

# ***The Bisu Language***

**Xu Shixuan**

**Cecilia Brassett (trans.)**

*Languages of the World/Materials 411*  
LINCOM EUROPA

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## Abbreviations

adj.	adjective
adv.	adverb
cl.	classifier
conj.	conjunction
fn.	function word
n.	noun
1p, 2p, 3p	first, second, third person
part.	particle
pl.	plural
poss.	possession
RMB	<i>Renminbi</i> (unit of currency in the People's Republic of China)
sing.	singular
v.	verb

## Explanatory Notes

<i>chi</i>	a traditional unit of length, equivalent to 0.33 metres
<i>cun</i>	a traditional unit of length, equivalent to 3.33 centimetres
<i>dou</i>	a traditional unit of dry measure for grain, equivalent to 10 litres
<i>erhu</i>	a two-stringed bowed instrument
<i>huqin</i>	a <i>huqin</i> is any of several two-stringed bowed instruments, including the <i>erhu</i> and <i>jinghu</i> .
<i>jin</i> (catty)	a unit of weight equivalent to 0.5 kilogrammes
<i>liang</i> (tael)	a unit of weight equivalent to 50 grammes
<i>lusheng</i>	a reed-pipe wind instrument
<i>suona</i>	a horn (musical instrument)

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Cecilia Brassett,  
April 2001, Beijing.

## Preface

China is a united socialist country comprising many ethnic groups and languages. The policies of the Chinese Communist Party and the Chinese Government have always maintained the equality of these ethnic groups and their languages, and have attached great importance to the investigation and study of minority languages. Since the 1950s, the Chinese Government has invested considerable labour, materials and finance into extensive and in-depth studies of minority languages. The success of these projects has led to the discovery of many new languages. The results of the linguistic investigations of the 1950s and 1960s have been published in the series *Brief Descriptions of the Minority Languages of China*. This series was one of the key items which were included in the sixth national Five-Year Plan, and was one of five sets of publications concerned with ethnic minority affairs, which were published from 1980 to 1987.

Since the 1980s, China has implemented a policy of reform and has opened her doors to the outside world. This has led to more informed and realistic thinking patterns, and has ushered in a new phase in the development of minority languages. Researchers into minority languages were newly motivated and opportunities were opened up to them. During this period, research workers penetrated deep into border areas, mountainous regions and isolated islands, discovering a group of previously unknown languages. Although these languages do not have large numbers of speakers, and have not been at the centre of attention, they have an important value in scientific research. This is especially so for those languages whose numbers of speakers are rapidly declining, so that investigation opportunities have to be grasped quickly, in order to preserve valuable language data. In 1992, in order to further this aim, with the support of the Chinese Academy of Social Sciences and other organisations concerned with Social Sciences in China, we began systematic, in-depth and complete investigations into these languages. The results of these studies will be published as they are completed, as a new series entitled *Investigations into Newly Discovered Languages in China*.

In our opinion, the systematic investigation of newly discovered languages, their in-depth analysis and their timely publication, are beneficial in a variety of ways. They can lead to a better understanding of national affairs; further the development of linguistics, promoting research into minority languages; enrich the cultural treasury of our country, and ensure the prosperity of our ethnic minority cultures; and encourage in-depth investigations of the relationships between different ethnic minorities. All this should lead to better management of minority affairs, thus promoting and developing the unity and progress of our big family: socialist China.

During the editing and publication of this series, we have received instruction, support and assistance from the Planning Offices of the Chinese Academy of Philosophy and Social Sciences, the Organising Bureau for Scientific Research of the Chinese Academy of Social Sciences (CASS), the Institute of Nationality Studies of CASS, and Shanghai Far East Publishers. To them we offer our wholehearted and grateful thanks.

The Editorial Committee  
*Investigations into Newly Discovered Languages in China*  
January 1996

## 1 Introduction

Bisu is a newly discovered language, and has a history of linguistic description spanning only the past three decades. First described in Thailand in the 1960s by overseas linguists, it was formally recognised as a new member among the languages of China in the late 1980s, after intensive research and survey of its distribution.<sup>1</sup> This volume aims to analyse and describe Bisu in terms of its structure, its relationship to other languages in the same family, and its sociological and cultural background, in an attempt to present a more comprehensive and systematic overview of the language.

### 1.1 The Language

#### 1.1.1 Use and Distribution

A trans-national language, Bisu is spoken in the border areas of China, Thailand, Myanmar, and Laos. It is confined, within China itself, to the southern part of Yunnan Province in the following counties and villages:

in Lancang County: the villages of Zhutang, Laba, Donglang, and Fubang

in Menghai County: Mengzhe Village

in Ximeng County: Lisuo Village

in Menglian County: Nanya Village.

Within the above, the most representative Bisu-speaking areas are the hamlets of Laomiandazhai in Zhutang Village of Lancang County, and Laopinzhai in Mengzhe Village in Menghai County.

Bisu is spoken in the following areas in North Thailand: Mae Suai, Mae Lao, and Muang Districts in Chiangrai Province and Phan District in Phayao Province, with the hamlets of Huai Chomphu in Mae Lao District, Tako in Mae Suai District, and Phadeng in Phan District as representative<sup>2</sup>. Within Myanmar, its distribution is confined to the Laotian border, but specific locations are unclear due to lack of survey information in those areas.

Judging by the internal features of the Bisu spoken in China and Thailand, the language may be divided into three dialects: the Lanmeng dialect in China and the Huaipa and Tako dialects in Thailand. The Lanmeng and Huaipa dialects may each be further subdivided into two vernaculars. There is no contact between different dialect areas.

According to available information, the Bisu number nearly 10,000, of whom 5,000 are in China. As the Bisu live in widely dispersed areas, there is considerable mingling with other ethnic minorities. In the Lancang, Ximeng, and Menglian Counties in Yunnan Province in China, the Bisu live mainly amongst the Lahu, with only a few hamlets occupied solely by Bisu. In Menghai County, there is only one such pure Bisu hamlet, which is surrounded by Dai and Hani communities. The situation is similar in Thailand, where the Bisu mainly live in mixed hamlets together with other minority groups, with only a very small number of pure Bisu hamlets.

<sup>1</sup> Nishida, Tatsuo. 1966. Bisu Language Research - Preliminary Investigations into the language of the Bisu people in northern Thailand. *Southeast Asian Research*, 4(1). Japan: Southeast Asian Research Centre of Tokyo University.

Li Yongsui. 1991. A Preliminary Study of the Mbisu Language. *Minzu Yiwu*, Vol.4: 35-47.

<sup>2</sup> Bradley, David. 1989. *Historical Sketch of the Bisu Language*. Translated into Chinese by Chen Kang in *Minzu Yiwu*, Vol.4: 35-41.

As Bisu areas are surrounded by other language groups, and most Bisu speakers live among other minority peoples within the same hamlets, the majority are bi- or multilingual. In China, Bisu are often proficient in Lahu, Dai, or Hani, and in Thailand, they can speak Northern Thai. In general, Bisu is only spoken within the confines of the villages. In villages where different nationalities live together, Bisu is often used only at home. Because of these restrictions on language use, many Bisu youth, especially those living within mixed hamlets, are gradually abandoning their mother tongue and using the dominant language within the region. In the Lancang area in China, many Bisu have begun to use Lahu; in Thailand, some speak only Northern Thai. Within some mixed hamlets, the use of Bisu is confined only to elderly residents in their 60s or 70s. With the increasing number of road and school construction projects within Bisu areas, and subsequent exposure to external influences, the number of Bisu speakers and the extent of its usage have continued to decline.

#### 1.1.2 Special Features

Despite its declining sociological function, Bisu has attracted considerable interest and attention because of its distinctive linguistic features.

(1) The internal features of Bisu have remained consistent and its dialects have retained its fundamental characteristics despite its wide dispersion among the border areas of four countries (China, Thailand, Myanmar, and Laos). This is all the more remarkable because of poor communication between these territories, the lack of contact between dialect areas, and the influence exerted on Bisu by the different languages surrounding Bisu areas.

The Bisu phonological system exhibits remarkable uniformity, and precise rules of correspondence have been developed to deal with external linguistic influences and differential development over the years. Within its lexicon, up to 60-75% correspondence may be found among some 500 basic terms, with the differences being mainly due to external linguistic influences. In addition, the basic forms of its grammatical structure and means of expression have also remained largely constant.

Thus, Bisu possesses remarkable consistency and stability, and is a language with very distinct internal characteristics.

(2) Bisu belongs to the Burmese-Yipho group of languages, within the Tibeto-Burman family in the Sino-Tibetan language phylum. Its structure possesses the basic features of the Burmese-Yipho group, and its development closely parallels the major trends and historical changes within the group. The Phunoi, Sangkong, Mpi, and Pyen languages, which are most closely related to Bisu and have very similar characteristics, constitute, together with Bisu, the Bisoid branch within the Burmese-Yipho group. Although this branch has been considered part of the Yipho branch in other classification systems<sup>3</sup>, it has a complex relationship with both Burmese and Yipho branches, and contains features not found in either.

By comparison with the Burmese and Yipho branches, the Bisoid branch resembles the former in its phonology and in the stages of its phonological development. These similarities include features such as the existence of complex onsets, rhymes with nasal or stop codas, and the very precise correspondence between tone categories. However, it approximates the latter in the results of a quantitative statistical analysis of cognate words.

<sup>3</sup> Bradley, David. 1979. *Proto-Loloish*. Copenhagen: Scandinavian Institute of Asian Studies Monograph Series No.39, Curzon Press.

In addition, Bisu, as the representative language of the Bisoid branch, reveals the following unique features absent in both Burmese and Yipho branches:

- phonologically, a number of nasal onsets have made the unusual progression to become voiced stops
- with respect to word formation, Bisu shows phonological mutations and endings which are earlier features in linguistic development
- grammatically, the development of both personal pronouns and classifiers has not kept pace with the majority of languages within the Burmese and Yipho branches, revealing a much slower historical progression

These distinctive characteristics may be helpful in offering new perspectives on the in-depth study of both the Burmese-Yipho group and the Tibeto-Burman language family. As many members of the newly recognised Bisoid branch are located outside China, Bisu language research is therefore especially relevant for Chinese linguists.

(3) The intimate and long association between Bisu and the Thai/Dai languages has considerably influenced its systematic structure, historical development, and the relationships between its dialects and vernaculars:

- absorption of loan words from Thai and Dai has enriched the Bisu vocabulary and widened the semantic domains of words
- assimilation of different sounds has led to changes in phonemic contrasts, thus slowing the progression of phonological change
- acquisition of certain grammatical elements has substantiated aspects of Bisu grammar

In addition, the Thai/Dai languages in different areas have affected Bisu to varying extents, and have either caused or increased the variations within the Bisu language. This is a major factor leading to the establishment of dialects and vernaculars.

Therefore, although Bisu has successfully retained its own special characteristics, its contact with other languages has affected its development and led to regional differences.

In conclusion, despite its small number of speakers, restricted distribution, and declining sociological function, the Bisu language is invaluable both in linguistic research and as important resource material, due to its many distinctive internal features, its place within the language pedigree, and its adaptive behaviour resulting from contact with other languages.

## 1.2 Bisu Society

As Bisu has no written form, the origin, history, and daily living conditions of the people have never been documented, apart from fragmentary accounts in the literature. Thus, much information regarding their history and society may only be obtained by conducting field research.

### 1.2.1 Migration and Settlement

The Bisu people are closely related to the present Burmese- and Yi-speaking peoples, and are descended together from the ancient Di and Qiang tribes. These include those who referred to themselves as the Bisu, Misu, and Mbisu peoples, and who were called by others the "Laomian" (Lancang, China), "Laopin" (Menghai, China), "Lawa" and "Lua" (Thailand) peoples.<sup>4</sup> They did not possess a common tribal name, and eked out a nomadic, subsistence-

<sup>4</sup> Nishida, Tatsuo. 1988-89. *Dictionary of Linguistics Vol.2*: 313-332. Japan: Sanxiantong Publishers.

type existence in the hill countries of the border areas of China, Thailand, Laos, and Myanmar until the mid-1950s. As there are no historical documents, authentication of the available information has not been possible, and the migratory history of the Bisu people over the past two or three centuries can only be traced *via* Bisu oral literature.

Over the past 200 years, two important periods of migration of the Bisu within China have occurred. These have been related to local uprisings in the 19th and 20th centuries. In 1799 (4th year of Emperor Jia Qing in the Qing Dynasty), Li Wenming and Li Xiaolao of the Lahu tribe led a large-scale rebellion in the areas of Shuangjiang, Lancang, and Menglian in Yunnan Province, to protest against cruel oppression by Han Chaoding, the Mengmeng *tusi*<sup>5</sup>. The rebellion involved more than 50 villages and over 50,000 people, including Bisu villagers living among the Lahu, in the Menglian area (present-day Lincang, Shuangjiang, and Gengma areas).

After the rebellion was crushed in 1801, the Bisu migrated south, taking with them nine horse-loads of cooking pots, cups, and iron tripods. Following the Nanku River downstream, they lived for a while at Miema Miemeng (present location unclear), among a group of "big people" with yellow hair, high nose-bridges, and long legs. However, the unsuitable climate led them to migrate back, passing through Nanchong Nanshu (which means "pond of hot water", *i.e.* hot springs) and arriving at Mengjiao Mengdong (present-day Cangyuan in Yunnan Province) to live among the Va people for another period. As they were such a small group, they could not resist harsh treatment and enslavement by *tusi* from the other minority groups. Therefore, a few decades later, their headman, Ya Makan, led them in an overnight escape. Although the *tusi* managed to recapture and enslave those who fled too late, a hundred or more households did arrive safely at Muga Mengnuo (present-day Muga Village in Lancang County), later moving to Dongzhu (in Zhutang Village, Lancang County), where they gradually increased to over 300 households.

The second phase of migration occurred in 1918, when Li Long and Li Hu led the peasants in an armed rebellion in the Lancang area. With "Kill the Officials; Cancel our Debts" as their slogan, they launched a spirited attack on the *tusi* system. The Bisu also participated in this conflict. The peasant forces routed most of the armed *tusi* soldiers and besieged the county offices in Lancang. To protect their common interests, the Lahu *tusi*, Han landlords, and local warlords formed an alliance, and, as a united front, finally defeated the peasants. For fear that their villages would be destroyed and their families killed, groups of Bisu decided to flee, moving to areas such as Menglian, Ximeng, and Menghai.

By 1961, the Bisu had already settled down in these areas, corresponding to their present distribution. According to the 1985 survey, Bisu numbered approximately 3560 in Lancang, 1230 in Menglian, 380 in Ximeng, and were called the "Laomian" people by local inhabitants. As the majority lived among the Lahu, with very few purely Bisu hamlets, the Bisu were designated part of the Lahu in 1990. In Menghai, there were about 800 Bisu, referred to by local residents as the "Laopin" people. They lived together in a big hamlet which was surrounded by Dai communities. In view of the relatively short period of separation from each other, the Bisu from different areas have maintained communication, so that only minor linguistic differences exist between these communities.

The Bisu in Thailand are said to have migrated there from Laos about two to three hundred years ago. Some live together in hamlets or villages, while others live in mixed communities together with other ethnic minority groups in Northern Thailand. Ethnic

Li Yongsui. 1991. A Preliminary Study of the Mbisu Language. *Minzu Yanwen*, Vol.4: 35-47.

McKinnon, John & Bhruksasri, Wanat. 1986. *Highlanders of Thailand*. UK: Oxford University Press.

<sup>5</sup> Translator's note: A *tusi* was a hereditary headman appointed by the government in the Yuan, Ming, and Qing dynasties for national minorities.

assimilation and economic integration have inevitably led to changes in many traditional elements. The organisation of society, the structure of the family, the construction of dwelling-places, and the style of clothing have all been altered to different extents. These ethnic characteristics, including the important one of language, are all declining towards extinction.

### 1.2.2 Social Structure and Organisation

The social development of the Bisu people reveals a transition from individual farms to the establishment of cooperative agricultural enterprises, and then on to private ownership. However, in view of the slash-and-burn method of subsistence farming, without secure land ownership, individual material possessions may consist only of a few simple farming implements and articles for daily use. Within villages, the contrast between rich and poor is relatively small, and the concept of social classes has not been developed. In the past, this was one of the reasons for their oppression by *tusi* from other ethnic minorities.

At the regional organisational level, the basic unit within the village is the family, founded on a married couple of one husband and one wife. Villages are independent of each other, with no system of subordination between them. However, close interdependence exists within a village, with features reminiscent of an undeveloped commune. These include a certain amount of close cooperation in food production, with absolute equality in terms of corporate rights and responsibilities. All families contribute to the labour required in building homes, and in conducting burials and funerals. They also share in the expenses needed for other public welfare activities within the village. When a pig is slaughtered, everyone in the village is entitled to an equal portion.

Within society as a whole, the basic unit is the village, with food production being organised and maintained by a social structure similar to that of a Village Council. Each village is led by a team consisting of four members: the headman, deputy headman, a hospitality officer, and a steward. All four are democratically elected, with unspecified terms of office: they may perform their duties over a long period of time, but may also resign or be removed from office at any time. Officers do not possess any special economic or political powers, and have no remuneration. On the contrary, their moral character and integrity must be exemplary, especially the headman's. He must:

- (1) have a wide experience of food production; have administrative ability; oversee orderly management of daily village affairs;
- (2) not show favouritism but be just in conducting affairs; not be greedy for small gain;
- (3) treat everybody with kindness; be able to unite the village; be respected and supported by the whole village;
- (4) demonstrate solemnity and chastity in his daily life; not take liberties with women. (Divorcees or widowers may not be elected to this post.)

While in office, the headman is subjected to certain restrictions, including the following: no slaughtering of livestock; no preparation of food with a fishy or foul smell in his home; and no consumption of dog-meat.

The headman's responsibilities involve managing village affairs, organising food production and religious rites, punishing those who have transgressed village laws, maintaining communications outside the village, and being a mediator in disputes involving other villages or tribes. The deputy headman is his assistant, and helps him in the management of village affairs. The duties of the hospitality officer include receiving guests to the village and arranging labour for various village activities. The steward is responsible for

various activities associated with religious observances, such as the burning of incense, kneading wax, tying red ribbons round the wrists of the bride and bridegroom at weddings, and untying them during divorce proceedings.

Election of the headman is a major event within village life. At election time, one adult male from each family in the village will meet with the others to discuss possible candidates. When a candidate has been chosen, two men are selected to take two bowls of wine to his home in congratulation. His decision to accept or to reject the wine indicates his willingness, or otherwise, to undertake the responsibility. If he agrees, he has to drink the wine and then offer everybody two more bowls of wine, as a sign of gratitude to the whole community. Most elections take place on a Day of the Dog in the winter months, and the headman assumes office on a Day of the Pig. When the headman wishes to resign, he takes two bowls of wine and informs the villagers, who then prepare for another election. Re-election is also necessitated by the following: death of the headman's wife; when the crops in the village do not flourish; or when there is an outbreak of infectious disease in the village which affects either people or livestock.

It is now impossible to ascertain when this organisational structure began. Despite its simplicity, its very firm community basis has led to the maintenance of this traditional form even after the establishment of cooperative societies, production teams and village committees. In addition, it is invested with considerable authority within the village, and continues to perform an important function in the management of village affairs.

### 1.2.3 Food Production Methods

In the past, the Bisu economy was built upon individual labour, using simple tools on scattered farms. With each family as a work-unit, the Bisu were hill-farmers, hunters, and gatherers. Their economic life was rather limited in scope, and they lacked other skills such as horticulture or handicraft. Apart from hunting, there was no strict division of labour across the genders, with men and women together performing the same production tasks. Output was generally low. Crops included upland rice, maize, and other types of grain, with no fixed plots or assistance from animals. They did not plough or open up wasteland, and essentially used a slash-and-burn method, with extensive cultivation but poor harvests. As they used mainly simple tools such as wooden hoes and sharp sticks, the growth of their crops relied solely on natural fertilisers produced after burning of the land.

When the fields were no longer fertile, the villagers would either move on to another area and repeat the slash-and-burn cycle, or would continue cultivation on land previously lying fallow. This kind of farming practice resulted in unpredictable harvests, with poor yields for each work-unit. Since Liberation in 1949, more advanced farming methods have been introduced, such as ploughing with oxen and the building of terraced fields, so that the villagers have been able to cultivate paddy fields along with other crops such as sugar-cane, leading to a considerable increase in productivity.

Villages were usually situated near the summits of hills, on sunny slopes sheltered from the wind. As protection from raids by other tribes or from wild beasts, their houses were built very close together, leading to crowded living conditions. In the past, a typical house consisted of a circular stone wall (about 60-70cm high) which supported a thatched dwelling above. The raised floor inside the house was made from wooden boards. Now more solid structures are being constructed, by using sun-dried mud-blocks to build higher walls. Some houses lack internal partitions, and have the fireplace on one side of the room, with storage and sleeping quarters on the other. Other houses may be divided into two rooms in order to keep the fireplace separate from the storage and sleeping areas. Livestock were not stabled, but lived together with the family, leading to poor hygiene conditions. More recently,



however, villagers setting up new homes are choosing to build on more open land, and are stabling their animals, so that living conditions have improved greatly.

Having lived among other ethnic groups for so many years, the Bisu have been greatly influenced by their practices, especially by the Dai, whose sociological development has been more rapid. Contact with the Dai has brought great changes in the traditional Bisu way of life. With regard to production, the Bisu, who have always practised simple hill-farming, have been able to learn skills such as paddy cultivation, horticulture, and animal husbandry from their Dai neighbours. They have also acquired new tools, and learned to construct terraced paddies along rivers and streams. These changes are reflected in their language, with a considerable increase in new vocabulary:

- with respect to production: words such as field, plough, hoe, axe, vegetables, aubergine, peanut, rabbit, goat, graze, castrate, incubate, and many others
- in their way of life: words such as tile, sand, pan, chopsticks, vase, scissors, and tobacco
- cultural terms originating from the Thai/Dai languages, reflecting the entry of the Bisu people into the market-place: words such as *huqin*, paper, things, letter, market, price, learn, weigh, measure, expensive, catty (*jin*), tael (*liang*), and *dou*.

#### 1.2.4 Beliefs and Customs

##### A. Belief Systems and Behavioural Norms

The Bisu do not have a monotheistic system of belief, but adhere to pantheism, ascribing spiritual power to all things and worshipping many gods. Gods who are more intimately related to their daily lives include those governing the home, village, water, grain, mountain, fire, and thunder. In recent years, they have absorbed some Buddhist beliefs as a result of contact with other ethnic groups.

Despite their long and very harsh migratory life-style and adverse living conditions, the Bisu have an impressive set of behavioural norms, ethical and moral beliefs. They are humble, kind-hearted, honest and sincere, generous and forbearing towards each other, and very peaceable. They possess a strong will and remarkable tenacity, working hard to eke out a living from a harsh environment. In addition, they take pride in self-reliance, are unwilling to borrow or beg even in poverty or hunger, and do not covet others' goods.

Equality and mutual cooperation are promoted, as well as respect for the elderly and care for the young. The elderly are accorded special deference: modest speech and respectful behaviour must be employed in communicating with them; on the road, they must be allowed to pass; they must have the seat of honour at meal-times; and must be presented with the first bowl of new rice or any particularly delicious food. During New Year and other festivals, their hands and face are cleaned for them as a sign of respect.

The Bisu have a strong sense of chastity and strictly prohibit pre-marital sexual intercourse. If a baby is born to a couple who have been married for less than a year, they have to provide wine for the whole village as a fine. Marital faithfulness is encouraged, and the word "divorce" may not be mentioned during quarrels, to avoid hurting one another's feelings. Those practising polygamy are penalised economically, such as having to apologise to the whole village by slaughtering an ox.

The following constitute strict tribal laws, and transgressors must accept the stipulated penalties:

(1) When a new house is built, the headman must be informed first, so that he can mobilise all the villagers to help in order to complete construction in one day. (As many villagers are now building walled structures, six days are allowed for completion as construction is more time-consuming.)

(2) Crops must be well cared for; compensation is required if a domestic animal treads on and damages others' crops.

(3) Improper behaviour towards the opposite sex incurs a penalty of four *dou*'s of rice, four RMB, and 200 catties of wine. In addition, a pig needs to be slaughtered as an apology to the whole village. If the headman breaks this law, he must also resign immediately.

(4) Inter-marriage with other ethnic groups is prohibited, with offenders being driven from the village. (This rule has already been changed.)

(5) No burglary or thievery is allowed. Offenders have to slaughter an ox as an apology to the whole village, and also pay compensation and apologise to the victim.

(6) Quarrels and fights are prohibited, with a forfeit of wine required from both parties for initiating rows within the village. All villagers may participate in arbitration and mediation processes.

Villagers may not arbitrarily reprimand or attack an offender who has broken the above rules. Instead, transgressors should always be punished according to the prescribed penalties.

##### B. Festivals and Religious Activities

The calendar is organised around 12 symbolic animals<sup>6</sup>. These are used to designate years, months, and days. Many religious activities and festivals are packed into the year, and are all closely linked to food production.

###### 1st day of the 1st month                      New Year Celebrations

In the morning, each family takes half a catty of wine, two taels of meat, two corncakes, a pair of candles, and a pair of joss-sticks, and they assemble together at the headman's house to wish him a Happy New Year. The headman makes a congratulatory speech, wishing peace to both young and old, asking for good weather - not too much wind or rain - and an abundant harvest in the coming year. Relatives also visit one another to convey New Year greetings; inter-village visits may also occur.

In the evening, a male representative from each family takes a catty of meat, a catty of rice, and half a catty of wine to attend a New Year's banquet at the headman's house. After dinner, all the villagers gather there to drink wine, dance to *lusheng* music, and sing traditional songs.

###### 9th day of the 1st month                      All villagers assemble at the headman's house.

###### 8th day of the 2nd month                      Dance to *lusheng* music at the headman's house.

Villagers wishing to do so may take wine to dance to *lusheng* music at the headman's house. The busy farming season begins after this date, and tradition states that playing the *lusheng* again will disturb the God of Grain and affect the harvest. The villagers therefore play the *lusheng* to their hearts' content on this day, as they may not do so again until 24th June, the Torch Festival.

<sup>6</sup> Translator's note: This practice is common in rural China, with 12 symbolic animals being associated with a 12-year cycle. The 12 animals are the rat, ox, tiger, hare, dragon, snake, horse, sheep, monkey, cock, dog, and hog.

**15th day of the 3rd month** Festival of Fences

A member from each family takes a bowl of rice to the headman's house to have lunch together and participate in a ceremony. After this, everybody returns home and builds a new fence around their own houses.

**5th day of the 5th month** Calling on the God of Grain

Each family kills three chickens and goes to the fields to call on the God of Grain. The headman is then invited to inspect chicken bones (either the marks on them, or their positions after being thrown), in order to divine the prospects for the present year.

**24th day of the 6th month** The Torch Festival

The headman prays for blessings for each family at the dwelling-place of the Village God.

**15th day of the 8th month** The Vegetarian Festival

Each family takes a bowl of rice to the headman's house to receive his blessings and prayers; and returns with a corncake which is placed on top of the bamboo basket used for storing grain, to indicate surplus grain from a year of abundant harvest. In addition, each family must also take a bowl of soya beans and a corncake to the temple to pray and recite sacred incantations, in order to seek the Bodhisattva's blessings. They may only have vegetarian food on this day.

**10th day of the 11th month** Tree-Felling Festival

A member from each family takes a bowl of rice and a bowl of soya beans to have dinner at the headman's house. After dinner, they symbolically chop up materials which are used for building houses, including wood, cogongrass, and firewood.

The main religious activities include:

**15th day of the 12th month** Worship of the Water God

A pig is purchased by the whole village as an offering to the Water God. After reciting verses of praise, everybody has a share of pork.

**15th day of 12th & 3rd months** Worship of the Mountain God

After worshipping together, the villagers share in a communal meal.

**30th day of the 3rd month** Worship of the Fire God

Only one member from each family participates in this rite. The ceremony starts in the village, where each person recites incantations while holding a hen and a cockerel. After this, the chickens are killed next to the river, while the villagers intone the following: "If Water does not turn its head, then Fire will not return either". Two bowls of wine are then poured into the river, and the heads and feet of the chickens are also thrown in. The chickens are then cooked beside the river, and eaten then and there. Uneaten food may not be taken away, for fear that the Fire God would be enticed back.

**15th day of the 8th month** Worship of the Sun and the Moon

Food items such as cucumbers and corncakes are presented to the sun and the moon, and these verses of praise are recited: "During the day we rely on the sun, whose light gives us abundant harvests; at night we depend on the moon, which lights up the ground."

Another communal activity occurs on the 30th day of the 4th month, where the village bids farewell to the God of Plague. Grottesquely shaped objects are fashioned from mud by the villagers, and, together with other items such as tea leaves, rice, and charcoal, are placed in a bamboo basket. This is then carried by two people, who take it on a circuit of the outside of the village. The other villagers, draped in blankets, kneel together at the entrance to the village. When the carriers return, they carry the basket around the assembled group and then walk away, not looking back until they have thrown the basket away at a certain distance from the village. The other villagers then return home, again not turning their heads, thus bidding farewell to the God of Plague.

Certain taboos exist: the otter is never eaten, because the ancestors of the Bisu were said to have been brought up by otters, so later generations should acknowledge their debt in this way. Eating mutton is also prohibited, as legend has it that, during a period of famine, a sheep stole some grain from the heavenly fields for the Bisu, who continue to be grateful. Villagers must proceed with caution within the area surrounding an object struck by lightning: they must not talk loudly or quarrel, as the God of Thunder lives in such objects. Annoying the God results in punishments which may vary in severity from abscesses or arthritis, to paralysis. When a death occurs in the village, nobody may work in the fields for a day, as they believe that working on that day will adversely affect the growth of their crops. In addition, production activities also cease on Days of the Pig, Days of the Horse, and on the 15th and 30th of each month. Houses may only be built on Days of the Dog or Days of the Sheep.

Medical care is rudimentary, with the villagers often calling on the spirits to bite the ghosts causing the diseases. They believe that illness occurs because the Ghost God has removed the patient's soul, so that they need to re-call his soul to his body on his birth-date. They then need to observe chicken bones, to see if his soul has responded. A person called a *moba* is responsible for calling souls and casting ghosts out; while a person known as a *xieba* bites the ghost on behalf of the patient. Those who perform these functions are not official practitioners. They are essentially self-taught, relying on their own intuition, and exchanging knowledge through communication with each other.

### C. Marriage and Funeral Customs

The Bisu practise life-long monogamy, with freedom in the choice of marriage partners. Those with the same surname may only marry if four generations intervene between them and their common ancestors. In the past, intermarriage with other ethnic groups was prohibited, but this has now changed.

Young people from about 15 years of age will start choosing their marriage partners. Ideal partners should respect their parents, and should be hardworking, capable and healthy. When the couple have made their choice, they should first tell their parents. The man's parents will then request a matchmaker to take two bowls of wine to the woman's home to ask for her hand and to drink "Engagement Wine". If the woman's family agrees to the match, their elderly folk and relatives will drink the wine together, after which the engagement is deemed complete. The couple are then free to purchase the necessary items for the wedding. If the offer is rejected, the wine is left untouched and returned to the man's home, after which the matter is never mentioned again.

At the wedding, the bridegroom does not need to pay a large dowry, but has to slaughter a pig, and send the pork to the bride's home for their guests. The bride's family does not retain all of the meat, but returns the pig's head and one leg to the bridegroom's home for entertaining their guests. In addition, the bridegroom has to give two *chi's* of cloth and four RMB to his parents-in-law.

The wedding ceremony takes place over two days. On the first day, the pig is slaughtered, and the two families exchange pigs' heads. The bridegroom, accompanied by five male friends, arrives at the bride's home and spends the night there. Early after breakfast on the second day, the newly-weds kowtow to the bride's parents, who then recite congratulatory verses, wishing that they will live in harmony, remain faithful to each other, work hard to maintain the family home, respect the elderly, bring up children, and have a happy and fulfilled life together. Blessings over, the bridegroom then takes the bride back to his home. On arrival, two chickens are first killed as an offering to the gods, and the pork is given to the guests. The elderly folk, while enjoying their wine, will speak auspicious words to the couple. When the marks on the chicken bones have been observed, red ribbons are tied around the wrists of the couple. Blessings for happiness are bestowed on them, and the wedding is then deemed complete.

It is usual for the bride to live with the groom's family, but if the bride is an only child or her family does not have adequate manpower for food production, the bridegroom may live with his parents-in-law. When this happens, a pig needs to be slaughtered to entertain the whole village. At the same time, an inventory of the bride's family property is made in front of the villagers, to avoid future inheritance disputes. When a woman's husband dies, she may re-marry, but there is no levirate law.

After the birth of a child, a ceremony called "Congratulation of Birth" is held. On the third day after delivery, a chicken is killed: a hen for a boy, and a cockerel for a girl. All the elderly folk in the village are invited for a meal, after which they will each tie a red ribbon round the baby's wrist, and then give it a name.

Unlike the Hani or Yi, the Bisu do not add the father's name on to the front of the son's. Surnames are a relatively late phenomenon in Bisu history, with surnames such as Li, Zhang, and Shi appearing only within the past few decades due to contact with Han Chinese. Consequently, their concept of ancestry is weak, and there is no evidence of a "patriarchal clan" system. They do not have ancestral temples or clan elders, nor do they perform corporate ancestor worship. However, during election of the village managerial team, some consideration is given towards ensuring adequate representation of each surname within the village among the elected officials. As with the Lahu, the Bisu naming practice takes account of the birth-date, and according to which of the 12 symbolic animals is associated with the day, the word *za* appears in front of a boy's name, and the word *na* precedes a girl's name. If a boy is born on a Day of the Cockerel, he is called *za-a*; a girl is called *na-a*. Boys born on Days of the Dog are called *za-bi*; while girls will be *na-bi*. When a child suffers from frequent illnesses, the Bisu believe that his name may be the cause of the problem. If a name has to be changed, it is always changed to *yi*, i.e. *za-yi* or *na-yi*.

When an adult dies in the village, a gun is fired to inform the whole village. Once the villagers are aware, they will take the initiative and help by donating rice. Relatives of the deceased are required to give a chicken. A pig is offered to the dead soul by the bereaved. Before the pig is slaughtered, a piece of string is tied to its foot, with the other end round the dead person's wrist. The deceased is then exhorted in the following words: "This pig is for you, please pull it away". After this, the pig is killed and the pork is presented as an offering. If possible, burial takes place on the same day. Coffins are not used, with the corpse being wrapped in a bamboo mat and buried. Before digging the grave, the family takes some rice and recites this in front of the bier: "You did not wish to remain in this life, but have gone to find a dwelling-place in the underworld. If you find a good site, please do not dig up any stones or roots." The grave is then prepared. The Bisu do not build tombs or erect memorial plaques. There is a specified burial ground for each village: the graves are arranged in vertical rows, in order of age. The bodies lie on an east-west axis, with the heads to the east. They are arranged in chronological order, the implication being that they are all standing in line to

return to their ancestors' resting-place. Three days after burial, some rice is taken and offered at the grave site. After this, the deceased is honoured at home three times a year, during the New Year, the Torch Festival, and when new rice is eaten. On the anniversary of the death, a visit is made to the burial site to clear the surrounding area of weeds, and to burn fragrant grasses as an offering.

When an elderly person dies, his property goes to those who cared for him, who are usually his sons. If there are no sons, his sons-in-law may also inherit. When a man dies, his wife inherits his property and the eldest son is responsible for returning home and looking after his mother. The rest of the estate is shared among the other brothers.

### 1.2.5 Folk Literature and Art

Bisu folk literature includes stories, odes, songs, dances, and many other forms, all of which are intimately associated with food production and religious activities. Traditional compositions may be found in oral literature accumulated over a long period of time, and include legends and congratulatory speeches. During festivals, weddings or religious rites, when all the villagers are assembled, the elders will tell stories and recite odes, thus ensuring transmission of oral literature down through the generations. Congratulatory odes are an important component of folk literature. They have a rich content and include New Year speeches, congratulatory speeches at weddings, odes, and religious orations to the sun, the moon, and the water god. The sentences in these compositions are beautifully crafted, with an orderly arrangement. Such works often employ synonyms, near-synonyms, parallelism, and repetition in their sentence structures, thus creating reverberating rhymes. At other times, metaphors or exaggerated figures of speech are employed for emphasis, or to describe the writer's feelings, so that a very strong power of expression is evident.

In addition, impromptu compositions are also common, especially folk songs<sup>7</sup> or love songs. Folk songs include antiphonal and solo pieces, with love songs being an important subset. Love songs have sweet and melodious tunes, with unaffected yet lively lyrics, which can truly express the sincerity and honesty of the Bisu people.

Dances are usually accompanied on the *lusheng*, with the steps and rhythm being coordinated with, and changing to, the strains of the *lusheng* music. Dance tunes include the "Weeding Song", "Song for Opening up Wasteland", "Song for Binding Grain", "Song of an Abundant Harvest", "Song on Leaving Home", and the "Home-coming Song". These compositions imitate the activities involved in food production and in daily life, reflecting the atmosphere and scope of their labours.

### 1.3 Research into Bisu Society and Language

As investigations into the Bisu language and the socio-historical background of its speakers have only just begun, and there are no existing records in the literature, only a very limited amount of linguistic and anthropological knowledge has been obtained. Bisu research is therefore still in its infancy.

#### 1.3.1 Linguistic Research

Research into Bisu started in the 1960s, when the Japanese scholar, Tatsuo Nishida, first discovered and reported it in the literature. In 1966, he conducted field research of Bisu in Thailand, and published a paper in Vol.4 of "Southeast Asian Research". His article, which was entitled *Bisu language research: preliminary results of an investigation into the language*

<sup>7</sup> Translator's note: The special Chinese term used for folk songs is the word *shange*, which are songs sung in the fields or in mountain areas during or after work.

of the Bisu people in Northern Thailand, described the language structure of Bisu for the first time. Subsequently, he conducted comparative studies in order to ascertain the position of Bisu within the language family, publishing two articles in "Southeast Asian Research" Vol.4 entitled *The Bisu Language: I* and *The Bisu Language: II*, suggesting that Bisu was a sub-branch of the Yipho branch of the Burmese-Yipho group within the Tibeto-Burman language family. He also reclassified this sub-branch, which included Pyen and Phunoi, and established degrees of association between Bisu and cognate languages which were most closely related to it. In 1972, the American specialist on Tibeto-Burman languages, Professor James A. Matisoff, named this the Bisoid branch, with Bisu being one of the most important languages within it. This was published in *The Loloish Tonal Split Revisited*, Research Monograph No. 7, Centre for South and Southeast Asian Studies, University of California, Berkeley, 1972.

Another scholar who conducted early research into Bisu was the Australian linguist Professor David Bradley. He investigated the Bisu spoken in different areas of Northern Thailand and collected language data from three locations, including the newly discovered Tako dialect. His results were published in articles such as *Bisu Dialects* (in "Languages and History in East Asia: Festschrift for Tatsuo Nishida on the Occasion of His 60th Birthday, 1977) and *Historical Sketch of the Bisu Language* (translated into Chinese by Chen Kang and published in "Minzu Yuwen", Vol.4, 1979), where he performed comparative analysis of the differences and similarities within the Bisu dialects, as well as investigating the sources of changes within the language.

Studies of the Bisu language in Thailand have also been carried out by the French scholar Patrick Beaudouin. He recorded data from the Huai Chomphu vernacular, which belongs to an important and representative Bisu dialect, the Huaipa dialect. In addition, he described the language structure of Bisu.

In the late 1980s, Chinese scholars accurately ascertained the distribution of the Bisu language in the Lancang and Menghai districts of Yunnan Province, confirming the theory of the famous linguist, Professor Fu Maoji, who asserted that there were Bisu people living in Yunnan Province. After on-site investigation of the Bisu language in the above areas, the Chinese Burmese-Yipho specialist Professor Li Yongsui published *A Preliminary Study of the Mbisu Language* (in "Minzu Yuwen" Vol.4, 1991). This introductory description of a Bisu vernacular, i.e. the Laopin vernacular spoken in Menghai, is the first piece of Chinese research on Bisu. In recent years, many publications on Bisu have concentrated on special features within the language, such as *Dai Loan Words in Bisu, Classification and Comparison of the Bisu Dialects*, and *The Position and Significance of Bisu in Comparative Historical Linguistics* (Xu Shixuan, in "Minzu Yuwen", Vol.5, 1995; Vol.4, 1997 and in "Yuyan Yanjiu" Vol.2, 1997 respectively).

### 1.3.2 Research into Bisu Social History

There has been little research into Bisu social history, with as yet no published literature on this subject in China, and certainly no specialist monographs. Fragmentary records of Bisu communities outside China may be obtained from works describing ethnic minorities in Thailand and Myanmar, but their content is limited.

From 1985 to 1989, the Ethnic Affairs Commission of Simao Prefecture in Lancang County in Yunnan Province cooperated in the first-ever study of the social history of Bisu in Simao Prefecture. Topics which were investigated included the migratory history of the Bisu, their social and daily living conditions, religious beliefs and behavioural codes, traditional customs, folk literature, art, and language use. The focal point of the study was Dongzhu Laomian Dazhai in Zhutang village in Lancang County, as this hamlet had the highest concentration of Bisu residents, and they had settled there for the longest period of time.

Therefore, there would be more complete preservation of the language, traditional customs, literature, and art forms. The results of this investigation were collated and stored in the archives of the Ethnic Affairs Commission in Simao Prefecture, thereby representing the first anthropological account of the Bisu people in China.

## 2 Phonology

Bisu is a tonal language, with every syllable being composed of “onset + rhyme + tone”. The syllables are clearly and distinctly demarcated from each other. The main features of Bisu phonology are as follows:

(1) Within the onsets, there are contrasting voiced and voiceless stops, fricatives, laterals, and nasals. Of these, voiced stops are prenasalised, while voiceless nasals and laterals only appear in certain dialects. For affricates, only the voiceless forms exist, with no contrasting voiced counterparts.

(2) Onsets may consist of consonant clusters or palatalised consonants, occurring at both bilabial and velar positions of articulation. However, only a few types of consonant clusters exist, and they are used only in some dialects.

(3) Rhymes are more abundant than onsets. Apart from monophthong rhymes, there are also rhymes with nasal or stop codas, as well as diphthong rhymes.

(4) There is no contrast between tense or lax vowels, or between short and lengthened vowels.

(5) Although the tone categories are simple, with very few contrasting tonemes, different types of morphophonemic alternations occur relatively frequently.

The phonology below is that of the Laomian vernacular, which belongs to the Lanmeng dialect of Bisu.

### 2.1 Syllable Onsets

#### 2.1.1 The Onsets

There are 30 syllable onsets, of which 24 are single consonants and 6 are palatalised consonants. The main feature of this system is the symmetrical distribution of syllable onsets, with respect to both place and manner of articulation. Thus, the following four types of onsets occur in the bilabial, alveolar, and velar positions: voiceless aspirated stops, voiceless unaspirated stops, voiced stops, and nasals. Four other types of syllable onsets also exist in the alveolar and alveolo-palatal positions: voiceless aspirated and unaspirated affricates, and voiceless and voiced fricatives. A pair of voiceless and voiced fricatives occurs in the labiodental position. In addition, there is an alveolar lateral, a voiceless velar fricative, and two sets of palatalised onsets: four in the bilabial and two in the velar position.

The syllable onsets are shown in the table overleaf.

Notes:

(1) In actual speech, the voiced stop onsets are often prenasalised, so that /b/ is often realised as [mb], /d/ as [nd], and /g/ as [ŋg];

(2) In some words, the nasal onsets may occur in free variation with other phonemes at the same place of articulation. Two such situations exist:

- between the nasal and voiced stop in the bilabial position, as in [mot<sup>33</sup>]/[bot<sup>33</sup>] “nod”; [muŋ<sup>31</sup>]/[buŋ<sup>31</sup>] “sky”; and [ma<sup>31</sup>]/[ba<sup>31</sup>] “not”

- with the onset /z/, which may often be realised as its corresponding nasal [n] in isolated words only, as in [aŋ<sup>33</sup>zam<sup>31</sup>]/[aŋ<sup>33</sup>nam<sup>31</sup>] “time”

(3) Free variation may also occur between some alveolar and alveolo-palatal phonemes with corresponding manners of articulation, as in [tsh<sup>31</sup>ka<sup>31</sup>]/[tchi<sup>31</sup>ka<sup>31</sup>] “medicine” and [tso<sup>33</sup>/tco<sup>33</sup>] “dare”. The onset /z/, when followed by the vowels [a] or [u], is often realised as [z], as in [zaŋ<sup>33</sup>]/[zaŋ<sup>33</sup>] “he” and [zu<sup>55</sup>]/[zu<sup>55</sup>] “fetch”.

(4) The labio-dental fricatives /f/ and /v/ occur in complementary distribution. Thus, /f/ only occurs with [u], while /v/ occurs with all other rhymes except [u]. However, this distribution is not consistent in modern Chinese loan words, where the Chinese pronunciation persists, with /f/ also combining with other rhymes, as in [pan<sup>35</sup>fa<sup>31</sup>] “means/ solution”.

(5) A few modern Chinese loan words have introduced new syllable onsets into Bisu phonology, including the onset /z/ in [kuŋ<sup>33</sup>zɛn<sup>35</sup>] “workman”.

Manner of articulation	Stops				Nasals	Laterals	Affricates		Fricatives		Palatalised onsets
	unaspirated	voiceless	aspirated	voiced			voiceless	aspirated	voiceless	voiced	
Place of articulation											
Labial	p	ph	b	m							pj phj bj mj
Labiodental								f	v		
Alveolar <sup>8</sup>	t	th	d	n	l	ts	tsh	s	z		
Alveolo-palatal						tɕ	tɕh	ç	ʒ		
Velar	k	kh	g	ŋ				x			kj khj

#### 2.1.2 Examples of Syllable Onsets

[p]	[pa <sup>31</sup> ]	“lift”	[pai <sup>55</sup> ]	“kneel”
[ph]	[pha <sup>33</sup> ]	“broken”	[pha <sup>55</sup> ]	“support”
[b]	[ba <sup>31</sup> ]	“arrow”	[be <sup>33</sup> ]	“understand”
[m]	[ma <sup>31</sup> ]	“teach”	[me <sup>55</sup> ]	“frost”
[t]	[ta <sup>33</sup> ]	“ride”	[tv <sup>33</sup> ]	“chop”
[th]	[thi <sup>31</sup> ]	“one”	[thai <sup>55</sup> ]	“plough”
[d]	[da <sup>55</sup> ]	“ill”	[dap <sup>33</sup> ]	“count”
[n]	[na <sup>31</sup> ]	“field”	[na <sup>55</sup> ]	“listen”
[k]	[ka <sup>31</sup> ]	“chase away”	[ku <sup>33</sup> ]	“stir, mix”
[kh]	[khau <sup>31</sup> ]	“steal”	[kha <sup>33</sup> ]	“plant”

<sup>8</sup> Translator’s note: In the original work, the alveolar group has two subdivisions: “apical”, including /s/, /tsh/, /s/ and /z/; and “laminal”, including /l/, /th/, /d/, /n/ and /l/.

