somewhat rare, rules of analogous contrast do seem to apply. In terms of distribution, Vacharee’s analysis of 1512 major syllables found 422 high tone syllables, 1008 mid tone syllables, and a mere 82 low tone syllables (Vacharee 1987).

The orthography workshop participants initially decided to employ “middle” and “low” consonants, with the exception of *k^hɔɔ k^huat* (๗), resulting in a default mid tone with low and high tones marked *maj eek* (ˊ) or *maj too* (ˋ) respectively.

Sample word (Thai script)	Phonetic Transcription	Sample word (gloss)
ฮ้าง	hjáa	field
ฮยา	hjaa	chicken
ฮย่า	hjàa	to itch

Table 12. Tones

While the “*maj eek* for low tone, *maj too* for high tone” rule initially seemed the simplest solution to the tone puzzle, the influence of Thai spelling rules on literate Bisu is fairly pervasive. Thus, in later literary endeavors, many Bisu authors have used *hɔɔ hiip* (๗) before “low” consonants to indicate low tone in closed syllables, e.g. สี่ไขหลอก *sùuk^hajlɔɔk* ‘a type of fruit’, and *hɔɔ hiip* plus *maj eek* (๗ˊ) to

indicate low tone in open syllables, e.g. กำฟ้าทษา *kàap^hàjàa* ‘male’. This is definitely an area where additional linguistic observation and community conversation is needed.

Bisu authors also occasionally use $\acute{\text{~}}$ *maj catawaa* (which indicates a rising tone in Standard Thai) for certain words. This was usually done for emphasis, although we encountered one case where tone sandhi was probably involved (a low tone word taking a bit of a rising lilt when followed by a high tone word). The Bisu definitely feel that they occasionally need *maj catawaa* because things just “wouldn’t be quite right without it”.¹⁶

5.5 Tone sandhi

There is a limited amount of tone sandhi in Bisu. Most of it seems to disappear in careful speech, and initially appeared only rarely in written works, i.e. the spellings were as if the word was pronounced in isolation. As the Bisu began to write more and more, and think about their language more and more, some became aware of how the low tone negation marker *bà* sometimes seems to “pull down” the tone of a following word. They have been advised to ignore this phonetic influence, spelling ensuing words as if they were framed in a positive sense, for sake of consistency.

¹⁶ My own “strictly linguistic” resistance to the use of *maj jutawah* crumbled upon remembering how certain poets, including linguist Kenneth Pike, have been known to include intonation lines above their verses to compensate for the lack of intonational devices in the English orthography!

5.6 Other Considerations

5.6.1 The mysterious floating nasals

One of the greatest challenges for outsiders learning Bisu is determining whether or not a word ends in a nasal. This is due to the fact that nasals (usually [n] or [ŋ]) seem to “pop-up” between lots of words. This phenomenon has not been documented in any previous research, something which Makkio Katsura relates to the fact that it is very difficult to understand. In his ten years of thinking seriously about the Bisu language, he has yet to discover any systematic phonological process at work here. Most Bisu seem unconscious of most of these nasals, and rarely attempt to transcribe them. This is definitely an area where further research is needed.

Example 1. *kwaat*
 sweep
 juum kwaat n bəən ja
 house sweep finished part.
 [I've] finished sweeping the house.

5.6.2 Other environmental influences

When a word ending with a vowel is followed by a word beginning with /j/, a process of assimilation often occurs.

Example 2. *tsàa*
 eat
 hàaj tsàaj ja
 rice eat question part.
 Have you eaten?

As with the mysterious floating nasals, the Bisu seem largely unconscious of this process; the floating /j/s are rarely written. This is yet another area for further linguistic research.

5.7 Morpheme, word, and sentence breaks

While the bulk of the Bisu vocabulary is monosyllabic, various disyllabic and trisyllabic indigenous words are present. The morphology is thus relatively simple, as is the case with Thai.