[g]	[ga <sup>31</sup> ]	“weave”	[ga <sup>33</sup> ]	“I”
[ŋ]	[ŋa <sup>31</sup> ]	“five”	[ŋak <sup>33</sup> ]	“pry, prize”
[ts]	[tsa <sup>31</sup> ]	“eat”	[tsa <sup>33</sup> ]	“have”
[tsh]	[tsha <sup>31</sup> ]	“connect, join”	[tsha <sup>33</sup> ]	“owe”
[s]	[sa <sup>31</sup> ]	“steam” (v.)	[sa <sup>55</sup> ]	“find, look for”
[z]	[zu <sup>31</sup> ]	“sleep”	[zau <sup>55</sup> ]	“want”
[tɕ]	[tɕin <sup>31</sup> ]	“transport” (v.)	[tɕit <sup>33</sup> ]	“cleave, split”
[tɕh]	[tɕhi <sup>31</sup> ]	“wash”	[tɕhi <sup>55</sup> ]	“place, position” (v.)
[c]	[ci <sup>31</sup> ]	“blood”	[ci <sup>55</sup> ]	“die”
[z]	[za <sup>31</sup> ]	“itchy”	[za <sup>33</sup> ]	“chicken”
[f]	[aŋ <sup>33</sup> fu <sup>31</sup> ]	“first” (adv.)	[fu <sup>33</sup> ]	“look”
[v]	[va <sup>31</sup> ]	“pig”	[van <sup>33</sup> ]	“twist, wring”
[x]	[xvŋ <sup>31</sup> ]	“sieve” (v.)	[xa <sup>33</sup> ]	“do, make”
[l]	[le <sup>31</sup> ]	“brush” (v.)	[la <sup>55</sup> ]	“come”
[pj]	[pja <sup>31</sup> ]	“bee”	[pjam <sup>55</sup> ]	“fly” (v.)
[phj]	[phja <sup>31</sup> ]	“crawl”	[phja <sup>33</sup> ]	“dismantle”
[bj]	[bjaŋ <sup>31</sup> ]	“hungry”	[bja <sup>31</sup> ]	“many”
[mj]	[mja <sup>33</sup> ]	“knife”	[mjaj <sup>55</sup> ]	“see”
[kj]	[kjaŋ <sup>31</sup> ]	“brush lightly”	[kjaŋ <sup>33</sup> ]	“pinch”
[khj]	[khja <sup>31</sup> ]	“bind, tie”	[khja <sup>33</sup> ]	“comb” (v.)

### 2.1.3 Distribution of Syllable Onsets

The distribution of syllable onsets in Bisu is uneven. While some onsets are used to form many different syllables, others only occur in a small number. This discrepancy is associated with the manner of articulation, with stop onsets forming the largest number of syllables, followed by nasals, laterals, affricates, and fricatives. Palatalised phonemes constitute the smallest number.

Even within the same category, the distribution of each syllable onset among syllables also differs. The tendencies are as follows:

- among stop onsets, more syllables are formed with voiceless rather than voiced syllable onsets
- among affricates, more syllables are formed with alveolar rather than alveolo-palatal syllable onsets

Thus, the syllable onsets and their distribution among syllables reveal the following distinctive characteristics:

- stops and nasals form more syllable onsets
- apart from nasals and laterals, voiceless consonantal syllable onsets form the largest number of syllables

Comparatively speaking, therefore, syllable onsets which are voiceless stops and nasals are important features in Bisu phonology.

## 2.2 Syllable Rhymes

### 2.2.1 The Syllable Rhymes

There are 44 syllable rhymes, comprising the following:

- monophthong rhymes, all of which are laminal vowels apart from /ɿ/, which is an apical vowel
- 4 compound vowel rhymes, which are all diphthong rhymes
- 32 rhymes with consonantal codas, including 18 stop codas and 14 nasal codas

The nasal and stop syllable codas include consonants in the bilabial, alveolar, and velar positions, revealing a strong systematic character. On the other hand, however, there are relatively few rhymes with bilabial consonantal codas. This has inevitably affected the precise balance within the system of syllable rhymes.

The following table of syllable rhymes has been drawn up from a study of 2,500 words:

	Laminal vowels						Apical vowel
Monophthong rhymes	i	e	a	o	u	ɿ	ɿ
Rhymes with consonantal codas							
Nasal codas	im	em	am	om	um		
	in	en	an	on	un	ɿn	
	iŋ	eŋ	aŋ	oŋ	uŋ	ɿŋ	uŋ
Stop codas		ep	ap	op	up		
	it	et	at	ot		ɿt	
	ik	ek	ak	ok		ɿk	
Diphthong rhymes	ai	au	ui	ue			

A distinctive feature of Bisu syllable rhymes is the large number of variants, with many rhymes possessing two or three free variants which are frequently used. These are described below:

(1) The rhyme /e/ may be realised as [e] and [ɛ], with the latter being used under most conditions. Similarly, the rhyme /o/ may be realised as [o] and [ɔ], with [ɔ] being the more commonly used variant.

(2) The rhyme /on/ has the two variants [on] and [ɔn], and the rhyme /ɿn/ also has two variants, [ɿn] and [uŋ].

(3) The rhymes /ɿt/ and /ɿk/ are realised as the two pairs of variants: [ɿt] and [ut], and [ɿk] and [uk] respectively. [ɿt] and [ɿk] are used under most circumstances, with [ut] and [uk] being used when in combination with velar syllable onsets.

(4) The rhyme /u/ sometimes carries an element of friction, and sounds like [ɿ] in practice. This feature is especially marked when /u/ combines with the /f/ syllable onset.

(5) In zero-onset syllables, the vowel which constitutes the nucleus usually carries a preceding glottal stop [ʔ], as in [ʔa<sup>31</sup>] “don’t”, [ʔe<sup>55</sup>] “go”, and [ʔup<sup>31</sup>] “say”.

(6) The pronunciation of the majority of modern Chinese loan words conforms well to Bisu phonological rules, as in [kxau<sup>55</sup>sɿ<sup>31</sup>] “examination” and [phi<sup>33</sup>phiŋ<sup>31</sup>] “criticise”. However, some loan words have rhymes which do not exist in Bisu, mainly those containing semi-vowels, such as [ou] and [uan] in [man<sup>31</sup>thou<sup>33</sup>] “steamed bun” and [xuan<sup>33</sup>iŋ<sup>31</sup>] “welcome”. As these latter pronunciations lack stability and standardisation, they have not yet been incorporated into Bisu phonology.

### 2.2.2 Examples of Syllable Rhymes

[i]	[pi <sup>31</sup> ]	“hand over”	[mi <sup>33</sup> ]	“blow” (a fire)
[e]	[phe <sup>31</sup> ]	“plait” (v.)	[le <sup>33</sup> ]	“take off”
[a]	[ta <sup>33</sup> ]	“ride”	[na <sup>55</sup> ]	“ask”
[o]	[po <sup>33</sup> ]	“graze”	[to <sup>31</sup> ]	“mend”
[u]	[ku <sup>31</sup> ]	“sew”	[tshu <sup>55</sup> ]	“boil”
[y]	[ty <sup>33</sup> ]	“chop”	[ny <sup>31</sup> ]	“dye” (v.)
[u]	[phu <sup>55</sup> ]	“untie”	[aŋ <sup>33</sup> xu <sup>31</sup> ]	“big, thick”
[ʃ]	[sɿ <sup>31</sup> ]	“sharpen”	[aŋ <sup>33</sup> tshɿ <sup>55</sup> ]	“fat”
[ep]	[kep <sup>33</sup> ]	“pinch”	[aŋ <sup>33</sup> khep <sup>31</sup> ]	“narrow”
[ap]	[dap <sup>33</sup> ]	“count”	[tsap <sup>33</sup> ]	“light” (a fire)
[op]	[khop <sup>33</sup> ]	“knock”		
[up]	[up <sup>31</sup> ]	“say”	[tsup <sup>31</sup> ]	“shut” (mouth)
[it]	[cit <sup>31</sup> ]	“seven”	[mit <sup>31</sup> ]	“close” (eyes)
[et]	[xet <sup>31</sup> ]	“eight”	[vet <sup>33</sup> ]	“wave” (hand)
[at]	[kat <sup>33</sup> ]	“horizontal”	[zat <sup>31</sup> ]	“snatch, grab, rob”
[ot]	[kot <sup>33</sup> ]	“write”	[lot <sup>31</sup> ]	“spill, overflow”
[vt]	[kvt <sup>31</sup> ]	“gnaw, nibble”	[lvt <sup>33</sup> ]	“tear open”
[ik]	[ik <sup>31</sup> ]	“add”	[vik <sup>33</sup> ]	“throw”
[ek]	[mek <sup>33</sup> ]	“hit”	[phek <sup>31</sup> ]	“fester, ulcerate”
[ak]	[kak <sup>33</sup> ]	“harrow”	[phjak <sup>31</sup> ]	“chop, split, cleave”
[ok]	[ok <sup>31</sup> ]	“out”	[pok <sup>33</sup> ]	“erect”
[yk]	[pyk <sup>33</sup> ]	“jump”	[tsvk <sup>55</sup> ]	“borrow”
[im]	[teim <sup>55</sup> ]	“swim under water”	[aŋ <sup>33</sup> lim <sup>55</sup> ]	“sharp, pointed”
[em]	[khem <sup>31</sup> ]	“cun”		
[am]	[am <sup>33</sup> ]	“carry, hold in the arms”	[nam <sup>31</sup> ]	“smell”
[om]	[tshom <sup>31</sup> ]	“choke”	[aŋ <sup>33</sup> xom <sup>55</sup> ]	“fragrant”
[um]	[sum <sup>55</sup> ]	“three”	[tum <sup>33</sup> ]	“wear”
[in]	[lin <sup>31</sup> ]	“study, learn”	[aŋ <sup>33</sup> tchin <sup>55</sup> ]	“sour”
[en]	[aŋ <sup>33</sup> pen <sup>55</sup> ]	“bright”	[ŋen <sup>31</sup> ]	“smile”
[an]	[pan <sup>55</sup> ]	“twine, wind”	[aŋ <sup>33</sup> xan <sup>31</sup> ]	“heavy”
[on]	[aŋ <sup>33</sup> on <sup>31</sup> ]	“lazy”	[kon <sup>31</sup> ]	“ladle, dipper”

[un]	[tun <sup>33</sup> ]	“castrate, spay”	[lun <sup>55</sup> ]	“surround”
[vn]	[vn <sup>33</sup> ]	“shake” (head)	[xvn <sup>31</sup> ]	“run”
[iŋ]	[miŋ <sup>33</sup> ]	“ripe”	[aŋ <sup>33</sup> xin <sup>55</sup> ]	“thousand”
[eŋ]	[ŋeŋ <sup>31</sup> ]	“split open”	[teŋ <sup>33</sup> ]	“treat” (an illness)
[aŋ]	[kaŋ <sup>55</sup> ]	“fall down, drop”	[naŋ <sup>31</sup> ]	“step on, tread”
[oŋ]	[oŋ <sup>55</sup> ]	“enter”	[koŋ <sup>31</sup> ]	“sell”
[uŋ]	[thuŋ <sup>55</sup> ]	“retreat”	[duŋ <sup>31</sup> ]	“wake up”
[vŋ]	[pvŋ <sup>31</sup> ]	“distribute, share”	[xvŋ <sup>31</sup> ]	“sieve” (n.)
[uŋ]	[duŋ <sup>55</sup> ]	“be, exist”	[muŋ <sup>31</sup> ]	“sky”
[ai]	[pai <sup>55</sup> ]	“kneel”	[nai <sup>31</sup> ]	“spinning wheel”
[au]	[kau <sup>31</sup> ]	“nine”	[xau <sup>55</sup> ]	“shout, yell”
[ui]	[tui <sup>31</sup> ]	“trousers”	[sui <sup>31</sup> ]	“hand hay-cutter”
[ue]	[kue <sup>31</sup> ]	“sweep”	[tvŋ <sup>33</sup> kue <sup>33</sup> ]	“pumpkin”

### 2.2.3 Distribution of Syllable Rhymes

The distribution of individual rhymes among syllables is very uneven. According to their structural categories, the appearance of different types of rhymes in descending order of occurrence among syllables is as follows: monophthongs, rhymes with nasal codas, diphthongs, and lastly, rhymes with stop codas.

The last category, which includes rhymes such as /op/, /up/, /et/, and /ik/, appears least frequently within syllables.

Even within an individual category, the numbers of syllables formed with each rhyme are still not uniform. Among rhymes with consonantal codas, a more obvious tendency is that more syllables are formed with back rather than front vowels. Thus, there are considerably more syllables formed with rhymes such as /uŋ/ and /aŋ/, or /at/ and /ak/, than those formed with rhymes such as /iŋ/, or /it/ and /ik/.

Thus, the syllable rhymes and their distribution among syllables reveal the following distinctive characteristics:

- the majority of syllables have monophthong nuclei
- there are relatively more rhymes with nasal codas
- most of the syllables with consonantal codas in their rhymes contain back vowels

## 2.3 Tone

### 2.3.1 The Tone System

There are three basic tone categories in Bisu:

#### A. Low falling tone, tone value 31.

[tsha <sup>31</sup> ]	“join, link”	[za <sup>31</sup> ]	“itchy”
[ga <sup>31</sup> ]	“weave”	[aŋ <sup>33</sup> tshu <sup>31</sup> ]	“thorn”
[zu <sup>31</sup> ]	“sleep”	[ku <sup>31</sup> ]	“sew”

## B. Mid level tone, tone value 33.

[tsha <sup>33</sup> ]	“owe”	[za <sup>33</sup> ]	“chicken”
[ga <sup>33</sup> ]	“I”	[tshu <sup>33</sup> ]	“catch”
[zu <sup>33</sup> ]	“dredge”	[thu <sup>33</sup> ]	“grasp”

## C. High level tone, tone value 55.

[aŋ <sup>33</sup> tsha <sup>55</sup> ]	“soup”	[za <sup>55</sup> ]	“land”
[ga <sup>55</sup> ]	“winnow”	[tshu <sup>55</sup> ]	“boil”
[zu <sup>55</sup> ]	“fetch”	[aŋ <sup>33</sup> thu <sup>55</sup> ]	“thick”

In addition to the above basic tone categories which differentiate meaning, there are two other tone patterns which do not produce semantic changes:

(1) **LOW LEVEL TONE:** This occurs due to assimilation of a high level tone to the preceding low falling tone.

This low level tone has a value of 22 and is a result of tone sandhi, as illustrated below:

za <sup>55</sup> thi <sup>31</sup> za <sup>55→22</sup>	a piece of land
land one piece	
naŋ <sup>33</sup> la <sup>55</sup> ba <sup>31</sup> la <sup>55→22</sup> ?	Are you coming or not?
you come not come	

(For a detailed discussion, see 2.4 “Morphophonemic Alternations”.)

(2) **HIGH RISING TONE:** This occurs mainly under two circumstances:

The first involves free tonal variation, whereby adjectives or directional verbs with level tones acquire rising tones with values of 45 or 35, as in [aŋ<sup>33</sup>pen<sup>55→45</sup>] “bright”, [tan<sup>33→35</sup>] “flat, level”, and [la<sup>55</sup>lau<sup>55→35</sup>] “come here”.

The second situation involves loan words, mainly modern Chinese loans, where some syllables have a rising tone with a value of 35, as in [ciŋ<sup>35</sup>] “surname”, [sɿ<sup>35</sup>tchiŋ<sup>31</sup>] “affairs”, and [pan<sup>35</sup>fa<sup>31</sup>] “means, way”.

### 2.3.2 Distribution of Tone Categories

In contrast to syllable onsets and rhymes, the distribution of the three basic tone categories is relatively balanced. Although there are no distinct tendencies, some differences do exist. There are relatively fewer syllables with high level tones, especially among syllables with stop codas in their rhymes, where only very few have high level tones. The high level tone also occurs very rarely in syllables with the palatalised bilabial onsets /pʲ/, /pʲhʲ/, and /bʲ/, as well as in syllables with the velar nasal onset /ŋ/. In addition, the main type of tone sandhi is a change from a high level tone to a low tone. This may occur at many levels, including word formation and in connected speech. The result is the relatively infrequent use of the high level tone in actual speech: this is a distinctive feature of the Bisu tonal system.

## 2.4 Morphophonemic Alternations

When several syllables are spoken in succession in Bisu, one of the syllables will often exhibit changes which follow a consistent pattern. Influence from neighbouring syllables will lead to differences in some of the original features of a syllable. These morphophonemic alternations are relatively common within the Bisu language, and show the following basic characteristics:

(1) Morphophonemic alternations may occur at several levels which are concerned with different aspects of the language. These may occur during word formation due to the combination of morphemes, as well as in connected speech, when words come together to form a sentence.

(2) Tone sandhi is the main type of morphophonemic alternation. Whether the situation involves sandhi due to word formation or sandhi in connected speech, the commonest manifestation involves a change from a high level to a low level tone. Changes in syllable onsets also occur, but less frequently.

(3) The manner in which morphophonemic alternations occur is the same regardless of their exact forms and the levels at which they occur. Thus, morphophonemic alternations in Bisu always involve the influence of a preceding on the succeeding syllable, which leads to progressive assimilation.

(4) A certain regularity characterises morphophonemic alternations in Bisu, so that, despite their frequent occurrence, the conditions producing them are very consistent. The scope within which they can occur is also relatively narrow. Thus, morphophonemic alternations may occur only under certain conditions and may only involve certain specific word categories. In addition, the changes themselves are also very regular.

### 2.4.1 Morphophonemic Alternations due to Word Formation

Morphophonemic alternations due to word formation occur when compound words are formed from the combination of content morphemes. Progressive assimilation of the succeeding morpheme occurs due to the influence of the preceding morpheme. The main effect is tone sandhi, although syllable onsets may also change in a few cases.

#### A. Tone sandhi

When a morpheme with a high level tone follows a syllable with a low falling tone, assimilation of the high level tone occurs, changing from a tone value of 55 to 22, as in the following examples:

- with the morpheme [khu<sup>55</sup>], meaning “(of the) leg”:  
[khu<sup>55</sup>poŋ<sup>55</sup>] “thigh”, [khu<sup>55</sup>tshv<sup>31</sup>] “ankle” — [la<sup>31</sup>khu<sup>55→22</sup>] “foot”
- with the morpheme [num<sup>55</sup>], meaning “finger” or “toe”:  
[khu<sup>55</sup>num<sup>55</sup>] “toe”, [la<sup>31</sup>thaŋ<sup>55</sup>num<sup>55</sup>] “little finger” — [la<sup>31</sup>num<sup>55→22</sup>] “index finger”
- with the morpheme [mja<sup>55</sup>], which indicates a period of time:  
[laŋ<sup>55</sup>mja<sup>55</sup>] “spring”, [loŋ<sup>55</sup>mja<sup>55</sup>] “summer” — [tsho<sup>31</sup>mja<sup>55→22</sup>] “autumn”

As sandhi due to word formation is the result of interaction between adjacent morphemes, it is not directly related to their semantic content. Therefore, tone sandhi can occur with different types of compound words, including the following:



### (i) Coordinated compound words

The locative word [noŋ<sup>31</sup>kho<sup>55→22</sup>] “behind” is formed from the coordination of two morphemes indicating “back” [noŋ<sup>31</sup>][aŋ<sup>33</sup>noŋ<sup>31</sup>] “at the back”, and [kho<sup>55</sup>][nuŋ<sup>55</sup>kho<sup>55</sup>] “back of the body”.

### (ii) Compound words in which one morpheme governs the other

The compound noun [la<sup>31</sup>paŋ<sup>55→22</sup>] “ring, thimble” is formed from the two morphemes [la<sup>31</sup>] “hand” and [paŋ<sup>55</sup>] “wind, surround”.

### (iii) Compound words in which the first morpheme modifies the second

The compound noun [va<sup>31</sup>tša<sup>55→22</sup>] “pig swill” is formed from the two morphemes [va<sup>31</sup>] “pig” and [tša<sup>55</sup>][aŋ<sup>33</sup>tša<sup>55</sup>] “food”.

### (iv) Compound words in which the second morpheme modifies the first

The compound noun [kaŋ<sup>31</sup>tchin<sup>55→22</sup>] “pickled vegetables” is formed from the two morphemes [kaŋ<sup>31</sup>][kaŋ<sup>31</sup>ba<sup>33</sup>] “vegetables”) and [tchin<sup>55</sup>][aŋ<sup>31</sup>tchin<sup>55</sup>] “sour”.

A prominent feature of compound words exhibiting sandhi due to word formation is the relatively distinct and fixed semantic content of their component morphemes. These morphemes may often be used independently as words, as in the following examples:

- the compound word [sai<sup>31</sup>ntuŋ<sup>55→22</sup>tša<sup>31</sup>] “sandy soil”, which is formed from two morphemes which may be used independently as two separate words: [sai<sup>31</sup>] “sand” and [ntuŋ<sup>55</sup>tša<sup>31</sup>] “soil”
- the compound word [mit<sup>31</sup>tšau<sup>55→22</sup>] “sweet bamboo shoot”, which is formed from the roots (indicating the central meanings) of two words which are derived from affixation: [aŋ<sup>33</sup>mit<sup>31</sup>] “bamboo shoot” and [aŋ<sup>33</sup>tšau<sup>55</sup>] “sweet”
- in the compound word [la<sup>31</sup>paŋ<sup>55→22</sup>] “ring, thimble”, the morpheme [paŋ<sup>55</sup>], which undergoes tone sandhi, can stand alone as a word indicating the action of “winding” or “surrounding”

### (v) Compound numerals

In addition, tone sandhi due to word formation is especially evident in the formation of compound numerals. In Bisu, all two-digit numbers are expressed using compound numerals formed from the combination of monomorphemic numerals. As the majority of these monomorphemic numerals have low falling tones, tone sandhi commonly occurs during the formation of compound numerals. There are two situations where this may occur:

(1) When a monomorphemic word expressing a single-digit number combines with the word [tche<sup>55</sup>] “ten” to form a two-digit compound numeral, the succeeding syllable, [tche<sup>55</sup>], which has a high level tone, exhibits assimilation and tone sandhi due to the preceding syllable, if it has a low falling tone, as shown below.

[tche <sup>55</sup> ]	“ten”	[ni <sup>31</sup> tche <sup>55→22</sup> ]	“twenty”	(two-ten)
		[ŋa <sup>31</sup> tche <sup>55→22</sup> ]	“fifty”	(five-ten)
		[cit <sup>31</sup> tche <sup>55→22</sup> ]	“seventy”	(seven-ten)

(2) When a cardinal number combines with a word such as “hundred” or “thousand” to express a three-digit number, the word undergoes sandhi in two ways: the prefix is deleted, and tone sandhi occurs when there is a preceding low falling tone on the numeral, as shown below.

[aŋ <sup>33</sup> paŋ <sup>55</sup> ]	“hundred”	[thi <sup>31</sup> paŋ <sup>55→22</sup> ]	“one hundred”
		[khu <sup>31</sup> paŋ <sup>55→22</sup> ]	“six hundred”
[aŋ <sup>33</sup> xij <sup>55</sup> ]	“thousand”	[ni <sup>31</sup> xij <sup>55→22</sup> ]	“two thousand”
		[xet <sup>31</sup> xij <sup>55→22</sup> ]	“eight thousand”
[aŋ <sup>33</sup> vaŋ <sup>55</sup> ]	“ten-thousand”	[ŋa <sup>31</sup> vaŋ <sup>55→22</sup> ]	“fifty thousand”
			(five ten-thousand)
		[kau <sup>31</sup> vaŋ <sup>55→22</sup> ]	“ninety thousand”
			(nine ten-thousand)

## B. Change of syllable onsets

A change in the syllable onset mainly involves the fricative onset /z/, which changes to a nasal onset when it assimilates to the nasal coda of the preceding syllable. This differs from tone sandhi in that the alternative pronunciation of the syllable does not become the fixed pronunciation of the word, but coexists with the original onset, forming two free variants, as illustrated below:

- the morpheme [zam<sup>31</sup>], meaning “time” or “season”:  
[me<sup>55</sup>ka<sup>33</sup>zam<sup>31</sup>] “winter season” — [aŋ<sup>33</sup>zam<sup>31</sup>/aŋ<sup>33</sup>nam<sup>31</sup>] “time, season”
- the morpheme [za<sup>31</sup>], meaning “container” or “vessel”:  
[kon<sup>31</sup>aŋ<sup>33</sup>za<sup>31</sup>] “spoon” — [tsum<sup>33</sup>za<sup>31</sup>/tsum<sup>33</sup>mja<sup>31</sup>] “bowl”

### 2.4.2 Morphophonemic Alternations in Connected Speech

Morphophonemic alternations which occur in connected speech, *i.e.* when words are used in sentences, are commonly found in Bisu. Tone sandhi is the main manifestation, and is frequently found within clauses. However, it occurs under specific situations and involves certain word categories, so that there are distinct and consistent conditions which lead to its development. In addition, other morphophonemic alternations such as addition of syllable onsets and coalescence also occur. A detailed analysis is given below.

#### A. Tone sandhi

(1) A syllable with a high level tone will acquire a low tone with a value of 22 when following a numeral with a low falling tone. As the vast majority of numerals have low falling tones, classifiers, which combine frequently with numerals, have to undergo tone sandhi. This is shown in the table overleaf.

(2) Verbs and adjectives with high level tones acquire low tones (tone value 22) when they follow the negating adverb [ba<sup>31</sup>] “not” or [a<sup>31</sup>] “don’t”, as shown below.

ga<sup>31</sup> xv<sup>33</sup> xi<sup>55</sup> lum<sup>31</sup> naŋ<sup>33</sup> zau<sup>55</sup> ba<sup>31</sup> zau<sup>55→22?</sup>  
 I (poss.) that (cl.) you want not want

Do you want that one of mine or not?

zaŋ<sup>33</sup> te<sup>31</sup>kha<sup>31</sup> taŋ<sup>55</sup>, ga<sup>33</sup> te<sup>31</sup>kha<sup>31</sup> ba<sup>31</sup> taŋ<sup>55→22</sup>.  
 he wine drink I wine not drink

He drinks wine; I don't.

aŋ<sup>33</sup>si<sup>55</sup> aŋ<sup>33</sup>tshau<sup>55</sup>, aŋ<sup>33</sup>nu<sup>55</sup> a<sup>55</sup>ma<sup>55</sup> ba<sup>31</sup> tshau<sup>55→22</sup>.  
 yellow sweet green certainly not sweet

The yellow one is sweet; the green one certainly isn't.

nuŋ<sup>33</sup>xaŋ<sup>31</sup> loŋ<sup>55</sup>, so<sup>33</sup>tha<sup>33</sup> ba<sup>31</sup> loŋ<sup>55→22</sup>.  
 noon hot morning not hot

It's hot at noon, [but] not in the morning.

ni<sup>55</sup>ne<sup>33</sup> zu<sup>55</sup> tso<sup>33</sup>, thi<sup>55</sup>ne<sup>33</sup> a<sup>31</sup> zu<sup>55→22</sup> tso<sup>33</sup>.  
 like this hold should like that don't hold should

[You] should hold [it] like this, not like that.

Categories of classifiers	Original tone		Tone sandhi		
Specialised classifiers					
for animals	maŋ <sup>55</sup>	ni <sup>55</sup> maŋ <sup>55</sup>	this ...	thi <sup>31</sup> maŋ <sup>22</sup>	one ...
for a group or flock	tsum <sup>55</sup>	ni <sup>55</sup> tsum <sup>55</sup>	this flock	thi <sup>31</sup> tsum <sup>22</sup>	one flock
for a string or bunch	khan <sup>55</sup>	xi <sup>55</sup> khan <sup>55</sup>	that bunch	ni <sup>31</sup> khan <sup>22</sup>	two bunches
for an occurrence	tsaŋ <sup>55</sup>	xi <sup>55</sup> tsaŋ <sup>55</sup>	that time	xi <sup>55</sup> ni <sup>31</sup> tsaŋ <sup>22</sup>	those two times
Nouns also functioning as classifiers					
	za <sup>55</sup>	land	thi <sup>31</sup> za <sup>22</sup>	a piece (of land)	
	zum <sup>55</sup>	house	thi <sup>31</sup> zum <sup>22</sup>	a (house)	
	koŋ <sup>55</sup>	bottle, flask	ni <sup>31</sup> koŋ <sup>22</sup>	two bottles or flasks	
	aŋ <sup>33</sup> the <sup>55</sup>	word	thi <sup>31</sup> the <sup>22</sup>	a sentence	
	stuŋ <sup>33</sup> stuŋ <sup>55</sup>	tree	ŋa <sup>31</sup> stuŋ <sup>22</sup>	five (trees)	
	ko <sup>33</sup> khja <sup>55</sup>	back-basket	thi <sup>31</sup> khja <sup>22</sup>	a basketful	

(3) The modal verb [ci<sup>55</sup>], which has meanings such as "want, be willing, like", acquires a low level tone when it follows a verb with a low falling tone. However, in negative clauses, [ci<sup>55</sup>] maintains its high level tone value. In this situation, the tone value of [ci<sup>55</sup>] is not affected even when the preceding verb has undergone tone sandhi to a low falling tone, or has changed to a low level tone because of the assimilative effect of negating adverbs, as shown below.

naŋ<sup>33</sup> tsa<sup>31</sup> ci<sup>55→22</sup> ba<sup>31</sup> tsa<sup>31</sup> ci<sup>55?</sup>  
 you eat willing, want not eat willing, want

Do you want to eat it or not?

zaŋ<sup>33</sup> le<sup>33</sup>le<sup>31</sup> ci<sup>55→22</sup> ba<sup>31</sup> le<sup>33</sup>le<sup>31</sup> ci<sup>55?</sup>  
 he return willing, want not return willing, want

Is he willing to return or not?

ga<sup>33</sup> kha<sup>31</sup>lau<sup>33</sup> ku<sup>31</sup> ci<sup>55→22</sup>, zaŋ<sup>33</sup> ba<sup>31</sup> ku<sup>31</sup> ci<sup>55</sup>.  
 I clothes sew like she not sew like

I like sewing (clothes), [but] she doesn't like sewing.

(4) Within compound verbal predicates, if the preceding verb has a low falling tone, a succeeding verb with a high level tone will undergo tone sandhi.

[pvn<sup>55</sup>] "finish" [tsa<sup>31</sup>pvn<sup>55→22</sup>] "finished eating"  
 [ku<sup>31</sup>pvn<sup>55→22</sup>] "finished sewing"  
 [ko<sup>55</sup>] "has done [it] before" [tsa<sup>31</sup>ko<sup>55→22</sup>] "has eaten [it] before"  
 [zo<sup>31</sup>ko<sup>55→22</sup>] "has gone everywhere"

(5) Some adverbs or particles with high level tones may be influenced by preceding verbs or adjectives with low falling tones to undergo sandhi to low level tones.

#### ADVERBS

[maŋ<sup>55</sup>] "very, really" [men<sup>31</sup>maŋ<sup>55→22</sup>maŋ<sup>55→22</sup>] "really really good"  
 [ma<sup>55</sup>maŋ<sup>55</sup>] "truly" [men<sup>31</sup>ma<sup>55→22</sup>maŋ<sup>55→22</sup>] "truly good"

#### PARTICLES

[aŋ<sup>55</sup>] expresses an action which has already happened:

za<sup>31</sup>ki<sup>33</sup> duŋ<sup>31</sup> aŋ<sup>55→22</sup>.  
 child wake (part.)

The child is awake.

muŋ<sup>31</sup>nuŋ<sup>31</sup> ok<sup>31</sup> aŋ<sup>55→22</sup>.  
 sun appear (part.)

The sun has come out.

#### B. Addition of syllable onsets

When the structural particle [v<sup>33</sup>] combines with a preceding noun to form an expression indicating "time" or "location", it often undergoes assimilation due to the preceding syllable rhyme and acquires an additional, corresponding onset, as shown below.

[kɒŋ <sup>31</sup> ]	"hamlet"	+ [v <sup>33</sup> ]	—	[kɒŋ <sup>31</sup> ŋv <sup>33</sup> ]	"in the hamlet"
[zum <sup>55</sup> ]	"house"	+ [v <sup>33</sup> ]	—	[zum <sup>55</sup> mv <sup>33</sup> ]	"in the house"
[xəŋ <sup>31</sup> phvŋ <sup>31</sup> ]	"table"	+ [v <sup>33</sup> ]	—	[xəŋ <sup>31</sup> phvŋ <sup>31</sup> nv <sup>33</sup> ]	"on the table"
[əŋ <sup>33</sup> khau <sup>55</sup> ]	"inside"	+ [v <sup>33</sup> ]	—	[zum <sup>55</sup> khau <sup>55</sup> vv <sup>33</sup> ]	"inside the house"

### C. Coalescence

When a syllable without a coda combines with a syllable with a zero onset, they may form a single syllable in connected speech. Coalescence often occurs between closely associated words, such as a verb and a directional verb, or a verb and a modal verb.

[la <sup>55</sup> au <sup>55</sup> ]	"come here"	—	[lau <sup>55</sup> ]	[le <sup>33</sup> au <sup>55</sup> ]	"go there"	—	[liu <sup>35</sup> ]
[la <sup>55</sup> əŋ <sup>55</sup> ]	"has come"	—	[ləŋ <sup>55</sup> ]	[le <sup>33</sup> əŋ <sup>55</sup> ]	"has gone"	—	[liəŋ <sup>55</sup> ]

In the remaining chapters of this book, apart from instances of coalescence, standard phonetic forms are indicated. Tone sandhi occurring due to word formation is marked as the low falling tone with a value of 31. For morphophonemic alternations which occur in connected speech, only the underlying forms of the words are indicated, and not the modified surface forms.

## 3 The Lexicon

The vast majority of syllables in Bisu represent either morphemes or words. The main features of its lexicon are as follows:

(1) Words are mainly mono- or bi-syllabic, with only a small number having more than two syllables. Different ways of word formation are closely related to the morphosyntactic properties of the words themselves. Thus, bisyllabic and polysyllabic words are mostly nouns, while verbs are monosyllabic and adjectives are mainly bisyllabic words with prefixes.

(2) Bisu morphology exhibits a certain amount of flexibility, which is reflected in frequent phonological or structural changes when words combine or when they are used within sentences. Phonological changes are mainly expressed through morphophonemic alternations due to assimilation between different syllables; while structural change involves prefix deletion, revealing a tendency towards bisyllabicity.

(3) Word formation may occur through phonological, semantic, morphological, and structural changes. Among these four categories, formation of compound words through structural changes has the highest degree of productivity, so that compound words constitute a major part of the Bisu lexicon.

(4) The semantic relationships in the lexicon reflect the dual characteristics of generalisation and segmentation in Bisu semantics. On the whole, generalisation is more evident in words which are used to indicate the properties of objects, so that similar concepts are often expressed using a polysemous word. On the other hand, a more specific classification governs the scope within which a word may be used and also the kinds of objects to which a word may be applied. Thus, when similar concepts involve or relate to different objects, different near-synonyms may be used for their expression.

### 3.1 Word Forms

Words forms in Bisu include both phonological and structural forms. This division represents an analysis of the lexicon from two different points of view. Phonologically, words may be mono- or polysyllabic; structurally, words may be mono- or polymorphemic (*i.e.* words composed of a single morpheme *vs.* words formed by a combination of several morphemes).

These two different classifications lead to an overlapping relationship: monosyllabic words are all monomorphemic, but polysyllabic words include both mono- and polymorphemic words. Conversely, although most monomorphemic words are monosyllabic, some are polysyllabic, as illustrated below.

monosyllabic and monomorphemic words:

[va <sup>31</sup> ]	"pig"	[təŋ <sup>55</sup> ]	"drink"	[da <sup>55</sup> ]	"painful"	[ga <sup>33</sup> ]	"I"
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polysyllabic and monomorphemic words:

[tuŋ <sup>31</sup> tuŋ <sup>31</sup> ]	"drum"	[ka <sup>55</sup> lat <sup>55</sup> ]	"paper"	[in <sup>31</sup> xəŋ <sup>31</sup> ]	"bank"
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polysyllabic and polymorphemic words:

[a <sup>31</sup> phi <sup>31</sup> ]	"grandmother"	[əŋ <sup>33</sup> pha <sup>31</sup> ]	"leaf"	[sam <sup>55</sup> ba <sup>33</sup> ]	"tin"
[u <sup>31</sup> la <sup>33</sup> ]	"moon"	[oŋ <sup>55</sup> le <sup>33</sup> ]	"enter"	[ma <sup>55</sup> maŋ <sup>55</sup> ]	"correct"
[muŋ <sup>31</sup> tɕi <sup>31</sup> khəŋ <sup>31</sup> ]	"thunder"	[khu <sup>31</sup> xə <sup>33</sup> s <sup>31</sup> ]	"banana"		

Mono- and bisyllabic words constitute the greater part of the Bisu lexicon. In general, monosyllabic words are mainly verbs, bisyllabic words are mostly nouns and adjectives, while polysyllabic words with over two syllables are nouns or compound numerals of over two digits.

### 3.1.1 Phonological Forms

When analysed from the phonological aspect, words may be divided into two main classes: mono- and polysyllabic words. Monosyllabic words include words such as [ci<sup>31</sup>] “blood”, [na<sup>55</sup>] “listen”, [ga<sup>33</sup>] “I”, and [ni<sup>31</sup>] “two”. The vast majority of polysyllabic words are bisyllabic, such as [a<sup>31</sup>ka<sup>31</sup>] “duck”, [aŋ<sup>33</sup>u<sup>33</sup>] “egg”, [laŋ<sup>55</sup>ba<sup>33</sup>] “river”, [sam<sup>55</sup>ce<sup>31</sup>] “nail”, and [man<sup>31</sup>kho<sup>33</sup>] “lips”. However, there are also tri-syllabic words and a few words with four syllables, such as [khu<sup>31</sup>xa<sup>33</sup>sɿ<sup>31</sup>] “banana”, [phu<sup>55</sup>ke<sup>33</sup>nam<sup>55</sup>] “silk”, and [sɿ<sup>31</sup>phu<sup>33</sup>li<sup>55</sup>lu<sup>55</sup>] “tomato”. Words with more than four syllables are very rare.

Polysyllabic words are mainly compound words which are formed according to fixed structural relationships, and without any direct phonological association. Nevertheless, a few polysyllabic words, especially monomorphemic ones, including loan words from other languages, possess distinctive phonological features and demonstrate the following phonological forms:

#### A. Onomatopoeic words

These imitate the noises made by objects or represent animals by depicting their cries, as in [pin<sup>55</sup>lin<sup>55</sup>] “hand-bell”, [tuŋ<sup>31</sup>tuŋ<sup>31</sup>] “drum”, [ɔ<sup>55</sup>a<sup>33</sup>] “crow”, and [a<sup>55</sup>mi<sup>55</sup>] “cat”.

#### B. Reduplicated words

Two identical syllables are reduplicated to form a bisyllabic word, as in [thv<sup>55</sup>thv<sup>55</sup>] “crossbow” and [kam<sup>31</sup>kam<sup>31</sup>] “slowly”.

#### C. Identical onsets in both syllables

These are bisyllabic words formed from two syllables with identical onsets, as in [sai<sup>31</sup>sɿ<sup>31</sup>] “sand” and [kha<sup>55</sup>khu<sup>33</sup>] “all”.

#### D. Reduplicated rhymes

There are relatively large numbers of words with reduplicated rhymes in Bisu. There are two types:

(1) When the syllable rhymes of the two syllables are entirely identical, as in [the<sup>55</sup>le<sup>55</sup>] “thunder”, [xo<sup>55</sup>lo<sup>33</sup>] “snow”, and [to<sup>55</sup>lo<sup>55</sup>] “butterfly”.

(2) When only certain parts of the syllable rhymes of several syllables are identical, *i.e.* the main vowels may be the same, but the syllable codas are different, as in [te<sup>31</sup>len<sup>31</sup>] “bare; bald” and [ti<sup>55</sup>lik<sup>55</sup>] “scissors”.

Apart from the association between the onsets and rhymes in the last two types of words above, the tones of such words are also usually identical, thus accentuating their phonological harmony.

### E. Phonological features of words with four syllables

Although words with four syllables are comparatively rare, they have distinctive phonological features, with the majority possessing many different phonological associations between their syllables. These are expressed through variations and/or combinations of the basic methods of whole-syllable reduplication, onset and rhyme reduplication, as illustrated by the following examples:

[pi <sup>55</sup> poŋ <sup>31</sup> pi <sup>31</sup> la <sup>55</sup> ]	“musical instrument”	partial reduplication of onsets
[tsu <sup>55</sup> ku <sup>31</sup> lu <sup>55</sup> ba <sup>33</sup> ]	“spider”	partial rhyme reduplication
[tsha <sup>31</sup> la <sup>31</sup> la <sup>31</sup> ba <sup>33</sup> ]	“tiger”	syllable and rhyme reduplication
[ni <sup>31</sup> ne <sup>31</sup> tin <sup>55</sup> cin <sup>33</sup> ]	“erhu”	reduplication of onset in first two syllables with rhyme reduplication for the second pair
[mu <sup>31</sup> su <sup>31</sup> ka <sup>33</sup> ma <sup>33</sup> ]	“type of mushroom”	rhyme reduplication in pairs and onset reduplication in first and last syllables
[toŋ <sup>55</sup> poŋ <sup>31</sup> toŋ <sup>33</sup> pi <sup>55</sup> ]	“suona”	partial rhyme reduplication and reduplication of onsets in alternate syllables
[tsa <sup>55</sup> ku <sup>33</sup> t <sup>55</sup> sa <sup>55</sup> ke <sup>31</sup> ]	“swallow” (n.)	alternating syllable and onset reduplication

The repetition, assonance, rhyme, and tone work together to produce a poetic form of language. Phonologically, these features enhance the nature of these four-syllable words as an integral part of the language.

### 3.1.2 Structural Forms

Analysis of the lexicon from the structural aspect leads to two main divisions: mono- and polymorphemic words. Monomorphemic words consist of single morphemes, and are mostly monosyllabic. The few polysyllabic monomorphemic words are either reduplicated words or loan words, such as [tuŋ<sup>31</sup>tuŋ<sup>31</sup>] “drum”, [ka<sup>55</sup>lat<sup>55</sup>] “paper”, and [ma<sup>55</sup>khy<sup>55</sup>] “aubergine”. Polymorphemic words are formed from two or more morphemes and may be divided into words derived by affixation and compound words. This division takes into account the nature of the morphemes and their relationship within a word. These two types of polymorphemic words will be analysed in detail below.

#### A. Words derived by affixation

These words are formed by adding an affix to a word root. Words derived by affixation in Bisu may be further subdivided into two sub-groups: those with prefixes and those with suffixes.

Only a small number of affixes exist in Bisu: three prefixes [a<sup>31</sup>-], [a<sup>55</sup>-], and [aŋ<sup>33</sup>-], and four suffixes [-ba<sup>33</sup>], [-sy<sup>55</sup>], [-fu<sup>33</sup>], and [-ba<sup>31</sup>]. Prefixes and suffixes differ both in their intrinsic meanings and also in their relationships with their roots. Prefixes do not have any semantic content, *i.e.* they do not possess any definite lexical or grammatical meaning, and are used mainly in phonological combination with word roots to form bisyllabic words. In contrast, suffixes are formed by semantic bleaching of content words, so that they possess definite lexical and relatively strong categorical meanings, and contribute to the meaning of the word as a whole. In terms of the relationship between affixes and their roots, prefixes show a certain amount of flexibility, as they can either be combined with or separated from their roots. Suffixes, however, have comparatively fixed relationships with their roots and may not be separated from them. The affixes will be described separately below.

[a<sup>31</sup>-], [a<sup>55</sup>-]

Identical in all respects except for their tones, these may prefix roots to form bisyllabic nouns, mainly kinship terms and forms of address, but also the names of animals and plants. A complementary relationship exists between these affixes and the tones of their roots: [a<sup>31</sup>-] mainly prefixes roots with low falling and middle level tones; while [a<sup>55</sup>-] prefixes roots with high level tones, thus revealing a tendency towards harmonisation of the tones of the prefixes with those of their roots. However, from a purely functional point of view, these two affixes may be considered as one. Examples include:

[a <sup>31</sup> phi <sup>31</sup> ]	“grandmother”	[a <sup>31</sup> suŋ <sup>31</sup> ]	“husband of paternal aunt”
[a <sup>31</sup> khon <sup>31</sup> ]	“bamboo”	[a <sup>31</sup> ba <sup>33</sup> ]	“mother”
[a <sup>31</sup> tshu <sup>33</sup> ]	“elder brother’s wife”	[a <sup>31</sup> ki <sup>33</sup> ]	“goose”
[a <sup>55</sup> pu <sup>55</sup> ]	“grandfather”	[a <sup>55</sup> bon <sup>55</sup> ]	“father”
[a <sup>55</sup> tchi <sup>55</sup> ]	“maternal uncle”	[a <sup>55</sup> van <sup>55</sup> ]	“father’s younger brother”
[a <sup>55</sup> mi <sup>55</sup> ]	“cat”	[a <sup>55</sup> tsha <sup>55</sup> ]	“the left hand side”

[aŋ<sup>33</sup>-]

A very important prefix in Bisu, [aŋ<sup>33</sup>-] possesses many distinctive features. Its usage is very wide-ranging, and may be found in a large number of words. Not only do these words constitute the vast majority of prefixed words, but they also form a major proportion of all words derived by affixation. [aŋ<sup>33</sup>-] has definite productivity in the formation of new words, and may prefix certain monosyllabic words to form new words (for a detailed discussion, see 3.2.3 “Word formation through morphological changes”).

Words with [aŋ<sup>33</sup>-] as their prefix are mostly adjectives, but may also include nouns, as well as numerals and classifiers. Examples in each category are given below:

#### ADJECTIVES

[aŋ <sup>33</sup> xu <sup>31</sup> ]	“big”	[aŋ <sup>33</sup> i <sup>55</sup> ]	“little”	[aŋ <sup>33</sup> vai <sup>31</sup> ]	“fast”
[aŋ <sup>33</sup> bja <sup>31</sup> ]	“many”	[aŋ <sup>33</sup> ŋ <sup>31</sup> ]	“new”	[aŋ <sup>33</sup> an <sup>33</sup> ]	“old”
[aŋ <sup>33</sup> ne <sup>55</sup> ]	“red”	[aŋ <sup>33</sup> paŋ <sup>55</sup> ]	“black”	[aŋ <sup>33</sup> men <sup>31</sup> ]	“beautiful”
[aŋ <sup>33</sup> ku <sup>33</sup> ]	“dry”	[aŋ <sup>33</sup> tshau <sup>55</sup> ]	“sweet”	[aŋ <sup>33</sup> phi <sup>55</sup> ]	“hot (spicy)”

#### NOUNS

[aŋ <sup>33</sup> u <sup>33</sup> ]	“egg”	[aŋ <sup>33</sup> tshŋ <sup>55</sup> ]	“oil”	[aŋ <sup>33</sup> maŋ <sup>55</sup> ]	“body”
[aŋ <sup>33</sup> lai <sup>31</sup> ]	“book”	[aŋ <sup>33</sup> fu <sup>31</sup> ]	“front”	[aŋ <sup>33</sup> thaŋ <sup>33</sup> ]	“side”
[aŋ <sup>33</sup> tchi <sup>33</sup> ]	“elder sister”	[aŋ <sup>33</sup> nu <sup>33</sup> ]	“year, age”		

#### NUMERALS AND CLASSIFIERS

[aŋ <sup>33</sup> pak <sup>55</sup> ]	“hundred”	[aŋ <sup>33</sup> van <sup>55</sup> ]	“ten thousand”
[aŋ <sup>33</sup> kin <sup>55</sup> ]	“catty”	[aŋ <sup>33</sup> lon <sup>31</sup> ]	“tael”

The prefix [aŋ<sup>33</sup>-] not only combines with monosyllabic roots to form bisyllabic words, but may also appear in tri-syllabic words.

[aŋ <sup>33</sup> na <sup>55</sup> ci <sup>55</sup> ]	“believe, trust”	[aŋ <sup>33</sup> ts <sup>31</sup> ga <sup>33</sup> ]	“remember”
[aŋ <sup>33</sup> fu <sup>33</sup> bu <sup>31</sup> ]	“pretty”		

In some words, the relationship of the prefix [aŋ<sup>33</sup>-] to its root is relatively flexible, so that [aŋ<sup>33</sup>-] may be attached to or separated from it. Thus, words may have two variants, one with the prefix, and the other without. This occurs mainly in adjectives, locative nouns, numerals, and classifiers with the [aŋ<sup>33</sup>-] prefix. In practice, the variant with [aŋ<sup>33</sup>-] is used when the word appears in isolation or when it is used independently; whereas [aŋ<sup>33</sup>-] is often deleted when the word combines with specific morphemes or words to form fixed expressions. In such cases, the root is then used independently to combine with the other components (for a detailed discussion, see the section entitled “C. Morphological changes” below).

[-ba<sup>33</sup>]

This is a nominal suffix used to indicate the names of objects and indicates two different categories.

(1) Indicating “big”, often used in contrast to words containing [za<sup>31</sup>], a morpheme meaning “little or small”, as shown below.

[u <sup>55</sup> ba <sup>33</sup> ]	“large intestine”	—	[u <sup>55</sup> za <sup>31</sup> ]	“small intestine”
[khuŋ <sup>31</sup> ba <sup>33</sup> ]	“oesophagus (food channel)”	—	[khuŋ <sup>31</sup> za <sup>31</sup> ]	“trachea (air channel)”
[laŋ <sup>55</sup> ba <sup>33</sup> ]	“river, sea”	—	[laŋ <sup>55</sup> za <sup>31</sup> ]	“stream, brook”
[zum <sup>55</sup> ba <sup>33</sup> ]	“main room, living room”	—	[zum <sup>55</sup> za <sup>31</sup> ]	“side-room”

Although some words with this suffix do not contrast with words meaning “small” or “little”, the concept of “bigness” is implicit in the semantic content of the words themselves, as in [la<sup>31</sup>ba<sup>33</sup>] “thumb”, [za<sup>33</sup>ba<sup>33</sup>] “elephant”, and [tsha<sup>31</sup>la<sup>31</sup>la<sup>31</sup>ba<sup>33</sup>] “tiger”.

(2) Indicating the female gender, as in [a<sup>31</sup>ba<sup>33</sup>] “mother” and [kha<sup>31</sup>ba<sup>33</sup>] “wife”. Words formed using the suffix [-ba<sup>33</sup>] often contrast with words containing [-pha<sup>31</sup>] or [-la<sup>31</sup>], which are morphemes denoting the male gender, as shown below.

[zo <sup>31</sup> ba <sup>33</sup> ]	“mother-in-law”	—	[zo <sup>31</sup> pha <sup>31</sup> ]	“father-in-law”
[aŋ <sup>33</sup> ba <sup>33</sup> ]	“female bird”	—	[aŋ <sup>33</sup> pha <sup>31</sup> ]	“male bird”
[za <sup>33</sup> ba <sup>33</sup> ]	“hen”	—	[za <sup>33</sup> pha <sup>31</sup> ]	“cockereel”
[paŋ <sup>31</sup> na <sup>33</sup> aŋ <sup>33</sup> ba <sup>33</sup> ]	“cow”	—	[paŋ <sup>31</sup> na <sup>33</sup> aŋ <sup>33</sup> la <sup>31</sup> ]	“bull”
[pe <sup>33</sup> le <sup>33</sup> aŋ <sup>33</sup> ba <sup>33</sup> ]	“ewe”	—	[pe <sup>33</sup> le <sup>33</sup> aŋ <sup>33</sup> la <sup>31</sup> ]	“ram”

[-sv<sup>55</sup>]

This is a temporal nominal suffix, and is therefore mainly used in nouns expressing temporal concepts.

[mi <sup>55</sup> nu <sup>33</sup> sv <sup>55</sup> ]	"last year"	[fu <sup>31</sup> nu <sup>33</sup> sv <sup>55</sup> ]	"the year before last"
[noŋ <sup>31</sup> nu <sup>33</sup> sv <sup>55</sup> ]	"the year after next"	[nau <sup>33</sup> sv <sup>55</sup> ]	"tomorrow"

[-fu<sup>33</sup>], [-ba<sup>31</sup>]

These suffixes are both used for nouns denoting people, especially for those who perform specific tasks, so that they are equivalent to the suffix "-er" in English. In general, [-fu<sup>33</sup>] expresses singular number, while [-ba<sup>31</sup>] indicates plurality. They are mainly used in combination with several morphemes having verb-object relationships with one another, to form nouns which represent occupations.

aŋ <sup>33</sup> lai <sup>31</sup>	ma <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	—	aŋ <sup>33</sup> lai <sup>31</sup> ma <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>
book	teach			teacher/ teachers
aŋ <sup>33</sup> lai <sup>31</sup>	lin <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	—	aŋ <sup>33</sup> lai <sup>31</sup> lin <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>
book	learn			student/students
lo <sup>33</sup> ba <sup>33</sup>	tha <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	—	lo <sup>33</sup> ba <sup>33</sup> tha <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>
stone	strike			stonemason/stonemasons
za <sup>33</sup> bu <sup>55</sup>	za <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	—	za <sup>33</sup> bu <sup>55</sup> za <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>
produce food	work			farmer/ farmers

On other occasions, these two suffixes may be used with verbal morphemes, to form a noun which indicates "somebody who does ...", as shown below.

kuan <sup>31</sup>	fu <sup>33</sup>	—	kuan <sup>31</sup> fu <sup>33</sup>
manage	person		group leader
khai <sup>33</sup> xui <sup>55</sup>	ba <sup>31</sup>	—	khai <sup>33</sup> xui <sup>55</sup> ba <sup>31</sup>
hold a meeting	people		people in a meeting

Although [-fu<sup>33</sup>] and [-ba<sup>31</sup>] may be differentiated with regard to number, this distinction is by no means strict. When [-fu<sup>33</sup>] is used as a suffix in word formation, the semantic emphasis is on "the person who is engaged in such a profession", and not on the number. Therefore, it is not limited to the expression of singular number, but may also be used in coordination with other concepts of number expressed through other clausal constituents, such as dual or plural personal pronouns. Conversely, [-ba<sup>31</sup>] is only used for plural concepts and therefore may not be used with singular personal pronouns. This is illustrated in the following sentences:

ga<sup>33</sup> a<sup>31</sup> aŋ<sup>33</sup>lai<sup>31</sup>lin<sup>31</sup>fu<sup>33</sup>, noŋ<sup>33</sup> a<sup>31</sup> aŋ<sup>33</sup>lai<sup>31</sup>lin<sup>31</sup>fu<sup>33</sup>/ba<sup>31</sup> la<sup>31</sup>?  
 I (part.) student you (pl.) (part.) students (part.)

I am a student, are you students?

gu<sup>33</sup> aŋ<sup>33</sup>lai<sup>31</sup>lin<sup>31</sup>fu<sup>33</sup>/ba<sup>31</sup> ba<sup>31</sup> a<sup>31</sup>, gu<sup>33</sup> a<sup>31</sup>  
 we students not be we (part.)

aŋ<sup>33</sup>lai<sup>31</sup>ma<sup>31</sup>fu<sup>33</sup>/ba<sup>31</sup>, zaŋ<sup>33</sup> a<sup>31</sup> aŋ<sup>33</sup>lai<sup>31</sup>lin<sup>31</sup>fu<sup>33</sup>.  
 teachers he (part.) students

We are not students, we are teachers. He is a student.

Nouns denoting occupations and which are formed by using [-fu<sup>33</sup>] can also be modified by collective classifiers, as in:

thi<sup>31</sup>tsum<sup>55</sup> aŋ<sup>33</sup>lai<sup>31</sup>lin<sup>31</sup>fu<sup>33</sup> a group of students  
 a group students

## B. Compound words

Polymorphemic words consist mostly of a large number of compound words, which are formed from two or more content morphemes with definite meanings. As the combination of these morphemes does not consist of simple juxtaposition, the meaning of the compound word does not merely consist in the composite meanings of the morphemes. The morphosyntactic properties of the word and the nature of the morphemes are related in different ways, so that a noun may be formed from the combination of two nominal morphemes, or from the combination of a nominal and a verbal morpheme. Similarly, a verb may be formed from the combination of a verbal and a nominal morpheme, or from a verbal and an adjectival morpheme. The majority of compound words are bisyllabic, so that the main types of compounding may be demonstrated using bisyllabic words. These are listed in terms of lexical categories and described below with examples.

### (i) Types of compounding in nouns

As the vast majority of compound words are nouns, the types of compounding in nouns are complex and varied, with five main categories:

#### NOMINAL + NOMINAL MORPHEME

cin<sup>55</sup> louse + aŋ<sup>33</sup>u<sup>33</sup> egg, spawn > cin<sup>55</sup>u<sup>33</sup> nit (egg of a louse)  
 man<sup>31</sup>tu<sup>33</sup> mouth + aŋ<sup>33</sup>my<sup>31</sup> hair > man<sup>31</sup>my<sup>31</sup> beard

#### NOMINAL + VERBAL MORPHEME

ko<sup>33</sup> grain + ga<sup>55</sup> winnow > ko<sup>33</sup>ga<sup>55</sup> winnowing fan  
 cin<sup>55</sup> louse + ko<sup>33</sup> pick up > cin<sup>55</sup>ko<sup>33</sup> double-edged fine-toothed comb used for de-lousing

NOMINAL + ADJECTIVAL MORPHEME

aj <sup>33</sup> u <sup>33</sup>	egg	+	aj <sup>33</sup> s <sup>55</sup>	yellow	>	u <sup>33</sup> s <sup>55</sup>	egg yolk
mja <sup>33</sup>	knife	+	aj <sup>33</sup> kue <sup>31</sup>	bent	>	mja <sup>33</sup> kue <sup>31</sup>	flail

ADJECTIVAL + NOMINAL MORPHEME

aj <sup>33</sup> loj <sup>55</sup>	hot	+	mja <sup>55</sup>	time period	>	loj <sup>55</sup> mja <sup>55</sup>	summer
aj <sup>33</sup> tsho <sup>31</sup>	cold	+	mja <sup>55</sup>	time period	>	tsho <sup>31</sup> mja <sup>31</sup>	autumn

VERBAL + NOMINAL MORPHEME

zu <sup>31</sup>	sleep	+	aj <sup>33</sup> pam <sup>31</sup>	nest	>	zu <sup>31</sup> pam <sup>31</sup>	bed
ly <sup>33</sup>	saw	+	aj <sup>33</sup> du <sup>33</sup>	dust, powder	>	ly <sup>33</sup> du <sup>33</sup>	sawdust

(ii) Types of compounding in verbs

NOMINAL + VERBAL MORPHEME

la <sup>31</sup> pu <sup>31</sup>	hand	+	thu <sup>33</sup>	grasp	>	la <sup>31</sup> thu <sup>33</sup>	clench (fist)
aj <sup>33</sup> za <sup>31</sup>	child	+	xan <sup>55</sup>	carry, bear	>	aj <sup>33</sup> za <sup>31</sup> xan <sup>55</sup>	pregnant

VERBAL + VERBAL MORPHEME

fu <sup>33</sup>	look	+	aj <sup>33</sup> mja <sup>55</sup>	see	>	fu <sup>33</sup> mja <sup>55</sup>	saw
la <sup>55</sup>	come	+	le <sup>31</sup>	return	>	la <sup>55</sup> le <sup>31</sup>	come back

VERBAL + ADJECTIVAL MORPHEME

lau <sup>31</sup>	expose to the sun	+	aj <sup>33</sup> ku <sup>33</sup>	dry	>	lau <sup>31</sup> ku <sup>33</sup>	dry in the sun
pyk <sup>33</sup>	jump	+	aj <sup>33</sup> moj <sup>33</sup>	high	>	pyk <sup>33</sup> moj <sup>33</sup>	do a high-jump

(iii) Types of compounding in adjectives

As very few adjectives are compound words, the following types have been described using a limited number of compound words:

VERBAL + ADJECTIVAL MORPHEME

pu <sup>31</sup>	rotten	+	aj <sup>33</sup> nam <sup>55</sup>	smelly	>	pu <sup>31</sup> nam <sup>55</sup>	stench (as of rotten fish)
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ADJECTIVAL + ADJECTIVAL MORPHEME

aj <sup>33</sup> ts <sup>33</sup>	cool	+	aj <sup>33</sup> lum <sup>55</sup>	hot	>	ts <sup>33</sup> lum <sup>55</sup>	warm
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NOMINAL + ADJECTIVAL MORPHEME

luj <sup>33</sup> ba <sup>33</sup>	heart	+	bu <sup>31</sup>	comfortable	>	luj <sup>33</sup> ba <sup>33</sup> bu <sup>31</sup>	happy
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C. Morphological changes

In practice, morphological changes may occur in words when they are being used in actual speech. These changes are mainly deletions which occur when a word combines with other elements. The prefix is usually deleted, with [aj<sup>33</sup>-] being most frequently involved. Thus, not only does the morphology of the word change, but a structural change also occurs when a word combines with other words to form a phrase. This is a reflection of the flexible relationship between a prefix and its root. These morphological changes are described in detail below.

(1) In adjectives formed by a root adjective and the prefix [aj<sup>33</sup>-], the prefix is deleted in reduplicated and intensifying forms of the adjectives. In these cases, the root itself is reduplicated or combines individually with other morphemes, as shown below.

aj <sup>33</sup> moj <sup>33</sup>	high	>	moj <sup>33</sup> moj <sup>33</sup>	very high
aj <sup>33</sup> vau <sup>55</sup>	busy, aj <sup>33</sup> ki <sup>55</sup> in a hurry	>	vau <sup>55</sup> vau <sup>55</sup> ki <sup>55</sup> ki <sup>55</sup>	hastily
aj <sup>33</sup> tshau <sup>55</sup>	sweet	>	tshau <sup>55</sup> pot <sup>33</sup> pot <sup>33</sup>	sweet as honey
aj <sup>33</sup> pa <sup>55</sup>	black	>	pa <sup>55</sup> sa <sup>55</sup> sa <sup>55</sup>	pitch-black

The prefix [aj<sup>33</sup>-] is also deleted when an adjective combines with a preceding negating adverb, or when a degree adverb follows an adjective for emphasis.

aj <sup>33</sup> kha <sup>31</sup>	bitter	>	ba <sup>31</sup> kha <sup>31</sup>	not bitter
aj <sup>33</sup> s <sup>31</sup>	new	>	ba <sup>31</sup> s <sup>31</sup>	not new
aj <sup>33</sup> men <sup>31</sup>	good	>	men <sup>31</sup> ma <sup>55</sup>	very good indeed
aj <sup>33</sup> xu <sup>31</sup>	big	>	xu <sup>31</sup> ma <sup>55</sup> ma <sup>55</sup>	extremely big

When an adjective follows and modifies a monosyllabic noun, the prefix is sometimes deleted. The root then combines with the noun to form a bisyllabic word, as in:

va <sup>31</sup> pig, aj <sup>33</sup> za <sup>31</sup> little	>	va <sup>31</sup> za <sup>31</sup> little pig
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(cf. the situation when a bisyllabic noun is modified: a<sup>31</sup>mja<sup>31</sup>aj<sup>33</sup>za<sup>31</sup> little cow)

When a locative noun with the prefix [aj<sup>33</sup>-] combines with the structural particle [y<sup>33</sup>], which indicates time and space, the prefix [aj<sup>33</sup>-] is often deleted. The root then combines directly with the particle [y<sup>33</sup>] to form a bisyllabic locative construction, which indicates time or place, as in the following examples:

aj <sup>33</sup> noj <sup>31</sup>	back	>	thi <sup>31</sup> nu <sup>33</sup>	noj <sup>31</sup> y <sup>33</sup>	after one year
			one year	at the back	
aj <sup>33</sup> tha <sup>31</sup>	top	>	xaj <sup>31</sup> phyn <sup>31</sup>	tha <sup>31</sup> y <sup>33</sup>	on the dining table
			dining table	on top of	

The prefix [aj<sup>33</sup>-] is often deleted when a personal pronoun precedes the collective classifier [aj<sup>33</sup>tsum<sup>55</sup>] "group" or the noun [aj<sup>33</sup>tshaj<sup>31</sup>] "friend".

noŋ <sup>33</sup> tsum <sup>55</sup>	koŋ <sup>55</sup>	among you (all)	zoŋ <sup>33</sup> tsum <sup>55</sup>	koŋ <sup>55</sup>	among them
you (pl.) group	among		they group	among	
ga <sup>33</sup> tshaŋ <sup>31</sup>		my friend	zoŋ <sup>33</sup> tshaŋ <sup>31</sup>		their friend
I friend			they friend		

The prefix [aŋ<sup>33</sup>-] is also deleted when a measure word combines with a numeral to form a numeral-classifier phrase.

aŋ <sup>33</sup> kin <sup>55</sup>	catty	>	sum <sup>55</sup> kin <sup>55</sup>	three catties
			three	
aŋ <sup>33</sup> loŋ <sup>31</sup>	tael	>	xet <sup>31</sup> loŋ <sup>31</sup>	eight taels
			eight	

(2) When a kinship term prefixed by [a<sup>31</sup>-] or [a<sup>55</sup>-] combines with a preceding personal pronoun to form a phrase denoting a possessive relationship, the prefix is often deleted. The root then combines directly with the personal pronoun to form a bisyllabic construction.

ga <sup>33</sup>	I	+	a <sup>55</sup> boŋ <sup>55</sup>	father	>	ga <sup>33</sup> boŋ <sup>55</sup>	my father
naŋ <sup>33</sup>	you	+	a <sup>55</sup> pu <sup>55</sup>	grandfather	>	naŋ <sup>33</sup> pu <sup>55</sup>	your grandfather
zoŋ <sup>33</sup>	they	+	a <sup>31</sup> ba <sup>33</sup>	mother	>	zoŋ <sup>33</sup> ba <sup>33</sup>	their mothers

(3) Individual compound nouns when combined with personal pronouns may also show prefix deletion, as in:

naŋ <sup>33</sup>	you	+	za <sup>31</sup> ki <sup>33</sup>	child	>	naŋ <sup>33</sup> za <sup>31</sup>	your child
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The changes described above indicate that when words combine with other morphemes to form new words in Bisu, the deletion of the secondary elements of a word (*i.e.* the affix) heightens the prominence of the primary elements. This also produces a closer association with the other morphemes. At the same time, these morphological changes have a definite phonological component, in that they all reveal a tendency towards bisyllabicity.

### 3.2 Word Formation

Words are phonological forms with definite semantic content, and polymorphemic words can be formed by using different ways of combination. Word formation in Bisu is based on the essential elements of these methods, and changes during their development have resulted in four different ways in which new words may be formed: through phonological, semantic, morphological, and structural changes.

#### 3.2.1 Word Formation through Phonological Changes

New words may be formed when the key phonological elements within a word undergo certain mutations, to create a new word which is phonologically similar and whose meaning is associated with the "parent word". This often results in "word families" which consist of words derived from the same parent word.

As this type of word formation basically involves using a similar phonological form to express a new but related concept, it may be analysed in two ways: from the different types of phonological mutations or from the categories of semantic association.

#### A. Phonological mutations

As each of the phonological elements of a word, *i.e.* the onset, rhyme, and tone, can undergo mutations, there are many different ways in which phonological changes may occur. Bisu words formed in this way often involve a change in the syllable rhyme.

[te <sup>33</sup> ]	"go up" (a mountain)	—	[ta <sup>33</sup> ]	"get into" (a cart or boat)
[bot <sup>33</sup> ]	"nod"	—	[bo <sup>33</sup> ]	"lower" (head)
[tshom <sup>31</sup> ]	"choke" (food stuck in throat)	—	[tshau <sup>31</sup> ]	"cough after swallowing"

The onsets may change in some words:

[pak <sup>31</sup> ]	"cut open"	—	[phjak <sup>31</sup> ]	"chop open"
[ka <sup>33</sup> ]	"fall, drop"	—	[kha <sup>33</sup> ]	"drop off, fall down"

Tone change is also a common type of phonological mutation:

[ku <sup>31</sup> ]	"sew"	—	[ku <sup>33</sup> ]	"thread" (a needle)
[tchi <sup>31</sup> ]	"lift, raise"	—	[tchi <sup>55</sup> ]	"release, move"

In some words, changes are not only limited to a single element (onset, rhyme or tone), but may involve two elements simultaneously, such as the rhyme and tone, or the onset and tone.

#### CHANGES IN BOTH RHYME AND TONE

[la <sup>55</sup> ]	"come" (up)	—	[lu <sup>33</sup> ]	"come" (down)
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#### CHANGES IN BOTH ONSET AND TONE

[le <sup>33</sup> ]	"go" (up)	—	[e <sup>55</sup> ]	"go" (down)
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The vast majority of "word families" formed through such changes consist of monosyllabic words, although a few bisyllabic words also exist, as in:

[lo <sup>33</sup> kho <sup>31</sup> ]	"plate"	—	[lo <sup>55</sup> kho <sup>31</sup> ]	"earthen bowl"
[ko <sup>33</sup> kha <sup>33</sup> ]	"basket"	—	[ko <sup>33</sup> khja <sup>55</sup> ]	"back-basket"

#### B. Semantic associations

As words from the same "word family" have originated from the same source, they demonstrate close semantic associations. However, semantic differences must also exist, as



these form the basis for the creation of new words. This characteristic of being different yet similar, which is shared by words within the same "word families" in Bisu, is expressed mainly through lexical meanings, although some words may also have different grammatical meanings. These types of semantic relationships are illustrated below:

(1) SIMILAR MEANINGS: expressing similar actions or associated objects. Words in the same "word family" have shared attributes. However, differences in meaning also exist so that new words are formed.

[ku <sup>33</sup> ]	"stir"	—	[kui <sup>33</sup> ]	"mix"
[phe <sup>31</sup> ]	"vomit"	—	[phit <sup>31</sup> ]	"spit"
[tshu <sup>33</sup> ]	"catch"	—	[thu <sup>33</sup> ]	"grasp"
[ga <sup>33</sup> ]	"I"	—	[gu <sup>33</sup> ]	"we"
[naj <sup>33</sup> ]	"you" (sing.)	—	[noj <sup>33</sup> ]	"you" (pl.)
[zaj <sup>33</sup> ]	"he"	—	[zøj <sup>33</sup> ]	"they"

(2) OPPOSITE MEANINGS: expressing opposing or corresponding aspects within the same semantic domain.

[up <sup>31</sup> ]	"speak"	—	[tsup <sup>31</sup> ]	"close one's mouth"
[ta <sup>33</sup> ]	"up"	—	[ka <sup>33</sup> ]	"down"
[phu <sup>33</sup> ]	"wind, tie"	—	[phu <sup>55</sup> ]	"untie"

(3) CAUSE AND EFFECT: where the words represent an action and its result.

[zik <sup>55</sup> ]	"tear"	—	[zik <sup>31</sup> ]	"torn"
[ce <sup>31</sup> ]	"kill"	—	[ci <sup>55</sup> ]	"die"

### 3.2.2 Word Formation through Semantic Changes

Word formation may also occur due to the development and differentiation of the meaning of a word. With a growing knowledge of objective reality within the society, a widening of the semantic domain of the original word occurs. After a long period of development, the many meanings contained in some words gradually undergo separation, so that their associations are no longer directly evident, with the original polysemous word becoming two or more homonyms. There are several ways in which word formation in Bisu can occur through a differentiation in meaning:

#### A. Through similar meanings

This leads to the development of several words expressing objects or actions with common characteristics. The morphosyntactic properties of these words are identical and their meanings are similar.

[san <sup>31</sup> ]	(a) "sprinkle" (water) (b) "scatter" (seeds) (c) "feed" (chickens)	throwing or scattering objects held in the hand
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[teŋ <sup>33</sup> ]	(a) "repair" (b) "cure"	restoration to the original condition, although the objects may be different
[lu <sup>33</sup> ]	(a) "come" (down) (b) "rain" (v.)	movement from far to near or from above to below
[e <sup>55</sup> ]	(a) "go" (b) "flowing" (water)	movement from near to far

#### B. Through associated meanings

This leads to the development of a pair of words consisting of a noun and a verb. Although their morphosyntactic properties are different, their meanings are related.

[thai <sup>55</sup> ]	(a) "plough" (n.) (b) "plough" (v.)	[kju <sup>31</sup> ]	(a) "sickle" (n.) (b) "reap" (v.)
[ka <sup>31</sup> ]	(a) "strength" (n.) (b) "win" (v.)	[pak <sup>31</sup> ]	(a) "cut, split" (v.) (b) "a half" (n.)

#### C. Development of corresponding classifiers based on nouns or verbs

Classifiers appeared relatively late in Bisu, with the vast majority being formed in this way.

[zum <sup>55</sup> ]	(a) "house" (b) classifier for house	[kon <sup>31</sup> ]	(a) "ladle" (b) "a spoonful" (cl.)
[koŋ <sup>55</sup> ]	(a) "jar, bottle" (b) classifier for a quantity in a bottle	[koŋ <sup>33</sup> ]	(a) "pile" (of sand or soil) (b) "a heap or pile" (cl.)

Although word formation through semantic changes mainly involves monomorphemic words, it is not restricted to them. Polymorphemic words may also give rise to new words through the development and differentiation of meanings. This may happen under two circumstances:

(1) There is no morphological change, so that two words with similar and related meanings are expressed by two morphologically similar polymorphemic words.

[aŋ <sup>33</sup> pju <sup>31</sup> ]	(a) "pattern" (b) "writing"	[aŋ <sup>33</sup> sɿ <sup>31</sup> ]	(a) "fruit" (b) "kidneys"
[e <sup>31</sup> phu <sup>31</sup> ]	(a) "ball" (b) "bladder"	[la <sup>31</sup> thu <sup>33</sup> ]	(a) "fist" (b) "a double-handful" (of rice)

(2) There is a morphological change, so that, of the two words with related meanings, one is polymorphemic while the other is a monomorphemic word which is similar in part to the former. The common feature of these words is that the polymorphemic word is a noun, while the monomorphemic word is a verb which is formed from the final morpheme of the noun. The verb expresses a specific action which is related to the noun, and is only used in

combination with its associated noun, reflecting the very close relationship between the word pair. Although they are intimately associated in their formation, morphosyntax, meaning, and usage, numeral-classifier phrases or adverbs may be inserted in between them. They are therefore considered to be two independent words. Examples are as follows:

[muŋ <sup>31</sup> bap <sup>31</sup> ]	"lightning"	—	[(muŋ <sup>31</sup> bap <sup>31</sup> )bap <sup>31</sup> ]	"flash"
[za <sup>33</sup> u <sup>33</sup> ]	"chicken egg"	—	[(za <sup>33</sup> u <sup>33</sup> )u <sup>33</sup> ]	"lay" (an egg)
[lan <sup>55</sup> ve <sup>55</sup> ]	"swimming" (n.)	—	[(lan <sup>55</sup> ve <sup>55</sup> )ve <sup>55</sup> ]	"swim" (v.)
[tu <sup>31</sup> tshoŋ <sup>31</sup> ]	"hat"	—	[(tu <sup>31</sup> tshoŋ <sup>31</sup> )tshoŋ <sup>31</sup> ]	"wear" (a hat)
[tu <sup>31</sup> pau <sup>33</sup> ]	"head-scarf"	—	[(tu <sup>31</sup> pau <sup>33</sup> )pau <sup>33</sup> ]	"wrap around"
[suŋ <sup>31</sup> no <sup>33</sup> ]	"shoes"	—	[(suŋ <sup>31</sup> no <sup>33</sup> )no <sup>33</sup> ]	"put on" (shoes)

### 3.2.3 Word Formation through Morphological Changes

Through the presence or absence of affixes, new words can be formed which express different lexical and grammatical meanings. Although these words have related meanings, their morphosyntactic properties are usually different.

According to their semantic relationships, words formed through morphological changes may be divided into the following types:

#### A. Words with similar or related meanings

[aŋ <sup>33</sup> sɿ <sup>55</sup> ]	"gold"	—	[sɿ <sup>55</sup> ]	"yellow"
[aŋ <sup>33</sup> sa <sup>31</sup> ]	"gas, vapour"	—	[sa <sup>31</sup> ]	"steal"
[aŋ <sup>33</sup> be <sup>33</sup> ]	"know"	—	[be <sup>33</sup> ]	"understand"
[aŋ <sup>33</sup> kuɿ <sup>33</sup> ]	"dry"	—	[kuɿ <sup>33</sup> ]	"thirsty"

A special feature of some verbs within this category is that semantically, they only express actions which are related to their associated nouns. In addition, they are also used in combination with their associated nouns.

[aŋ <sup>33</sup> v <sup>33</sup> ]	"flower"	—	[ve <sup>33</sup> ]	"open" (of flowers)
[aŋ <sup>33</sup> sɿ <sup>31</sup> ]	"fruit"	—	[sɿ <sup>31</sup> ]	"bear fruit"

#### B. Relationship of cause and effect

[aŋ <sup>33</sup> poŋ <sup>31</sup> ]	"cavity"	—	[poŋ <sup>31</sup> ]	"open at the bottom"
[aŋ <sup>33</sup> ken <sup>31</sup> ]	"hard"	—	[ken <sup>31</sup> ]	"old"
[aŋ <sup>33</sup> phik <sup>33</sup> ]	"crack" (n.)	—	[phik <sup>33</sup> ]	"split"
[aŋ <sup>33</sup> ka <sup>31</sup> ]	"ability"	—	[ka <sup>31</sup> ]	"win"
[aŋ <sup>33</sup> sɿ <sup>31</sup> ]	"new"	—	[sɿ <sup>31</sup> ]	"grind"
[aŋ <sup>33</sup> kho <sup>31</sup> ]	"tall"	—	[kho <sup>31</sup> ]	"grow"

### C. Names of objects with their corresponding classifiers

[aŋ <sup>33</sup> the <sup>55</sup> ]	"word(s)"	—	the <sup>55</sup>	"(a) sentence"
[aŋ <sup>33</sup> pha <sup>31</sup> ]	"leaf"	—	pha <sup>31</sup>	"(a) piece"
[aŋ <sup>33</sup> nu <sup>33</sup> ]	"year"	—	nu <sup>33</sup>	"(a) year" (period of time)
[aŋ <sup>33</sup> la <sup>33</sup> ]	"month"	—	la <sup>33</sup>	"(a) month" (period of time)

From the above examples, word formation through morphological changes may be seen to have two prominent features:

(1) The main functional affix is the prefix [aŋ<sup>33</sup>-]. Although other prefixes may be used in isolated words to form new words, as in [aŋ<sup>33</sup>ma<sup>55</sup>] "full (not hungry)"—[a<sup>55</sup>ma<sup>33</sup>] "true, real", the prefix [aŋ<sup>33</sup>-] is without doubt the most productive affix in word formation in Bisu.

(2) A pair of words formed through morphological changes will belong to different parts of speech, except in rare cases. In general, words with the prefix [aŋ<sup>33</sup>-] are nouns, while their corresponding monomorphemic words are verbs or classifiers. In the few exceptions to the above rule, the distinction in syntactic category between the pair of words is usually not clear.

### 3.2.4 Word Formation through Structural Changes

A new compound word may be formed from a few content morphemes which combine according to a definite structural relationship. In Bisu, this is the most productive and functionally most important way in which new words are formed, with compound words constituting the main body of Bisu polymorphemic words.

Different structural relationships exist in the ways in which morphemes combine with each other. The following types are described separately with examples:

#### A. Coordination

The morphemes are identical in nature and their meanings are easily implied through their juxtaposition.

kho <sup>33</sup>	+	mja <sup>33</sup>	>	kho <sup>33</sup> mja <sup>33</sup>
hoe		knife		tools
aŋ <sup>33</sup> fu <sup>31</sup>	+	aŋ <sup>33</sup> noŋ <sup>31</sup>	>	fu <sup>31</sup> noŋ <sup>31</sup>
first, front		after		one after the other, successively
zau <sup>55</sup>	+	zu <sup>55</sup>	>	zu <sup>55</sup> zau <sup>55</sup>
take a wife		take a husband		marry
up <sup>31</sup>	+	kja <sup>31</sup>	>	up <sup>31</sup> kja <sup>31</sup>
say		listen		notify, inform

#### B. Modification

Of the two morphemes, one is the modifier and the other is being modified. There are two combination sequences:

(1) A nominal morpheme precedes the morpheme which is being modified.

sam <sup>55</sup>	+	aŋ <sup>33</sup> ce <sup>31</sup>	>	sam <sup>55</sup> ce <sup>31</sup>
iron		wedge, peg		nail
man <sup>31</sup> tu <sup>33</sup>	+	aŋ <sup>33</sup> kho <sup>33</sup>	>	man <sup>31</sup> kho <sup>33</sup>
mouth		skin		lips
laŋ <sup>55</sup> tsho <sup>31</sup>	+	poŋ <sup>31</sup>	>	laŋ <sup>55</sup> poŋ <sup>31</sup>
water		cylinder		bamboo tube for carrying water
laŋ <sup>55</sup> tsho <sup>31</sup>	+	aŋ <sup>33</sup> kja <sup>55</sup>	>	laŋ <sup>55</sup> kja <sup>55</sup>
water		rectangular pieces of land in a field		drainage ditch

(2) The morpheme which is being modified precedes the modifying morpheme.

kaŋ <sup>31</sup> pha <sup>31</sup>	+	aŋ <sup>33</sup> tchin <sup>55</sup>	>	kaŋ <sup>31</sup> tchin <sup>31</sup>
vegetables		sour		pickled vegetables
poŋ <sup>31</sup>	+	aŋ <sup>33</sup> tshau <sup>55</sup>	>	poŋ <sup>31</sup> tshau <sup>31</sup>
cylinder		sweet		sugar cane
my <sup>55</sup>	+	sɿ <sup>31</sup>	>	my <sup>55</sup> sɿ <sup>31</sup>
gunpowder		grain, pebble		bullet
tshy <sup>31</sup>	+	xvŋ <sup>31</sup>	>	tshy <sup>31</sup> xvŋ <sup>31</sup>
ruler (for measurement)		sieve(v.)		sieve (n.)

### C. Illustration

A morpheme is illustrated by the following verbal or adjectival morpheme.

la <sup>31</sup> pu <sup>31</sup>	+	thu <sup>33</sup>	>	la <sup>31</sup> thu <sup>33</sup>
hand		grasp, grip		fist
na <sup>31</sup> stuŋ <sup>31</sup>	+	paŋ <sup>31</sup>	>	na <sup>31</sup> paŋ <sup>31</sup>
ear		deaf		deaf person
luŋ <sup>33</sup> ba <sup>33</sup>	+	aŋ <sup>33</sup> kha <sup>31</sup>	>	luŋ <sup>33</sup> ba <sup>33</sup> kha <sup>31</sup>
heart		bitter		angry
aŋ <sup>33</sup> tchi <sup>55</sup>	+	e <sup>55</sup>	>	aŋ <sup>33</sup> tchi <sup>55</sup> e <sup>55</sup>
root		go (down)		put down roots

### D. Object-Verb Relationship

A nominal precedes a verbal morpheme, with the former expressing the object towards which the action is being performed.

ko <sup>33</sup>	+	ga <sup>55</sup>	>	ko <sup>33</sup> ga <sup>55</sup>
grain		winnow		winnowing fan
nam <sup>55</sup>	+	tek <sup>31</sup>	>	nam <sup>55</sup> tek <sup>31</sup>
cloth		measure		ruler
sam <sup>55</sup> khuŋ <sup>55</sup>	+	phe <sup>31</sup>	>	sam <sup>55</sup> phe <sup>31</sup>
hair		weave		plait (n.)
kha <sup>31</sup> lau <sup>33</sup>	+	to <sup>31</sup>	>	kha <sup>31</sup> lau <sup>33</sup> to <sup>31</sup>
clothes		mend		patch (n.)

### E. Complementation

The result of the action or behaviour expressed by a morpheme is explained by the following morpheme.

fu <sup>33</sup>	+	aŋ <sup>33</sup> mjaŋ <sup>55</sup>	>	fu <sup>33</sup> mjaŋ <sup>55</sup>
look		has seen		seen
lau <sup>31</sup>	+	aŋ <sup>33</sup> ku <sup>33</sup>	>	lau <sup>31</sup> ku <sup>33</sup>
put in the sun		dry		sun-dried
ta <sup>33</sup>	+	la <sup>55</sup>	>	ta <sup>33</sup> la <sup>55</sup>
go up (a slope, into a cart)		come		come up
oŋ <sup>55</sup>	+	le <sup>33</sup>	>	oŋ <sup>55</sup> le <sup>33</sup>
enter		go		enter

Many of the compound words formed in this way are polysyllabic words:

tshoŋ <sup>31</sup> koŋ <sup>31</sup>	open country	>	tshoŋ <sup>31</sup> koŋ <sup>31</sup> kyŋ <sup>31</sup>	wild animal (object in the open country or out in the wild)
aŋ <sup>33</sup> kyŋ <sup>31</sup>	thing, object			
sum <sup>31</sup> tche <sup>31</sup>	thirty	>	sum <sup>31</sup> tche <sup>31</sup> khu <sup>55</sup> tsha <sup>31</sup>	centipede (a worm joined together by thirty feet)
la <sup>31</sup> khu <sup>31</sup>	feet			
tsha <sup>31</sup>	join, link			

Among words formed in this way, the phonological forms of the morphemes may sometimes change, so that the pronunciation of a morpheme may not be totally consistent in different words. When several morphemes are combined, the following syllable assimilates to the preceding syllable: this is a type of morphophonemic alternation which occurs at the level of word formation (for a detailed discussion see 2.4 "Morphophonemic Alternations").

### 3.2.5 Word Formation and Developmental Trends

Although the four different ways in which word formation can occur in Bisu have been analysed separately above, this does not imply that they are entirely separate with regard to production of new words. In practice, many words are formed using a combination of the above changes.

### A. Combining different ways of word formation

Some verbs and adjectives which have a semantic relationship of cause and effect are also intimately associated in morphology. Their phonological forms are similar, with identical onsets, rhymes, and tone changes. Structurally, they consist of a monosyllabic verb which pairs with a derived adjective having the prefix [aŋ<sup>33</sup>]. Their morphosyntactic properties are clearly differentiated and reflect the special features of word formation through both phonological and morphological changes.

[xan <sup>55</sup> ]	“carry on the back”	—	[aŋ <sup>33</sup> xan <sup>31</sup> ]	“heavy”
[vaŋ <sup>33</sup> ]	“stretch”	—	[aŋ <sup>33</sup> vaŋ <sup>31</sup> ]	“wide”
[nam <sup>31</sup> ]	“smell”	—	[aŋ <sup>33</sup> nam <sup>55</sup> ]	“smelly”
[nen <sup>31</sup> ]	“press, squeeze”	—	[aŋ <sup>33</sup> nen <sup>55</sup> ]	“tight”

The above examples reflect the result of combining phonological, semantic, and morphological changes in word formation. This type of combination may also be seen in the relationship between singular and plural personal pronouns. The personal pronouns in Bisu are listed below:

	singular	plural
first person	[ga <sup>33</sup> ]	[gu <sup>33</sup> ]
second person	[naŋ <sup>33</sup> ]	[noŋ <sup>33</sup> ]/[naŋ <sup>33</sup> xv <sup>33</sup> ]
third person	[zaŋ <sup>33</sup> ]	[zoŋ <sup>33</sup> ]/[zoŋ <sup>33</sup> xv <sup>33</sup> ]

The above table reveals that the personal pronouns in Bisu have been formed in different ways:

(1) The third person singular and plural pronouns are related phonologically, and are formed by phonological mutations in their syllable rhymes.

(2) Of the two coexisting second person plural pronouns, one is formed by adding a morpheme to the singular pronominal morpheme and is therefore a compound word formed through structural changes.

(3) The other third person plural pronoun which coexists with the monosyllabic pronoun is also a compound word formed from two morphemes, but the singular pronominal morpheme has undergone phonological modification due to mutation of the syllable rhyme. This is an example of the combination of both phonological and structural changes in word formation.

### B. Developmental trends in word formation

From a historical perspective, the combination of different ways of word formation and the coexistence of words formed through different types of changes reflect the developmental trends in word formation in Bisu. The tendency is a continual increase in the productivity of word formation through structural changes, in order to remedy the limitations of word formation through other types of changes. Thus, new words are formed primarily through structural changes.

This developmental trend has been determined by the individual features of the different ways of word formation. In word formation through phonological, semantic, and

morphological changes, an original “parent word” is the basis for word formation. Through changes in the sound, meaning, or morphology of this “parent word”, new words are then formed which have similar morphology and/or related meanings. As a “parent word” is always as a foundation, the new words formed are generally monomorphemic or words derived by affixation, so that the resulting phonological, semantic, and morphological changes are relatively restricted. This severe limitation leads to a low generative potential and curtails the number of new words, often leading to the formation of “word families”. Within these “word families”, the words are morphologically similar and do not have distinct differentiating features, with the result that they cannot adapt well to the requirements of an expanding lexicon.

In contrast, word formation through structural changes does not require an original word as its basis, but uses morphemes as raw materials for word formation. New bi- and polysyllabic words are formed through many different types of structural relationships, so that there is an abundant source of material for word formation, with types of combinations which are varied and flexible. Its productivity is high and large quantities of new words may be formed. It is therefore an effective way in which the lexicon can be increased.

### 3.3 Semantic Relationships

Several types of semantic relationships exist within the Bisu lexical system. These have resulted from the differentiation or generalisation of meaning, and also from the different relationships between the phonological forms and the meanings of words. These semantic relationships not only reflect the development and evolution of the semantic and lexical systems, but also provide insights into the thought processes of speakers as well as the ways in which knowledge is acquired.

#### 3.3.1 Polysemous Words and Homonyms

Both polysemous words and homonyms represent words with identical phonological forms but many different meanings. An intimate relationship exists between the many meanings of a polysemous word, *i.e.* many different meanings are incorporated within the word itself. In homonyms, however, the different meanings are not related: the words are simply pronounced in the same way.

#### A. Polysemous words

These are abundant within the Bisu lexicon and include nouns, verbs, and adjectives.

##### POLYSEMOUS NOUNS

[ko <sup>33</sup> ]	(a) “grain” (b) “rice, paddy” (c) “food”	[zum <sup>55</sup> ]	(a) “house” (b) “home”
[aŋ <sup>33</sup> kho <sup>33</sup> ]	(a) “peel” (of fruit) (b) “bark” (of tree) (c) “skin”	[za <sup>55</sup> ]	(a) “land” (b) “crops”
[aŋ <sup>33</sup> lai <sup>31</sup> ]	(a) “book” (b) “letter”	[phu <sup>55</sup> ]	(a) “silver” (b) “money”

POLYSEMOUS VERBS

[lau <sup>31</sup> ]	(a) "roast" (b) "dry in the air" (c) "dry in the sun"	[than <sup>31</sup> ]	(a) "pick up" (with chopsticks) (b) "cut open" (with scissors)
[pi <sup>31</sup> ]	(a) "hand over" (b) "return" (objects) (c) "compensate"	[pak <sup>31</sup> ]	(a) "cut open" (with a knife) (b) "break open"
[lin <sup>31</sup> ]	(a) "study, learn" (b) "read"	[duŋ <sup>55</sup> ]	(a) "sit" (b) "squat"

POLYSEMOUS ADJECTIVES

[aŋ <sup>33i55</sup> ]	(a) "small" (b) "tiny" (c) "few" (d) "young"	[aŋ <sup>33tu55</sup> ]	(a) "short" (b) "round"
[aŋ <sup>33xu31</sup> ]	(a) "large" (b) "thick" (c) "old"	[aŋ <sup>33kha31</sup> ]	(a) "bitter" (b) "salty"
[aŋ <sup>33men31</sup> ]	(a) "good" (b) "beautiful"	[aŋ <sup>33kyŋ33</sup> ]	(a) "straight" (b) "upright"

There are two main reasons for the development of polysemous words:

(1) Firstly, the extent of knowledge and the manner in which this knowledge is acquired. The verb [khi<sup>31</sup>] means "chase" but also "hunt", because hunting involves chasing and attacking. To a race living in hilly terrain, for whom hunting is an important activity in order to provide food, the action of chasing will mainly occur during the hunting process.

(2) Secondly, semantic change and development. The word [phu<sup>55</sup>] "silver" has acquired the new meaning of "money", along with social development and methods of exchange of goods and money.

**B. Homonyms**

Homonyms are similar to but also strictly distinct from polysemous words. In both cases, many different meanings are represented by identical phonological forms. Homonyms may occur under two sets of circumstances:

(1) The phonological forms are identical, but there is no association between the different meanings. In terms of the source of the words, there is also no associated historical origin, so that the identical nature of the phonological forms is simply coincidental.