During the workshop the linguists suggested that the Bisu indicate word breaks with blank spaces, as is done in English and in Thai early reading materials, for the convenience of new readers. This idea has not really caught on, despite the fact that different Bisu authors sometimes had difficulties reading one another's work due to uncertainty over where words begin and end. Some have conceded that word breaks would be helpful, but continue to resist making them. This is probably because of the influence of Standard Thai (which does not use word breaks). That is, sentences with word breaks would just "look funny" to readers accustomed to the Thai system. In addition, Bisu's use of subject and object markers, which Thai does not have, and Bisu's rich store of particles, which sometimes indicate tense but are not verb suffixes per se, add to the confusion of what exactly qualifies as a word!

At this time it appears that sentence final punctuation will be unnecessary because of the pervasive presence of sentence-final particles.

5.8 Loan words

Bisu contains a number of loan words from Tai Lue, Northern Thai, and Standard Thai. The Bisu are unaware of the borrowed nature of the Tai Lue loans, since they have not been in contact with Tai Lue speakers for several generations. The Northern Thai and Standard Thai

loans are spelled as they are pronounced in Bisu. This often involves changes in tone.

5.9 Dialect variation

As far as dialect differences, the only major discussion in the workshop arose from Pha Daeng Village's use of /l/ word medially where the other two villages use /j/. The two older participants from Pha Daeng (one of whom is probably the most wealthy person in all three villages) were very insistent about doing it their way! Finally, both spellings were put on the board. Most of the Bisu are very aware of dialect differences in other areas, such as Doi Pui Village having different words for 'forest,' 'mountain,' etc. In respect to the feelings of all three villages, dialect differences will receive equal treatment in wordlists and dictionaries. Other written materials will contain footnotes where dialect differences might be confusing.¹⁷

6.0 Evaluation and directions for future work

Community reaction to the idea of having a written language for Bisu has been mostly positive. Most of the people who used to insist that Bisu could never be written have softened their positions. A handful still point to the differences between "normal" Thai and Bisu as reasons why Bisu can never truly be written.

Preliminary orthography testing, carried out by Bisu individuals who attended later writers workshops, found that some literate adults had

¹⁷ Bradley (1988) discusses lexical variation among the various Bisu villages. It should be noted that these are dialects in the minimal sense of the word; mutual intelligibility is very high.

difficulty reading the script. This was ascribed to the fact that, though literate, these individuals have had very little occasion or reason to read even Thai. Thus, their general reading abilities have atrophied. Some sort of transitional reading lessons might be in order for these individuals. A series of graded readers would also be helpful here, such that these adults could start on a more simple level before plunging into extended folktales, etc. It seems that younger people, including schoolchildren, are able to read short folktales very easily. The Bisu involved say this is because the young people are more used to reading in general. The younger generation seems quite enthused about the idea of reading and writing Bisu, as revealed by the six teenagers who voluntarily attended the orthography workshop and the five youth who attended a subsequent, month-long writers workshop sponsored by the Applied Linguistics Training Program of Payap University.

Feelings of language pride have increased through this process. Local government officials have become very supportive. These include: Mr. Thanin Suphasaen, Nai Amphoe of Mae Lao; Mr. Boonrawm Nisermrot Palat Amphoe of Mae Lao; Acharn Chuchay Chaylanka, the principal of Huay San Phlaap Phlaa School; Mr. Duang Sajing, Kamnaan of Tambon Pong Phrae; and Mr. Ngerm Siithipeng, Tambong Pong Phrae Community Officer. Indeed, Mr. Thanin has helped to organize the construction of a small Bisu cultural center in Doi Chomphuu Village to serve both the Bisu themselves and tourists who pass through the village en route to a nearby waterfall.

An additional source of renewed language pride came from the January 8, 1999 television images of my wife, Suzanne Person, presenting a copy of the Bisu *K is for Owl* alphabet book to that great patron of art and learning in Thailand, Her Royal Highness Crown Princess Maha Chakri Sirindhorn. For weeks after the broadcast, the Bisu, long ridiculed by their neighbors as speakers of a mere "monkey language," boasted, "The Crown Princess has our words!"

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