[xan <sup>55</sup> ]	(a) "four" (b) "back"	[xet <sup>31</sup> ]	(a) "eight" (b) "drunk" (with wine)
[tche <sup>55</sup> ]	(a) "ten" (b) "choose"	[tshŋ <sup>31</sup> ]	(a) "hang" (b) "pinch, nip"

(2) The other situation involves words which are formed through semantic changes, as discussed in the previous section. These words differ from the above group, as they have a historical relationship both semantically and in terms of their origin. However, they must not be confused with polysemous words. Due to development and differentiation through several semantic senses, they now stand as independent words.

[le <sup>33</sup> ]	(a) "go" (b) "take off" (clothes)	[ku <sup>33</sup> ]	(a) "stir, mix" (b) "thread a needle"
[ka <sup>31</sup> ]	(a) "strength" (b) "win"	[za <sup>55</sup> ]	(a) "land" (b) "piece" (cl.)

In terms of their source, these words are definitely related semantically, but the associations are already very remote. Therefore, they should be regarded as several distinct homonyms rather than as polysemous words.

**3.3.2 Synonyms and Near-Synonyms**

Bisu synonyms have two special features:

Firstly, the vast majority are verbs, with a few which are adjectives, pronouns, and classifiers. They are rarest among nouns.

Secondly, full synonyms with completely identical meanings are very rare. Most of them are near-synonyms with subtle differences in both meaning and usage. The following groups of near-synonyms are classified in terms of these differences and examples are listed below:

(1) These express the same kind of action or behaviour, but with different recipients.

split open	(a) [phik <sup>31</sup> ]	"split open a hard shell"
	(b) [pha <sup>33</sup> ]	"split open the peel (of a fruit) or enlarge a tear in clothes"
close or shut	(a) [mit <sup>33</sup> ]	"close one's eyes"
	(b) [tsup <sup>31</sup> ]	"shut one's mouth"
borrow	(a) [tchi <sup>31</sup> ]	"borrow an item which does not need to be returned"
	(b) [tsvk <sup>55</sup> ]	"borrow an item which has to be returned"
grind	(a) [sŋ <sup>31</sup> ]	"sharpen a knife"
	(b) [ki <sup>33</sup> ]	"grind rice"
wash	(a) [tchi <sup>31</sup> ]	"have a bath, wash one's hands"
	(b) [tsau <sup>33</sup> ]	"wash clothes or dishes"
blow	(a) [mi <sup>33</sup> ]	"blow on a fire"
	(b) [khv <sup>33</sup> ]	"play a bamboo flute or a bamboo recorder"

(2) These express the same concept, but different objects are involved or modified.

hot	(a) [aŋ <sup>33</sup> lum <sup>55</sup> ]	“hot water”
	(b) [loŋ <sup>55</sup> ]	“hot weather”
dirty	(a) [pjaŋ <sup>31</sup> ]	“dirty clothes”
	(b) [tsha <sup>31</sup> ]	“rubbish, assorted or miscellaneous items”
tall or high	(a) [aŋ <sup>33</sup> moŋ <sup>33</sup> ]	“high mountain, tall tree”
	(b) [aŋ <sup>33</sup> kho <sup>31</sup> ]	“tall” (in stature)
low	(a) [me <sup>31</sup> ]	“low” (in location)
	(b) [aŋ <sup>33</sup> nom <sup>33</sup> ]	“short” (person)
bunch, cluster	(a) [phoŋ <sup>33</sup> ]	“a bunch of grapes, a cluster of ears of grain”
	(b) [khan <sup>33</sup> ]	“a bunch of bananas with the stalk”
piece	(a) [za <sup>31</sup> ]	“a piece of land”
	(b) [pen <sup>31</sup> ]	“a plank of wood”

(3) These near-synonyms exist because of the subtle differences inherent in the objects or actions.

(a) [zo <sup>31</sup> ]	“walk”	(a) [tshoŋ <sup>33</sup> ]	“hide” (objects)
(b) [thvŋ <sup>33</sup> ]	“stride”	(b) [bok <sup>33</sup> ]	“hide” (oneself)
(a) [ts <sup>33</sup> ]	“smoke” (cigarettes)	(a) [mek <sup>33</sup> ]	“hit, strike”
(b) [tshok <sup>33</sup> ]	“suck”	(b) [tu <sup>31</sup> ]	“smack” (with the hand)
(a) [aŋ <sup>33</sup> tcit <sup>31</sup> ]	“rubbish”	(a) [thi <sup>31</sup> pak <sup>31</sup> ]	“half” (of a cut object)
(b) [aŋ <sup>33</sup> sot <sup>31</sup> ]	“dregs, sediment, residue”	(b) [thi <sup>31</sup> paŋ <sup>31</sup> ]	“half” (of a liquid)

(4) These indicate the same action or spatial location, but at different positions.

come	(a) [la <sup>55</sup> ]	“come” (up)	go	(a) [le <sup>33</sup> ]	“go” (up)
	(b) [lu <sup>33</sup> ]	“come” (down)		(b) [e <sup>55</sup> ]	“go” (down)
that	(a) [bi <sup>55</sup> ]	“far away”			
	(b) [xi <sup>55</sup> ]	“further away”			
	(c) [i <sup>55</sup> ]	“furthest away”			

The above examples show that the main reason for the development of near-synonyms is a difference in the recipients which are involved or in the objects with which the words are associated. Secondly, synonyms may also develop due to the identification and differentiation

of subtle distinctions between objects and concepts. Near-synonyms formed from differences in position reflect the emphasis and importance of direction for a people living in hilly territory, especially in distinguishing the elevation or depression of the terrain.

Some near-synonyms exist because the words do not arise from the same source. In general, a pair of near-synonyms consists of a word found only in Bisu and a loan word. Such near-synonyms are similar and yet differ in some way. Examples include:

- of the two near-synonyms indicating “few”, [aŋ<sup>33</sup>i<sup>55</sup>] is found only in Bisu, while [sau<sup>31</sup>] is a Chinese loan. Semantically, there is a difference in the scope of meaning, so that the former has a wider range, indicating “few, little, tiny, young (in years)”, *i.e.* in the areas of quantity, shape and age; whereas the loan word only refers to “a small quantity”.
- of the two near-synonyms indicating “appear, produce”, [to<sup>33</sup>] is found only in Bisu, while [ok<sup>31</sup>] is a Dai loan word. These words are used in different speech environments: [to<sup>33</sup>] means “appear”, as in [xa<sup>55</sup>man<sup>55</sup>to<sup>33</sup>] “be windy, gusty”, [u<sup>31</sup>la<sup>33</sup>to<sup>33</sup>] “the moon has appeared”, and [muŋ<sup>31</sup>nuŋ<sup>31</sup>to<sup>33</sup>] “the sun has come out (fine weather)”; whereas [ok<sup>31</sup>] is used for “going in and out”, as in [oŋ<sup>55</sup>ok<sup>31</sup>] “(a person) coming in or going out” and [muŋ<sup>31</sup>nuŋ<sup>31</sup>ok<sup>31</sup>] “sunrise”.

This characteristic of having a similar yet different meaning in these near-synonyms is determined by the principle of economy within the language. Whether or not they have arisen from the same source, or are full synonyms with identical meaning and usage, they cannot exist for a long period of time within a language as supernumerary elements. Several different options exist: they must experience further differentiation or division in their semantic categories during usage; there must be a re-arrangement of their functions; or a choice must be made between the two words, retaining one but eliminating the other. Therefore, the emergence of near-synonyms as the main type within this group is inevitable.

### 3.3.3 Antonyms

Bisu antonyms are mainly found among verbs and adjectives.

#### A. Antonymous verbs

[tan <sup>31</sup> ]	“push”	[naŋ <sup>33</sup> ]	“swallow”	[vu <sup>55</sup> ]	“buy”
[kvn <sup>31</sup> ]	“pull”	[phe <sup>31</sup> ]	“vomit”	[koŋ <sup>31</sup> ]	“sell”
[kha <sup>33</sup> ]	“plant”	[ta <sup>33</sup> ]	“up”	[tum <sup>33</sup> ]	“wear”
[kaŋ <sup>55</sup> ]	“pluck”	[ka <sup>33</sup> ]	“down”	[le <sup>33</sup> ]	“take off”
[tu <sup>55</sup> ]	“smile”	[a <sup>31</sup> ]	“open” (mouth)	[phoŋ <sup>33</sup> ]	“open” (eyes)
[uŋ <sup>55</sup> ]	“cry”	[tsup <sup>31</sup> ]	“shut” (mouth)	[mit <sup>33</sup> ]	“shut” (eyes)

#### B. Antonymous adjectives

[aŋ <sup>33</sup> zaŋ <sup>55</sup> ]	“light”	[aŋ <sup>33</sup> tan <sup>33</sup> ]	“flat”	[aŋ <sup>33</sup> kho <sup>31</sup> ]	“tall”
[aŋ <sup>33</sup> xan <sup>31</sup> ]	“heavy”	[aŋ <sup>33</sup> phaŋ <sup>33</sup> ]	“steep”	[aŋ <sup>33</sup> nom <sup>33</sup> ]	“short”
[aŋ <sup>33</sup> vaŋ <sup>31</sup> ]	“wide”	[aŋ <sup>33</sup> thu <sup>55</sup> ]	“thick”	[aŋ <sup>33</sup> vv <sup>31</sup> ]	“far”
[aŋ <sup>33</sup> khjap <sup>31</sup> ]	“narrow”	[aŋ <sup>33</sup> pa <sup>31</sup> ]	“thin”	[aŋ <sup>33</sup> du <sup>31</sup> ]	“near”

[aŋ <sup>33</sup> vai <sup>31</sup> ]	“fast”	[aŋ <sup>33</sup> sɿ <sup>31</sup> ]	“new”	[aŋ <sup>33</sup> xom <sup>55</sup> ]	“fragrant”
[aŋ <sup>33</sup> kam <sup>31</sup> ]	“slow”	[aŋ <sup>33</sup> an <sup>55</sup> ]	“old”	[aŋ <sup>33</sup> nam <sup>55</sup> ]	“smelly”

The meanings and concepts expressed by antonyms are mainly contrastive, with concepts halfway between the two extremes being described by other words. For example, apart from the words [tu<sup>55</sup>] “smile” and [uŋ<sup>55</sup>] “cry”, there are other facial expressions which involve neither smiling nor crying. Similarly, with the words [aŋ<sup>33</sup>sɿ<sup>31</sup>] “new” and [aŋ<sup>33</sup>an<sup>55</sup>] “old”, other states exist which are neither new nor old. However, some antonyms express concepts which are entire opposites, such as [te<sup>31</sup>] “live” and [ci<sup>55</sup>] “die”; [aŋ<sup>33</sup>kyŋ<sup>33</sup>] “straight” and [aŋ<sup>33</sup>kue<sup>31</sup>] “bent”: these are contrasting concepts which may not coexist and which do not have conditions which lie between the two extremes.

Not all antonyms show one-to-one correspondence, so that several antonyms may correspond to a single word. Conversely, some near-synonyms may have a contrastive relationship with an individual word, as shown below.

[pi <sup>31</sup> ]	“return”	(a) [tchi <sup>31</sup> ]	“borrow”
		(b) [tsyk <sup>55</sup> ]	“borrow”
[pvyŋ <sup>33</sup> ]	“full”	(a) [be <sup>31</sup> ]	“hungry”
		(b) [bjaŋ <sup>31</sup> ]	“hungry”
[aŋ <sup>33</sup> kue <sup>31</sup> ]	“bent”	(a) [aŋ <sup>33</sup> kyŋ <sup>33</sup> ]	“straight”
		(b) [aŋ <sup>33</sup> kan <sup>31</sup> ]	“straight”
[aŋ <sup>33</sup> peŋ <sup>55</sup> ]	“expensive”	(a) [aŋ <sup>33</sup> ga <sup>31</sup> ]	“cheap”
		(b) [aŋ <sup>33</sup> za <sup>55</sup> ]	“cheap”

In some cases, the various meanings of a polysemous word may have different antonyms, leading to an intersecting type of contrastive relationship, as illustrated below:

Z	[aŋ <sup>33</sup> xu <sup>31</sup> ]	“big”	[aŋ <sup>33</sup> i <sup>55</sup> ]	“little, few”
	[aŋ <sup>33</sup> bja <sup>31</sup> ]	“many”	[aŋ <sup>33</sup> sau <sup>31</sup> ]	“few”

As there are many concepts in Bisu which do not have corresponding antonyms, opposite or corresponding meanings may be expressed by using words of negation.

[aŋ <sup>33</sup> men <sup>31</sup> ]	“beautiful, good”	[aŋ <sup>33</sup> na <sup>31</sup> ]	“deep”
[ba <sup>31</sup> men <sup>31</sup> ]	“ugly, bad”	[ba <sup>31</sup> na <sup>31</sup> ]	“shallow”
[ka <sup>31</sup> ]	“win”	[tsa <sup>33</sup> ]	“have”
[ba <sup>31</sup> ka <sup>31</sup> ]	“lose”	[ba <sup>31</sup> tsa <sup>33</sup> ]	“do not have”

### 3.3.4 Special Features of Semantic Relationships

The various semantic relationships described above reveal the special features of semantic generalisation and description in the Bisu lexicon. In general, Bisu words tend to be relatively general in their expression of concepts, actions, and behaviour, so that fine distinctions may not be made between the inherent characteristics of objects or between actions belonging to the same categories. Thus, a word may encompass a very broad semantic

domain, as in the word [aŋ<sup>33</sup>kho<sup>33</sup>] “skin”, which not only includes the skin on humans and animals, but also includes bark and peel, thus representing the thin outer layer of different types of objects. When this word combines with other roots, the resulting compound words can also indicate objects with similar features, such as [man<sup>31</sup>kho<sup>33</sup>] “lips” and [me<sup>33</sup>kho<sup>33</sup>] “eyelids”. Similarly, the verb [lau<sup>31</sup>] can mean “dry in the sun”, “roast”, or “air-dry”: although the actions are different, they all have the common feature of drying. The adjective [aŋ<sup>33</sup>i<sup>55</sup>] not only indicates “tiny” or “little”, but can also mean “few” or “young (in age)”.

However, the distinction is more minute in words describing objects or recipients which are involved or associated with actions or states. Several near-synonyms may be formed from a single verb due to differences in their objects. Similarly, near-synonyms are also often formed from adjectives and classifiers by modifying the head.

### 3.4 Composition of the Lexicon

The lexicon is a complicated system and may be studied from many different aspects and classified in various ways:

- with respect to form, words can be divided into mono- and polysyllabic words; or mono- and polymorphemic words
- with respect to usage, words may be items of core vocabulary and other lexical items
- with respect to origin, they may be divided into words found only in Bisu or loan words assimilated from another language

In this section, the origin of the Bisu lexicon will be studied. The Bisu lexicon is composed of cognate Burmese-Yipho words, words found only in Bisu, and loan words. The former two groups of words together constitute a major part of the Bisu lexical system.

#### 3.4.1 Cognate Words in Burmese-Yipho Languages

Cognate words within the Burmese-Yipho language group constitute an important part of the Bisu lexicon. The vast majority of items of core vocabulary within the Bisu language are cognate with those in the lexical inventories of other Burmese-Yipho languages. These cognate words are important indicators of the affinity of Bisu to these languages.

The following examples are listed according to the correspondences among different sound categories. (In the tables, the symbol □ indicates another syllable within a polysyllabic word. These syllables have not been included due to space restrictions.)

#### A. Stops

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
rotten	pu <sup>31</sup>	pup	pup <sup>55</sup>	pup <sup>21</sup>	py <sup>33</sup>	—	pu <sup>55</sup>	bom <sup>55</sup>
shoot	py <sup>33</sup>	pas	pək <sup>55</sup>	pik <sup>21</sup>	pɔ <sup>33</sup>	bɔ <sup>54</sup>	pe <sup>42</sup>	be <sup>53</sup>
open	phoŋ <sup>33</sup>	phwaŋ <sup>1</sup>	phɔŋ <sup>35</sup>	phoŋ <sup>55</sup>	phu <sup>33</sup>	phɔ <sup>33</sup>	phɔ <sup>33</sup>	phɔ <sup>31</sup>
untie	phu <sup>55</sup>	phre <sup>2</sup>	phi <sup>55</sup>	phji <sup>51</sup>	phu <sup>55</sup>	phu <sup>33</sup>	phu <sup>33</sup> □	phu <sup>35</sup>
weep	tan <sup>55</sup>	ton <sup>2</sup>	thun <sup>55</sup>	tun <sup>51</sup>	te <sup>55</sup>	—	tɔ <sup>31</sup>	tuɔ <sup>35</sup>
up	ta <sup>33</sup>	tak	tɔ <sup>55</sup>	tɔ <sup>21</sup>	tɔ <sup>33</sup>	tɔ <sup>54</sup>	—	—
thick	thu <sup>55</sup>	htu <sup>2</sup>	thu <sup>51</sup>	thu <sup>51</sup>	thu <sup>55</sup>	thu <sup>33</sup>	□thu <sup>55</sup>	thu <sup>31</sup>
handspan	tho <sup>55</sup>	htwa <sup>2</sup>	tho <sup>55</sup>	tho <sup>51</sup>	thu <sup>55</sup>	thu <sup>33</sup> □	tho <sup>55</sup>	thua <sup>35</sup>
nine	kau <sup>31</sup>	ko <sup>3</sup>	kau <sup>31</sup>	kau <sup>21</sup>	yu <sup>31</sup>	qɔ <sup>53</sup>	—	gu <sup>35</sup>

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
pick up	ko <sup>33</sup>	kək	ku <sup>55</sup>	ku <sup>21</sup>	kɿ <sup>33</sup>	ɣo <sup>54</sup>	ko <sup>42</sup>	—
bitter	kha <sup>31</sup>	kha <sup>3</sup>	xo <sup>31</sup>	kho <sup>21</sup>	khɔ <sup>31</sup>	qha <sup>53</sup>	ɔkxo <sup>55</sup>	kha <sup>53</sup>
dog	khui <sup>31</sup>	khwe <sup>3</sup>	xui <sup>31</sup>	khui <sup>21</sup>	khɿ <sup>31</sup>	—	khui <sup>33</sup>	khui <sup>55</sup>

### B. Affricates

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
eat	tɕa <sup>31</sup>	sa <sup>3</sup>	tɕo <sup>31</sup>	tso <sup>21</sup>	tɕo <sup>31</sup>	tɕa <sup>53</sup>	tɕo <sup>33</sup>	dza <sup>55</sup>
raw	tsum <sup>31</sup>	sim <sup>3</sup>	tsin <sup>31</sup>	ɔtɕum <sup>21</sup>	ɔtɕe <sup>31</sup>	ɔtɕɿ <sup>53</sup>	ɔtɕe <sup>33</sup>	dzo <sup>53</sup>
boil	tshu <sup>55</sup>	hsu <sup>2</sup>	su <sup>55</sup>	tsu <sup>51</sup>	tshɿ <sup>55</sup>	—	tshu <sup>42</sup>	tsu <sup>35</sup>
join	tsha <sup>31</sup>	hsak	—	tsho <sup>755</sup>	ɔtsha <sup>31</sup>	tɕa <sup>35</sup>	ɔtsha <sup>33</sup>	tsha <sup>53</sup>
wash	tɕhi <sup>31</sup>	she <sup>3</sup>	tshi <sup>31</sup>	tʃhi <sup>21</sup>	tɕɿ <sup>31</sup>	tshɿ <sup>53</sup>	tshi <sup>33</sup>	tchi <sup>55</sup>
sour	tɕhin <sup>55</sup>	khjən <sup>2</sup>	mzək <sup>55</sup>	tʃin <sup>51</sup>	tche <sup>55</sup>	tɕi <sup>33</sup>	ɔtʃhu <sup>33</sup>	ɔtɕhum <sup>55</sup>

### C. Fricatives

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
die	ci <sup>55</sup>	the <sup>2</sup>	ʃɿ <sup>55</sup>	ʃi <sup>51</sup>	ʃɿ <sup>55</sup>	ʃɿ <sup>33</sup>	ci <sup>31</sup>	ʃi <sup>35</sup>
louse	cin <sup>55</sup>	than <sup>3</sup>	ʃən <sup>31</sup>	ʃin <sup>21</sup>	se <sup>55</sup>	se <sup>33</sup>	ce <sup>33</sup>	ʃa <sup>55</sup>
three	sum <sup>55</sup>	thum <sup>3</sup>	sum <sup>31</sup>	sum <sup>21</sup>	se <sup>55</sup>	se <sup>33</sup>	so <sup>33</sup>	so <sup>35</sup>
iron	sam <sup>55</sup>	tham <sup>2</sup>	ʃam <sup>55</sup>	ʃam <sup>51</sup>	se <sup>55</sup>	so <sup>33</sup>	ce <sup>42</sup>	ʃa <sup>31</sup>
pig	va <sup>31</sup>	wok	o <sup>755</sup>	va <sup>721</sup>	va <sup>31</sup>	va <sup>21</sup>	va <sup>44</sup>	va <sup>53</sup>
far	vɿ <sup>31</sup>	we <sup>3</sup>	ve <sup>31</sup>	ve <sup>21</sup>	xui <sup>31</sup>	vu <sup>53</sup>	xui <sup>44</sup>	ɔue <sup>31</sup>

### D. Laterals

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
armspan	lam <sup>55</sup>	lam <sup>2</sup>	lam <sup>55</sup>	lam <sup>51</sup>	le <sup>55</sup>	te <sup>53</sup>	ɬe <sup>33</sup>	la <sup>35</sup>
come	la <sup>55</sup>	la <sup>2</sup>	—	le <sup>55</sup>	la <sup>55</sup>	la <sup>31</sup>	lo <sup>33</sup>	la <sup>35</sup>
sun-dry	lau <sup>31</sup>	hlan <sup>3</sup>	lap <sup>55</sup>	lap <sup>55</sup>	li <sup>31</sup>	le <sup>31</sup>	lo <sup>55</sup>	la <sup>53</sup>

### E. Nasals

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
sky	muŋ <sup>31</sup>	mo <sup>3</sup>	mau <sup>31</sup>	mau <sup>21</sup>	mi <sup>31</sup>	mu <sup>53</sup>	—	mu <sup>55</sup>
old	maŋ <sup>31</sup>	o <sup>2</sup>	muəŋ <sup>31</sup>	maŋ <sup>21</sup>	mu <sup>31</sup>	mɔ <sup>53</sup>	—	mu <sup>53</sup>
mushroom	moŋ <sup>55</sup>	hmo <sup>2</sup>	mau <sup>55</sup>	mau <sup>51</sup>	me <sup>55</sup>	mu <sup>11</sup>	mɔ <sup>33</sup>	mu <sup>35</sup>
blow	mi <sup>33</sup>	hmut	mu <sup>55</sup>	mut <sup>21</sup>	my <sup>33</sup>	mɔ <sup>54</sup>	—	—
you	naŋ <sup>33</sup>	naŋ <sup>2</sup>	nuəŋ <sup>55</sup>	naŋ <sup>51</sup>	ny <sup>55</sup>	nɔ <sup>31</sup>	ne <sup>31</sup>	no <sup>55</sup>
trample	naŋ <sup>31</sup>	naŋ <sup>3</sup>	nuəŋ <sup>31</sup>	naŋ <sup>21</sup>	ny <sup>31</sup>	na <sup>54</sup>	ne <sup>33</sup>	—
five	ŋa <sup>31</sup>	ŋa <sup>3</sup>	ŋo <sup>31</sup>	ŋo <sup>21</sup>	ŋo <sup>31</sup>	ŋa <sup>53</sup>	ŋo <sup>33</sup>	ŋa <sup>55</sup>

### F. Palatalised onsets

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
bee	pja <sup>31</sup>	pja <sup>3</sup>	—	pjo <sup>21</sup>	po <sup>31</sup>	pe <sup>53</sup>	pjo <sup>33</sup>	bia <sup>55</sup>
fly (v.)	pjam <sup>55</sup>	pjam <sup>2</sup>	tɕam <sup>55</sup>	—	pe <sup>55</sup>	po <sup>31</sup>	pi <sup>33</sup>	bia <sup>55</sup>
many	bja <sup>31</sup>	mja <sup>3</sup>	nɔ <sup>31</sup>	mjo <sup>21</sup>	mja <sup>31</sup>	ma <sup>53</sup>	—	buum <sup>31</sup>
see	mjaŋ <sup>55</sup>	mraŋ <sup>2</sup>	ɔmzaŋ <sup>55</sup>	mjaŋ <sup>51</sup>	ɔmo <sup>55</sup>	ɔmo <sup>31</sup>	mje <sup>42</sup>	—
knife	mja <sup>33</sup>	—	mzau <sup>31</sup>	ʃam <sup>51</sup>	—	—	mje <sup>33</sup>	mɿu <sup>55</sup>
horn	aŋ <sup>33</sup> khjau <sup>55</sup>	khjo <sup>2</sup>	khzau <sup>55</sup>	khju <sup>51</sup>	khɔ <sup>55</sup>	khɔ <sup>53</sup>	ɔkhi <sup>33</sup>	khui <sup>55</sup>
comb	khja <sup>33</sup>	—	—	kjo <sup>755</sup>	ka <sup>33</sup>	ka <sup>54</sup>	khi <sup>31</sup>	ku <sup>53</sup>

### 3.4.2 Words Specific to Bisu

There are a number of Bisu words which are not related in any way to those in other Burmese-Yipho languages or surrounding languages such as Thai or Dai. These words are entirely specific to Bisu, reflecting the distinctiveness of the Bisu lexical system.

Word	Bisu	Burmese	Zaiwa	Hani	Lahu	Dai
fish	te <sup>55</sup> sɿ <sup>31</sup>	ŋa <sup>3</sup>	ŋo <sup>21</sup> tso <sup>21</sup>	ŋo <sup>31</sup> so <sup>31</sup>	ŋa <sup>54</sup>	pa <sup>1</sup>
stomach	aŋ <sup>33</sup> u <sup>55</sup>	a <sup>1</sup> sa <sup>2</sup> im <sup>2</sup>	khji <sup>21</sup> pham <sup>21</sup>	ɿ <sup>55</sup> mo <sup>33</sup>	ɔ <sup>31</sup> fɔ <sup>35</sup> qo <sup>11</sup>	pum <sup>1</sup>
pus	aŋ <sup>33</sup> um <sup>55</sup>	pran <sup>2</sup>	pjiŋ <sup>51</sup> vij <sup>21</sup>	pɿ <sup>55</sup> je <sup>55</sup>	be <sup>21</sup> ɿu <sup>31</sup>	nɔŋ <sup>1</sup>
saliva	khan <sup>31</sup>	thwa <sup>3</sup> ran <sup>2</sup>	tʃi <sup>21</sup>	ɿ <sup>55</sup> tso <sup>33</sup>	tɕi <sup>35</sup> ɿu <sup>53</sup>	nəm <sup>4</sup> lai <sup>2</sup>
ride	ta <sup>33</sup>	si <sup>3</sup>	tʃi <sup>21</sup>	tɕɿ <sup>31</sup>	tɕi <sup>53</sup>	xi <sup>5</sup>
bite	tche <sup>31</sup>	kok	ŋat <sup>21</sup>	thɔ <sup>31</sup>	go <sup>21</sup>	xop <sup>7</sup>
play	bo <sup>31</sup>	lan <sup>2</sup>	kja <sup>21</sup> kun <sup>55</sup>	ny <sup>55</sup> ko <sup>33</sup>	tɕa <sup>33</sup> gu <sup>53</sup>	din <sup>3</sup>
read	lin <sup>31</sup>	phat	ŋap <sup>55</sup>	tsu <sup>55</sup>	ɿo <sup>33</sup>	a:n <sup>5</sup>
nail (v.)	mek <sup>33</sup>	rok	tin <sup>55</sup>	tv <sup>33</sup> tshɿ <sup>31</sup>	do <sup>54</sup> ti <sup>31</sup>	tin <sup>3</sup>
exist	duŋ <sup>55</sup>	hri <sup>1</sup>	ŋji <sup>55</sup>	tsu <sup>55</sup>	tshe <sup>53</sup>	ju <sup>5</sup>
say	up <sup>31</sup>	prɔ <sup>3</sup>	tai <sup>21</sup>	pe <sup>33</sup>	zo <sup>33</sup>	pak <sup>9</sup>
run	xvn <sup>31</sup>	pre <sup>3</sup>	tin <sup>51</sup>	tshu <sup>31</sup>	ɿu <sup>53</sup>	len <sup>6</sup>
drunk	xet <sup>31</sup>	mu <sup>3</sup>	vut <sup>21</sup>	pɿ <sup>33</sup>	bu <sup>54</sup>	mau <sup>2</sup> lau <sup>2</sup>
crawl	phja <sup>31</sup>	twa <sup>3</sup> thwa <sup>3</sup>	to <sup>21</sup>	sv <sup>33</sup>	lo <sup>53</sup>	kan <sup>2</sup>
know	be <sup>33</sup>	na <sup>3</sup> lan <sup>2</sup>	se <sup>55</sup>	sɿ <sup>31</sup> la <sup>31</sup>	ɿa <sup>33</sup>	hu <sup>4</sup>
lick	be <sup>31</sup>	jak	jo <sup>721</sup>	mɔ <sup>31</sup>	le <sup>21</sup>	le <sup>2</sup>
carry on	xan <sup>55</sup>	po <sup>3</sup>	vun <sup>51</sup>	phi <sup>33</sup>	pu <sup>33</sup>	tse <sup>5</sup>
back	—	—	—	—	—	—
pull	kvn <sup>31</sup>	hswai <sup>3</sup>	laŋ <sup>21</sup>	tshɿ <sup>55</sup>	ɿo <sup>31</sup>	tut <sup>8</sup>
rob	zat <sup>31</sup>	lu <sup>1</sup>	lu <sup>55</sup>	ly <sup>33</sup>	lu <sup>33</sup> zu <sup>31</sup>	tsiŋ <sup>2</sup>
cure	tej <sup>33</sup>	ku <sup>1</sup>	ja <sup>21</sup>	ji <sup>33</sup>	gu <sup>53</sup>	ja <sup>1</sup>
tight	aŋ <sup>33</sup> nen <sup>55</sup>	taŋ <sup>3</sup>	tiŋ <sup>55</sup>	tv <sup>55</sup>	ki <sup>33</sup>	kap <sup>8</sup>
heavy	aŋ <sup>33</sup> xan <sup>31</sup>	le <sup>3</sup>	lai <sup>21</sup>	tshɿ <sup>33</sup>	xo <sup>53</sup>	nak <sup>7</sup>
black	aŋ <sup>33</sup> paŋ <sup>55</sup>	nak	no <sup>721</sup>	na <sup>33</sup>	na <sup>54</sup>	kam <sup>5</sup>
beautiful	aŋ <sup>33</sup> men <sup>31</sup>	khjo <sup>3</sup>	tʃo <sup>721</sup>	ka <sup>31</sup>	ni <sup>33</sup> sa <sup>33</sup>	nam <sup>1</sup> ŋan <sup>2</sup>
four	xan <sup>55</sup>	le <sup>3</sup>	mji <sup>21</sup>	li <sup>31</sup>	ɔ <sup>53</sup>	si <sup>5</sup>
we	gu <sup>33</sup>	ŋa <sup>2</sup> to <sup>1</sup>	ŋa <sup>55</sup> mo <sup>755</sup>	ŋo <sup>31</sup> ɿ <sup>33</sup>	ŋa <sup>31</sup> xui <sup>33</sup>	tu <sup>1</sup> hau <sup>2</sup>



The above words, which are found only in Bisu, have no direct relationship with words in other Burmese-Yipho languages or in surrounding languages such as Dai. They are produced and formed within the Bisu language itself and have unique phonological and structural forms.

However, their distinctiveness does not imply that the formation of these words has absolutely no association with other languages. From a historical perspective, these words may be divided into two groups:

(1) The first group of words are generated entirely within the Bisu language itself, using Bisu ways of word formation from language elements specific to Bisu.

(2) The second group of words do possess a common historical origin with words in other languages which are derived from the same parent language. These words are formed in basically similar ways and the same raw materials were used in forming the earliest forms of the words. However, over a long period of development, the cognate elements of these Burmese-Yipho words have adapted to the internal rules and forms of Bisu, becoming new words with Bisu characteristics. They therefore show distinctive features which differ from other related languages. These changes, which reflect the same original source but a different developmental stream, will be illustrated below by some representative words.

[gu<sup>33</sup>]

The word [gu<sup>33</sup>] “we” is a word found only in Bisu. In other Burmese-Yipho languages, the first person plural pronoun is formed by adding a pluralising morpheme to the singular pronoun to create a polymorphemic word. However, [gu<sup>33</sup>] is formed from the first person singular pronoun [ga<sup>33</sup>] “I” by changing the syllable rhyme (*i.e.* word formation through phonological change). However, the word [ga<sup>33</sup>] itself is a Burmese-Yipho cognate word, and is expressed as [ŋa<sup>2</sup>] in Burmese, [ŋo<sup>31</sup>] in Achang, [ŋo<sup>51</sup>] in Zaiwa, [ŋa<sup>55</sup>] in Hani, [ŋa<sup>21</sup>] in Lahu, [ŋo<sup>31</sup>] in Jino, and [ŋa<sup>35</sup>] in Nu.

[lu<sup>33</sup>]

The word [lu<sup>33</sup>] “come (down)” is also specific to Bisu, and is associated phonologically with the Burmese-Yipho cognate word [la<sup>55</sup>] “come (up)”. This meaning is expressed as [la<sup>2</sup>] in Burmese, [le<sup>55</sup>] in Zaiwa, [la<sup>55</sup>] in Hani, [la<sup>31</sup>] in Lahu, [lo<sup>33</sup>] in Jino, and [la<sup>35</sup>] in Nu.

[ta<sup>33</sup>]

The word [ta<sup>33</sup>] expresses the two meanings of “go up (a slope) or get on to (a cart)” and “ride”: these two words are formed by semantic differentiation. Of these, [ta<sup>33</sup>] meaning “ride” is specific to Bisu, whereas [ta<sup>33</sup>] meaning “up” is a Burmese-Yipho cognate word. It is expressed as [tok] in Burmese, [to<sup>55</sup>] in Achang, [to<sup>21</sup>] in Zaiwa, [tə<sup>33</sup>] in Hani, and [ta<sup>54</sup>] in Lahu.

[aŋ<sup>33</sup>nen<sup>55</sup>]

This word, meaning “tight”, has no cognate relationship with other Burmese-Yipho languages. It is based on the word [nen<sup>31</sup>] “squeeze, press” and is a new word formed both by tonal change and by the addition of a prefix (*i.e.* phonological and morphological changes).

However, the word [nen<sup>31</sup>] “squeeze” itself is a Burmese-Yipho cognate and is expressed as [hnas] in Burmese, [ne<sup>55</sup>] in Zaiwa, and [ni<sup>35</sup>] in Lahu.

[aŋ<sup>33</sup>nam<sup>55</sup>]

This word, meaning “smelly”, is similar to the above example. It is a word found only in Bisu and is formed by a combination of tonal change and prefix addition from the Burmese-Yipho cognate word [nam<sup>31</sup>] “smell (v.)”. “Smell” is expressed as [nam<sup>3</sup>] in Burmese, [nam<sup>31</sup>] in Achang, [nam<sup>51</sup>] in Zaiwa, [no<sup>55</sup>] in Hani, and [nu<sup>31</sup>] in Lahu.

Words found only in Bisu also include compound words formed through different types of changes, as illustrated by the following examples:

- [nja<sup>33</sup>kue<sup>31</sup>] “flail” is formed from the two morphemes [nja<sup>33</sup>] “knife” and [kue<sup>31</sup>] “bent” *via* a modifying relationship (*i.e.* structural change)
- [ki<sup>33</sup>fu<sup>31</sup>] “first” is formed from the two morphemes [ki<sup>33</sup>] which indicates “first place” and [fu<sup>31</sup>] “front”, and is a compound word formed *via* a coordination relationship
- [luŋ<sup>33</sup>ba<sup>33</sup>kha<sup>31</sup>] “angry”, a trisyllabic word, is formed from two word roots [luŋ<sup>33</sup>ba<sup>33</sup>] “heart” and [kha<sup>31</sup>] “bitter”, and is a compound word formed *via* an illustrative relationship.
- [sum<sup>31</sup>tche<sup>31</sup>khu<sup>55</sup>tsha<sup>31</sup>] “centipede”, a four-syllable word, is formed from the three morphemes [sum<sup>31</sup>tche<sup>31</sup>] “thirty”, [khu<sup>55</sup>] “foot”, and [tsha<sup>31</sup>] “join, link”. It is a vivid description of the external characteristics of the creature.

Within the Bisu lexicon, words denoting different occupations are very distinctive. This type of word is formed by addition of the suffix [-fu<sup>33</sup>] (sing.) or [-ba<sup>31</sup>] (pl.) to two morphemes (a nominal and a verbal morpheme) in a modifying relationship, and expresses a person engaged in a certain occupation. Most Bisu words which describe occupations are formed in this way, as shown below.

mi <sup>31</sup> tho <sup>31</sup>	ty <sup>33</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	mi <sup>31</sup> tho <sup>31</sup> ty <sup>33</sup> fu <sup>33</sup> /ba <sup>31</sup>
firewood	chop	person(s)		woodcutter(s)
paŋ <sup>31</sup> na <sup>33</sup>	po <sup>33</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	paŋ <sup>31</sup> na <sup>33</sup> po <sup>33</sup> fu <sup>33</sup> /ba <sup>31</sup>
cow	graze	person(s)		shepherd(s)
zum <sup>55</sup>	tsho <sup>33</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	zum <sup>55</sup> tsho <sup>33</sup> fu <sup>33</sup> /ba <sup>31</sup>
house	cover	person(s)		tiler(s)
lo <sup>33</sup> ba <sup>33</sup>	tha <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	lo <sup>33</sup> ba <sup>33</sup> tha <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>
stone	strike	person(s)		stonemason(s)
sam <sup>55</sup>	te <sup>33</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	sam <sup>55</sup> te <sup>33</sup> fu <sup>33</sup> /ba <sup>31</sup>
iron	beat	person(s)		blacksmith(s)
phu <sup>55</sup>	te <sup>33</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	phu <sup>55</sup> te <sup>33</sup> fu <sup>33</sup> /ba <sup>31</sup>
silver	beat	person(s)		silversmith(s)

stuj <sup>31</sup> no <sup>33</sup>	ku <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	stuj <sup>31</sup> no <sup>33</sup> ku <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>	
shoes	sew	person(s)		cobbler(s)	
stuj <sup>33</sup> tsuj <sup>55</sup>	ze <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	stuj <sup>33</sup> tsuj <sup>55</sup> ze <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>	
tree	saw	person(s)		carpenter(s)	
paŋ <sup>31</sup> na <sup>33</sup>	ce <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	paŋ <sup>31</sup> na <sup>33</sup> ce <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>	
cow	kill	person(s)		butcher(s)	
sa <sup>31</sup> ka <sup>31</sup>	ka <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	sa <sup>31</sup> ka <sup>31</sup> ka <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>	
animal	hunt	person(s)		hunter(s)	
aŋ <sup>33</sup> lai <sup>31</sup>	ma <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	aŋ <sup>33</sup> lai <sup>31</sup> ma <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>	
book	teach	person(s)		teacher(s)	
aŋ <sup>33</sup> lai <sup>31</sup>	lin <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	aŋ <sup>33</sup> lai <sup>31</sup> lin <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>	
book	learn	person(s)		student(s)	
tshaŋ <sup>55</sup>	da <sup>55</sup>	fu <sup>33</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	tshaŋ <sup>55</sup> da <sup>55</sup> fu <sup>33</sup> fu <sup>33</sup> /ba <sup>31</sup>
man	illness see	person(s)		doctor(s)	
tchi <sup>31</sup> ka <sup>31</sup>	xa <sup>31</sup>	fu <sup>33</sup> /ba <sup>31</sup>	→	tchi <sup>31</sup> ka <sup>31</sup> xa <sup>31</sup> fu <sup>33</sup> /ba <sup>31</sup>	
medicine	make	person(s)		doctor(s)	

### 3.4.3 Loan Words

Throughout its history, the Bisu people have experienced much social and economic improvement, and communication with other ethnic groups has increased. Bisu has therefore continually assimilated words from surrounding languages. This process has enriched and substantiated its own lexical system, as well as increasing its expressive power. Thus, loan words are important components of the Bisu lexicon.

Due to the dispersion of Bisu speakers over a wide geographical area and the subsequent disparate surrounding language environments, loan words differ in their origins. For the Bisu spoken within Chinese territory, loan words have mainly been borrowed from the Dai spoken in Xishuangbanna, and secondarily from the local variety of Southwestern Mandarin. For the Bisu spoken in Thailand, loan words originate mainly from Northern and standard Thai.

As Bisu and the Thai/Dai languages have come into contact with one another over a long period of time, the assimilation of loan words from Thai/Dai has also had a long history. Thai/Dai loan words, which have gradually permeated into Bisu due to the effects of economic development, have merged with the Bisu lexicon through prolonged usage. In addition, many have become part of the core vocabulary or may even function as morphemes leading to the formation of new words, thus fulfilling a very important role. There are large numbers of Chinese loan words, even though assimilation into Bisu has only occurred over the past few decades. Due to historical dissimilarities and different methods of assimilation into Bisu, Thai/Dai and Chinese loan words have different semantic and morphological features.

In terms of semantics, the majority of loan words are used for tools of food production, utensils used in daily life, cultural items, objects or actions associated with the society as a whole, as well as more abstract concepts. Dai loan words are intimately associated with the

practicalities of life, including [thai<sup>55</sup>] “plough”, [kho<sup>33</sup>] “pickaxe”, [aŋ<sup>33</sup>thu<sup>31</sup>] “chopsticks”, [me<sup>33</sup>ta<sup>31</sup>] “mirror”, [ka<sup>33</sup>lat<sup>33</sup>] “paper”, [kat<sup>55</sup>] “market”, and [aŋ<sup>33</sup>peŋ<sup>55</sup>] “expensive”. On the other hand, Chinese loan words have an even more distinctive period flavour, with most being used for objects and concepts in modern living, or products arising from modern science and technology. They include words such as [li<sup>31</sup>ci<sup>31</sup>] “interest (on bank accounts)”, [kuan<sup>31</sup>] “manage”, [tchi<sup>55</sup>tshy<sup>33</sup>] “car”, and [sau<sup>33</sup>pjau<sup>33</sup>] “wristwatch”. The assimilation of these new words has promoted the development of the Bisu lexical system, increasing its ability to reflect and express aspects of modern living.

#### A. Dai loan words

Constituting a major part of loan words in Bisu, Dai loan words reflect the rules and special features with which such words are assimilated into the Bisu lexical system.

##### (i) Morphology of Dai loan words

Apart from a few isolated Dai loan words which have preserved their original forms in Bisu, such as [thai<sup>55</sup>] “plough” < Dai: [thai<sup>1(55)}</sup>]; [pun<sup>55</sup>] “lime” < Dai: [pun<sup>1(55)}</sup>] and [iŋ<sup>55</sup>] “lean against” < Dai: [iŋ<sup>1(55)}</sup>], the vast majority have undergone major or minor changes, which may be phonological or structural. They occur because of the fixed differences between the two languages, such as in the tonal system. The Bisu tonal system is relatively simple, with only three tones: the high level tone (55), middle level tone (33), and low falling tone (31), whereas Dai has a complex tonal system which is common to Kam-Tai languages. Not only are there no fewer than 9 tones in Dai, but the tones of unchecked and checked syllables also differ. There are many tone categories, of which a high rising tone, a falling tone, and a low level tone are not found in Bisu. When words with these tones are assimilated into Bisu, their tones change in order to adapt to the Bisu tonal system. The changes in the loan words are therefore adaptations to the special features of Bisu both phonologically and structurally.

##### a) Phonological changes in Dai loan words

Phonological changes in the vast majority of Dai loan words may occur in one of the three elements of syllable onset, rhyme, or tone. They may also involve more than one element simultaneously.

Word	Dai	Bisu	Nature of change
want	[au <sup>1(55)}</sup> ]	[zau <sup>55</sup> ]	syllable onset
sharp	[lem <sup>1(55)}</sup> ]	[lim <sup>55</sup> ]	syllable rhyme
vertical	[pok <sup>7(55)}</sup> ]	[pok <sup>33</sup> ]	tone
axe	[xwa:n <sup>1(55)}</sup> ]	[lan <sup>55</sup> ]	onset and rhyme
twist	[pan <sup>3(13)}</sup> ]	[van <sup>33</sup> ]	onset and tone
graze	[pɔi <sup>5(35)}</sup> ]	[po <sup>33</sup> ]	onset and tone
learn	[hen <sup>2(51)}</sup> ]	[lin <sup>31</sup> ]	onset, rhyme, and tone

These phonological changes essentially involve the assimilation of elements which are at variance with the Bisu phonological system towards similar phonemes in Bisu. As a result, the phonological changes in loan words often reveal fixed patterns. These are discussed in more detail below.

#### RULES FOR TONAL CHANGES

(1) The tone value changes, but the tone contour remains unaltered.

The second tone in Dai is a falling tone, with a tone value of 51. As this does not exist in Bisu, the vast majority of loan words with the second tone acquire the low falling tone in Bisu, which has a tone value of 31. Although the tone value has changed, it has retained the feature of "falling" which is common to both languages. Examples are listed below:

Loan word	Dai		Bisu
field	[na <sup>2(51)</sup> ]	→	[na <sup>31</sup> ]
fast	[vai <sup>2(51)</sup> ]	→	[aŋ <sup>33</sup> vai <sup>31</sup> ]
letter	[lai <sup>2(51)</sup> ]	→	[aŋ <sup>33</sup> lai <sup>31</sup> ]
tobacco	[ja <sup>1</sup> xwɔn <sup>2(51)</sup> ]	→	[za <sup>33</sup> khun <sup>31</sup> ]

(2) The tone contour changes in order to render the tone values as similar as possible.

Dai has two rising tones: the 3rd tone (tone value 13) and the 9th tone (tone value 35). As Bisu does not have any rising tone categories, the rising tones in most Dai loan words have to change to level tones, with tone values which approximate to the original tones. Therefore, the low rising tone (3rd tone, tone value 13) changes to the middle level tone (tone value 33), and the middle rising tone (9th tone) becomes the high level tone (tone value 55).

Loan word	Dai		Bisu
carry	[um <sup>3(13)</sup> ]	→	[am <sup>33</sup> ]
rub	[fan <sup>3(13)</sup> ]	→	[lan <sup>33</sup> ]
twist	[pan <sup>3(13)</sup> ]	→	[van <sup>33</sup> ]
cook	[tum <sup>3(13)</sup> ]	→	[tvŋ <sup>33</sup> ]
borrow	[tsək <sup>9(35)</sup> ]	→	[tsvk <sup>55</sup> ]
give birth	[kət <sup>9(35)</sup> ]	→	[kvt <sup>55</sup> ]
tear	[sik <sup>9(35)</sup> ]	→	[zik <sup>55</sup> ]
hundred	[pa:k <sup>9(35)</sup> ]	→	[aŋ <sup>33</sup> pak <sup>55</sup> ]

#### RULES FOR CHANGES IN SYLLABLE ONSETS

(1) Voiceless velar fricatives change to voiceless stops at the same place of articulation:

Loan word	Dai		Bisu
pickaxe	[xɔ <sup>1</sup> ]	→	[kho <sup>33</sup> ]
price	[xan <sup>1</sup> ]	→	[aŋ <sup>33</sup> khan <sup>55</sup> ]
aubergine	[ma:k <sup>9</sup> xɔ <sup>1</sup> ]	→	[ma <sup>55</sup> khv <sup>55</sup> ]

(2) When the loan word has as its onset the voiceless glottal fricative [h], which does not exist in Bisu, it becomes the lateral fricative [l] or the voiceless velar fricative [x].

Loan word	Dai		Bisu
learn	[hen <sup>2</sup> ]	→	[lin <sup>31</sup> ]
tael	[hɔŋ <sup>6</sup> ]	→	[aŋ <sup>33</sup> loŋ <sup>31</sup> ]
fragrant	[hɔm <sup>1</sup> ]	→	[xom <sup>55</sup> ]

#### RULES FOR CHANGES IN SYLLABLE RHYMES

As long and short vowels do not contrast in Bisu, rules for changes in syllable rhymes are mainly expressed as changes to the long vowel [a:]. Thus, when the Dai long vowel [a:] is assimilated into Bisu, it is no longer lengthened.

Loan word	Dai		Bisu
letter	[lai: <sup>2</sup> ]	→	[aŋ <sup>33</sup> lai <sup>31</sup> ]
rabbit	[ka <sup>1</sup> ta: <sup>5</sup> ]	→	[pan <sup>33</sup> ta: <sup>31</sup> ]
wide	[kwa: <sup>ŋ</sup> ]	→	[aŋ <sup>33</sup> van <sup>31</sup> ]
market	[ka: <sup>9</sup> ]	→	[ka: <sup>55</sup> ]
paper	[ka: <sup>7</sup> da: <sup>9</sup> ]	→	[ka: <sup>33</sup> lat <sup>33</sup> ]
aubergine	[ma:k <sup>9</sup> xɔ <sup>1</sup> ]	→	[ma <sup>55</sup> khv <sup>55</sup> ]

#### b) Structural changes in Dai loan words

The vast majority of Dai loan words do not undergo any changes in their structural forms, retaining their original mono- or polysyllabic forms after being assimilated into Bisu.

Loan word	Dai		Bisu
field	[na <sup>2</sup> ]	→	[na <sup>31</sup> ]
measure	[tek <sup>8</sup> ]	→	[tek <sup>31</sup> ]
plough	[thai <sup>1</sup> ]	→	[thai <sup>55</sup> ]
peanut	[tho <sup>5</sup> lin <sup>1</sup> ]	→	[tsho <sup>55</sup> lin <sup>33</sup> ]
aubergine	[ma:k <sup>9</sup> xɔ <sup>1</sup> ]	→	[ma <sup>55</sup> khv <sup>55</sup> ]
paper	[ka: <sup>7</sup> da: <sup>9</sup> ]	→	[ka: <sup>33</sup> lat <sup>33</sup> ]

However, structural changes do occur in some loan words, which show a tendency to conform to the special features of the Bisu lexicon. In general, changes occur in accordance with the ways in which words are formed in Bisu, with monosyllabic words becoming bi- or polysyllabic words. Specific ways in which these changes may occur include the following:

(1) A Bisu affix is added to a monosyllabic loan word in order to make a bisyllabic polymorphemic word. This involves nouns and adjectives, with the addition of the typical Bisu prefix [aŋ<sup>33</sup>-] to the loan word, which becomes distinctively Bisu.

Loan word	Dai		Bisu
chopsticks	[thu <sup>5</sup> ]	→	[aŋ <sup>33</sup> thu <sup>31</sup> ]
things	[xɔŋ <sup>1</sup> ]	→	[aŋ <sup>33</sup> kvŋ <sup>31</sup> ]
letter	[lai: <sup>2</sup> ]	→	[aŋ <sup>33</sup> lai <sup>31</sup> ]
quick	[vai: <sup>2</sup> ]	→	[aŋ <sup>33</sup> vai <sup>31</sup> ]
expensive	[peŋ <sup>2</sup> ]	→	[aŋ <sup>33</sup> peŋ <sup>55</sup> ]
sharp	[lem <sup>1</sup> ]	→	[aŋ <sup>33</sup> lim <sup>55</sup> ]

(2) Many monosyllabic loan words combine with Bisu roots to form compound words expressing relationships of coordination or modification.

Loan word	Dai		Bisu
goat	[be <sup>3</sup> ]	→	[pe <sup>33</sup> le <sup>33</sup> ]
tile	[bəŋ <sup>3</sup> ]	→	[buŋ <sup>55</sup> kho <sup>33</sup> ]
pot, pan	[mɔ <sup>3</sup> ]	→	[mo <sup>55</sup> thaŋ <sup>55</sup> ]
bare, bald	[la:m <sup>4</sup> ]	→	[te <sup>31</sup> len <sup>31</sup> ]
huqin	[tin <sup>1</sup> ]	→	[tin <sup>55</sup> cin <sup>33</sup> ]
vegetables	[phak <sup>7</sup> ]	→	[kaŋ <sup>31</sup> pha <sup>31</sup> ]

The Bisu root which is added has the function of further describing and modifying the meaning of the Dai loan word. In the word [buŋ<sup>55</sup>kho<sup>33</sup>] “tile”, the morpheme [ko<sup>33</sup>] which is added to the Dai word [bəŋ<sup>3</sup>] “tile” expresses a flat, thin object used as a covering (*cf.* the word [aŋ<sup>33</sup>kho<sup>33</sup>] “skin” in Bisu). Therefore, it states more clearly the shape and function of a tile by describing its external appearance and usage.

The above two types of changes may sometimes occur within the same word. In the word [phu<sup>55</sup>aŋ<sup>33</sup>khan<sup>55</sup>] “price”, [khan<sup>55</sup>] comes from the Dai word [xan<sup>1</sup>] for “price”. After its assimilation into Bisu, the prefix [aŋ<sup>33</sup>-] has been added, as well as the Bisu morpheme [phu<sup>55</sup>], which means “silver”, so that the original monosyllabic word has now become a trisyllabic word.

(3) Sometimes only individual Dai morphemes are assimilated into Bisu: in general, these are root morphemes which carry the semantic load. This morpheme may be used independently as a word, as in the monosyllabic word [len<sup>55</sup>] “soldier”, which comes from the Dai word [luk<sup>8</sup>sək<sup>7</sup>len<sup>5</sup>] for “soldier”; or it may be combined with one or more Bisu morphemes to form a polysyllabic word (*i.e.* word formation through structural changes).

Loan word	Dai		Bisu
here	[ti <sup>6</sup> ni <sup>3</sup> ]	→	[ni <sup>55</sup> ky <sup>33</sup> ]
peanut	[tho <sup>5</sup> lin <sup>1</sup> ]	→	[tsho <sup>55</sup> lin <sup>33</sup> ]
suona	[pi <sup>5</sup> ne <sup>2</sup> ]	→	[toŋ <sup>55</sup> poŋ <sup>31</sup> poŋ <sup>33</sup> pi <sup>55</sup> ]

The borrowed elements in such loan words are generally those expressing the main semantic load of the morpheme, as in the word [ni<sup>55</sup>ky<sup>33</sup>] “here”, where [ni<sup>55</sup>] is borrowed from the Dai word for “here”: [ti<sup>6</sup>ni<sup>3</sup>]. The borrowed [ni<sup>3</sup>] is a morpheme expressing the central meaning of “here”, and the morpheme [ti<sup>6</sup>] which expresses “location” is replaced by the Bisu locative morpheme [ky<sup>33</sup>].

(4) Structural changes also include novel combinations of Dai morphemes, *i.e.* using different words or structural morphemes to form new words. The two morphemes in the word [ti<sup>55</sup>lik<sup>55</sup>] “scissors” originate from two Dai words: [tet<sup>7</sup>] “cut, break apart” and [lek<sup>7</sup>] “iron”, which have combined to form a bisyllabic compound word after their assimilation into Bisu.

## (ii) The historical origin of Dai loan words

Dai loan words in Bisu originate from two historical sources: words found only in Dai and loan words within the Dai language itself.

Words found only in Dai constitute the principal part of Bisu loan words, including words such as: [lem<sup>1</sup>] “sharp”, [um<sup>3</sup>] “carry in the arms”, [tek<sup>8</sup>] “measure”, [thai<sup>1</sup>] “plough”, [lu<sup>4</sup>] “broken”, [xɔ<sup>1</sup>] “pickaxe”, [xan<sup>1</sup>] “price”, [kəŋ<sup>1</sup>] “pile”, [tsuŋ<sup>1</sup>] “lead”, [ho<sup>6</sup>] “leak”, [pan<sup>5</sup>] “revolve”, and [ma:k<sup>9</sup>xə<sup>1</sup>] “aubergine”.

One of the sources of loan words in Dai is the Bali language; Bali loan words in Dai include words such as [ka<sup>1</sup>tai<sup>5</sup>] “rabbit” and [set<sup>7</sup>tha<sup>7</sup>lu<sup>1</sup>] “enemy”. Loan words in Dai may also originate from Ancient Chinese, such as [kwa:m<sup>3</sup>] “wide”, [sai<sup>2</sup>] “sand”, [ka:t<sup>9</sup>] “market”, and [thu<sup>5</sup>] “chopsticks”. Although these words are Chinese in terms of historical origin, they have been assimilated into Bisu only after having entered the Dai lexicon and become Dai words. Thus, their phonological and structural forms conform to the rules governing Dai loan words, and are different from modern Chinese loan words which have been directly assimilated from Chinese. They are therefore still regarded as Dai loan words.

## (iii) The benefits of Dai loan words

The assimilation of Dai words has led to great changes in the Bisu lexical and semantic systems. In addition to greatly enriching the Bisu lexicon, they have also expanded and deepened meanings which are contained and expressed by Bisu words. The Bisu lexicon has therefore developed greatly in both quantity and capacity, and has acquired increased powers of expression.

### a) Lexical benefits

Firstly, Dai loan words have increased the number of words in the Bisu lexicon. A statistical analysis of the words in the representative Bisu dialects spoken in Laomian and Laopin within Chinese territory shows that, of 815 items of core vocabulary, words related to Dai comprise 8.47% and 12.27%.

Secondly, the assimilation of Dai words or morphemes has enriched the raw materials available for word formation in Bisu. Elements originating from the Dai language have been used to form many new words which have distinct Bisu characteristics. This aspect has already been analysed in detail in the section entitled “Structural changes in Dai loan words” above.

### b) Semantic benefits

(1) A proportion of loan words express concepts already present within the Bisu language. When these loan words are assimilated into the Bisu lexical system and coexist with words already present in Bisu, their semantic load undergoes partial reorganisation. This leads to finer and more detailed expression of meaning, increasing the depth of the semantic content of the Bisu language, as shown by the following examples:

- the concept of “borrowing” can be expressed both by a word found only in Bisu, [tchi<sup>31</sup>], and the Dai loan word [tsyk<sup>55</sup>]. However, their meanings are distinct: [tchi<sup>31</sup>] is used for objects whose original forms do not have to be returned, such as money or rice; whereas [tsyk<sup>55</sup>] is used for objects which have to be returned in their original forms, such as bowls or knives.

- “dirty” can be expressed both by a word found only in Bisu, [pjaŋ<sup>33</sup>], and the Dai loan word [tsha<sup>31</sup>]. However, [pjaŋ<sup>33</sup>] is used for people or clothes which are dirty, while [tsha<sup>31</sup>] describes dirty objects or places, such as pigs or soil.

(2) The majority of loan words have been assimilated into Bisu along with the new concepts and new objects which they embody. New meanings are thereby imported into Bisu, expanding its semantic domain. In terms of semantic categories, these loan words are mainly connected with daily living and culture; in terms of morphosyntax, they include nouns, as well as verbs, adjectives, classifiers, and numerals.

#### NOUNS

These mainly describe tools and equipment used in farming, activities of food production and daily living, types of vegetables and domestic animals, and objects connected with marketing and exchange, as well as temporal and spatial concepts. They include:

[na<sup>31</sup>] “field”, [sai<sup>31</sup>sɿ<sup>31</sup>] “sand”, [buŋ<sup>55</sup>kho<sup>33</sup>] “tile”, [lan<sup>55</sup>] “axe”, [kho<sup>33</sup>] “pickaxe”, [ti<sup>55</sup>lik<sup>55</sup>] “scissors”, [koŋ<sup>55</sup>] “bottle, flask”, [mo<sup>55</sup>thaŋ<sup>55</sup>] “pot, pan”, [aŋ<sup>33</sup>thu<sup>31</sup>] “chopsticks”, [tui<sup>31</sup>] “trousers”, [pe<sup>33</sup>le<sup>33</sup>] “goat”, [pan<sup>33</sup>tai<sup>31</sup>] “rabbit”, [ma<sup>55</sup>khy<sup>55</sup>] “aubergine”, [tsho<sup>55</sup>lin<sup>33</sup>] “peanut”, [len<sup>55</sup>] “soldier”, [aŋ<sup>33</sup>kyŋ<sup>31</sup>] “things”, [aŋ<sup>33</sup>lai<sup>31</sup>] “letter”, [ka<sup>33</sup>lat<sup>33</sup>] “paper”, [tin<sup>55</sup>cin<sup>33</sup>] “*huqin*”, [kat<sup>55</sup>] “market”, [phu<sup>55</sup>aŋ<sup>33</sup>khan<sup>55</sup>] “price”, and [ni<sup>55</sup>ky<sup>33</sup>] “here”.

#### VERBS

These express activities of daily living, food production, and body movements.

[thai<sup>55</sup>] “plough”, [po<sup>33</sup>] “graze”, [tun<sup>33</sup>] “castrate”, [koŋ<sup>33</sup>] “pile”, [zik<sup>55</sup>] “tear, rip”, [lan<sup>33</sup>] “rub”, [van<sup>33</sup>] “twist”, [pok<sup>33</sup>] “vertical”, [lin<sup>31</sup>] “learn”, [tsaŋ<sup>31</sup>] “weigh”, [tek<sup>31</sup>] “measure”, [tsyk<sup>55</sup>] “borrow”, [zau<sup>55</sup>] “want”, [kvt<sup>55</sup>] “give birth”, [am<sup>33</sup>] “carry in one’s arms”, [ok<sup>31</sup>] “out”, [uŋ<sup>31</sup>] “swollen”, [iŋ<sup>55</sup>] “lean against”, [kvt<sup>55</sup>] “think”, [lum<sup>55</sup>] “forget”, [po<sup>31</sup>] “leak”, and [xom<sup>33</sup>] “hatch”.

#### ADJECTIVES

These include words expressing shapes, properties, or feelings.

[aŋ<sup>33</sup>ken<sup>31</sup>] “hard”, [aŋ<sup>33</sup>van<sup>31</sup>] “wide”, [aŋ<sup>33</sup>lim<sup>55</sup>] “sharp, pointed”, [aŋ<sup>33</sup>xom<sup>55</sup>] “fragrant”, [aŋ<sup>33</sup>vai<sup>31</sup>] “quick”, [aŋ<sup>33</sup>peŋ<sup>55</sup>] “expensive”, [lu<sup>33</sup>] “broken”, [aŋ<sup>33</sup>e<sup>31</sup>] “easy”, and [te<sup>31</sup>len<sup>31</sup>] “bare, bald”.

#### CLASSIFIERS AND NUMERALS

These include [aŋ<sup>33</sup>kin<sup>31</sup>] “catty”, [aŋ<sup>33</sup>loŋ<sup>31</sup>] “tael”, [tu<sup>31</sup>] “*dou*”, [phvŋ<sup>31</sup>] “piece”, and [aŋ<sup>33</sup>pak<sup>55</sup>] “hundred”.

The semantic categories of these loan words reflect the historical progression of social development, the intimate relationship and mutual communication between the Bisu and Dai peoples, and the absorption of the advanced technological skills and living styles of the Dai nationality. This exchange of knowledge between ethnic groups promotes and deepens the contact between languages and enables the merging of Dai loan words into the Bisu lexicon, including the use of many Dai loan words as items of core vocabulary in Bisu. Thus, they

have inevitable effects on the Bisu lexical and semantic systems, as well as on the phonological and grammatical systems.

#### B. Chinese loan words

The Bisu which is spoken within China contains many Chinese loan words. Their phonological features and semantic categories reveal that the direct assimilation of Chinese words into the Bisu lexicon has only a short history. Apart from isolated Chinese words, such as the word [sɿ<sup>33</sup>ze<sup>31</sup>] (*shiyē*<sup>9</sup>), which was borrowed in the distant past, the vast majority of Chinese loan words were assimilated into Bisu only recently.

Compared to Dai loan words, Chinese loan words have the following two features:

(1) Although Chinese loan words have not been assimilated into Bisu for a long period of time, they have entered the lexicon in large quantities. The present increase in communication between ethnic groups and the rapid effect of modern technology on daily living have meant that the assimilation of Chinese loan words expressing new objects and new concepts into Bisu has not been a gradual process. Unlike Dai loan words, which were assimilated along with production methods and living styles over a long period of time, Chinese loan words have been assimilated into the Bisu lexicon rapidly and in massive numbers.

(2) The number of Chinese loan words in Bisu has increased with the popularisation of the Chinese language and the rise of bilingualism. This type of contact between the two languages has therefore resulted in the retention of the original characteristics of Chinese loan words, both phonologically and structurally.

##### (i) Phonological forms of Chinese loan words

Dai loan words have undergone major or minor modifications to conform to the Bisu phonological system, with definite rules for these changes. However, due to their massive and rapid assimilation, Chinese loan words have, in the main, retained their own phonological forms. They were borrowed from the local variety of Southwestern Mandarin, and therefore express the regional Chinese phonological forms. Their pronunciations may, in some cases, coincide with the phonemes and syllable structures of the Bisu phonological system. These include words such as [phvŋ<sup>31</sup>] “washbasin” (*pan*)<sup>10</sup>, [tvŋ<sup>33</sup>] “lamp” (*deng*), [mv<sup>31</sup>sui<sup>33</sup>] “ink” (*moshui*), and [in<sup>31</sup>xaŋ<sup>31</sup>] “bank” (*yinhang*).

Even when the loan words contain phonemes or syllables which do not exist in Bisu phonology, the Chinese loan words have still retained their original pronunciations, as in [suo<sup>55</sup>] “lock” (*suo*), [tsuan<sup>33</sup>] “brick” (*zhuan*), [xuan<sup>31</sup>] “sulphur” (*liuhuang*), [fei<sup>33</sup>tei<sup>33</sup>] “aeroplane” (*feiji*), [zeu<sup>31</sup>thiau<sup>31</sup>] “fried breadsticks” (*youtiao*), [kuŋ<sup>33</sup>zen<sup>13</sup>] “workman” (*gongren*) and [mje<sup>31</sup>caŋ<sup>13</sup>] “a bamboo craftsman” (*miejie*). The onsets and rhymes of these words: [z], [uo], [uan], [uaŋ], [ei], [əu], [iau], and the tone value of 13 do not exist within words found only in Bisu. Although these sounds have now appeared in the colloquial speech of the Bisu people *via* such loan words, their pronunciation is often arbitrary and their position within the Bisu phonological system has not yet been determined.

<sup>9</sup> Translator’s note: A *shiyē* was a private assistant attending to legal, fiscal or secretarial duties in a local government office in feudal China.

<sup>10</sup> Translator’s note: The italicised forms of the words in this and the following paragraph represent the Romanised phonetic representation of modern Mandarin, in order to enable reader to appreciate the phonological similarities which are being illustrated.

In conclusion, the phonological forms of Chinese loan words are very unstable and do not follow regular patterns. This is the case whether they conform completely to the phonemes in the Bisu phonological system, are similar to, or very different from them. As a result, the pronunciation of Chinese loan words is not at all consistent or uniform.

### (ii) Structural forms of Chinese loan words

In general, changes do not occur in the structural forms of Chinese loan words. Whether they are mono- or polysyllabic words, compound words, or words derived by affixation, they are borrowed in their entirety and retain their original forms, as in [tsuŋ<sup>33</sup>] “bell”, [tshy<sup>31</sup>] “ruler”, [my<sup>31</sup>tsɿ<sup>31</sup>] “ink”, [khai<sup>33</sup>xui<sup>55</sup>] “hold a meeting”, and [səu<sup>55</sup>liou<sup>33</sup>tan<sup>31</sup>] “hand grenade”.

A small number of loan words may undergo structural changes, but only under the following circumstances:

- only the root or the morpheme expressing the main meaning is borrowed from a polysyllabic Chinese word, and is used to form a monosyllabic word in Bisu. In the word [phyn<sup>31</sup>] “washbasin” (*lianpen*)<sup>11</sup>, the preceding modifying “*lian*” morpheme has been deleted and the monosyllabic root “*pen*” is borrowed into Bisu. In the words [tchau<sup>31</sup>] “buckwheat” (*qiaozi*) and [tsuan<sup>33</sup>] “brick” (*zhuantou*), only the roots expressing the main meaning are assimilated, with the deletion of the affixes “*z*” and “*ou*” whose meanings are semantically bleached and which are essentially optional in their usage.
- Chinese morphemes may combine with Bisu morphemes to form polysyllabic compound words, as in the word [tchau<sup>31</sup>an<sup>33</sup>du<sup>33</sup>] “buckwheat noodles”, where the root [tchau<sup>31</sup>] “buckwheat” of the Chinese word “*qiaozi*” combines with the Bisu word [an<sup>33</sup>du<sup>33</sup>] which means “crumbs, noodle scraps” to form a tri-syllabic word. Similarly, in the word [tshy<sup>33</sup>ke<sup>55</sup>ba<sup>33</sup>] “public highway, road”, the Chinese word for “car” [tshy<sup>33</sup>] combines with the Bisu word for “road” [ke<sup>55</sup>ba<sup>33</sup>] to indicate a road on which vehicles can travel, *i.e.* a public highway.

### (iii) Semantic categories in Chinese loan words

A striking feature of the semantic categories represented by Chinese loan words is that the majority are nouns expressing new objects and new concepts, with a very prominent modern flavour. They can be divided into the following categories:

#### WORDS CONCERNED WITH TRANSPORT AND ECONOMIC EXCHANGE

[tshy<sup>33</sup>ke<sup>55</sup>ba<sup>33</sup>] “public highway”, [tshy<sup>33</sup>tsɿ<sup>33</sup>] “cart”, [tchi<sup>55</sup>tshy<sup>33</sup>] “automobile”, [fei<sup>33</sup>tci<sup>33</sup>] “aeroplane”, [san<sup>33</sup>tie<sup>31</sup>] “shop”, [in<sup>31</sup>xan<sup>31</sup>] “bank”, and [li<sup>31</sup>tci<sup>31</sup>] “interest”.

#### WORDS CONCERNED WITH CULTURE AND EDUCATION

[co<sup>31</sup>than<sup>31</sup>] “school”, [kan<sup>55</sup>pi<sup>31</sup>] “fountain pen”, [tchan<sup>55</sup>pi<sup>31</sup>] “pencil”, [my<sup>31</sup>tsɿ<sup>31</sup>] “ink”, and [my<sup>31</sup>sui<sup>33</sup>] “prepared Chinese ink”.

#### WORDS CONCERNED WITH NAMES OF SOCIAL OCCUPATIONS

[sɿ<sup>33</sup>ze<sup>31</sup>] “clerk”, [kuŋ<sup>33</sup>zen<sup>13</sup>] “workman”, [mu<sup>31</sup>tcəŋ<sup>13</sup>] “carpenter”, and [mje<sup>31</sup>tcəŋ<sup>13</sup>] “bamboo craftsman”.

#### WORDS CONCERNED WITH ARTICLES OF DAILY LIVING

[tsuŋ<sup>33</sup>] “clock”, [səu<sup>33</sup>pjau<sup>33</sup>] “wristwatch”, [suo<sup>55</sup>] “lock”, [zuo<sup>31</sup>tshɿ<sup>55</sup>] “key”, [tvŋ<sup>33</sup>] “lamp”, [phyn<sup>31</sup>] “washbasin”, [tsuŋ<sup>33</sup>pe<sup>33</sup>] “cup”, and [tshɿ<sup>13</sup>tau<sup>33</sup>] “kitchen knife”.

#### WORDS CONCERNED WITH RAW MATERIALS AND EQUIPMENT

[tsuan<sup>33</sup>] “brick”, [xuan<sup>31</sup>] “sulphur”, [thiau<sup>33</sup>tam<sup>31</sup>] “shoulder pole”, [thui<sup>55</sup>pau<sup>55</sup>] “plane (carpenter’s tool)”, [mo<sup>31</sup>tou<sup>13</sup>] “carpenter’s ink marker”, and [tshy<sup>31</sup>] “ruler”.

#### WORDS CONCERNED WITH FOOD

[tchau<sup>31</sup>] “buckwheat”, [tchau<sup>31</sup>an<sup>33</sup>du<sup>33</sup>] “buckwheat noodles”, [zan<sup>31</sup>zi<sup>33</sup>] “potato”, [la<sup>31</sup>phi<sup>33</sup>] “chilli”, [sɿ<sup>31</sup>liou<sup>33</sup>] “pomegranate”, [zou<sup>31</sup>thiau<sup>31</sup>] “fried breadstick”, [mja<sup>13</sup>thiau<sup>31</sup>] “noodles”, [man<sup>31</sup>thou<sup>33</sup>] “steamed bun”, [tchin<sup>55</sup>tcəŋ<sup>55</sup>] “soya sauce”, [py<sup>31</sup>than<sup>31</sup>] “white sugar”, and [pin<sup>33</sup>than<sup>31</sup>] “crystal sugar”.

#### WORDS CONCERNED WITH TIME OR QUANTITIES

[la<sup>31</sup>ze<sup>33</sup>] “twelfth lunar month”, [tsyŋ<sup>33</sup>ze<sup>33</sup>] “first lunar month”, [tshu<sup>33</sup>zi<sup>33</sup>] “first day of the New Year”, [liŋ<sup>31</sup>] “zero”, and [li<sup>31</sup>] “mile”.

#### WORDS CONCERNED WITH OBJECTS OR BEHAVIOUR IN SOCIETY

[sɿ<sup>13</sup>tchiŋ<sup>31</sup>] “affairs”, [pan<sup>13</sup>fa<sup>31</sup>] “solution”, [ciŋ<sup>13</sup>] “surname”, [tche<sup>31</sup>li<sup>31</sup>] “rights”, [ven<sup>31</sup>tsui<sup>31</sup>] “crimes”, [khai<sup>33</sup>xui<sup>55</sup>] “hold a meeting”, [kuan<sup>31</sup>] “manage”, [khou<sup>55</sup>sɿ<sup>31</sup>] “examination”, [xuan<sup>33</sup>iŋ<sup>31</sup>] “welcome”, and [phi<sup>33</sup>phiŋ<sup>31</sup>] “criticise”.

The vast majority of these loan words have entered the Bisu language along with the objects and concepts which they express, but there are also isolated words which express concepts already existing in Bisu. The latter include names of occupations, which coexist with expressions already present in Bisu (for a detailed discussion, see 3.4.2 “Words found only in Bisu”); no obvious differences exist in their semantic expression and the domains where they are customarily used. However, this kind of coexisting relationship, where the words are completely identical in meaning, cannot persist for long. If, in both semantic expression and usage, a word found only in Bisu and its corresponding loan word do not form a complementary distribution, then one of the methods of expression will eventually and inevitably be eliminated. Thus, the present situation, where words with the same meaning and usage coexist, reflects the fact that the position of these Chinese loan words within the semantic system has not yet been determined.

In conclusion, the instability of Chinese loan words with respect to their phonological forms and the period flavour reflected in their semantic categories suggest that, unlike loan words from Dai, the massive influx of Chinese loan words into Bisu is a recent phenomenon.

<sup>11</sup> Translator’s note: The italicised forms of the words in this and the following paragraph represent the Romanised phonetic representation of modern Mandarin, in order to illustrate the separate morphemes of the Chinese loan word.

Bisu is an analytical language, with syntactic relationships being mainly expressed through word order and function words. The basic word order is SV or SOV, and it has a dynamic set of structural particles which express grammatical relationships. The main features of its grammatical structure are outlined below:

(1) On the basis of semantic content and grammatical function, ten lexical categories can be distinguished: nouns, verbs, adjectives, pronouns, numerals, classifiers, adverbs, particles, conjunctions, and interjections. There are no prepositions.

There are many pronouns and particles. There are demonstrative pronouns which express the four concepts of “near”, “far”, “further”, and “furthest”. The “far” category includes three different pronouns representing directional changes or positions along a vertical axis, as well as distance. Personal pronouns have three categories: singular, dual, and plural.

Many types of particles also exist:

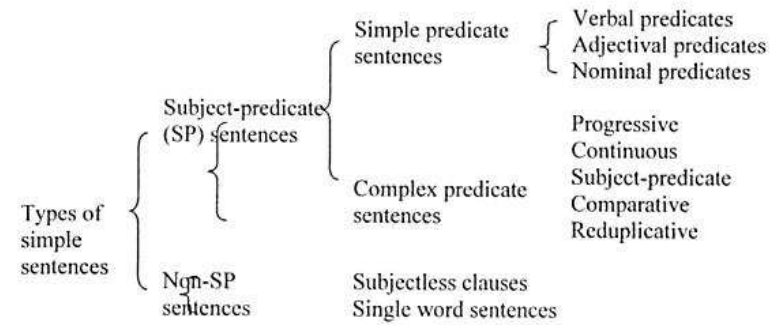
- structural particles which express the grammatical relationship between different constituents
- aspectual particles which express the state of progression of actions
- quantifying particles which convey the meaning of quantity
- sentential particles which express the tone or manner in which sentences are spoken.

By comparison, numerals and classifiers are fairly simple. Within the former group, words such as “hundred” and “thousand”, as well as the vast majority of ordinal numbers, are either Dai or Chinese loan words, while multiples and differences are expressed using phrases. Among classifiers, there are very few which express specific categories. Many classifiers are borrowed from other lexical categories, with the majority being nouns which are used to indicate the number of associated objects. There is therefore only a very weak sense of categorisation.

(2) The main grammatical constituents within a clause are the subject and predicate, with the former preceding the latter. Verbs which function as predicates sometimes carry objects or complements. Objects precede and complements follow verbs.

(3) Two types of combination relationships may exist between different clausal constituents: modification or coordination. In modification, the word order depends on the lexical categories involved. In coordination, when the meaning and lexical categories of the two constituents are identical, nominal constituents are usually directly juxtaposed or linked by conjunctions; verbal constituents may be directly juxtaposed, but are more often linked by conjunctions.

(4) All the different types of grammatical structures can essentially be expressed by means of simple sentences. According to the structure and pattern of the sentences, they may be divided into the following types:



#### 4.1 Lexical Categories

##### 4.1.1 Nouns

Nouns are used to express the names of persons and objects. In terms of word forms, nouns consist of a relatively large number of polysyllabic polymorphemic words. In practice, most polysyllabic polymorphemic words are nouns. The grammatical features of nouns are described below.

##### A. Types of nouns

Nouns can be divided into three types according to their lexical meaning and usage:

##### (i) Common nouns

These express concrete objects, abstract concepts, time, and locations, and represent the vast majority of nouns. Examples include [btuŋ<sup>31</sup>] “sky”, [tshaŋ<sup>55</sup>] “person”, [zum<sup>55</sup>] “house”, [sɿ<sup>55</sup>] “gold”, [u<sup>31</sup>la<sup>33</sup>] “moon”, [lo<sup>33</sup>ba<sup>33</sup>] “stone”, [laŋ<sup>55</sup>sam<sup>55</sup>] “otter”, [tsha<sup>31</sup>me<sup>31</sup>] “salt”, [aŋ<sup>33</sup>pha<sup>31</sup>] “leaf”, [aŋ<sup>33</sup>um<sup>33</sup>] “shadow”, [a<sup>31</sup>moŋ<sup>31</sup>] “horse”, [aŋ<sup>33</sup>sa<sup>31</sup>sɿ<sup>55</sup>] “soul, spirit”, [mi<sup>55</sup>nu<sup>33</sup>sv<sup>55</sup>] “last year”, and [toŋ<sup>55</sup>poŋ<sup>31</sup>toŋ<sup>33</sup>pi<sup>55</sup>] “suona”.

##### (ii) Kinship terms and forms of address

These include kinship terms and forms of address and are mainly words with prefixes. There is no difference between forms of address and forms of reference. Examples include [a<sup>55</sup>pu<sup>55</sup>] “grandfather”, [a<sup>31</sup>ba<sup>31</sup>] “mother”, [a<sup>31</sup>u<sup>31</sup>] “father’s elder brother or his wife”, [maŋ<sup>31</sup>tchi<sup>31</sup>] “husband of maternal aunt”, [zo<sup>31</sup>pha<sup>31</sup>] “wife’s father”, [aŋ<sup>33</sup>boŋ<sup>55</sup>] “husband”, and [aŋ<sup>33</sup>ai<sup>55</sup>] “elder brother”.

When kinship terms are used in possessive constructions, restrictions are posed on them by their preceding personal pronouns. In such cases, the prefix of the kinship term is deleted to form a bisyllabic structure together with the personal pronoun, as in [ga<sup>33</sup>(a<sup>55</sup>)pu<sup>55</sup>] “my grandfather” and [noŋ<sup>33</sup>(a<sup>31</sup>)ba<sup>33</sup>] “your mothers”.

(iii) Locative nouns

These indicate direction or position, as in [aŋ<sup>33</sup>fu<sup>31</sup>] "in front", [aŋ<sup>33</sup>o<sup>31</sup>] "below, underneath", [aŋ<sup>33</sup>ni<sup>55</sup>] "outside", [aŋ<sup>33</sup>than<sup>33</sup>] "beside, nearby", [a<sup>55</sup>tsha<sup>55</sup>] "on the left", [la<sup>31</sup>ma<sup>31</sup>] "on the right", [koŋ<sup>55</sup>nuŋ<sup>55</sup>] "in the middle". The roots from two simple locative nouns may form a compound locative noun *via* a coordinating relationship, as in [fu<sup>31</sup>noŋ<sup>31</sup>] "before and after (successively)" and [noŋ<sup>31</sup>khau<sup>31</sup>] "behind the back".

Some locative nouns may form fixed expressions with the structural particle [v<sup>33</sup>], which denotes temporal relationships, to indicate locations or certain specified meanings. Two kinds of situations may exist:

(1) The roots of the words [aŋ<sup>33</sup>fu<sup>31</sup>] "before, first" and [aŋ<sup>33</sup>noŋ<sup>31</sup>] "after, late" can combine separately with the particle [v<sup>33</sup>] to form the bisyllabic constructions [fu<sup>31</sup>v<sup>33</sup>] and [noŋ<sup>31</sup>v<sup>33</sup>]. These are used to indicate the temporal sequences of "first" and "after, then". They may be used independently, or may follow numeral-classifier, quantifier, or verbal phrases, to express the concept of being before or after a certain point in time.

fu <sup>31</sup> v <sup>33</sup>	xau <sup>33</sup>	xv <sup>33</sup>	na <sup>33</sup>	thai <sup>55</sup> ,	noŋ <sup>31</sup> v <sup>33</sup>	ka <sup>31</sup> toŋ <sup>33</sup>
first	others	(poss.)	(part.)	plough	then	own

xv <sup>33</sup>	na <sup>33</sup>	thai <sup>55</sup> ,
(poss.)	(part.)	plough

Plough other people's (fields) first, then plough your own.

thi <sup>31</sup>	ni <sup>31</sup>	nuŋ <sup>33</sup>	fu <sup>31</sup> v <sup>33</sup>	a few days ago
one	two	days	before	

xi <sup>55</sup>	tsaŋ <sup>55</sup>	noŋ <sup>31</sup> v <sup>33</sup>	after that time
that	time	after	

kho <sup>31</sup>	le <sup>33</sup>	noŋ <sup>31</sup> v <sup>33</sup>	after [one has] grown up
grow	go	after	

xan <sup>31</sup>	tsa <sup>31</sup>	pvn <sup>55</sup>	ne <sup>33</sup>	noŋ <sup>31</sup> v <sup>33</sup>	after having eaten
rice	eat	finish	(part.)	after	

(2) The root of the word [aŋ<sup>33</sup>tha<sup>31</sup>] "on top of" can combine with the particle [v<sup>33</sup>] to form the bisyllabic construction [tha<sup>31</sup>v<sup>33</sup>], to indicate "on the top of ..." or "located on the top of ...". As a fixed expression, [tha<sup>31</sup>v<sup>33</sup>] can be placed between two reduplicated adjectives to indicate an increase in the degree of the condition.

vai <sup>31</sup>	tha <sup>31</sup> v <sup>33</sup>	vai <sup>31</sup>	very fast	na <sup>31</sup>	tha <sup>31</sup> v <sup>33</sup>	na <sup>31</sup>	very deep
fast		fast		deep		deep	
moŋ <sup>33</sup>	tha <sup>31</sup> v <sup>33</sup>	moŋ <sup>33</sup>	very high	thak <sup>33</sup>	tha <sup>31</sup> v <sup>33</sup>	thak <sup>33</sup>	very sharp
high		high		sharp		sharp	

The word [tha<sup>31</sup>v<sup>33</sup>] can also be used in comparative sentences to indicate the difference between objects which are being compared. It is usually situated between the two items, with the object being compared immediately preceding [tha<sup>31</sup>v<sup>33</sup>], as shown below.

so <sup>33</sup> tha <sup>33</sup>	tha <sup>31</sup> v <sup>33</sup>	nuŋ <sup>33</sup> xan <sup>31</sup>	loŋ <sup>55</sup>	xu <sup>31</sup>	xu <sup>31</sup> .
morning		noon	hot	big	big

It is much hotter at noon than in the morning.

zaj <sup>33</sup>	tha <sup>31</sup> v <sup>33</sup>	ga <sup>33</sup>	kho <sup>31</sup>	ne <sup>31</sup> .
he		me	tall	(part.)

I am taller than he is.

Locative nouns may be used independently to indicate position and location, and may also combine with common nouns to express the specific location of a certain place. When combined with other nouns, the locative noun follows the other nouns, and the prefix [aŋ<sup>33</sup>-] is often deleted. Whether they are used independently or in combination with other nouns, locative nouns are often followed by the structural particle [v<sup>33</sup>] to form locative constructions.

aŋ <sup>33</sup> ni <sup>55</sup>	v <sup>33</sup>	outside	aŋ <sup>33</sup> khau <sup>55</sup>	v <sup>33</sup>	inside
out			in		
laŋ <sup>55</sup> ba <sup>33</sup>	than <sup>33</sup>	by the river	za <sup>55</sup>	koŋ <sup>55</sup>	in the fields
river	beside		ground	inside	
zu <sup>31</sup> pam <sup>31</sup>	tha <sup>31</sup> v <sup>33</sup>	on the bed	lo <sup>33</sup> ba <sup>33</sup>	noŋ <sup>31</sup> khau <sup>31</sup>	v <sup>33</sup> behind the stone
bed			stone	back, behind	

B. Types of combinations

Nouns may combine with nouns, pronouns, adjectives, quantifier phrases, and numeral-classifier phrases to form phrases which express modifying or coordinating relationships.

(i) Modification

Nouns may be modified or restricted by pronouns, nouns, adjectives, quantifier phrases, and numeral-classifier phrases. The modifier is directly linked to the head without using a particle. The usual word order is that a pronoun, noun, or quantifier phrase precedes the noun which is being modified, while an adjective or a numeral-classifier phrase follows the noun.

A pronoun always precedes the noun which is being modified, and in the majority of cases will combine directly with it.

Personal pronouns can modify nouns to express possessive relationships, and usually immediately precede kinship terms or forms of address. However, the particle [xv<sup>33</sup>], which expresses possession, has to be added in front of nouns which represent objects, as in the following examples:

xau <sup>33</sup>	za <sup>31</sup> ki <sup>33</sup>	laŋ <sup>33</sup> ba <sup>33</sup>	than <sup>33</sup>	bo <sup>31</sup> .
other people	children	river	side	play

Their children are playing by the river.



zan<sup>33</sup>pu<sup>55</sup> xy<sup>33</sup> da<sup>55</sup> pju<sup>33</sup> aŋ<sup>55</sup> la<sup>55</sup>.  
 his grandfather (poss.) illness cure (part.) (part.)

His grandfather's illness has been cured.

gu<sup>33</sup> zum<sup>55</sup>tun<sup>31</sup> xan<sup>31</sup> fu<sup>33</sup> tshaŋ<sup>55</sup> aŋ<sup>33</sup>t<sup>33</sup>sa<sup>33</sup>.  
 our family four (cl.) person have

Our family has four members.

zan<sup>33</sup> xy<sup>33</sup> zum<sup>55</sup> sɿ<sup>31</sup> tsho<sup>33</sup> pvn<sup>55</sup>.  
 he (poss.) house new build complete

His new house has been completed.

ga<sup>33</sup>it<sup>31</sup> xy<sup>33</sup> tsum<sup>33</sup>mja<sup>31</sup> tsau<sup>33</sup> saŋ<sup>55</sup>.  
 the two of us (poss.) bowl wash clean

Our two bowls have been washed (clean).

naŋ<sup>33</sup> xy<sup>33</sup> za<sup>55</sup>bu<sup>33</sup> pvn<sup>55</sup> za<sup>55</sup>la<sup>31</sup>?  
 you (poss.) work finish (part.)

Have you finished your work?

Demonstrative pronouns can immediately precede nouns, although there are certain restrictions when monosyllabic demonstrative pronouns are used to modify nouns. The nouns being modified are usually those which do not require specialised classifiers and may be those which can also function as classifiers, as in the sentences below.

ni<sup>55</sup>tu<sup>55</sup> za<sup>31</sup>ki<sup>33</sup> xy<sup>33</sup> me<sup>33</sup>ka<sup>31</sup> tu<sup>55</sup> len<sup>31</sup>.  
 these children (poss.) face round round

The faces of these children are round.

ga<sup>33</sup> xy<sup>33</sup> ni<sup>55</sup> mja<sup>33</sup> thak<sup>33</sup> tha<sup>31</sup>v<sup>33</sup> thak<sup>33</sup>.  
 I (poss.) this knife sharp sharp sharp

naŋ<sup>33</sup> xy<sup>33</sup> xi<sup>55</sup> mja<sup>33</sup> a<sup>55</sup>me<sup>33</sup> ni<sup>55</sup>v<sup>33</sup>?  
 you (poss.) that knife how (part.)

This knife of mine is especially sharp. What is that knife of yours like?

When nouns are used to modify nouns, the modifier precedes the head, with which it is directly connected.

xan<sup>31</sup>phyn<sup>31</sup> la<sup>31</sup>khui<sup>31</sup> lu<sup>33</sup> aŋ<sup>55</sup>.  
 table leg broken (part.)

The leg of the table is broken.

za<sup>31</sup>bi<sup>31</sup> tsy<sup>31</sup>taŋ<sup>31</sup> tsy<sup>31</sup> men<sup>31</sup> ga<sup>33</sup>.  
 girls songs sing good, well (part.)

The girls' songs are very well sung.

ga<sup>33</sup> mi<sup>55</sup>nuŋ<sup>33</sup> nuŋ<sup>33</sup>xan<sup>31</sup> thi<sup>31</sup> tsan<sup>55</sup> e<sup>55</sup> aŋ<sup>55</sup> la<sup>33</sup>tei<sup>31</sup>.  
 I today noon one time go (part.) (part.)

I went once at noon today.

Verbs may sometimes modify temporal nouns, and immediately precede them, as in:

na<sup>55</sup>it<sup>31</sup> xan<sup>31</sup> tsa<sup>31</sup> zam<sup>31</sup> khv<sup>33</sup> aŋ<sup>55</sup> la<sup>55</sup> la<sup>31</sup>?  
 you (two) rice eat time arrive (part.) come (part.)

Are the two of you about to eat?

Adjectives immediately follow the nouns which they modify, but if the intensifying forms of the adjectives are used to modify nouns, they will precede them.

lo<sup>33</sup>ba<sup>33</sup> aŋ<sup>33</sup>bja<sup>31</sup> lvŋ<sup>33</sup> lu<sup>33</sup>.  
 stones many roll come (down)

Many stones are rolling down.

ma<sup>55</sup>tsup<sup>31</sup> aŋ<sup>33</sup>nu<sup>55</sup> aŋ<sup>33</sup>tchin<sup>55</sup>.  
 tangerines green sour

Green tangerines are sour.

kha<sup>31</sup>lau<sup>33</sup> aŋ<sup>33</sup>sɿ<sup>31</sup> vai<sup>31</sup> ku<sup>31</sup> pvn<sup>55</sup> ni<sup>55</sup>a<sup>31</sup>.  
 clothes new soon sew finish (part.)

The new clothes will be finished soon.

nu<sup>55</sup>do<sup>31</sup>do<sup>31</sup> kaŋ<sup>31</sup>ba<sup>33</sup> thi<sup>31</sup> khja<sup>55</sup> kan<sup>33</sup>.  
 green vegetables one basket fill

The fresh green (intensified form) vegetables filled a whole basket.

In the majority of cases, when a demonstrative pronoun combines with a classifier to form a phrase in order to modify a noun, the phrase often precedes the noun, although occasionally it may also follow the noun.

ni<sup>55</sup> tsum<sup>55</sup> za<sup>33</sup> aŋ<sup>33</sup>ba<sup>33</sup> aŋ<sup>33</sup>bja<sup>31</sup>.  
 this flock chickens female more

There are more hens within this flock of chickens.

ni<sup>55</sup> maŋ<sup>55</sup> va<sup>31</sup> thi<sup>31</sup> ni<sup>31</sup> pak<sup>55</sup> kin<sup>55</sup> tsa<sup>33</sup> ko<sup>55</sup>.  
 this (cl.) pig one two hundred catty have enough

This pig weighs nearly 200 catties.

lan<sup>55</sup>poŋ<sup>31</sup> ni<sup>55</sup> poŋ<sup>31</sup> khau<sup>55</sup>v<sup>33</sup> lan<sup>55</sup>tsho<sup>31</sup> aŋ<sup>33</sup>t<sup>33</sup>sa<sup>33</sup>.  
 bamboo tube this (cl.) inside water have

There is water in this bamboo tube.

When a numeral combines with a classifier to form a phrase in order to modify a noun, the phrase usually follows the noun, although it may also precede it.

za<sup>31</sup>maŋ<sup>31</sup> thi<sup>31</sup> fu<sup>33</sup> la<sup>55</sup> aŋ<sup>55</sup>.  
 old person one (cl.) come (part.)

An old person is coming this way.

xa<sup>33</sup>za<sup>31</sup> thi<sup>31</sup> tsum<sup>55</sup> pjam<sup>55</sup> ne<sup>33</sup> le<sup>33</sup> aŋ<sup>55</sup>.  
 birds one flock (cl.) fly (part.) go (part.)

A flock of birds has flown over there.

zɔŋ<sup>33</sup> ko<sup>33</sup>kha<sup>33</sup> ni<sup>31</sup> lum<sup>31</sup> aŋ<sup>33</sup>tɕa<sup>33</sup>.  
 they bamboo baskets two (cl.) have

They have two large bamboo baskets.

ni<sup>31</sup> maŋ<sup>55</sup> a<sup>31</sup>maŋ<sup>31</sup> a<sup>55</sup>mu<sup>55</sup> aŋ<sup>33</sup>tɕa<sup>55</sup> tɕa<sup>31</sup> ni<sup>31</sup>sɿ<sup>33</sup>.  
 two (cl.) cows now fodder eat (part.)

Two cows are eating grass.

## (ii) Coordination

Nouns describing the same kinds of objects or concepts form coordinating relationships when they are used together. Within a sentence, coordinated phrases are considered to be an integral unit, with none being more important semantically than the other(s). Although coordinated nouns may be linked together by the conjunction [ny<sup>33</sup>], it is not often used.

aŋ<sup>33</sup>lai<sup>31</sup> aŋ<sup>33</sup>sɿ<sup>31</sup> (ne<sup>33</sup>) aŋ<sup>33</sup>pu<sup>55</sup>  
 books new and notebooks

new books and notebooks

ko<sup>33</sup> maŋ<sup>55</sup>pum<sup>31</sup> my<sup>33</sup>kui<sup>33</sup> aŋ<sup>33</sup>by<sup>31</sup> men<sup>31</sup> te<sup>33</sup>.  
 rice maize sweet potatoes grow good very

The rice, maize and sweet potatoes are all growing very well.

zɔŋ<sup>33</sup> va<sup>31</sup> za<sup>33</sup> a<sup>31</sup>kau<sup>31</sup> zu<sup>55</sup> aŋ<sup>33</sup>bja<sup>31</sup> tha<sup>31</sup>y<sup>33</sup> bja<sup>31</sup>.  
 they pigs chickens ducks raise many many

They raise a lot of pigs, chickens, and ducks.

## (iii) Other constructions

In some cases, a noun not only forms a relationship with another noun, but may also be associated with several nouns at once. This occurs under the following two circumstances:

a) Several modifiers modify the noun separately from different aspects, but the modifiers are not related to each other. The position of each modifier with respect to the head is determined according to the usual word order employed when a noun is modified by words from different lexical categories. When a noun is modified by two or more adjectives, they both follow the noun; while the adjectives themselves are ordered according to their semantic content, as in:

aŋ<sup>33</sup>sɿ<sup>31</sup> aŋ<sup>33</sup>bja<sup>31</sup> aŋ<sup>33</sup>khe<sup>31</sup>  
 fruits many not full-grown

many very small fruits

When a noun is modified by several pronouns, the pronouns preceding the noun are ordered such that the personal pronoun expressing possession precedes the demonstrative pronoun.

ga<sup>33</sup> xy<sup>33</sup> ni<sup>55</sup> mja<sup>33</sup> this knife of mine  
 I (poss.) this knife

zɔŋ<sup>33</sup> ni<sup>55</sup>lo<sup>31</sup>pyn<sup>33</sup> zum<sup>55</sup>tun<sup>31</sup> these households of theirs  
 they these households

When a noun is modified by a numeral-classifier phrase and an adjective, the noun usually comes first, then the adjective, with the numeral-classifier phrase last. However, the position of the numeral-classifier phrase is relatively flexible, and it may sometimes precede the adjective or even the noun.

lo<sup>33</sup>ba<sup>33</sup> aŋ<sup>33</sup>xu<sup>31</sup> thi<sup>31</sup>lo<sup>33</sup> a large stone  
 stone large a (cl.) (stone)

khu<sup>31</sup> aŋ<sup>33</sup>paŋ<sup>55</sup> sum<sup>55</sup>maŋ<sup>55</sup> three black dogs  
 dogs black three (cl.)

ni<sup>31</sup>maŋ<sup>55</sup> a<sup>31</sup>mjaŋ<sup>31</sup> aŋ<sup>33</sup>za<sup>31</sup> two calves  
 two (cl.) cows little

b) In other cases, the constituents combine to form a noun phrase whose elements may be related in different ways. In the following example, two noun phrases, modified by two different numeral-classifier phrases, are juxtaposed.

va<sup>31</sup> sum<sup>55</sup>xan<sup>55</sup>maŋ<sup>55</sup> a<sup>31</sup>mjaŋ<sup>31</sup> thi<sup>31</sup>ba<sup>31</sup>  
 pigs three four (cl.) cows some (one+pluraliser)  
 three or four pigs and some cows

When a numeral-classifier phrase is used to modify several coordinated nouns, it is often moved to the front of the coordinated phrase which is being modified.

thi<sup>31</sup>ba<sup>31</sup> va<sup>31</sup> pe<sup>33</sup>le<sup>33</sup> some pigs and sheep  
 some pigs sheep

## C. Grammatical function

Within a sentence, nouns usually function as subjects and objects, and can also serve as predicates in some clauses, as shown below.

### NOUN AS SUBJECT

za<sup>33</sup>bu<sup>55</sup>za<sup>31</sup>ba<sup>31</sup> ko<sup>33</sup> kju<sup>31</sup> vau<sup>55</sup> pvn<sup>33</sup>ne<sup>55</sup>.  
 peasants grain harvest busy (part.)

The peasants are busily harvesting grain.

### NOUN AS OBJECT

zɔŋ<sup>33</sup> xa<sup>33</sup>sɿ<sup>31</sup> a<sup>55</sup>mu<sup>55</sup> tɕa<sup>31</sup>.  
 he banana now eat

He is eating a banana.

ni<sup>55</sup>ky<sup>33</sup>    la<sup>31</sup>phi<sup>31</sup>,    bi<sup>55</sup>ky<sup>33</sup>    sɿ<sup>31</sup>kho<sup>31</sup>.  
 here        chillies        there        cucumbers

Here are the chillies, there are the cucumbers.

4.1.2 Verbs

Verbs are words expressing actions, behaviour, judgements, and existence. Structurally, the vast majority are monosyllabic words.

A. Types of verbs

According to differences in their semantic categories and usage, verbs may be divided into factitive, copular, modal, directional, and causative verbs.

(i) Factitive verbs

These express actions such as human movements, living and production activities, the actions of animals, plants and other objects in the natural world, and the existence and appearance of objects. Factitive verbs are a major component of verbs and may be divided into transitive and intransitive verbs. Examples of such verbs include [tsa<sup>31</sup>] "eat", [na<sup>55</sup>] "listen", [nam<sup>31</sup>] "smell", [fu<sup>33</sup>] "look", [kha<sup>33</sup>] "plant", [ga<sup>31</sup>] "weave", [khu<sup>55</sup>] "stir-fry", [tchi<sup>31</sup>] "wash", [pjam<sup>55</sup>] "fly", [xom<sup>33</sup>] "hatch", [pu<sup>55</sup>] "float", [phik<sup>33</sup>] "split", [ku<sup>55</sup>] "melt", [khy<sup>33</sup>] "arrive", [aŋ<sup>33</sup>tsa<sup>33</sup>] "have", [bok<sup>33</sup>laŋ<sup>33</sup>] "hide", and [lyŋ<sup>33</sup>put<sup>33</sup>] "collapse".

Factitive verbs possess a feature which is common to all Bisu verbs: to express negation, a negating adverb [ba<sup>31</sup>] "not" precedes the verb. If the verb has an object, the negating adverb is then situated between the object and the verb.

ba <sup>31</sup>	le <sup>33</sup>		[do] not go
not	go		
ba <sup>31</sup>	be <sup>33</sup>		[do] not understand
not	understand		
aŋ <sup>33</sup> the <sup>55</sup>	ba <sup>31</sup>	up <sup>31</sup>	[do] not speak
words	not	speak	
xaj <sup>31</sup>	ba <sup>31</sup>	tɕa <sup>31</sup>	[do] not have a meal
rice	not	eat	

(ii) Copular verbs

The copula [a<sup>31</sup>] is only used in negative clauses, specifically in existential clauses and in negative questions. It combines with the negating adverb [ba<sup>31</sup>] to form the negative existential construction [ba<sup>31</sup>a<sup>31</sup>] "not be", which is situated at the end of an existential clause to express negation or negative interrogation. The negation or interrogation relates to the nature of or the relationship between objects.

zɔŋ<sup>33</sup>    aŋ<sup>33</sup>lai<sup>31</sup>lin<sup>31</sup>ba<sup>31</sup>    ba<sup>31</sup>    a<sup>31</sup>.  
 they    students                    not    are

They are not students.

niŋ<sup>55</sup>        sɿ<sup>31</sup>kho<sup>31</sup>        ba<sup>31</sup>    a<sup>31</sup>.  
 this (cl.)    cucumber        not    be

This is not a cucumber.

zaj<sup>33</sup>        aŋ<sup>33</sup>lai<sup>31</sup>lin<sup>31</sup>fu<sup>33</sup>        ba<sup>31</sup>    a<sup>31</sup>    la<sup>31</sup>?  
 he        student                    not    be    (part.)

Isn't he a student?

xij<sup>55</sup>        sɿ<sup>31</sup>kho<sup>31</sup>        ba<sup>31</sup>    a<sup>31</sup>    la<sup>31</sup>?  
 that (cl.)    cucumber        not    be    (part.)

Isn't that a cucumber?

(iii) Modal verbs

Modal verbs express subjective desires and objective probabilities. Semantically, they may be divided into two groups:

Expressing subjective desires or wishes	[ci <sup>55</sup> ] "want, be willing to, like"
	[tso <sup>33</sup> ] "dare, ought to"
	[xo <sup>31</sup> ] "should"
	[kha <sup>31</sup> kha <sup>33</sup> ] "be willing to"
Expressing objective probability	[khi <sup>31</sup> ] "will"
	[phy <sup>31</sup> ], [aŋ <sup>33</sup> phy <sup>31</sup> ] "can", "can (allow, let)"

The common features of modal verbs in terms of usage are as follows:

- most of them are not used independently but are used together with a factitive verb, to express a subjective attitude towards, or the objective conditions for, the performance of an action
- as modal verbs tend to follow factitive verbs within a clause, their tones are usually unstable, often exhibiting tone sandhi due to assimilation to the tone of the preceding verb (for a detailed discussion see 2.4 "Morphophonemic Alternations")
- their interrogative forms often employ an alternative construction which uses a combination of affirmation and negation.
- their negative forms use the negating adverb [ba<sup>31</sup>] "not" and [a<sup>31</sup>] "don't", with the negating adverb preceding the factitive verb, as in the following examples:

ga<sup>33</sup>        aŋ<sup>33</sup>le<sup>33</sup>        ci<sup>55</sup>,        zaj<sup>33</sup>        ba<sup>31</sup>        le<sup>33</sup>        ci<sup>55</sup>.  
 I        go        want        he        not        go        want

I want to go, he doesn't want to go.

nan<sup>33</sup> le<sup>33</sup> tso<sup>33</sup> ba<sup>31</sup> le<sup>33</sup> tso<sup>33</sup> la<sup>31?</sup>  
 you go dare not go dare (part.)

Dare you go?

zan<sup>33</sup> ba<sup>31</sup> le<sup>33</sup> kha<sup>31</sup>kha<sup>33</sup>.  
 he not go willing

He is not willing to go.

zan<sup>33</sup> an<sup>33</sup>le<sup>33</sup> xo<sup>31</sup>, nan<sup>33</sup> a<sup>31</sup> le<sup>33</sup> tso<sup>33</sup>.  
 he go should you don't go should

He ought to go, you shouldn't.

za<sup>31</sup>ki<sup>33</sup> xa<sup>33</sup>sɿ<sup>31</sup> an<sup>33</sup>tɕa<sup>31</sup> khi<sup>31</sup> la<sup>31?</sup>  
 child bananas eat can, know how to (part.)

za<sup>31</sup>ki<sup>33</sup> tsa<sup>31</sup> khi<sup>31</sup>.  
 child eat can, know how to

Can the child eat bananas? The child can (eat).

za<sup>31</sup>ki<sup>33</sup> xa<sup>33</sup>sɿ<sup>31</sup> tsa<sup>31</sup> phy<sup>31</sup> ba<sup>31</sup> tsa<sup>31</sup> phy<sup>31</sup> ga<sup>33</sup> la<sup>31?</sup>  
 child banana eat may not eat may (part.) (part.)

May the child eat bananas?

za<sup>31</sup>ki<sup>33</sup> an<sup>33</sup>tɕa<sup>31</sup> phy<sup>31</sup> ga<sup>33</sup>, u<sup>55</sup>mu<sup>55</sup> a<sup>31</sup> tsa<sup>31</sup> bja<sup>31</sup> tso<sup>33</sup>.  
 child eat can (part.) but don't eat many should

The child is allowed to eat, but he mustn't eat too many.

From the fourth and last sentences in the above examples, [tso<sup>33</sup>] "dare" may be used together with [a<sup>31</sup>] "don't" to indicate dissuasion from an action. The following is another example of this usage:

xi<sup>55</sup> lum<sup>31</sup> a<sup>55</sup>ma<sup>55</sup> ba<sup>31</sup> tshau<sup>55</sup>, nan<sup>33</sup> xiŋ<sup>55</sup> a<sup>31</sup> tsa<sup>31</sup> tso<sup>33</sup>.  
 that (cl.) definitely not sweet you that (cl.) don't eat should

That one definitely won't be sweet; you shouldn't eat it.

#### (iv) Directional verbs

In Bisu, the expression of many kinds of actions and behaviour contains a directional element, with even the same movement being expressed by several words because of differences in direction. "Come" and "go" are each expressed by two different words: [la<sup>55</sup>] "come (upwards)" and [lu<sup>33</sup>] "come (downwards)"; [le<sup>33</sup>] "go (upwards)" and [e<sup>55</sup>] "go (downwards)". There are therefore many directional verbs in Bisu, and their use is also widespread.

Basic directional verbs are monosyllabic. Two monosyllabic directional verbs can combine to form a bisyllabic compound directional verb:

	(upwards)	(downwards)	up	down
come	[la <sup>55</sup> ]	[lu <sup>33</sup> ]	[ta <sup>33</sup> ]	[ka <sup>33</sup> ]
go	[le <sup>33</sup> ]	[e <sup>55</sup> ]	[ta <sup>33</sup> la <sup>55</sup> ]	[ka <sup>33</sup> lu <sup>33</sup> ]
			[ta <sup>33</sup> le <sup>33</sup> ]	[ka <sup>33</sup> e <sup>55</sup> ]
	return	enter	out	cross
come	[le <sup>31</sup> ]	[oŋ <sup>55</sup> ]	[ok <sup>31</sup> ]	[ku <sup>31</sup> ] (a river)
go	[la <sup>55</sup> le <sup>31</sup> ]	[oŋ <sup>55</sup> la <sup>55</sup> ]	[ok <sup>31</sup> lu <sup>33</sup> ]	[la <sup>55</sup> au <sup>55</sup> ]
	[le <sup>33</sup> le <sup>31</sup> ]	[oŋ <sup>55</sup> le <sup>33</sup> ]	[ok <sup>31</sup> e <sup>55</sup> ]	[le <sup>33</sup> au <sup>55</sup> ]

Within a sentence, the words "come here" and "go there" often exhibit coalescence, combining to become a single syllable:

[la<sup>55</sup> au<sup>55</sup>] → [lau<sup>55</sup>] "come here" [le<sup>33</sup> au<sup>55</sup>] → [liu<sup>55</sup>] "go there"

Directional verbs are very widely used, and in many different ways. Not only can they be used independently like other factitive verbs, but they can also be used together with other verbs, to express direction of movement. This latter usage is a tendency towards grammaticalisation. Specific examples include the following:

(1) Directional verbs may be used independently to express the main semantic content of a clause. Used in this way, the rules for directional verbs within the clause are the same as those for factitive verbs.

paŋ<sup>31</sup>na<sup>33</sup> an<sup>33</sup>tsum<sup>55</sup> so<sup>33</sup>tha<sup>33</sup> tshoŋ<sup>31</sup>koŋ<sup>31</sup>ɣ<sup>33</sup> le<sup>33</sup> a<sup>55</sup>,  
 cow herd morning on the mountain go (part.)

khi<sup>31</sup>thaŋ<sup>33</sup> tshoŋ<sup>31</sup>koŋ<sup>31</sup>ɣ<sup>33</sup> ka<sup>33</sup>lu<sup>33</sup>.  
 evening on the mountain come down

The herds of cattle go up to the mountains in the early morning, [and] come down the mountains in the evening.

nan<sup>33</sup> ka<sup>33</sup>lu<sup>33</sup>, lau<sup>55</sup>, vai<sup>31</sup> lau<sup>55</sup>.  
 you come down across here quickly across here

Come down, come here, come here quickly.

za<sup>31</sup>ki<sup>33</sup> ba<sup>31</sup> la<sup>55</sup>.  
 child not come

The child is not coming.

(2) Directional verbs can be used together with factitive verbs, with the factitive verb preceding the directional verb. The structural particle [ne<sup>33</sup>], which expresses a modifying relationship, is used between the verbs to indicate that the preceding factitive verb is the modifier which describes the state of the directional movement. The following directional verb carries the main semantic load.

tsa<sup>55</sup>tchit<sup>33</sup> pjam<sup>55</sup> ne<sup>33</sup> le<sup>33</sup> aŋ<sup>55</sup>.  
 sparrow fly (part.) go (part.)

The sparrow has flown away.

naŋ<sup>33</sup> za<sup>31</sup> xvŋ<sup>33</sup> ne<sup>33</sup> la<sup>55</sup>.  
 you child run (part.) come

Your child is running towards here.

(3) A directional verb can be used immediately following a factitive verb, to express the direction of an action. However, the main point of the clause is the action described by the preceding factitive verb.

gu<sup>33</sup> maŋ<sup>55</sup>pum<sup>31</sup> tci<sup>33</sup> le<sup>33</sup> sy<sup>31</sup>.  
 we maize break off go (part.)

We will go and harvest the maize.

lo<sup>33</sup>ba<sup>33</sup> aŋ<sup>33</sup>bja<sup>31</sup> lŋ<sup>33</sup> ltu<sup>33</sup>.  
 stone many roll come (down)

Many stones are rolling down.

In some cases, when a factitive verb which carries the main semantic load and which describes the act of “giving and receiving” is followed by a directional verb, the sense of directionality is semantically bleached. The emphasis is then placed on the “giving and receiving” element of the action, as in the following sentences:

zaŋ<sup>33</sup> tshy<sup>31</sup>xvŋ<sup>31</sup> a<sup>31</sup>saŋ<sup>31</sup> na<sup>33</sup> pi<sup>31</sup> e<sup>55</sup>?  
 he sieve who (part.) give go

To whom did he give the sieve?

naŋ<sup>33</sup> up<sup>31</sup> ba<sup>31</sup> up<sup>31</sup> lau<sup>55</sup> ga<sup>33</sup> mu<sup>55</sup> aŋ<sup>33</sup>be<sup>33</sup>.  
 you say not say across here I also know

I know it whether you tell me or not.

#### (v) Causative verb

The causative verb [pi<sup>31</sup>] includes the meanings of “cause, request or ask, allow or permit”, and expresses the causation of changes in the state or condition of certain people or objects or in their actions or behaviour. The verb carries an object and is used together with a factitive verb. Affirmative and negative forms of the verb occupy different positions in a clause. In the affirmative form, [pi<sup>31</sup>] is positioned at the end of the clause, following both the noun (the patient) and the factitive verb (the causative action). Thus, the nominal construction preceding [pi<sup>31</sup>] is an integral unit functioning as the object of the causative verb [pi<sup>31</sup>], in order to express the result of the causative action. In the negative form, the causative verb [pi<sup>31</sup>] precedes the factitive verb and follows immediately after the negating adverb, in order to render more prominent the negating aspect of the causative verb. Examples are as follows:

zum<sup>55</sup>stuj<sup>55</sup> gu<sup>33</sup> na<sup>33</sup> oŋ<sup>55</sup>le<sup>33</sup> pi<sup>31</sup> la<sup>31</sup>.  
 host we (part.) enter request (part.)

The host is asking us to go in.

zaŋ<sup>33</sup> na<sup>33</sup> phja<sup>31</sup> le<sup>33</sup> pi<sup>31</sup> a<sup>55</sup>.  
 he (part.) crawl go allow, permit (part.)

Let him crawl up there.

za<sup>31</sup>ki<sup>33</sup> na<sup>33</sup> a<sup>31</sup> pi<sup>31</sup> e<sup>55</sup> tso<sup>33</sup>.  
 child (part.) don't allow, permit go should, ought to

Don't let the child go.

za<sup>33</sup>it<sup>31</sup> gu<sup>33</sup> na<sup>33</sup> thi<sup>31</sup>ga<sup>33</sup> ba<sup>31</sup> pi<sup>31</sup> le<sup>33</sup> ci<sup>55</sup>.  
 they (dual) we (part.) together not allow, permit go want

The two of them don't want to let us go together.

#### B. Fixed expressions

Factitive verbs can form fixed expressions in combination with certain other verbs or function words, to express specific types of meaning. There are four types of fixed expressions involving verbs:

(i) V lin<sup>31</sup>lin<sup>31</sup>: expressing the learning of a certain action, formed by the combination of a factitive verb V, which carries the main semantic load, together with a reduplicated form of the verb [lin<sup>31</sup>] “learn”.

ta <sup>33</sup>	lin <sup>31</sup>	lin <sup>31</sup>	learning to ride
ride	learn	learn	
thai <sup>55</sup>	lin <sup>31</sup>	lin <sup>31</sup>	learning to plough
plough	learn	learn	

(ii) V fu<sup>33</sup>le<sup>55</sup>: expressing an attempt at doing a certain action, formed by the combination of a factitive verb V, which carries the main semantic load, together with the verb [fu<sup>33</sup>] “look” and the function word [le<sup>55</sup>].

tsy <sup>31</sup>	fu <sup>33</sup>	le <sup>55</sup>	sing and see (try singing a little)
sing	look	(ftn.)	
pyk <sup>33</sup>	fu <sup>33</sup>	le <sup>55</sup>	jump and see (try jumping a little)
jump	look	(ftn.)	

(iii) V e<sup>55</sup> V: expressing an action which is only of short duration, by reduplicating a factitive verb, which carries the main semantic load, with the function word [e<sup>55</sup>] in between the two.

tsau <sup>33</sup>	e <sup>55</sup>	tsau <sup>33</sup>	wash a little
wash	(ftn.)	wash	

fu<sup>33</sup> e<sup>55</sup> fu<sup>33</sup> have a look  
look (ftn.) look

(iv) V bau<sup>31</sup>: expressing the beginning of an action, formed by the combination of a verb which carries the main semantic load with a following function word [bau<sup>31</sup>].

up<sup>31</sup> bau<sup>31</sup> speaking of it (as I was starting to speak)  
speak (ftn.)  
tsa<sup>31</sup> bau<sup>31</sup> eating (as I was starting to eat)  
eat (ftn.)

In some cases, two such fixed expressions may be combined to produce an expression containing semantic information from both constructions, as in:

ta<sup>33</sup> lin<sup>31</sup> lin<sup>31</sup> fu<sup>33</sup> le<sup>55</sup> learn to ride and see (try and learn to ride)  
ride learn learn look (ftn.)

### C. Combination

Verbs may be combined with nouns, pronouns, verbs, adjectives, adverbs, and numeral-classifier phrases to express different kinds of grammatical relationships. Four main types of relationships are described below.

#### (i) Verb-object relationship

Transitive verbs are often used with objects to form verb-object phrases. Objects usually precede verbs and are mainly nouns, pronouns, noun phrases, numeral-classifier phrases, or subject-predicate phrases. In some cases, objects may also be adjectives, whose prefix [aŋ<sup>33</sup>-] must be retained, and where the appearances and characteristics of the object are used to represent the object itself.

Many types of relationship exist between verbs and objects. In the vast majority of cases, objects are the patients of an action or behaviour. In other cases, an object may indicate the result of an action, the location in which it has taken place, or the tools or equipment used to perform it, as shown below.

##### a) The object as patient

za<sup>31</sup>ki<sup>33</sup> xaŋ<sup>31</sup> a<sup>55</sup>mu<sup>55</sup> tsa<sup>31</sup>.  
child rice now eat

The child is having a meal now.

zaŋ<sup>33</sup> kha<sup>31</sup>toŋ<sup>33</sup> pe<sup>33</sup>le<sup>33</sup> po<sup>33</sup> ne<sup>55</sup>.  
he himself sheep graze (part.)

He is grazing the sheep himself.

laŋ<sup>55</sup>poŋ<sup>31</sup> khau<sup>55</sup>y<sup>33</sup> laŋ<sup>55</sup>tsho<sup>31</sup> ma<sup>55</sup>.  
bamboo tube inside water filled with

The bamboo tube is filled with water.

ga<sup>33</sup> xau<sup>33</sup> xy<sup>33</sup> kha<sup>31</sup>lau<sup>33</sup> na<sup>33</sup> tum<sup>33</sup> ne<sup>55</sup>.  
I others (poss.) clothes (part.) wear (part.)

I am wearing other people's clothes.

gu<sup>33</sup> te<sup>31</sup>kha<sup>31</sup> ba<sup>31</sup> taŋ<sup>55</sup>.  
we wine not drink

We don't drink wine.

naŋ<sup>33</sup> ga<sup>33</sup> na<sup>33</sup> ba<sup>31</sup> pu<sup>31</sup> la<sup>55</sup> la<sup>31</sup>?  
you I (part.) not remember come (part.)

Don't you remember me?

zaŋ<sup>33</sup> ai<sup>55</sup> tshaŋ<sup>55</sup> ni<sup>31</sup> aŋ<sup>33</sup>tša<sup>33</sup>.  
he brother (cl.) two have

He has two elder brothers.

ga<sup>33</sup> aŋ<sup>33</sup>moŋ<sup>55</sup> zu<sup>55</sup>, naŋ<sup>33</sup> aŋ<sup>33</sup>tu<sup>55</sup> zu<sup>55</sup>.  
I long take you short take

I am taking the long one; you take the short one.

Verbs expressing psychological states or sensory perception may have subject-predicate constructions as objects, in order to represent the thoughts or feelings as an integral unit. In such cases, the subject-predicate construction is relatively long and complicated, and often follows the verbal predicate.

ga<sup>33</sup> luŋ<sup>33</sup>ba<sup>33</sup> kyt<sup>55</sup> nau<sup>33</sup>sy<sup>55</sup> gu<sup>33</sup> le<sup>33</sup>.  
I heart think tomorrow we go

I think that we will go tomorrow.

ga<sup>33</sup> na<sup>55</sup>kja<sup>31</sup> khu<sup>31</sup>buŋ<sup>55</sup> ne<sup>55</sup>sŋ<sup>33</sup>.  
I hear dog bark (part.)

I hear a dog barking.

a<sup>31</sup>ba<sup>33</sup> fu<sup>33</sup>mjaŋ<sup>55</sup> zaŋ<sup>33</sup> za<sup>31</sup> uŋ<sup>55</sup> ne<sup>55</sup>.  
mother see she child cry (part.)

The mother sees her child crying.

##### b) The object as location

za<sup>33</sup> ko<sup>33</sup>lo<sup>33</sup> oŋ<sup>55</sup>le<sup>33</sup> ne<sup>55</sup> tci<sup>55</sup>a<sup>31</sup>.  
chicken nest enter (part.) (part.)

The chicken has gone into her nest.

zoŋ<sup>33</sup> a<sup>55</sup>mu<sup>55</sup> za<sup>55</sup>y<sup>33</sup> e<sup>55</sup>.  
they now in the fields go

They are going to the fields now.

zaŋ<sup>33</sup> ai<sup>55</sup> khon<sup>31</sup>sŋ<sup>31</sup> duŋ<sup>55</sup>.  
he elder brother hamlet new exist

His elder brother is in the new hamlet.

ga<sup>33</sup> le<sup>33</sup> mjan<sup>55</sup> naŋ<sup>33</sup> zum<sup>55</sup>.  
I go see<sup>12</sup> you home

I have been to your home.

### c) The object as result or instrument

lan<sup>55</sup>ba<sup>33</sup> thaŋ<sup>33</sup> zum<sup>55</sup> aŋ<sup>33</sup> sɿ<sup>31</sup> thi<sup>31</sup> zum<sup>55</sup> tsho<sup>33</sup> pvn<sup>55</sup>.  
river side house new one (cl.) build finish

A new house has been built by the river edge.

thi<sup>31</sup>ba<sup>31</sup> va<sup>31</sup> nuŋ<sup>55</sup> tsha<sup>55</sup> lum<sup>55</sup>.  
some pig sunshine dry in the sun

Some pigs are sunning themselves.

zɔŋ<sup>33</sup> la<sup>31</sup>pu<sup>31</sup> tshu<sup>33</sup> lan<sup>33</sup>ga<sup>33</sup>.  
they hand grasp one another

They are shaking hands with one another.

xa<sup>55</sup>mit<sup>31</sup> thi<sup>31</sup> khja<sup>55</sup> kan<sup>33</sup>.  
bamboo shoots one large bamboo basket fill

A large bamboo basket has been filled with bamboo shoots.

### d) The object as a quantity or period of time

zaj<sup>33</sup> aŋ<sup>33-55</sup> za<sup>31</sup> taj<sup>55</sup>.  
he a little drink

He has drunk a little.

noŋ<sup>33</sup> tsum<sup>55</sup> koŋ<sup>55</sup> thi<sup>31</sup> fu<sup>33</sup> lyk<sup>33</sup>.  
you (pl.) group (part.) one (cl.) choose

Choose one from among you.

ga<sup>33</sup> thi<sup>31</sup> duŋ<sup>31</sup> zu<sup>31</sup> aŋ<sup>55</sup> la<sup>33</sup> tci<sup>31</sup>.  
I one nap sleep (part.) (part.)

I had a nap.

aŋ<sup>33</sup> khvŋ<sup>33</sup> ten<sup>55</sup>ba<sup>31</sup> ni<sup>55</sup>ky<sup>33</sup> ŋa<sup>31</sup> nuŋ<sup>33</sup> za<sup>31</sup>.  
carpenters here five day wait, stay

The carpenters have waited here for five days.

### e) Double objects

Verbs with the meanings of “giving” and “receiving” often have two objects. The direct object is the item being given and received, while the indirect object is the recipient of the item. The indirect object is usually expressed by a noun representing a person or a personal pronoun, and often carries the particle [na<sup>33</sup>], which expresses a benefactive relationship. The usual word order for double objects is that the indirect object immediately precedes the direct

object, with the verbal predicate following both objects. However, the position of the verb has a certain flexibility: it may occur between the two objects or may even precede them.

za<sup>31</sup>maŋ<sup>31</sup> ga<sup>33</sup> na<sup>33</sup> ni<sup>31</sup> sɿ<sup>31</sup> pi<sup>31</sup>.  
elderly person I (part.) two fruit give

The elderly person gave me two pieces of fruit.

aŋ<sup>31</sup>lai<sup>31</sup>ma<sup>31</sup>fu<sup>33</sup> za<sup>31</sup>ki<sup>33</sup> na<sup>33</sup> thi<sup>31</sup>ba<sup>31</sup> aŋ<sup>33</sup>lai<sup>31</sup> aŋ<sup>33</sup>sɿ<sup>31</sup> pi<sup>31</sup>.  
teacher child(ren) (part.) some book new give

The teacher gave the child(ren) some new books.

zaj<sup>33</sup> ga<sup>33</sup> na<sup>33</sup> tchi<sup>31</sup> ŋa<sup>31</sup>tche<sup>31</sup> sɿ<sup>31</sup> phu<sup>55</sup>.  
he I (part.) lend fifty yuan money

He lent me 50 yuan (unit of currency).

ga<sup>33</sup> tchi<sup>31</sup> pi<sup>31</sup> zɔŋ<sup>33</sup> na<sup>33</sup> sum<sup>55</sup>pak<sup>31</sup> kin<sup>55</sup>ko<sup>33</sup>.  
I lend give them (part.) three hundred catty grain

I lent them 300 catties of grain.

### (ii) Verb-complement relationship

A verb may also be followed by a complement, which indicates more fully the manner, result, and frequency of the action. Words which usually function as complements include adjectives and adverbs.

Some adjectives, such as [aŋ<sup>33</sup>men<sup>31</sup>] “good” and [aŋ<sup>33</sup>vau<sup>55</sup>] “hurriedly”, often function as complements and follow the verb. They describe the manner or result of the action.

na<sup>55</sup>it<sup>31</sup> xy<sup>33</sup> tsv<sup>31</sup>taŋ<sup>31</sup> tsv<sup>31</sup> men<sup>31</sup>men<sup>31</sup> ga<sup>33</sup> tci<sup>55</sup>.  
you two (poss.) song sing good (part.) (part.)

The two of you sing very well.

ni<sup>55</sup>u<sup>55</sup> stuŋ<sup>33</sup>tsuŋ<sup>55</sup> aŋ<sup>33</sup>za<sup>31</sup> by<sup>31</sup> vau<sup>55</sup>vau<sup>55</sup>.  
these trees little grow fast

These little trees are growing extremely fast.

a<sup>55</sup>lo<sup>31</sup>mv<sup>33</sup>mu<sup>55</sup> zaj<sup>33</sup> e<sup>55</sup> aŋ<sup>33</sup>da<sup>31</sup>.  
always he go early

He always goes early.

xaŋ<sup>31</sup>phvŋ<sup>31</sup> a<sup>55</sup>mu<sup>55</sup> cit<sup>33</sup> saŋ<sup>55</sup>.  
table now wipe clean

The table has just been wiped clean.

The adverb [khu<sup>33</sup>] “completely, all gone, used up”, which expresses degree or range, often follows the verb as a complement, to indicate the result of an action.

kha<sup>31</sup>lau<sup>33</sup> tciŋ<sup>55</sup> khu<sup>33</sup>.  
clothes wet all

These clothes are all wet.

<sup>12</sup> Translator's note: The use of this grammaticalised verb is described in the section entitled (ii) Sentences with compound verbal predicates, under 4.2.1.A. Verbal predicates.

ni<sup>55</sup>ky<sup>33</sup>    stuŋ<sup>33</sup>tsuŋ<sup>55</sup>    zvŋ<sup>33</sup>    xau<sup>33</sup>    tv<sup>33</sup>    khu<sup>33</sup>    tci<sup>55</sup>a<sup>31</sup>.  
 here    trees    (part.)    other people    chop    all    (part.)

The trees here have all been chopped down.

ko<sup>33</sup>    tsa<sup>31</sup>    khu<sup>33</sup>    tci<sup>55</sup>a<sup>31</sup>.  
 grain    eat    all    (part.)

The grain has all been eaten.

In addition, the adverb expressing the frequency of an action, [ga<sup>33</sup>le<sup>55</sup>] “again”, often follows a verb as its complement.

gu<sup>33</sup>    nau<sup>33</sup>sy<sup>55</sup>    tsa<sup>31</sup>    ga<sup>33</sup>le<sup>55</sup>.  
 we    tomorrow    eat    again

We can eat again tomorrow.

### (iii) Modifying relationship

Verbs may be modified or restricted by adjectives, adverbs, temporal and locative nouns, directional constructions, numeral-classifier phrases, and verbs. The modifier precedes the verb and combines directly with it, without any intervening words. However, when a verb functions as the modifier, it must be followed by the particle [ne<sup>33</sup>], which indicates the modifying relationship, in order to clarify which verb is being modified and which is the modifier. Modifying relationships may be divided into several types according to the meaning and function of the modifier:

(1) The modifier describes the type and manner of the actions and mainly involves adjectives, verbs, and adverbs.

zaj<sup>33</sup>    vau<sup>55</sup>vau<sup>55</sup>ki<sup>55</sup>ki<sup>55</sup>    up<sup>31</sup>.  
 he    hurriedly    speak

He was speaking hurriedly.

ga<sup>33</sup>    la<sup>31</sup>phi<sup>31</sup>    ni<sup>55</sup>lo<sup>31</sup>pyn<sup>33</sup>    kha<sup>55</sup>khu<sup>33</sup>    kai<sup>33</sup>.  
 I    chillies    these few (cl.)    total    hide

I have only these few chillies in all.

naj<sup>33</sup>    za<sup>31</sup>    xyn<sup>31</sup>    ne<sup>33</sup>    la<sup>55</sup>.  
 you    child    run    (part.)    come

Your child is running towards here.

gu<sup>33</sup>    thi<sup>31</sup>ga<sup>33</sup>    taŋ<sup>55</sup>.  
 we    together    drink

Let us drink together.

noj<sup>31</sup>y<sup>33</sup>    a<sup>55</sup>zam<sup>31</sup>    tsa<sup>33</sup>    va<sup>31</sup>    a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup>mu<sup>55</sup>    bo<sup>31</sup>    la<sup>55</sup>au<sup>55</sup>.  
 later    time    have    if    often    play    come here

If [you] have time later on, [you] can come and play here often.

(2) The modifier expresses the time and location of the action, and mainly involves temporal or locative nouns or directional constructions.

ga<sup>33</sup>    mi<sup>55</sup>so<sup>33</sup>    tshoŋ<sup>31</sup>koŋ<sup>31</sup>    y<sup>33</sup>    mi<sup>31</sup>tho<sup>31</sup>    tv<sup>33</sup>.  
 I    this morning    in the hills    firewood    chop

This morning I went to the hills to chop firewood.

mi<sup>55</sup>nu<sup>33</sup>    ko<sup>33</sup>    aŋ<sup>33</sup>by<sup>31</sup>    men<sup>31</sup>    te<sup>33</sup>.  
 this year    grain    grow    good    very

This year the grain has grown very well.

zoŋ<sup>33</sup>    laŋ<sup>55</sup>ba<sup>33</sup>    thaŋ<sup>33</sup>    bo<sup>31</sup>.  
 they    river    side    play

They are playing by the river.

aŋ<sup>33</sup>ni<sup>55</sup>y<sup>33</sup>    muŋ<sup>31</sup>xo<sup>31</sup>    lu<sup>33</sup>.  
 outside    rain    come down

It is raining outside.

When the temporal noun [a<sup>55</sup>mu<sup>55</sup>] “now” functions as the modifier of a verb, it expresses the progression of an action or indicates that the action has just occurred.

muŋ<sup>31</sup>xo<sup>31</sup>    a<sup>55</sup>mu<sup>55</sup>    lu<sup>33</sup>    ne<sup>55</sup>.  
 rain    now    down    (part.)

It is raining at the moment.

xa<sup>33</sup>za<sup>31</sup>    thi<sup>31</sup>    maj<sup>55</sup>    a<sup>55</sup>mu<sup>55</sup>    pjam<sup>55</sup>    ko<sup>55</sup>    ne<sup>33</sup>    le<sup>33</sup>    aŋ<sup>55</sup>.  
 bird    one    (cl.)    now    fly    across    (part.)    go    (part.)

A bird has just flown over there.

(3) The modifier expresses the number of times the action has been performed, as well as the attitude and mood of the speaker, and involves a numeral-classifier phrase or an adverb.

ga<sup>33</sup>    xan<sup>55</sup>    tsan<sup>55</sup>    e<sup>55</sup>    an<sup>31</sup>.  
 I    four    time    go    (part.)

I have been [there] four times.

zaj<sup>33</sup>    thi<sup>31</sup>    la<sup>31</sup>    thi<sup>31</sup>    la<sup>31</sup>    bu<sup>55</sup>.  
 he    one    stroke    one    stroke    weed

He was weeding a bit at a time.

ga<sup>33</sup>    kha<sup>55</sup>ga<sup>33</sup>    ne<sup>33</sup>    la<sup>55</sup>.  
 I    certainly    (part.)    come

I will certainly come.

### (iv) Relationships involving multiple modifiers and/or multiple levels

Not only can a verb often combine with a single word to form a relationship, but it can also combine with several words or form relationships at multiple levels.

Two temporal nouns may separately modify a single verb-object phrase, as in:



ga<sup>33</sup> a<sup>55</sup>mu<sup>55</sup> za<sup>55</sup>v<sup>33</sup> thi<sup>31</sup>tchit<sup>31</sup> e<sup>55</sup>.  
I now in the fields a little while go

We will now go to the fields for a little bit.

A noun phrase and an adverb may separately modify a verb-object phrase.

zɔŋ<sup>33</sup> za<sup>55</sup>bu<sup>55</sup>my<sup>33</sup> a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup>mu<sup>55</sup> aŋ<sup>33</sup>zam<sup>31</sup> ba<sup>31</sup> pu<sup>31</sup> tci<sup>55</sup>.  
they working always time not remember (part.)

When they are working, they always forget the time.

A temporal noun and an adverb may modify a verb and a verb-object phrase which are combined in a coordinating relationship.

gu<sup>33</sup> nau<sup>33</sup>sy<sup>55</sup>tha<sup>33</sup> thi<sup>31</sup>ga<sup>33</sup> le<sup>33</sup> zau<sup>33</sup> kaŋ<sup>31</sup>ba<sup>33</sup> vu<sup>55</sup>.  
we tomorrow morning together go (conj.) vegetables buy

Tomorrow morning we will go to buy vegetables together.

#### D. Grammatical function

The main function of verbs is to serve as predicates in clauses. Verbs describe certain objects, express certain kinds of behaviour or actions, or indicate the existence or changes in the condition of an object. However, verbs can sometimes also function as subjects.

za<sup>31</sup>ki<sup>33</sup> zu<sup>31</sup> aŋ<sup>55</sup> tci<sup>55</sup>a<sup>31</sup>.  
child sleep (part.) (part.)

The child has fallen asleep.

aŋ<sup>33</sup>lai<sup>31</sup>lin<sup>31</sup>ba<sup>31</sup> a<sup>55</sup>mu<sup>55</sup> la<sup>55</sup>le<sup>31</sup>.  
students now come back

The students have just come back.

ni<sup>55</sup> za<sup>55</sup> ko<sup>33</sup> kha<sup>33</sup> ne<sup>55</sup>.  
this piece of land grain plant (part.)

This piece of land is for planting grain.

tshoŋ<sup>31</sup>koŋ<sup>31</sup> v<sup>33</sup> xyn<sup>31</sup> ba<sup>31</sup> men<sup>31</sup> zo<sup>31</sup> men<sup>31</sup>.  
on the mountain (part.) run not good walk good

It is better to walk on the mountains than to run.

#### 4.1.3 Adjectives

Adjectives are words used to describe the shape and properties, appearance and colour of objects, as well as human sensory perceptions such as taste, smell, touch, and emotions. Structurally, one distinctive feature of adjectives is that, apart from a few isolated words, the vast majority are bisyllabic words formed by combining the prefix [aŋ<sup>33</sup>-] with a monosyllabic root. However, this prefix may sometimes be deleted, with the monosyllabic root being used alone. In general, [aŋ<sup>33</sup>-] is often deleted under the following circumstances:

- in the negative form, which is formed by using a preceding negating adverb
- in the intensifying construction, formed by adding a following descriptive constituent
- in the comparison construction
- in a few reduplicated forms
- when using a following adverb to express a change in appearance or situation.

Specific ways in which the prefix is deleted are illustrated in the example sentences in this section.

Semantically, the special feature of adjectives is that often two different words are used to express corresponding or contrasting concepts within the same semantic category. This results in a large number of antonyms within Bisu adjectives.

#### A. Types of adjectives

In terms of semantic categories, adjectives can be divided into the following types:

##### (i) describing the shape of objects

[aŋ <sup>33</sup> xu <sup>31</sup> ]	“big, thick”	[aŋ <sup>33</sup> moŋ <sup>55</sup> ]	“long”	[aŋ <sup>33</sup> thu <sup>55</sup> ]	“thick”
[aŋ <sup>33</sup> i <sup>55</sup> ]	“small, tiny”	[aŋ <sup>33</sup> tu <sup>55</sup> ]	“short”	[aŋ <sup>33</sup> pa <sup>31</sup> ]	“thin”
[aŋ <sup>33</sup> kvŋ <sup>33</sup> ]	“straight”	[aŋ <sup>33</sup> tan <sup>33</sup> ]	“flat”	[aŋ <sup>33</sup> tun <sup>31</sup> ]	“fat”
[aŋ <sup>33</sup> kuc <sup>31</sup> ]	“bent”	[aŋ <sup>33</sup> phjaŋ <sup>33</sup> ]	“steep”	[aŋ <sup>33</sup> zau <sup>33</sup> ]	“thin”

##### (ii) describing the nature of objects

[aŋ <sup>33</sup> men <sup>31</sup> ]	“good”	[aŋ <sup>33</sup> sŋ <sup>31</sup> ]	“new”
[aŋ <sup>33</sup> lu <sup>33</sup> ]	“bad”	[aŋ <sup>33</sup> an <sup>55</sup> ]	“old”
[aŋ <sup>33</sup> ken <sup>31</sup> ]	“hard”	[aŋ <sup>33</sup> ku <sup>33</sup> ]	“dry”
[aŋ <sup>33</sup> do <sup>31</sup> ]	“soft”	[aŋ <sup>33</sup> tcin <sup>55</sup> ]	“wet”

##### (iii) describing temporal and spatial conditions

[aŋ <sup>33</sup> noŋ <sup>31</sup> ]	“late”	[aŋ <sup>33</sup> vy <sup>31</sup> ]	“far”	[aŋ <sup>33</sup> vaŋ <sup>31</sup> ]	“wide”
[aŋ <sup>33</sup> da <sup>31</sup> ]	“early”	[aŋ <sup>33</sup> diu <sup>31</sup> ]	“near”	[aŋ <sup>33</sup> khjaŋ <sup>31</sup> ]	“narrow”
[aŋ <sup>33</sup> moŋ <sup>33</sup> ]	“high”	[aŋ <sup>33</sup> kho <sup>31</sup> ]	“tall”	[aŋ <sup>33</sup> khja <sup>55</sup> ]	“sparse”
[aŋ <sup>33</sup> me <sup>31</sup> ]	“low”	[aŋ <sup>33</sup> nom <sup>55</sup> ]	“short”	[aŋ <sup>33</sup> nen <sup>55</sup> ]	“dense, tight”

##### (iv) describing speed, quantity, and weight

[aŋ <sup>33</sup> vai <sup>31</sup> ]	“fast”	[aŋ <sup>33</sup> bja <sup>31</sup> ]	“many”	[aŋ <sup>33</sup> zaŋ <sup>55</sup> ]	“light”
[aŋ <sup>33</sup> kam <sup>31</sup> ]	“slow”	[sau <sup>31</sup> ]	“few”	[aŋ <sup>33</sup> xan <sup>31</sup> ]	“heavy”

(v) describing the nature and mood of people or objects

[aŋ <sup>33</sup> en <sup>55</sup> ]	“clever”	[aŋ <sup>33</sup> vai <sup>31</sup> ]	“hardworking”
[za <sup>31</sup> tsaŋ <sup>31</sup> ]	“stupid”	[aŋ <sup>33</sup> on <sup>31</sup> ]	“lazy”
[aŋ <sup>33</sup> peŋ <sup>55</sup> ]	“expensive”	[ko <sup>31</sup> lo <sup>31</sup> ]	“loose”
[aŋ <sup>33</sup> ga <sup>31</sup> ]	“cheap”	[do <sup>31</sup> lo <sup>31</sup> ]	“soft, tender”

(vi) describing different sensations

Adjectives describing visual perception of colours include: [aŋ<sup>33</sup>ne<sup>55</sup>] “red”, [aŋ<sup>33</sup>sŋ<sup>55</sup>] “yellow”, [aŋ<sup>33</sup>nu<sup>55</sup>] “green”, [aŋ<sup>33</sup>paŋ<sup>55</sup>] “black”, [aŋ<sup>33</sup>pon<sup>31</sup>] “white”, [aŋ<sup>33</sup>phu<sup>55</sup>] “blue”.

Adjectives describing tastes include: [aŋ<sup>33</sup>tshau<sup>55</sup>] “sweet”, [aŋ<sup>33</sup>tchin<sup>55</sup>] “sour”, [aŋ<sup>33</sup>kha<sup>31</sup>] “bitter”, [aŋ<sup>33</sup>phi<sup>55</sup>] “hot (spicy)”, [aŋ<sup>33</sup>phan<sup>55</sup>] “astringent”, [aŋ<sup>33</sup>pin<sup>31</sup>] “numb”.

Adjectives describing smells include: [aŋ<sup>33</sup>xom<sup>55</sup>] “fragrant”, [aŋ<sup>33</sup>nam<sup>55</sup>] “smelly”, [pu<sup>31</sup>nam<sup>55</sup>] “stinking (like rotten fish)”.

Adjectives describing bodily sensations include: [da<sup>55</sup>] “painful”, [za<sup>31</sup>] “itchy”, [aŋ<sup>33</sup>tsho<sup>31</sup>] “cold”, [aŋ<sup>33</sup>loŋ<sup>55</sup>] “hot”, [pɔŋ<sup>33</sup>] “full”, [be<sup>31</sup>] “hungry”, [ku<sup>33</sup>] “thirsty”, [aŋ<sup>33</sup>du<sup>31</sup>] “tired”.

B. Fixed expressions

Adjectives may be used in certain fixed expressions. These increase the expressive power of the language and describe differing degrees of appearances and conditions.

(i) Reduplication

Reduplication of adjectives intensifies the meaning. There are three types of reduplicative constructions:

(1) The prefix is deleted from the adjective and the root is reduplicated to give a bisyllabic construction.

[aŋ <sup>33</sup> moŋ <sup>33</sup> ]	“high”	>	[moŋ <sup>33</sup> moŋ <sup>33</sup> ]	“very high”
[aŋ <sup>33</sup> men <sup>31</sup> ]	“good”	>	[men <sup>31</sup> men <sup>31</sup> ]	“exceptionally good”

Sometimes an adverb is inserted between the two reduplicated syllables in order to increase the emphasis.

[aŋ <sup>33</sup> vaŋ <sup>31</sup> ]	“wide”	>	[vaŋ <sup>31</sup> mu <sup>55</sup> vaŋ <sup>31</sup> ]	“really wide”
[aŋ <sup>33</sup> moŋ <sup>55</sup> ]	“long”	>	[moŋ <sup>55</sup> mu <sup>55</sup> moŋ <sup>55</sup> ]	“really long”

(2) Bisyllabic adjectives are reduplicated in their entirety to form constructions with four syllables.

[aŋ <sup>33</sup> vy <sup>31</sup> ]	“far”	>	[aŋ <sup>33</sup> vy <sup>31</sup> aŋ <sup>33</sup> vy <sup>31</sup> ]	“very far”
[aŋ <sup>33</sup> saŋ <sup>55</sup> ]	“clean”	>	[aŋ <sup>33</sup> saŋ <sup>55</sup> aŋ <sup>33</sup> saŋ <sup>55</sup> ]	“very clean”

(3) The prefixes are deleted from two bisyllabic near-synonyms and their roots are reduplicated to form constructions with four syllables.

[aŋ <sup>33</sup> vau <sup>55</sup> ]	“busy”	>	[vau <sup>55</sup> vau <sup>55</sup> ki <sup>55</sup> ki <sup>55</sup> ]	“hurriedly, hastily”
[aŋ <sup>33</sup> ki <sup>55</sup> ]	“hurried”	>	[vau <sup>55</sup> vau <sup>55</sup> ki <sup>55</sup> ki <sup>55</sup> ]	
[aŋ <sup>33</sup> vai <sup>33</sup> ]	“fast”	>	[vai <sup>31</sup> vai <sup>31</sup> khjaŋ <sup>55</sup> khjaŋ <sup>55</sup> ]	“hardworking”
[aŋ <sup>33</sup> khjaŋ <sup>55</sup> ]	“work”	>	[vai <sup>31</sup> vai <sup>31</sup> khjaŋ <sup>55</sup> khjaŋ <sup>55</sup> ]	

(ii) Intensifying constructions

A descriptive constituent may be added to the roots of adjectives describing colour, taste, or smell to form intensifying constructions. This creates more vivid descriptions, thereby increasing the expressive power of the adjectives. The following are types of intensifying constructions:

(1) This involves the deletion of the prefix [aŋ<sup>33</sup>-] from the adjective and the addition of two reduplicated morphemes following the root to form a tri-syllabic construction. The added constituents are usually adjectival morphemes, although some may be morphemes which are near-synonyms of the word roots.

Two roots which are near-synonyms can combine to form intensifying constructions, as in [aŋ<sup>33</sup>pa<sup>33</sup>] and [aŋ<sup>33</sup>pen<sup>55</sup>], both meaning “bright”, which combine to form the words [pa<sup>33</sup>pen<sup>55</sup>pen<sup>55</sup>] “glittering bright” and [pen<sup>55</sup>pa<sup>33</sup>pa<sup>33</sup>] “sparkling bright”.

The added morphemes may express the result of the condition, as in the combination of [aŋ<sup>33</sup>phi<sup>55</sup>] “hot (spicy)” and [aŋ<sup>33</sup>loŋ<sup>31</sup>] “hot (in temperature)” to form the word [phi<sup>55</sup>loŋ<sup>31</sup>loŋ<sup>31</sup>] “spicy hot”; and [aŋ<sup>33</sup>tsho<sup>31</sup>] “cold” and [aŋ<sup>33</sup>dvt<sup>33</sup>] “shiver” to form the word [tsho<sup>31</sup>dvt<sup>33</sup>dvt<sup>33</sup>] “shivering with cold”.

The added morphemes may express the appearance of the condition, as in the combination of [aŋ<sup>33</sup>nu<sup>55</sup>] “green” and [aŋ<sup>33</sup>do<sup>31</sup>] “soft, tender” to form the word [nu<sup>55</sup>do<sup>31</sup>do<sup>31</sup>] “delicate green”; and [aŋ<sup>33</sup>ne<sup>55</sup>] “red” and [aŋ<sup>33</sup>pen<sup>55</sup>] “bright” to form the word [ne<sup>55</sup>pen<sup>55</sup>pen<sup>55</sup>] “bright red”.

The root [saŋ<sup>55</sup>] of the word [aŋ<sup>33</sup>saŋ<sup>55</sup>] “clean” is often used as the added morpheme to combine with a colour adjective to form a lively construction, to emphasise the purity of the colour, as in the words [phu<sup>55</sup>saŋ<sup>55</sup>saŋ<sup>55</sup>] “azure blue”, [paŋ<sup>55</sup>saŋ<sup>55</sup>saŋ<sup>55</sup>] “pitch black”, and [pon<sup>31</sup>saŋ<sup>55</sup>saŋ<sup>55</sup>] “pure white”.

(2) Two phonologically related syllables (*i.e.* with the same onset or with a reduplicated rhyme) may be added to a bisyllabic adjective to form an intensifying construction with four syllables. These words have a special resonance, as in the following examples:

[aŋ <sup>33</sup> sŋ <sup>31</sup> ]	“new”	>	[aŋ <sup>33</sup> sŋ <sup>31</sup> my <sup>31</sup> ma <sup>55</sup> ]
[ko <sup>31</sup> lo <sup>31</sup> ]	“loose”	>	[ko <sup>31</sup> lo <sup>31</sup> ke <sup>33</sup> le <sup>31</sup> ]
[do <sup>31</sup> lo <sup>31</sup> ]	“tender”	>	[do <sup>31</sup> lo <sup>31</sup> py <sup>31</sup> ly <sup>31</sup> ]

### (iii) Comparison

In Bisu, there are no fixed comparative constructions which are formed by changes in the forms of words. Comparison of the strength or weakness of a situation is expressed through the addition of modifiers or complements to form expressions indicating differences in degree. There are three ways in which degree can be expressed:

#### a) General type

The original form of the adjective is used to indicate the general situation, as in the word [aŋ<sup>33</sup>vɿ<sup>31</sup>] "far".

#### b) Restricted type

The adjective is preceded by the adjective [aŋ<sup>33</sup>i<sup>55</sup>za<sup>31</sup>] meaning "few" or "little", which sets a limitation on the degree, as in [i<sup>55</sup>za<sup>31</sup>vɿ<sup>31</sup>], which means "a little far, a little bit far".

#### c) Emphatic type

Certain specially designated adjectives or adverbs follow the adjective to emphasise the degree expressed by the adjective. There are many ways of indicating emphasis, including the use of the words [vɿ<sup>31</sup>ma<sup>55</sup>], [vɿ<sup>31</sup>xu<sup>31</sup>], [vɿ<sup>31</sup>ma<sup>55</sup>maŋ<sup>55</sup>], [vɿ<sup>31</sup>lin<sup>31</sup>], [vɿ<sup>31</sup>te<sup>33</sup>], and [vɿ<sup>31</sup>tha<sup>31</sup>y<sup>33</sup>vɿ<sup>31</sup>].

All the above words express the meaning of "very far, especially far, furthest, really far, extremely far", with no strict distinctions between the terms. In some cases, in order to further increase the emphasis, several emphatic constructions may be used in combination, as in the word [vɿ<sup>31</sup>lin<sup>31</sup>tha<sup>31</sup>y<sup>33</sup>vɿ<sup>31</sup>].

Apart from the above ways of expressing comparison, a change in the sentence structure may also be used, as in the following example:

naŋ <sup>33</sup>	xyn <sup>31</sup>	ga <sup>33</sup>	tha <sup>31</sup> y <sup>33</sup>	vai <sup>31</sup> ,	zoŋ <sup>33</sup>	xyn <sup>31</sup>	ne <sup>33</sup>	aŋ <sup>33</sup> xyn <sup>31</sup>
you	run	I	above	fast	they	run	(part.)	run

vai <sup>31</sup> vai <sup>31</sup> ,	zaŋ <sup>33</sup>	xyn <sup>31</sup>	ne <sup>33</sup>	aŋ <sup>33</sup> vai <sup>31</sup>	vai <sup>31</sup>	ma <sup>55</sup> .
fast fast	he	run	(part.)	fast	fast	really

You run faster than I can; they run even faster; he runs fastest.

### C. Combination relationships

Adjectives can combine with adjectives, demonstrative pronouns, adverbs, and numeral-classifier phrases to form modifying, complementary, and coordinating relationships.

#### (i) Modifying relationships

Words which modify adjectives include demonstrative pronouns which express extent, and adjectives, adverbs, and numeral-classifier phrases which express extent and range. They precede the adjective, and further depict or restrict the conditions being described.

ga <sup>33</sup>	ba <sup>31</sup>	kvt <sup>55</sup>	khv <sup>33</sup>	a <sup>55</sup> mu <sup>55</sup>	ni <sup>55</sup> ne <sup>33</sup>	loŋ <sup>55</sup>	ne <sup>55</sup> .
I	not	think	arrive <sup>13</sup>	now	this	hot	(part.)

I never thought that it would still be so hot now.

ga <sup>33</sup>	la <sup>31</sup> kh <sup>31</sup>	aŋ <sup>33</sup> i <sup>55</sup> za <sup>31</sup>	da <sup>55</sup> .
I	foot	a little bit	painful

My foot is a little painful.

xi <sup>55</sup>	lum <sup>31</sup>	a <sup>55</sup> ma <sup>55</sup>	aŋ <sup>33</sup> tshau <sup>55</sup> .
that	(cl.)	really	sweet

That one is really sweet.

zaŋ <sup>33</sup>	xv <sup>33</sup>	zum <sup>55</sup>	ni <sup>55</sup> kv <sup>33</sup>	sum <sup>33</sup>	xan <sup>33</sup>	li <sup>55</sup>	vɿ <sup>31</sup> .
he	(poss.)	home	here	three	four	miles	far

His home is three or four miles from here.

#### (ii) Complementary Relationships

A complement may follow an adjective to emphasise and affirm the extent of the condition described. Complements are usually adjectives or adverbs expressing degree or extent.

mi <sup>55</sup> nu <sup>33</sup> sv <sup>55</sup>	tha <sup>31</sup> y <sup>33</sup>	mi <sup>55</sup> nu <sup>33</sup>	loŋ <sup>55</sup>	xu <sup>31</sup> .
last year	above	this year	hot	big

This year is much hotter than last year.

ga <sup>33</sup>	zaŋ <sup>33</sup>	tha <sup>31</sup> y <sup>33</sup>	moŋ <sup>33</sup>	ma <sup>55</sup> .
I	he	above	tall	plump, full

I am much taller than he is.

laŋ <sup>55</sup> tsho <sup>31</sup>	lum <sup>55</sup>	ma <sup>55</sup> maŋ <sup>55</sup> .
water	hot	really

The water is very hot.

#### (iii) Coordinating Relationships

Two adjectives are juxtaposed to describe different aspects of the same object, forming a coordinating relationship.

ni <sup>55</sup> u <sup>55</sup>	aŋ <sup>33</sup> s <sup>31</sup>	aŋ <sup>33</sup> xu <sup>31</sup>	aŋ <sup>33</sup> tshau <sup>55</sup> .
these	fruit	big	sweet

These fruits are large as well as sweet.

naŋ <sup>33</sup>	za <sup>31</sup> ki <sup>33</sup>	aŋ <sup>33</sup> vai <sup>31</sup>	aŋ <sup>33</sup> khjaŋ <sup>55</sup> .
you	child	fast	hardworking

Your child is dexterous as well as hardworking.

<sup>13</sup> Translator's note: The use of this grammaticalised verb is described in the section entitled (ii) Sentences with compound verbal predicates, under 4.2.1.A. Verbal predicates.

ni<sup>55</sup>ky<sup>33</sup> van<sup>31</sup> mu<sup>55</sup> van<sup>31</sup> moŋ<sup>55</sup> mu<sup>55</sup> moŋ<sup>55</sup>.  
 this place wide also wide high also high

This place is both wide and high.

#### D. Grammatical function

The main function of adjectives is to modify or restrict nouns and, in some cases, to modify or complement verbs. However, they can also function as main clausal constituents, as predicates, subjects, and objects.

##### (i) Adjectives as predicates

In general, adjectives are used in declarative clauses to describe the condition of an object or to compare an aspect of two similar objects in comparative statements.

bi<sup>55</sup>tu<sup>55</sup> tchin<sup>55</sup>ke<sup>55</sup>ke<sup>55</sup>, ni<sup>55</sup>lo<sup>31</sup>pyn<sup>33</sup> aŋ<sup>33</sup>men<sup>31</sup>.  
 these sour (intensified form) these few (cl.) good

Those are sour and pungent, these are good.

ni<sup>55</sup>ne<sup>33</sup> khi<sup>33</sup>du<sup>55</sup> men<sup>31</sup> maŋ<sup>55</sup>.  
 this kind dress pretty really

This type of dress is very pretty.

za<sup>33</sup>it<sup>31</sup> thi<sup>31</sup>ga<sup>31</sup>lo<sup>55</sup>me<sup>33</sup> tuŋ<sup>31</sup>.  
 the two of them equally fat

The two of them are equally fat.

ga<sup>33</sup> xy<sup>33</sup> zum<sup>55</sup> tha<sup>31</sup>y<sup>33</sup> zaŋ<sup>33</sup> xy<sup>33</sup> zum<sup>55</sup> yy<sup>31</sup>.  
 I (poss.) home above he (poss.) home far

His home is farther than mine.

##### (ii) Adjectives as subjects or objects

When adjectives function as subjects or objects, they represent items which possess the characteristics expressed by the adjectives themselves. Such adjectives are of two types:

- the original form of the adjective is used, *i.e.* the prefix [aŋ<sup>33</sup>-] is preserved
- the prefix [aŋ<sup>33</sup>-] is deleted and the structural particle [ne<sup>33</sup>] is added, following the adjective to form a specialised construction. The head is deleted and the item expressed by the head is replaced by the modifier, as shown below.

aŋ<sup>33</sup>xu<sup>31</sup> no<sup>31</sup> xyn<sup>31</sup> ok<sup>31</sup>, aŋ<sup>33</sup>i<sup>55</sup> no<sup>31</sup> zum<sup>55</sup>y<sup>33</sup> zɿ<sup>31</sup> aŋ<sup>55</sup> sa<sup>31</sup>.  
 big (part.) run out little (part.) at home stay (part.) (part.)

The big one has run away, the little one is still at home.

ne<sup>55</sup>ne<sup>33</sup> aŋ<sup>33</sup>men<sup>31</sup>, sɿ<sup>55</sup>ne<sup>33</sup> ba<sup>31</sup> men<sup>31</sup>.  
 red one good yellow one not good

The red one is good, the yellow one is not good.

ga<sup>33</sup> aŋ<sup>33</sup>moŋ<sup>55</sup> zu<sup>55</sup>, naŋ<sup>33</sup> aŋ<sup>33</sup>tu<sup>55</sup> zu<sup>55</sup>.  
 I long take you short take

I am taking the long one, you take the short one.

#### 4.1.4 Pronouns

Pronouns are words which represent people, animals, things, locations, times, manner, or degree. Some are monosyllabic, but the majority are polysyllabic polymorphemic words.

##### A. Types of pronouns

Pronouns have the functions of substitution, demonstration, and interrogation, and can represent different objects such as people, things, locations, and quantities. They may therefore be classified according to two different aspects: their function or the objects which they are replacing. In order to facilitate discussion, they will first be divided into three types: personal, demonstrative, and interrogative pronouns, and will be analysed according to the different characteristics of each group.

##### (i) Personal pronouns

Personal pronouns are words which function as forms of address, and are divided into first, second and third persons, words meaning "others", or emphatic pronouns. Personal pronouns are only categorised by number, into singular, dual and plural types. For details, see the following table:

number	singular	dual	plural
person			
first person	[ga <sup>33</sup> ] "I"	[ga <sup>33</sup> it <sup>31</sup> ] "we (two)"	[gu <sup>33</sup> ] "we" [zaŋ <sup>33</sup> xv <sup>33</sup> ] "we" (inclusive)
second person	[naŋ <sup>33</sup> ] "you"	[na <sup>55</sup> it <sup>31</sup> ] "you (two)"	[noŋ <sup>33</sup> ], [naŋ <sup>33</sup> xv <sup>33</sup> ] "you"
third person	[zaŋ <sup>33</sup> ] "he"	[za <sup>33</sup> it <sup>31</sup> ] "they (two)"	[zoŋ <sup>33</sup> ], [zoŋ <sup>33</sup> xv <sup>33</sup> ] "they"
word meaning "others"	[xau <sup>33</sup> ] "one, other people"		[xau <sup>33</sup> xv <sup>33</sup> ] "other people"
emphatic	personal pronoun + [khe <sup>31</sup> ], [kha <sup>31</sup> toŋ <sup>33</sup> ] "myself"		

The above table shows that the first, second, and third persons have singular, dual, and plural forms, with the plural having two forms each. The two first person plural forms are exclusive and inclusive forms: the exclusive form [gu<sup>33</sup>] does not include the hearer, while the inclusive form [xv<sup>33</sup>] includes hearers. The second and third person plural forms also have two forms each, but there is no distinction in their meaning or usage. In practice, the monosyllabic forms [noŋ<sup>33</sup>] "you" and [zoŋ<sup>33</sup>] "they" are used.

The emphatic pronouns and words meaning "others" also have two separate forms. Although there are two different words meaning "others", the distinction between the singular and plural forms is not strict: [xau<sup>33</sup>] can also be used for plural, but [xau<sup>33</sup>xv<sup>33</sup>] is rarely used as the singular form. The two emphatic forms are not related to number, but are formed because of different ways of word formation. One is formed by the addition of [khe<sup>31</sup>], as in [ga<sup>33</sup>khe<sup>31</sup>] "I myself", [naŋ<sup>33</sup>khe<sup>31</sup>] "you yourself", and [zaŋ<sup>33</sup>khe<sup>31</sup>] "he himself". The

second form [kha<sup>31</sup>toŋ<sup>33</sup>] can be used independently, but may also combine with the personal pronouns to form the corresponding phrases: [ga<sup>33</sup>kha<sup>31</sup>toŋ<sup>33</sup>] “I myself”, [naŋ<sup>33</sup>kha<sup>31</sup>toŋ<sup>33</sup>] “you yourself”, and [zoŋ<sup>33</sup>kha<sup>31</sup>toŋ<sup>33</sup>] “he himself”. When combined with personal pronouns, emphatic forms are not usually used together with dual personal pronouns, and when they combine with plural personal pronouns, the personal pronoun is often repeated, as in:

[gu<sup>33</sup>khe<sup>31</sup>gu<sup>33</sup>]/[gu<sup>33</sup>kha<sup>31</sup>toŋ<sup>33</sup>gu<sup>33</sup>] “we ourselves”  
 [naŋ<sup>33</sup>khe<sup>31</sup>naŋ<sup>33</sup>]/[noŋ<sup>33</sup>kha<sup>31</sup>toŋ<sup>33</sup>noŋ<sup>33</sup>] “you yourselves”  
 [zoŋ<sup>33</sup>khe<sup>31</sup>zoŋ<sup>31</sup>]/[zoŋ<sup>33</sup>kha<sup>31</sup>toŋ<sup>33</sup>zoŋ<sup>33</sup>] “they themselves”

## (ii) Demonstrative pronouns

Demonstrative pronouns may be divided into four classes according to distance or position. There is one proximal demonstrative pronoun [ni<sup>55</sup>] “this”, and three distal ones: [bi<sup>55</sup>], [xi<sup>55</sup>], and [i<sup>55</sup>] “that”. The three distal pronouns not only distinguish distance, but also differentiate between direction or vertical position. In expressing distance, they indicate near to far in the order: [bi<sup>55</sup>] “far”, [xi<sup>55</sup>] “further”, and [i<sup>55</sup>] “furthest”. Vertical position is expressed in the order: [bi<sup>55</sup>] “the higher position”, [xi<sup>55</sup>] “the horizontal position”, and [i<sup>55</sup>] “the lower position”. When only two objects are mentioned, and there is no clear distinction in distance and position, they are usually represented by [ni<sup>55</sup>] “this” and [xi<sup>55</sup>] “that”. If there is a difference of distance (near or far) or in vertical position (up or down), then [ni<sup>55</sup>] “this” and [xi<sup>55</sup>] “that” are generally used. If three or four objects are mentioned together, the three distal demonstrative pronouns [bi<sup>55</sup>], [xi<sup>55</sup>], and [i<sup>55</sup>] are used in order.

In terms of the objects which are represented, the following categories may be distinguished: people or things, location, time, manner, or degree. Demonstrative pronouns representing a single person or thing are monosyllabic, while all the others consist of polymorphemic words formed by the monosyllabic demonstrative pronouns [ni<sup>55</sup>] “this” or [xi<sup>55</sup>] “that” followed by a related morpheme.

Two groups of demonstrative pronouns are used to represent singular numbers of people or things. These are all monosyllabic, but differ in meaning and usage. The words [ni<sup>55</sup>] “this” and [xi<sup>55</sup>] “that” express a purely demonstrative meaning, and usually combine with classifiers to form demonstrative-classifier phrases to express persons or items.

ni <sup>55</sup>	saŋ <sup>55</sup>	za <sup>31</sup> maŋ <sup>31</sup>	this elderly person
this	(cl.)	elderly person	
xi <sup>55</sup>	maŋ <sup>55</sup>	za <sup>33</sup>	that chicken
that	(cl.)	chicken	
xi <sup>55</sup>	khan <sup>55</sup>	xa <sup>33</sup> s <sup>31</sup>	that bunch of bananas
that	bunch	bananas	

distance, position		proximal (near)	distal (far)		
			far	further	furthest
items represented					
general		[ni <sup>55</sup> ] “this”	[thi <sup>55</sup> ], [bi <sup>55</sup> ] “that”	[xi <sup>55</sup> ] “that”	[i <sup>55</sup> ] “that”
persons or objects	singular	[niŋ <sup>55</sup> ] “this” (cl.)	[biŋ <sup>55</sup> ] “that” (cl.)	[xiŋ <sup>55</sup> ] “that” (cl.)	[iŋ <sup>55</sup> ] “that” (cl.)
	plural	[ni <sup>55</sup> lo <sup>31</sup> pvn <sup>33</sup> ] “these” (cl.)			
		[ni <sup>55</sup> u <sup>55</sup> ] “these kinds”	[xi <sup>55</sup> u <sup>55</sup> ] “those kinds”		
location		[ni <sup>55</sup> ky <sup>33</sup> ] “here”	[bi <sup>55</sup> ky <sup>33</sup> ] “there”	[xi <sup>55</sup> ky <sup>33</sup> ] “there”	[i <sup>55</sup> ky <sup>33</sup> ] “there”
		[ni <sup>55</sup> tsy <sup>33</sup> ] “this side”	[bi <sup>55</sup> tsy <sup>33</sup> ] “that side”	[xi <sup>55</sup> tsy <sup>33</sup> ] “that side”	[i <sup>55</sup> tsy <sup>33</sup> ] “that side”
		[ni <sup>55</sup> kja <sup>55</sup> ] “this direction”	[bi <sup>55</sup> kja <sup>55</sup> ] “that direction”	[xi <sup>55</sup> kja <sup>55</sup> ] “that direction”	[i <sup>55</sup> kja <sup>55</sup> ] “that direction”
		[ni <sup>55</sup> sy <sup>33</sup> ] “this place”	[bi <sup>55</sup> sy <sup>33</sup> ] “that place”	[xi <sup>55</sup> sy <sup>33</sup> ] “that place”	[i <sup>55</sup> sy <sup>33</sup> ] “that place”
time		[xi <sup>55</sup> mv <sup>33</sup> ] “that time”			
manner or degree		[ni <sup>55</sup> ne <sup>33</sup> ] “this way”	[thi <sup>55</sup> ne <sup>33</sup> ] “that way”		

In some cases, a demonstrative pronoun may immediately precede a noun to function as its modifier, but this is restricted to nouns which can also function as classifiers, as in:

ni <sup>55</sup>	za <sup>55</sup>	this (piece of) land	xi <sup>55</sup>	khonj <sup>31</sup>	that village
this	land		that	village	

In evaluative sentences, the [ni<sup>55</sup>]/[xi<sup>55</sup>] group of demonstrative pronouns can function independently as subject. In such cases, the pronoun expresses a specific item, although this may not be clearly defined in the clause.

ni <sup>55</sup>	a <sup>31</sup>	aŋ <sup>33</sup> men <sup>31</sup> ,	xi <sup>55</sup>	a <sup>31</sup>	aŋ <sup>33</sup> men <sup>31</sup> ,	i <sup>55</sup>	a <sup>31</sup>	ba <sup>31</sup>	men <sup>31</sup> .
this	(part.)	good	that	(part.)	good	that	(part.)	not	good

This is good, that is good, that is bad.

The demonstrative pronouns [niŋ<sup>55</sup>] and [xiŋ<sup>55</sup>] “this one”, “that one” are monosyllabic words. They are both demonstrative pronouns and classifiers and do not require classifiers when they are used. They may have had their origins in the combination of the demonstrative pronouns [ni<sup>55</sup>]/[xi<sup>55</sup>] with the classifier [maŋ<sup>55</sup>], as they only represent things but not people. The classifier [maŋ<sup>55</sup>] is only used for objects: in the Lanmeng dialect it is only used to express numbers of animals, but in other dialects it can represent all other objects apart from people, *i.e.* animals and all inanimate objects. It is possible that the latter was its earliest

semantic domain, which has been retained even after its combination with monosyllabic demonstrative pronouns.

The demonstrative pronouns [ni<sup>55</sup>] and [xi<sup>55</sup>] do not generally function as modifiers of nouns, and are often used independently in clauses. The following sentence highlights the difference between these two groups of demonstrative pronouns:

ni<sup>55</sup> lum<sup>31</sup> tui<sup>33</sup>mv<sup>31</sup> ba<sup>31</sup> tshau<sup>55</sup>, naj<sup>33</sup> ni<sup>55</sup> a<sup>31</sup> tsa<sup>31</sup> tso<sup>33</sup>,  
this (cl.) pineapple not sweet you this don't eat should

xi<sup>55</sup> aŋ<sup>33</sup>tshau<sup>55</sup>.  
that (cl.) sweet

This pineapple is not sweet, you shouldn't eat it. That one is sweet.

There are two groups of demonstrative pronouns which represent plural persons or objects. Among these, the word [ni<sup>55</sup>lo<sup>31</sup>pvn<sup>33</sup>] "these" does not have a corresponding distal form. In terms of semantic distinction, this word tends to be used for representation of objects which are distributed within a certain range, usually relatively large objects such as houses or villages. On the other hand, the use of [ni<sup>55</sup>u<sup>55</sup>]/[xi<sup>55</sup>u<sup>55</sup>] "these kinds/those kinds" is not related to range, but implies a type of classification according to the nature of the objects, with the represented items possessing certain common features.

ni<sup>55</sup>lo<sup>31</sup>pvn<sup>33</sup> zum<sup>55</sup>khan<sup>55</sup> ba<sup>31</sup> ga<sup>33</sup> phap<sup>31</sup>.  
these roof(s) not have, obtain batten down

These roofs have not been battened down.

zoŋ<sup>33</sup> ni<sup>55</sup>lo<sup>31</sup>pvn<sup>33</sup> zum<sup>55</sup>tun<sup>31</sup> aŋ<sup>33</sup>du<sup>31</sup>.  
they these households near

Their houses are very near.

ni<sup>55</sup>u<sup>55</sup> kaj<sup>31</sup>pha<sup>31</sup> a<sup>55</sup>me<sup>33</sup> xau<sup>55</sup> ne<sup>55</sup>?  
this kind vegetable how call (part.)

What is this kind of vegetable called?

xi<sup>55</sup>u<sup>55</sup> aŋ<sup>33</sup>sŋ<sup>31</sup> aŋ<sup>33</sup>tshau<sup>55</sup>.  
those kinds fruit sweet

Those kinds of fruit are sweet.

Four types of demonstrative pronouns are used to represent location, of which [ni<sup>55</sup>ky<sup>33</sup>] "here" and [xi<sup>55</sup>ky<sup>33</sup>] "there" are more widespread in use. Semantically, these two pronouns indicate certain locations, and have relatively narrow and specific ranges. The other three groups of pronouns: [ni<sup>55</sup>tsy<sup>33</sup>] "this side" and [xi<sup>55</sup>tsy<sup>33</sup>] "that side"; [ni<sup>55</sup>kja<sup>55</sup>] "this direction" and [xi<sup>55</sup>kja<sup>55</sup>] "that direction", and [ni<sup>55</sup>sy<sup>33</sup>] "this place" and [xi<sup>55</sup>sy<sup>33</sup>] "that place" all represent locations with large ranges and are used to indicate approximate positions.

tsum<sup>33</sup>mja<sup>31</sup> ni<sup>55</sup>ky<sup>33</sup>, lo<sup>33</sup>kho<sup>31</sup> bi<sup>55</sup>ky<sup>33</sup>, than<sup>31</sup>thu<sup>31</sup> xi<sup>55</sup>ky<sup>33</sup>.  
bowls here plates there chopsticks there

The bowls are here, the plates are there, the chopsticks are there.

ni<sup>55</sup>ky<sup>33</sup> maj<sup>55</sup>pum<sup>31</sup> xi<sup>55</sup>ky<sup>33</sup> na<sup>33</sup> ba<sup>31</sup> khy<sup>33</sup>.  
here maize there (part.) not arrive

The maize here is not as good as [the maize] there.

za<sup>33</sup>it<sup>31</sup> xi<sup>55</sup>tsy<sup>33</sup> la<sup>55</sup>.  
two of them that side come

The two of them are coming from that direction.

tshaŋ<sup>55</sup> thi<sup>31</sup> fu<sup>33</sup> ni<sup>55</sup>sy<sup>33</sup> fu<sup>33</sup> la<sup>31</sup>ne<sup>31</sup>.  
person one (cl.) this place look (part.)

A person is looking this way.

Of the demonstrative pronouns expressing time, only [xi<sup>55</sup>me<sup>33</sup>] "that time" is in general use. The meaning "this time" is often expressed by using the word [a<sup>55</sup>mu<sup>55</sup>] "now", so that, unlike other demonstrative pronouns, a pair of contrasting words does not exist.

naj<sup>33</sup> xi<sup>55</sup>mv<sup>33</sup> v<sup>33</sup>aŋ<sup>33</sup>tsŋ<sup>31</sup>ga<sup>33</sup> la<sup>31</sup>?  
you that time remember (part.)

Can you still remember that time?

a<sup>55</sup>mu<sup>55</sup> nuŋ<sup>55</sup>tsha<sup>55</sup> loŋ<sup>55</sup>ta<sup>55</sup>ta<sup>55</sup>.  
now sunshine hot (intensified form)

The sun is hottest at this time.

The contrasting pair [ni<sup>55</sup>ne<sup>33</sup>] "this way" and [thi<sup>55</sup>ne<sup>33</sup>] "that way" are demonstrative pronouns which are used to express manner, degree, and category. They can modify verbs, adjectives, nouns, and classifiers. They can also be used independently to express certain states.

thi<sup>55</sup>ne<sup>33</sup> a<sup>31</sup> zu<sup>31</sup> tso<sup>33</sup>, ni<sup>55</sup>ne<sup>33</sup> zu<sup>55</sup> tso<sup>33</sup>.  
that way don't hold should this way hold should

Don't hold [it] like that, [you] should hold [it] like this.

thi<sup>55</sup>ne<sup>33</sup> zum<sup>55</sup> aŋ<sup>33</sup>svŋ<sup>31</sup>aŋ<sup>33</sup>saŋ<sup>55</sup> na<sup>33</sup> thi<sup>55</sup>ne<sup>33</sup>.  
that way house very clean (part.) that way

a<sup>31</sup> xa<sup>33</sup> sot<sup>31</sup> tso<sup>33</sup>.  
don't make dirty should

Don't make that very clean house dirty.

muŋ<sup>31</sup>xo<sup>31</sup> ni<sup>55</sup>ne<sup>33</sup> xu<sup>31</sup> ga<sup>33</sup> tci<sup>55</sup>,  
rain this way big (heavy) (part.) (part.)

thi<sup>31</sup>tchit<sup>31</sup> xa<sup>33</sup>zau<sup>33</sup> va<sup>31</sup> aŋ<sup>33</sup>tchit<sup>33</sup>.  
a little while will (part.) stop

The rain is so heavy, [it] will stop in a little while.

ni<sup>55</sup>ne<sup>33</sup> kha<sup>31</sup>lau<sup>33</sup> aŋ<sup>33</sup>men<sup>31</sup>.  
this kind, type clothes good

This kind of clothing is good.

thi<sup>55</sup>ne<sup>33</sup>    maj<sup>55</sup>    aŋ<sup>33</sup>kha<sup>31</sup>.  
 that kind    (cl.)    bitter  
 That kind is bitter.

a<sup>31</sup>saŋ<sup>31</sup>    be<sup>33</sup>    va<sup>55</sup>    ni<sup>55</sup>ne<sup>33</sup>?  
 who    know    (part.)    this way  
 Who knows why [it is] like this?

### (iii) Interrogative pronouns

Interrogative pronouns are used in questions about unknown persons, objects, locations, quantities, times, and manners. Specific types are described below.

There are three interrogative pronouns representing people or objects, of which [a<sup>31</sup>saŋ<sup>31</sup>] ‘‘who, which one’’ is used specifically for people. Of the two interrogative pronouns used for objects, [a<sup>55</sup>maj<sup>55</sup>] ‘‘what’’ is used when questioning the intrinsic nature of an object and is very widespread in use; whereas [a<sup>55</sup>lo<sup>55</sup>] ‘‘which’’ is used to ask specifically about one object among many items belonging to the same category, and is usually used in combination with classifiers or constituents expressing location, as in [a<sup>55</sup>lo<sup>55</sup>sŋ<sup>31</sup>] ‘‘which one (fruit)’’, [a<sup>55</sup>lo<sup>55</sup>koŋ<sup>33</sup>(la<sup>31</sup>phi<sup>31</sup>)] ‘‘which pile (of chillies)’’, or [a<sup>55</sup>lo<sup>55</sup>ky<sup>33</sup>] ‘‘which place, where’’.

for people or objects	[a <sup>31</sup> saŋ <sup>31</sup> ]	‘‘who’’
	[a <sup>55</sup> maj <sup>55</sup> ]	‘‘what’’
	[a <sup>55</sup> lo <sup>55</sup> ]	‘‘which, what’’
for locations	[a <sup>31</sup> phe <sup>55</sup> sy <sup>55</sup> ]	‘‘where, what place’’
	[a <sup>31</sup> sy <sup>55</sup> ]	
	[a <sup>31</sup> xy <sup>55</sup> ]	
for quantity	[a <sup>55</sup> lo <sup>31</sup> pvn <sup>33</sup> ]	‘‘how many’’
	[a <sup>55</sup> lo <sup>31</sup> ]	
for time	[a <sup>55</sup> lo <sup>31</sup> my <sup>33</sup> ]	‘‘what time, when’’
for manner and degree	[a <sup>55</sup> me <sup>33</sup> ]	‘‘how, why’’

Two interrogative pronouns are used to represent quantity: [a<sup>55</sup>lo<sup>31</sup>] ‘‘how many’’ is usually used as a modifier with a following classifier or noun, as in the following examples: [a<sup>55</sup>lo<sup>31</sup>fu<sup>33</sup>] ‘‘how many people’’; while [a<sup>55</sup>lo<sup>31</sup>pvn<sup>33</sup>] is often used independently, as in:

khue<sup>31</sup>    a<sup>55</sup>lo<sup>31</sup>pvn<sup>33</sup>    how high    nai<sup>31</sup>    a<sup>55</sup>lo<sup>31</sup>pvn<sup>33</sup>    how deep  
 height    how much    depth    how much

The interrogative pronoun for time is [a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup>] ‘‘what time, when’’.

a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup>    ba<sup>31</sup>    loŋ<sup>31</sup>    ni<sup>55</sup>v<sup>31</sup>?  
 when    not    hot    (part.)  
 When is it not hot?

The pronoun [a<sup>55</sup>me<sup>33</sup>] queries behaviour or actions, and only combines with verbs.

naŋ<sup>33</sup>    a<sup>55</sup>me<sup>33</sup>    lum<sup>55</sup>    aŋ<sup>55</sup>    tu<sup>55</sup>?  
 you    how    forget    (part.)    (part.)  
 How could you forget?

### B. Non-referential use of pronouns

Pronouns may also be used non-referentially, *i.e.* they may not replace any specific objects.

In such cases, the personal and demonstrative pronouns do not point to actual people or locations, as exemplified by the words [naŋ<sup>33</sup>] ‘‘you’’, [zaŋ<sup>33</sup>] ‘‘he’’, [ni<sup>55</sup>ky<sup>33</sup>] ‘‘here’’, and [xi<sup>55</sup>ky<sup>33</sup>] ‘‘there’’ in the following sentences:

naŋ<sup>33</sup>    thi<sup>31</sup>the<sup>55</sup>,    zaŋ<sup>33</sup>    thi<sup>31</sup>the<sup>55</sup>,    kha<sup>55</sup>tshaŋ<sup>55</sup>kha<sup>55</sup>tshaŋ<sup>55</sup>  
 you    one sentence    he    one sentence    everybody  
 zat<sup>31</sup>    up<sup>31</sup>bau<sup>31</sup>    laŋ<sup>33</sup>ga<sup>33</sup>.  
 snatch    start to talk    one another

You said one thing, he said another, everybody tried to get a word in edgeways.

za<sup>33</sup>it<sup>31</sup>    fu<sup>33</sup>    fu<sup>33</sup>le<sup>55</sup>,    xi<sup>55</sup>ky<sup>33</sup>    fu<sup>33</sup>,    ni<sup>55</sup>ky<sup>33</sup>    fu<sup>33</sup>,  
 two of them    look    look and see    there    look    here    look  
 a<sup>55</sup>maj<sup>55</sup>    mu<sup>55</sup>    tsa<sup>31</sup>    ci<sup>55</sup>.  
 anything    all    eat    want

The two of them looked here and there, wanting to eat everything.

Interrogative pronouns can also be used as indefinite pronouns to express inclusiveness, as in ‘‘whatever’’ and ‘‘whoever’’. In the following examples, the words [a<sup>31</sup>saŋ<sup>31</sup>] ‘‘who’’, [a<sup>55</sup>maj<sup>55</sup>] ‘‘what’’, [a<sup>55</sup>lo<sup>55</sup>sŋ<sup>31</sup>] ‘‘which one’’, and [a<sup>31</sup>xy<sup>55</sup>] ‘‘where’’ do not pose any questions concerning people, objects, or locations, but express completeness, *i.e.* everything included with no exceptions.

a<sup>31</sup>saŋ<sup>31</sup>    e<sup>55</sup>    ci<sup>55</sup>    va<sup>31</sup>,    kha<sup>55</sup>tshaŋ<sup>55</sup>tshaŋ<sup>55</sup>    e<sup>55</sup>y<sup>31</sup>.  
 who    go    want    if    everybody    go

Whoever wants to can go.

zaŋ<sup>33</sup>    a<sup>55</sup>maj<sup>55</sup>    lin<sup>31</sup>    no<sup>33</sup>    a<sup>55</sup>maj<sup>55</sup>    be<sup>33</sup>.  
 he    what    learn    (part.)    what    understand

He is good at whatever he learns.

a<sup>55</sup>lo<sup>55</sup>sŋ<sup>31</sup>    miŋ<sup>33</sup>    a<sup>55</sup>lo<sup>55</sup>sŋ<sup>31</sup>    tshu<sup>33</sup>.  
 which (fruit)    ripe    which one    pick

Pick whichever one (fruit) is ripe.

mi<sup>55</sup>nuŋ<sup>33</sup>    ga<sup>33</sup>    a<sup>31</sup>xy<sup>55</sup>    ba<sup>31</sup>    e<sup>55</sup>.  
 today    I    where    not    go

I am not going anywhere today.

### C. Grammatical function

The function of pronouns within clauses is identical to the function of the content words or phrases which they replace. Personal pronouns, demonstrative pronouns indicating people, things, locations, or quantities, and interrogative pronouns can all function as subjects or objects. Interrogative pronouns indicating manner or degree can sometimes function as predicates in order to inquire about the condition of objects. The following sentences illustrate the grammatical functions of pronouns:

ga<sup>33</sup> tchi<sup>31</sup> pi<sup>31</sup> zaŋ<sup>33</sup> na<sup>33</sup>.  
I lend give he (part.)

I will lend [it to] him.

xi<sup>55</sup> a<sup>31</sup> aŋ<sup>33</sup>lu<sup>33</sup>, ni<sup>55</sup> lum<sup>31</sup> naŋ<sup>33</sup> zau<sup>55</sup>.  
that (part.) broken this (cl.) you use

That one is broken, use this one.

naŋ<sup>33</sup> ni<sup>55</sup>ky<sup>33</sup> ni<sup>55</sup>lo<sup>31</sup>pyn<sup>33</sup> tsa<sup>31</sup> tso<sup>33</sup>.  
you here these few (cl.) eat should

[You] Eat these ones here.

a<sup>31</sup>saŋ<sup>31</sup> y<sup>33</sup> ba<sup>31</sup> tsa<sup>31</sup> o<sup>31</sup>pvy<sup>33</sup>?  
who still not eat full

Who has not eaten his fill?

naŋ<sup>33</sup> a<sup>55</sup>maŋ<sup>55</sup> xa<sup>33</sup> pyn<sup>33</sup>ne<sup>55</sup> y<sup>31</sup>?  
you what do (part.) (part.)

What are you doing?

naŋ<sup>33</sup> xy<sup>33</sup> kha<sup>31</sup>lau<sup>33</sup> aŋ<sup>33</sup>sa<sup>31</sup> a<sup>55</sup>me<sup>33</sup> ni<sup>55</sup>y<sup>33</sup>?  
you (poss.) clothes new how (part.)

How are your new clothes?

#### 4.1.5 Numerals

Bisu numerals are relatively simple and consist mainly of cardinal numbers. Cardinal numbers are based on single-digit numbers, with most of them being monosyllabic words with low falling tones, so that succeeding constituents usually undergo tone sandhi. Two types of situations may occur:

- tone sandhi occurs when monosyllabic numerals combine to form a polysyllabic compound numeral
- tone sandhi in connected speech occurs in words such as classifiers when they combine with numerals (for a detailed discussion see 2.4 "Morphophonemic Alternations")

#### A. Cardinal numbers

Cardinal numbers in Bisu may be divided into simple and compound numerals.

(1) Single-digit numbers and "ten" are expressed using simple numerals: [thi<sup>31</sup>] "one", [ni<sup>31</sup>] "two", [sum<sup>55</sup>] "three", [xan<sup>55</sup>] "four", [ŋa<sup>31</sup>] "five", [khu<sup>31</sup>] "six", [cit<sup>31</sup>] "seven", [xet<sup>31</sup>] "eight", [kau<sup>31</sup>] "nine", and [tche<sup>55</sup>] "ten".

(2) Bisu uses a decimal system for calculations, and numbers from 10 to 100 are expressed using compound words formed from simple numerals:

[tche <sup>55</sup> thi <sup>31</sup> ]	"eleven" (ten-one)
[tche <sup>55</sup> ni <sup>31</sup> ]	"twelve" (ten-two)
[tche <sup>55</sup> xan <sup>55</sup> ]	"fourteen" (ten-four)
[ni <sup>31</sup> tche <sup>31</sup> ]	"twenty" (two-ten)
[sum <sup>31</sup> tche <sup>31</sup> ]	"thirty" (three-ten)
[xan <sup>31</sup> tche <sup>31</sup> ]	"forty" (four-ten)
[ni <sup>31</sup> tche <sup>31</sup> thi <sup>31</sup> ]	"twenty-one" (two-ten-one)
[ŋa <sup>31</sup> tche <sup>31</sup> sum <sup>55</sup> ]	"fifty-three" (five-ten-three)
[cit <sup>31</sup> tche <sup>31</sup> ni <sup>31</sup> ]	"seventy-two" (seven-ten-two)

(3) Two-digit numbers (*i.e.* numbers greater than 100) and numbers with more than two digits are expressed using compound words formed by the combination of numerals and words such as "hundred" and "thousand". When such words are used independently, they are prefixed with [aŋ<sup>33</sup>]. However, this prefix is deleted when they combine with numerals:

[aŋ <sup>33</sup> pak <sup>55</sup> ]	"hundred"	[thi <sup>31</sup> pak <sup>31</sup> ]	"one hundred"
[aŋ <sup>33</sup> xij <sup>55</sup> ]	"thousand"	[ni <sup>31</sup> xij <sup>31</sup> ]	"two thousand"
[aŋ <sup>33</sup> vaŋ <sup>55</sup> ]	"ten-thousand"	[khu <sup>31</sup> vaŋ <sup>31</sup> ]	"sixty thousand" (six ten-thousand)
[aŋ <sup>33</sup> zi <sup>33</sup> ]	"hundred-million"	[xet <sup>31</sup> zi <sup>31</sup> ]	"eight hundred million"
[thi <sup>31</sup> pak <sup>31</sup> thi <sup>33</sup> tche <sup>31</sup> xan <sup>55</sup> ]			"one hundred and fourteen" (114)
[ni <sup>31</sup> xij <sup>31</sup> xet <sup>31</sup> pak <sup>31</sup> ]			"two thousand eight hundred" (2,800)
[cit <sup>31</sup> vaŋ <sup>31</sup> ŋa <sup>31</sup> xij <sup>31</sup> kau <sup>31</sup> pak <sup>31</sup> sum <sup>55</sup> tche <sup>31</sup> ni <sup>31</sup> ]			"seventy-five thousand nine hundred and thirty-two" (75,932)

#### B. Ordinal numbers

As no specialised ordinal numbers exist in Bisu, they are expressed in different ways depending on the circumstances. To indicate degree of seniority among people, a cardinal numeral combines with the classifier [saŋ<sup>55</sup>], which is used for people and which has a demonstrative function. To indicate the first or last ranking position, the locative nouns [aŋ<sup>33</sup>fu<sup>31</sup>] "front" and [aŋ<sup>33</sup>noŋ<sup>31</sup>] "back" or similar adjectives are used.

aŋ <sup>33</sup> fu <sup>31</sup>	y <sup>33</sup> saŋ <sup>55</sup>	the eldest (first position)
front	position	
aŋ <sup>33</sup> i <sup>55</sup> za <sup>31</sup>	noŋ <sup>31</sup>	youngest sister
a little	back	
tshaŋ <sup>55</sup>	sum <sup>55</sup> saŋ <sup>55</sup>	third in line (third position)
person	three	
aŋ <sup>33</sup> i <sup>55</sup>	aŋ <sup>33</sup> phe <sup>55</sup>	youngest brother
little	brother	

Other ordinal concepts are expressed using Chinese loan words.



### C. Approximations

Approximate numbers are expressed using numerals or phrases composed of numerals and other words. Approximate numbers which are close to one another are expressed by juxtaposing two adjacent numerals, with the smaller number preceding the larger.

va <sup>31</sup>	sum <sup>55</sup>	xan <sup>55</sup>	maŋ <sup>55</sup>	three or four pigs
pigs	three	four	(cl.)	
thi <sup>31</sup>	ni <sup>31</sup>	tche <sup>55</sup>	li <sup>55</sup> - vy <sup>31</sup>	ten or twenty miles away
one	two	ten	miles far	

Indefinite numbers which are single-digit numbers are expressed by juxtaposing [thi<sup>31</sup>] "one" and [ni<sup>31</sup>] "two". Indefinite two- or three-digit numbers are expressed using words such as "hundred" or "thousand".

thi <sup>31</sup>	ni <sup>31</sup>	nuŋ <sup>33</sup>	fu <sup>31</sup> vy <sup>33</sup>	some days ago/a few days ago
one	two	days	before	
xa <sup>33</sup> s <sup>31</sup>	thi <sup>31</sup>	ni <sup>31</sup>	khan <sup>31</sup>	a few bunches of bananas
bananas	one	two	bunch	
aŋ <sup>33</sup> tche <sup>55</sup>	maŋ <sup>55</sup>			tens of ...
ten	(cl.)			
aŋ <sup>33</sup> pak <sup>55</sup>	tshaŋ <sup>55</sup>			hundreds of people
hundred	person			

Approximate numbers exceeding standard cardinal numbers are expressed by using the particle [tsan<sup>55</sup>] after a standard numeral to express the concept of "surplus".

sum <sup>55</sup>	tche <sup>55</sup>	tsan <sup>55</sup>		over (more than) thirty
three	ten	plus		
ni <sup>31</sup>	tche <sup>31</sup>	tap <sup>55</sup>	tsan <sup>55</sup>	over (more than) twenty
two	ten	(cl.)	plus	

Approximate numbers which are close to standard cardinal numbers are expressed by using locative constructions or location words such as [tha<sup>31</sup>vy<sup>33</sup>] "up", [tha<sup>31</sup>ta<sup>33</sup>] "up", [o<sup>31</sup>vy<sup>33</sup>] "down", and [toŋ<sup>31</sup>ka<sup>31</sup>] "down".

ŋa <sup>31</sup> tche <sup>31</sup>	nu <sup>33</sup>	o <sup>31</sup> vy <sup>33</sup>	tha <sup>31</sup> vy <sup>33</sup>	about fifty years of age
fifty	years	down	up	
ni <sup>31</sup> tche <sup>31</sup>	nu <sup>33</sup>	tha <sup>31</sup> ta <sup>33</sup>	ni <sup>31</sup> tche <sup>31</sup>	about twenty years of age
twenty	years	up	twenty years down	

### D. Fractions

Many words are used to express the concept of "half", depending on the type of object:

a half	{	thi <sup>31</sup> kho <sup>31</sup>	for abstract concepts or uncountable objects
		thi <sup>31</sup> pha <sup>33</sup>	for divisible or countable objects
		thi <sup>31</sup> pak <sup>31</sup>	for an object which has been cut or divided into half
		thi <sup>31</sup> paŋ <sup>31</sup>	for half of a quantity of liquid

Other fractions are expressed by using a phrase formed by the word [fyn<sup>31</sup>] "part" and a numeral.

sum <sup>55</sup>	fyn <sup>31</sup>	vy <sup>33</sup>	thi <sup>31</sup>	fyn <sup>31</sup>	one-third
three	part	(part.)	one	part	
xan <sup>55</sup>	fyn <sup>31</sup>	vy <sup>33</sup>	thi <sup>31</sup>	fyn <sup>31</sup>	one-fourth
four	part	(part.)	one	part	
xet <sup>31</sup>	fyn <sup>31</sup>	vy <sup>33</sup>	ŋa <sup>31</sup>	fyn <sup>31</sup>	five-eighths
eight	part	(part.)	five	part	

#### 4.1.6 Classifiers

Classifiers are words expressing units of measurement. Only a few classifiers which express specific categories exist in Bisu, with the majority originating from nouns. Bisu classifiers are essentially monosyllabic. Due to the low falling tones of numerals, sandhi in connected speech frequently occurs when classifiers are used. As a result, classifiers with high level tones generally change to low level tones when they are used within clauses (for details see 2.4 "Morphophonemic Alternations").

##### A. Types of classifiers

According to the object being counted, classifiers may be divided into two main groups: object classifiers and action classifiers.

##### (i) Object classifiers

Object classifiers are units of measurement for people or objects. Due to differences in the quantities being expressed, they may be divided into individual, collective, and indefinite classifiers.

##### a) Individual classifiers

Only a few individual classifiers which are used to express specific categories exist in Bisu. The commonly used ones are [fu<sup>33</sup>], [saŋ<sup>55</sup>], [maŋ<sup>55</sup>], and [lum<sup>31</sup>], which are used for counting different kinds of objects.

[fu<sup>55</sup>], [saŋ<sup>55</sup>]

These are both used for people, but there are differences both in meaning and usage. The classifier [fu<sup>33</sup>] is used specifically for quantities, as in the following examples:

zəŋ<sup>33</sup>    zə<sup>31</sup>poŋ<sup>31</sup>    ni<sup>31</sup>    fu<sup>33</sup>    aŋ<sup>33</sup>tsa<sup>33</sup>.  
 he    boy    two    (cl.)    have

He has two boys.

zə<sup>31</sup>bi<sup>31</sup>    xan<sup>55</sup>    fu<sup>33</sup>    zo<sup>31</sup>    la<sup>55</sup>    aŋ<sup>55</sup>.  
 girl    four    (cl.)    walk    here    (part.)

Four girls are coming towards here.

zoŋ<sup>33</sup>    tsum<sup>55</sup>    koŋ<sup>55</sup>    thi<sup>31</sup>    fu<sup>33</sup>    le<sup>33</sup>.  
 they    group    among    one    (cl.)    go

One of the group has gone.

[səŋ<sup>55</sup>]

The word [səŋ<sup>55</sup>] is used for a definite person or object, and is often used together with the demonstrative pronouns [ni<sup>55</sup>] “this” or [xi<sup>55</sup>] “that”.

ni<sup>55</sup>    səŋ<sup>55</sup>    aŋ<sup>33</sup>lai<sup>31</sup>ma<sup>31</sup>fu<sup>33</sup>    gu<sup>33</sup>    na<sup>33</sup>    ma<sup>33</sup>    la<sup>31</sup>.  
 this    (cl.)    teacher    we    (part.)    teach    (part.)

This teacher is teaching us.

xi<sup>55</sup>    səŋ<sup>55</sup>    zə<sup>31</sup>maŋ<sup>31</sup>    na<sup>33</sup>    tshu<sup>33</sup>.  
 that    (cl.)    elderly person    (part.)    support, help

Give that elderly person a hand.

When [səŋ<sup>55</sup>] combines with a numeral, it is used specifically to express the ranking position of a person or object. Compare the following phrases:

tshəŋ <sup>55</sup>	ni <sup>31</sup>	səŋ <sup>55</sup>	the second person
person	two	(cl.)	
tshəŋ <sup>55</sup>	ni <sup>31</sup>	fu <sup>33</sup>	two people
person	two	(cl.)	

The classifier [səŋ<sup>55</sup>] can also be used to express seniority.

aŋ <sup>33</sup> fu <sup>31</sup> y <sup>33</sup>	səŋ <sup>55</sup>	the eldest	
front	(cl.)		
ni <sup>31</sup>	fu <sup>31</sup>	səŋ <sup>55</sup>	the second eldest
two	(cl.)	(cl.)	
tshəŋ <sup>55</sup>	sum <sup>55</sup>	səŋ <sup>55</sup>	the third eldest
person	three	(cl.)	
tshəŋ <sup>55</sup>	xan <sup>55</sup>	səŋ <sup>55</sup>	the fourth eldest
person	four	(cl.)	

[məŋ<sup>55</sup>]

This word is used specifically for counting animals, and usually combines with numerals or demonstrative pronouns to form a numeral-classifier or demonstrative-classifier phrase to modify a noun which represents an animal.

khu<sup>31</sup>    aŋ<sup>33</sup>paŋ<sup>55</sup>    thi<sup>31</sup>    məŋ<sup>55</sup>    buŋ<sup>55</sup>    ne<sup>55</sup>.  
 dog    black    one    (cl.)    bark    (part.)

A black dog is barking.

ni<sup>55</sup>    məŋ<sup>55</sup>    va<sup>31</sup>    ni<sup>31</sup>paŋ<sup>31</sup>    kin<sup>55</sup>    tsa<sup>33</sup>.  
 this    (cl.)    pig    two hundred    catty    have

This pig weighs two hundred catties.

xə<sup>33</sup>zə<sup>31</sup>    thi<sup>31</sup>    ni<sup>31</sup>    məŋ<sup>55</sup>    pjam<sup>55</sup>    ko<sup>55</sup>    ne<sup>33</sup>    le<sup>33</sup>    aŋ<sup>55</sup>.  
 bird    one    two    (cl.)    fly    across    (part.)    go    (part.)

A few birds have flown over there.

The classifier [məŋ<sup>55</sup>] may also be modified by the adjective [kha<sup>55</sup>khu<sup>33</sup>] “every” to indicate all the objects within a specified range, as in:

(va<sup>31</sup>the<sup>31</sup>    zvn<sup>33</sup>)    kha<sup>55</sup>khu<sup>33</sup>    məŋ<sup>55</sup>    xvn<sup>31</sup>    aŋ<sup>55</sup>    tci<sup>55</sup>a<sup>31</sup>.  
 wild pig    (part.)    all    (cl.)    run    (part.)    (part.)

The wild pigs have all run away.

In some cases, [məŋ<sup>55</sup>] may follow the noun which is being modified, in order to indicate a specific object:

pe <sup>33</sup> le <sup>31</sup>	məŋ <sup>55</sup>	(that) sheep
sheep	(cl.)	
paŋ <sup>31</sup> na <sup>33</sup>	məŋ <sup>55</sup>	(that) cow
cow	(cl.)	
tsa <sup>55</sup> tchit <sup>31</sup>	məŋ <sup>55</sup> ba <sup>31</sup> pjam <sup>55</sup> .	(That) sparrow has not flown away.
sparrow	(cl.)    not    fly	

[lum<sup>31</sup>]

This word is used for counting objects other than people or animals. It has a wide range and includes both specific items and abstract concepts. It is used when the appearance or characteristics of the object do not need to be particularly expressed, or when the object being described is not entirely clear, as in the following examples:

ko <sup>33</sup> kha <sup>33</sup>	ni <sup>31</sup>	lum <sup>21</sup>				two back-baskets
back-basket	two	(cl.)				
xau <sup>33</sup> tuj <sup>31</sup> xau <sup>33</sup> the <sup>55</sup>	thi <sup>31</sup>	lum <sup>31</sup>				a (piece of) good news
good news	one	(cl.)				
zaj <sup>33</sup>	thi <sup>31</sup>	lum <sup>31</sup>	thi <sup>31</sup>	lum <sup>31</sup>	ni <sup>33</sup>	ko <sup>33</sup> ,
he	one	(cl.)	one	(cl.)	(part.)	pick up
thi <sup>31</sup> tchit <sup>31</sup>	ko <sup>33</sup>	my <sup>55</sup>	thi <sup>31</sup>	tstuj <sup>31</sup>	ga <sup>33</sup>	e <sup>55</sup> .
a little while	pick up	(part.)	one	bundle	(part.)	go
He picked [them] up one by one; in a little while he had already picked up a large bundle.						
ga <sup>33</sup>	xv <sup>33</sup>	xi <sup>55</sup> lum <sup>31</sup>	ga <sup>33</sup>	zau <sup>55</sup> .		
I	(poss.)	that (cl.)	I	want		
I want that one of mine.						

Many individual classifiers are derived from nouns, and are identical or similar in form to the nouns, which can also function as classifiers themselves. These kinds of “dual-function” classifiers are not widespread, and are limited in usage to the counting of objects which are represented by those particular nouns. Thus, their scope is very restricted and they are often used only in combination with specific nouns. Morphologically, monosyllabic nouns retain their original forms. For bisyllabic nouns, only one syllable of the root is used. In terms of usage, they adhere to the rules governing the use of classifiers. They may combine with numerals and pronouns, and also follow them. Words with high level tones undergo sandhi when they follow numerals with low falling tones, and have low level tones themselves (for details see 2.4 Morphophonemic Alternations”), as shown below.

za <sup>55</sup>	thi <sup>31</sup>	za <sup>55</sup> →22	a piece of land
land	one	piece	
mja <sup>33</sup>	sum <sup>55</sup>	nja <sup>33</sup>	three knives
knife	three	(cl.)	
lan <sup>55</sup> tsho <sup>31</sup>	thi <sup>31</sup>	koj <sup>55</sup> →22	a bottle of water
water	one	bottle	
aj <sup>33</sup> tsha <sup>55</sup>	ni <sup>31</sup>	kon <sup>31</sup>	two spoonfuls of soup
soup	two	spoon	
aj <sup>33</sup> sɿ <sup>31</sup>	ŋa <sup>31</sup>	sɿ <sup>31</sup>	five pieces of fruit
fruit	five	(cl.)	
aj <sup>33</sup> pha <sup>31</sup>	thi <sup>31</sup>	pha <sup>31</sup>	a leaf
leaf	one	piece	
lo <sup>33</sup> ba <sup>33</sup>	sum <sup>55</sup>	lo <sup>33</sup>	three stones
stone	three	piece	
tsum <sup>33</sup> mja <sup>31</sup>	ni <sup>31</sup>	tsum <sup>33</sup>	two bowls
bowl	two	(cl.)	
lan <sup>55</sup> poj <sup>31</sup>	xi <sup>55</sup>	poj <sup>31</sup>	that bamboo tube
bamboo tube	that	(cl.)	
stuj <sup>33</sup> tstuj <sup>55</sup>	ni <sup>31</sup>	tstuj <sup>55</sup>	this tree
tree	this	(cl.)	

Some individual object classifiers retain the special features of nouns when they are used, as in the word [tshaŋ<sup>55</sup>] “person”. When used as a classifier, it has the same meaning as the classifier for people: [fu<sup>33</sup>], but it follows the word order for a noun when it combines with a numeral.

aj <sup>33</sup> ai <sup>55</sup>	tshaŋ <sup>55</sup>	ni <sup>31</sup>	=	aj <sup>33</sup> ai <sup>55</sup>	ni <sup>31</sup>	fu <sup>33</sup>	two elder brothers
elder brother	(cl.)	two		elder brother	two	(cl.)	
aj <sup>33</sup> tchi <sup>33</sup>	tshaŋ <sup>55</sup>	thi <sup>31</sup>	=	a <sup>33</sup> tchi <sup>33</sup>	thi <sup>31</sup>	fu <sup>33</sup>	an elder sister
elder sister	(cl.)	one		elder sister	one	(cl.)	
za <sup>31</sup> ki <sup>33</sup>	tshaŋ <sup>55</sup>	ŋa <sup>31</sup>	=	za <sup>31</sup> ki <sup>33</sup>	ŋa <sup>31</sup>	fu <sup>33</sup>	five children
child(ren)	(cl.)	five		child(ren)	five	(cl.)	

#### b) Collective classifiers

Collective classifiers do not distinguish between dual and plural number.

[tsum<sup>55</sup>]

This word, meaning “group, flock, herd”, is the collective classifier with the widest semantic domain and most widespread usage. It can be used for people, animals, and other objects, and can represent dual or plural number. It is often used in combination with the demonstrative pronouns [ni<sup>55</sup>] “this” or [xi<sup>55</sup>] “that”, or with the numeral [thi<sup>31</sup>] “one” to modify a noun.

xi <sup>55</sup>	tsum <sup>55</sup>	za <sup>31</sup> ki <sup>33</sup>	those children
that	group	child(ren)	
thi <sup>31</sup>	tsum <sup>55</sup>	za <sup>31</sup> bi <sup>31</sup>	a group of girls
one	group	girls	
ni <sup>55</sup>	tsum <sup>55</sup>	za <sup>33</sup>	this flock of chickens
this	flock	chicken	
thi <sup>33</sup>	tsum <sup>55</sup>	pe <sup>33</sup> le <sup>33</sup>	a flock of sheep
one	flock	sheep	
xi <sup>55</sup>	tsum <sup>55</sup>	stuj <sup>31</sup> no <sup>33</sup>	that pair of shoes
that	pair	shoes	

[tsv<sup>55</sup>], [phon<sup>33</sup>], [khan<sup>55</sup>], [tstuj<sup>55</sup>]

Other collective classifiers include:

[tsv <sup>55</sup> ]	meaning “type, kind”
[phon <sup>33</sup> ]	“sheaf”, used for grain or sorghum and objects of a similar shape
[khan <sup>55</sup> ]	“bunch”, for bananas
[tstuj <sup>55</sup> ]	“bundle”

The following examples illustrate the use of the above classifiers:

kha <sup>55</sup> tsy <sup>55</sup> kha <sup>55</sup> tsy <sup>55</sup>	bu <sup>55</sup> za <sup>55</sup>	ways of making a living
all kinds	occupation, work	
xa <sup>33</sup> sɿ <sup>31</sup>	xi <sup>55</sup>	khan <sup>55</sup>
bananas	that	bunch
mo <sup>31</sup> ka <sup>31</sup>	thi <sup>31</sup>	tsuŋ <sup>55</sup>
grass	one	bundle

The object classifier [tsuŋ<sup>55</sup>] ([suŋ<sup>33</sup>tsuŋ<sup>55</sup>] “tree”) can also be used when counting different kinds of objects which are of a similar nature. In such cases, the meaning changes with the object, so that when used for trees, it is an individual classifier meaning “a tree”, but when used for grass, it is a collective classifier signifying “a bundle”.

### c) Indefinite classifiers

These are used to indicate indefinite quantities, with the commonest one being [thi<sup>31</sup>ba<sup>31</sup>] “some”. This word can be used to represent people, animals, and almost every other kind of object, often combining with nouns. Its position within the clause is relatively flexible, and may precede or follow the noun.

thi <sup>31</sup> ba <sup>31</sup>	za <sup>31</sup> ki <sup>33</sup>	a (group of) children		
some	children			
a <sup>31</sup> mjan <sup>31</sup>	thi <sup>31</sup> ba <sup>31</sup>	some cattle		
cattle	some			
thi <sup>31</sup> ba <sup>31</sup>	aŋ <sup>33</sup> lai <sup>31</sup>	ne <sup>33</sup>	aŋ <sup>33</sup> pu <sup>55</sup>	some books and notebooks
some	books	and	notebooks	

### (ii) Action classifiers

Action classifiers are units of measurement actions or behaviour. Only a few exist in Bisu, with only one being in common use: [tsaŋ<sup>55</sup>] “time, occurrence”, which expresses the number of times an action has been performed. Other action classifiers include [la<sup>31</sup>] “down”, which has the extended meaning of “stroke (by stroke)” or “bit (by bit)”, indicating the frequency of the action; and [khu<sup>31</sup>] “period of time” which expresses the duration of an action.

thi <sup>31</sup> tsaŋ <sup>55</sup>	e <sup>55</sup>	mjan <sup>55</sup>		has been [there] once
once	go	see <sup>14</sup>		
xi <sup>55</sup>	ni <sup>31</sup>	tsaŋ <sup>55</sup>	la <sup>55</sup>	the last two times [I] came
that, those	two	times	come	

<sup>14</sup> Translator's note: The use of this grammaticalised verb is described in the section entitled (ii) Sentences with compound verbal predicates, under 4.2.1.A. Verbal predicates.

muŋ <sup>31</sup> xo <sup>31</sup>	thi <sup>31</sup>	tsaŋ <sup>55</sup>	lu <sup>33</sup>	[it] has rained once
rain	one	time	fall	
thi <sup>31</sup>	la <sup>31</sup>	thi <sup>31</sup>	la <sup>31</sup>	bu <sup>55</sup>
one	stroke	one	stroke	weed
taŋ <sup>31</sup>	e <sup>31</sup>	thi <sup>31</sup>	khu <sup>31</sup>	
wait	(part.)	one	while	waited a while

### B. Fixed expressions

There are reduplicated constructions which are used to indicate inclusiveness. There are two types of reduplication:

#### (i) Simple reduplication

The classifier itself is reduplicated, so that when a word such as [mja<sup>33</sup>] “bowl” is reduplicated, the resulting construction [mja<sup>33</sup>mja<sup>33</sup>] indicates “every bowl”.

#### (ii) Compound reduplication

The adjective [kha<sup>55</sup>] “every” precedes the classifier, and the whole combination is reduplicated to form a construction with four syllables. In some cases, only a part of the combination is reduplicated, or only the classifier is reduplicated, to form tri-syllabic constructions.

[kha <sup>55</sup> nu <sup>33</sup> kha <sup>55</sup> nu <sup>33</sup> ]	“every year”	[kha <sup>55</sup> zum <sup>55</sup> zum <sup>55</sup> ]	“every household”
[kha <sup>55</sup> nuŋ <sup>33</sup> kha <sup>55</sup> nuŋ <sup>33</sup> ]	“every day”	[kha <sup>55</sup> tshaŋ <sup>55</sup> tshaŋ <sup>55</sup> ]	“everyone”
[kha <sup>55</sup> tsy <sup>55</sup> kha <sup>55</sup> tsy <sup>55</sup> ]	“every kind”		

Semantically, no difference exists among the above types of reduplication, but in practice, compound reduplication is more often used, with reduplication of the whole combination being most common.

### C. Grammatical function

Within clauses, classifiers are often used in combination with numerals or demonstrative pronouns to form numeral-classifier or demonstrative-classifier phrases. The resulting phrases function as modifiers of nouns (for details see the section entitled “B. Types of Combinations” under 4.1.1 Nouns). Many classifiers, especially those derived from nouns, have very definite categorical meanings. They are often restricted in their range of application and are very specific in what they portray. Therefore, the heads can often be deleted, with the classifiers being used on their own, as in:

noŋ <sup>33</sup>	zum <sup>55</sup> tun <sup>31</sup>	a <sup>55</sup> lo <sup>31</sup> fu <sup>33</sup>	tsa <sup>33</sup>	ne <sup>55</sup> ?
you (pl.)	household	how many (cl.)	have	(part.)

How many (people) are in your household?

As [fu<sup>33</sup>] is a specific classifier used for people, the deletion of the head [tshaŋ<sup>55</sup>] “person” does not lead to ambiguity.

a<sup>55</sup>lo<sup>55</sup>sɿ<sup>31</sup>    miŋ<sup>33</sup>    aŋ<sup>55</sup>    tci<sup>55</sup>y<sup>31</sup>?  
 which (cl.)    ripe    (part.)    (part.)  
 Which (fruit) is ripe?

In the above sentence, the meaning of the clause is clear even if the head [aŋ<sup>33</sup>sɿ<sup>31</sup>] is deleted and [sɿ<sup>31</sup>] is used on its own, as the classifier [sɿ<sup>31</sup>] originates from the noun [aŋ<sup>33</sup>sɿ<sup>31</sup>] for "fruit".

Numeral-classifier and demonstrative-classifier phrases can also be used independently as main clausal constituents. They can function as subjects, objects, or predicates.

#### AS SUBJECT

thi<sup>31</sup> fu<sup>33</sup> thi<sup>31</sup>    fu<sup>33</sup>    dtuŋ<sup>55</sup>    men<sup>31</sup>    no<sup>33</sup>    te<sup>31</sup>kha<sup>31</sup>    taŋ<sup>55</sup>.  
 one (cl.)    one (cl.)    sit    well    (part.)    wine    drink  
 One by one, [they] sat down to drink wine.

#### AS OBJECT

ga<sup>33</sup>    thi<sup>31</sup>    tsum<sup>33</sup>    tsa<sup>31</sup>.    I have eaten a bowl(ful).  
 I    one    bowl    eat  
 naŋ<sup>33</sup>    ni<sup>55</sup>    lum<sup>31</sup>    zu<sup>55</sup>.    [You] take this one.  
 you    this (cl.)    take

#### AS PREDICATE

xi<sup>55</sup>    maŋ<sup>55</sup>    za<sup>33</sup>    ni<sup>31</sup>    sum<sup>55</sup>    kin<sup>31</sup>.  
 that (cl.)    chicken    two    three    catty  
 That chicken weighs about two or three catties.

#### AS SUBJECT AND PREDICATE

thi<sup>31</sup>nu<sup>33</sup>    sum<sup>55</sup>pak<sup>55</sup>khu<sup>31</sup>tche<sup>31</sup>ŋa<sup>31</sup>    nuŋ<sup>33</sup>.  
 a year    365    days  
 [There are] 365 days in a year.

### 4.1.7 Adverbs

Adverbs are used to modify and complement verbs and adjectives. They indicate the degree, manner, and frequency of actions, behaviour, or conditions, as well as affirmation or negation. They may be interrelated within a clause. Although not many adverbs exist in Bisu, there are distinctive features in their usage.

#### A. Types of adverbs

Adverbs may be divided into the following main types according to the meanings they express:

degree	[a <sup>55</sup> ma <sup>55</sup> ] "really, definitely", [ma <sup>55</sup> maŋ <sup>55</sup> ] "definitely", [maŋ <sup>55</sup> ] "very", [lin <sup>31</sup> ] "very", [te <sup>33</sup> ] "very", [khu <sup>33</sup> ] "completely"
time and frequency	[a <sup>31</sup> ciŋ <sup>33</sup> ] "just", [a <sup>55</sup> lo <sup>31</sup> my <sup>33</sup> mu <sup>55</sup> ] "often", [ga <sup>33</sup> le <sup>55</sup> ] "again"
manner	[thi <sup>31</sup> ga <sup>31</sup> ] "together", [laŋ <sup>33</sup> ga <sup>33</sup> ] "one another"
affirmation or negation	[kha <sup>55</sup> ga <sup>33</sup> ] "certainly", [ba <sup>31</sup> ] "no", [a <sup>31</sup> ] "don't"
association	[mu <sup>55</sup> ] "and, also, all", [sɿ <sup>31</sup> ] "as well"

Some adverbs show a degree of flexibility in terms of morphology. For example, the degree adverbs [a<sup>55</sup>ma<sup>55</sup>] "definitely" and [maŋ<sup>55</sup>] "very" may be reduplicated to indicate emphasis: [a<sup>55</sup>ma<sup>55</sup>ma<sup>55</sup>] and [maŋ<sup>55</sup>maŋ<sup>55</sup>].

#### B. Distinctive features in the use of adverbs

One striking feature in the use of adverb is that, although the functions and positions of different adverbs within the clause are not identical, the function and word order for individual adverbs are relatively fixed.

(1) The main function of adverbs is to modify or complement verbs and adjectives. For any individual adverb, this function is often extremely specific, with some adverbs only functioning as modifiers, while others can only be complements. Even if their meanings are similar, different adverbs are used as different clausal constituents. Among the degree adverbs, [a<sup>55</sup>ma<sup>55</sup>] only functions as a modifier, while [maŋ<sup>55</sup>] or [ma<sup>55</sup>maŋ<sup>55</sup>] only function as complements.

ni<sup>55</sup>tu<sup>55</sup>    za<sup>31</sup>ki<sup>33</sup>    a<sup>55</sup>ma<sup>55</sup>    men<sup>31</sup>men<sup>31</sup>    maŋ<sup>55</sup>maŋ<sup>55</sup>.  
 these    children    really    lovely    definitely

These children are really very lovely.

muŋ<sup>31</sup>nuŋ<sup>31</sup>    a<sup>55</sup>ma<sup>55</sup>    vuŋ<sup>55</sup>    ma<sup>55</sup>maŋ<sup>55</sup>.  
 sun    really    dark    definitely

The sky is really very dark.

(2) As their functions are so specialised, each adverb has a relatively fixed position within the clause. Adverbs which function as modifiers such as [a<sup>55</sup>ma<sup>55</sup>] "really, definitely", [a<sup>31</sup>ciŋ<sup>33</sup>] "just", [thi<sup>31</sup>ga<sup>33</sup>] "together", [kha<sup>55</sup>ga<sup>33</sup>] "certainly", [ba<sup>31</sup>] "no", [a<sup>31</sup>] "don't", and [mu<sup>55</sup>] "and, also, all" usually precede the verb.

kha<sup>55</sup>tshaŋ<sup>55</sup>kha<sup>55</sup>tshaŋ<sup>55</sup>    thi<sup>31</sup>ga<sup>31</sup>    taŋ<sup>55</sup>.  
 everybody, all of us    together    drink

We are drinking together.

ga<sup>33</sup>    aŋ<sup>33</sup>be<sup>33</sup>    kha<sup>55</sup>ga<sup>33</sup>    up<sup>31</sup>la<sup>31</sup>va<sup>31</sup>    naŋ<sup>33</sup>    na<sup>33</sup>.  
 I    know    certainly    tell    you    (part.)

I will certainly tell you what I know.

gu<sup>33</sup>    mu<sup>55</sup>    le<sup>33</sup>    ci<sup>55</sup>.  
 we    also    go    want

We also want to go.

zoŋ<sup>33</sup> xa<sup>33</sup>sɿ<sup>31</sup> ba<sup>31</sup> tsa<sup>31</sup>.  
 they bananas not eat

They do not eat bananas.

naŋ<sup>33</sup> a<sup>31</sup> le<sup>33</sup> tso<sup>33</sup>.  
 you don't go should

Don't you go.

A few adverbs which function as modifiers have relatively flexible positions within a clause. The adverb [a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup>mu<sup>55</sup>] "often" usually precedes, but may also follow, the verb.

noŋ<sup>33</sup> a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup>mu<sup>55</sup> aŋ<sup>33</sup>myŋ<sup>55</sup> y<sup>33</sup> aŋ<sup>33</sup>e<sup>55</sup> la<sup>31</sup>?  
 you (pl.) often town in go (part.)  
 gu<sup>33</sup> ba<sup>31</sup> e<sup>55</sup> a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup>mu<sup>55</sup>.  
 we not go often

Do you (plural) often go into town? We don't often go.

Adverbs which function as complements, such as [laŋ<sup>33</sup>ga<sup>33</sup>] "one another", [ga<sup>33</sup>le<sup>55</sup>] "again", [khu<sup>33</sup>] "completely", [lin<sup>31</sup>] "very", and [te<sup>33</sup>] "very" usually follow the verb or adjective.

ga<sup>33</sup>it<sup>31</sup> xi<sup>55</sup>my<sup>33</sup> mjan<sup>55</sup> laŋ<sup>33</sup>ga<sup>33</sup> an<sup>31</sup>.  
 two of us that time see each other (part.)

The two of us have met before.

gu<sup>33</sup> nau<sup>33</sup>sy<sup>55</sup> la<sup>55</sup> ga<sup>33</sup>le<sup>55</sup>.  
 we tomorrow come again

We will come again tomorrow.

laŋ<sup>55</sup>tsho<sup>31</sup> zau<sup>55</sup> khu<sup>33</sup>.  
 water use completely

The water has been used up.

zaŋ<sup>33</sup> xy<sup>33</sup> zum<sup>55</sup> vy<sup>31</sup> te<sup>33</sup>.  
 he (poss.) home far very

His home is extremely far [from here].

#### 4.1.8 Particles

Particles are used to express the grammatical relationship or meaning between different units within a clause, and are an important means of grammatical expression in Bisu. Particles always follow words, phrases, or constructions, often showing morphophonemic alternations due to preceding syllables.

##### A. Types of particles

Particles may be divided into four types according to grammatical function:

(a) Structural particles: following words or phrases to indicate grammatical relationships between other clausal units	[no <sup>31</sup> ]	agent
	[na <sup>33</sup> ]	patient
	[xy <sup>33</sup> ]	possession
	[a <sup>31</sup> ]	declaration
	[ne <sup>33</sup> ]	modification
(b) Aspectual particles: following verbs, adjectives, or verbal phrases to indicate how an action is progressing	[v <sup>33</sup> ]	temporo-spatial
	[ni <sup>55</sup> a <sup>31</sup> ]	actions about to begin
	[ne <sup>55</sup> ]	actions already in existence
	[pyn <sup>33</sup> ne <sup>55</sup> ]	actions in progress
	[aŋ <sup>55</sup> ]	actions already performed
	[sɿ <sup>55</sup> ], [ne <sup>55</sup> sɿ <sup>33</sup> ]	actions which are continuing
(c) Quantifying particles: following nouns, pronouns and numeral-classifier phrases to indicate quantity	[an <sup>31</sup> ]	actions which have occurred
	[zyŋ <sup>33</sup> ], [ba <sup>31</sup> ]	plural
	[koŋ <sup>55</sup> ]	combinations, sum (total)
	[ny <sup>31</sup> ]	restrictions
(d) Sentential particles: at the end of a clause to indicate the mood of the whole sentence	[tsan <sup>55</sup> ]	remainder
	[tci <sup>55</sup> a <sup>31</sup> ], [tci <sup>55</sup> ]	declarative
	[ga <sup>33</sup> ]	possibility
	[la <sup>31</sup> ]	normal interrogation
	[ni <sup>55</sup> v <sup>31</sup> ]	particular interrogation

##### B. Distinctive features in the use of particles

###### (i) Structural particles

[no<sup>31</sup>], [na<sup>33</sup>]

These follow nouns, pronouns, or noun phrases to express an agent or patient relationship with the verb.

a<sup>31</sup>ba<sup>33</sup> no<sup>31</sup> za<sup>31</sup>ki<sup>33</sup> na<sup>33</sup> zu<sup>31</sup> pi<sup>31</sup> ne<sup>31</sup>.  
 mother child sleep allow (part.)

The mother allowed the child to sleep.

The above example clearly indicates the function of the two particles [no<sup>31</sup>] and [na<sup>33</sup>]. The former is used to indicate the agent and follows [a<sup>31</sup>ba<sup>33</sup>] "mother", in order to show that [a<sup>31</sup>ba<sup>33</sup>] is the agent who allowed the child to sleep. The latter is used to indicate the patient, *i.e.* to show that the preceding noun [za<sup>31</sup>ki<sup>33</sup>] "child" is the patient of the action "allowed to sleep".

In practice, these two particles very rarely occur under the same circumstances. There are also no strict requirements for the usage of these words. The particle for agent [no<sup>31</sup>] is often

deleted when the meaning is clear, and is only added if the agent relationship needs to be made more evident.

aj<sup>33</sup>xu<sup>31</sup> no<sup>31</sup> xyn<sup>31</sup> ok<sup>31</sup>, aj<sup>33</sup>i<sup>55</sup> no<sup>31</sup> zum<sup>55</sup>y<sup>33</sup> zɿ<sup>31</sup> aj<sup>55</sup> sa<sup>31</sup>.  
big run out small at home remain (part.) (part.)

The big one has run away, the small one is still at home.

thi<sup>31</sup>ba<sup>31</sup> no<sup>31</sup> kha<sup>33</sup> aj<sup>33</sup>bja<sup>31</sup>, thi<sup>31</sup>ba<sup>31</sup> no<sup>31</sup> kha<sup>33</sup> ba<sup>31</sup> bja<sup>31</sup>.  
some plant many some plant not many

Some (households) have planted a lot, some (households) have planted little.

In the above sentences, the agents are not expressed using ordinary nouns or pronouns, which have been replaced by the adjectives [aj<sup>33</sup>xu<sup>31</sup>] “big” and [aj<sup>33</sup>i<sup>55</sup>] “small” and the indefinite classifier [thi<sup>31</sup>ba<sup>31</sup>] (whose head has been deleted). The particle [no<sup>31</sup>] has therefore been used in order to indicate the agents of these words more clearly. The use of the particle for patient, [na<sup>33</sup>], is more widespread, and often follows nouns, pronouns, or phrases representing people or objects, in order to express a relationship of “patient” with the verb.

xau<sup>33</sup> ba<sup>31</sup> tsa<sup>31</sup> ci<sup>55</sup> na<sup>33</sup> ga<sup>33</sup> na<sup>33</sup> pi<sup>31</sup> tsa<sup>31</sup> la<sup>31</sup> ne<sup>31</sup>.  
others not eat want I (part.) give eat (part.) (part.)

Give me [the ones] that other people don't want to eat.

In the above sentence, there are two patients: [xau<sup>33</sup> ba<sup>31</sup> tsa<sup>31</sup> ci<sup>55</sup>] “[the ones] that other people don't want to eat” (patient of the verb [tsa<sup>31</sup>] “eat”), and the person indicated by the pronoun [ga<sup>33</sup>] “me” (patient of the verb [pi<sup>31</sup>] “give”). Both are followed by [na<sup>33</sup>], in order to clarify the grammatical relationships within this clause, which has a relatively complex structure.

In situations where the identity of the patient is very clear or where no particular emphasis is required, [na<sup>33</sup>] can be deleted. However, this particle is often retained under the following circumstances:

(1) In some cases, the natures of the agent and patient may be similar and ambiguity may arise. This is so when both agent and patient are personal pronouns or nouns representing people or animals, and their relationship is not easily deduced from semantic considerations. The particle [na<sup>33</sup>] is then used to mark the patient, in order to differentiate it from the agent:

zaj<sup>33</sup> ga<sup>33</sup> na<sup>33</sup> mek<sup>33</sup> la<sup>55</sup> ne<sup>33</sup>. He hit me.  
he I hit come (part.)

ga<sup>33</sup> zaj<sup>33</sup> na<sup>33</sup> mek<sup>33</sup> ɲe<sup>55</sup>. I hit him.  
I he hit (part.)

za<sup>31</sup>maŋ<sup>31</sup> za<sup>31</sup>ki<sup>33</sup> na<sup>33</sup> tshu<sup>33</sup>. The elderly person helped the child.  
elderly person child help

za<sup>31</sup>ki<sup>33</sup> za<sup>31</sup>maŋ<sup>31</sup> na<sup>33</sup> tshu<sup>33</sup>. The child helped the elderly person.  
child elderly person help

(2) In clauses containing the causative verb [pi<sup>31</sup>], the object that is being ordered or commanded will often carry the particle [na<sup>33</sup>] in order to be identified as patient.

zaj<sup>33</sup> za<sup>33</sup> na<sup>33</sup> ko<sup>33</sup>lo<sup>33</sup> oŋ<sup>55</sup>le<sup>33</sup> pi<sup>31</sup> y<sup>31</sup>.  
he chickens nest enter let (part.)

He let the chickens go into the nest.

za<sup>31</sup>ki<sup>33</sup> na<sup>33</sup> a<sup>31</sup> pi<sup>31</sup> xyn<sup>31</sup> tso<sup>33</sup>.  
child(ren) don't let run should

Don't let the children run.

zaj<sup>33</sup> na<sup>33</sup> ta<sup>33</sup>le<sup>33</sup> pi<sup>31</sup> y<sup>55</sup>.  
he go up let (part.)

Let him go up.

(3) In clauses where the verbs convey the idea of “giving”, the recipient often takes [na<sup>33</sup>] to indicate its identity as patient. These clauses usually have two objects, with [na<sup>33</sup>] following the indirect object which represents a person.

naŋ<sup>33</sup> kha<sup>31</sup>lau<sup>33</sup> a<sup>31</sup>saŋ<sup>31</sup> na<sup>33</sup> pi<sup>31</sup> e<sup>55</sup>?  
you clothes who give go

To whom have you given the clothes?

zoŋ<sup>33</sup> naŋ<sup>33</sup> na<sup>33</sup> tsyk<sup>55</sup> thi<sup>31</sup>lum<sup>31</sup>.  
they you lend one (cl.)

They will lend you one.

(4) When the patient is the subject of a clause, it often carries the particle [na<sup>33</sup>]. Compare the following two sentences:

za<sup>31</sup>ki<sup>33</sup> na<sup>33</sup> noŋ<sup>33</sup> xa<sup>33</sup> duŋ<sup>31</sup>.  
child(ren) you (pl.) make awake

The children were woken up by you.

za<sup>31</sup>ki<sup>33</sup> noŋ<sup>33</sup> na<sup>33</sup> xa<sup>33</sup> duŋ<sup>31</sup>.  
child(ren) you (pl.) make awake

The children woke you up.

In the second sentence, the patient [noŋ<sup>33</sup>] “you (pl.)” is the object and occupies the usual object position, so that the particle for patient can be deleted. In the first sentence, however, the patient [za<sup>31</sup>ki<sup>33</sup>] “children” is the subject of the clause and [na<sup>33</sup>] must be used to avoid ambiguity.

(5) When the patient is the object of a clause and occupies the usual position for objects, [na<sup>33</sup>] is not required. If this is not the case, however, [na<sup>33</sup>] has to be used in order to clarify the relationship of the object to the verbal predicate, as in the following example:

noŋ<sup>33</sup> kha<sup>55</sup>ga<sup>33</sup> sa<sup>55</sup>mjaŋ<sup>55</sup> ŋe<sup>55</sup>la<sup>31</sup> zaŋ<sup>33</sup> na<sup>33</sup>?  
 you certainly found (part.) (part.) he  
 Have you finally found him?

If the object [zaŋ<sup>33</sup>] "him" were in the usual object position, it should precede the verb [sa<sup>55</sup>] "find". However, when used together with the particle for patient [na<sup>33</sup>], its position in the clause may be more flexible, and can even follow the sentential particle which is usually clause-final in position.

ɤ<sup>35</sup> naŋ<sup>33</sup> mja<sup>33</sup> ni<sup>31</sup> mja<sup>33</sup> za<sup>33</sup>it<sup>31</sup> na<sup>33</sup> pi<sup>31</sup> ɤ<sup>55</sup>.  
 ask you knife two (cl.) two of them give (part.)  
 Please pass two knives over to the two of them.

In clauses with two objects, the indirect object should precede the direct object. In the above sentence, the indirect object [za<sup>33</sup>it<sup>31</sup>] "two of them" is not in the usual position, and is therefore followed by [na<sup>33</sup>] which indicates its identity as the patient.

[xɤ<sup>33</sup>]

This word usually follows pronouns or nouns to form a construction indicating possession, which then functions as a modifier. The head following the modifier can be a noun, or a noun phrase.

naŋ <sup>33</sup>	xɤ <sup>33</sup>	tsum <sup>33</sup> mja <sup>31</sup>	your bowl	
you	(poss.)	bowl		
a <sup>31</sup> saŋ <sup>31</sup>	xɤ <sup>33</sup>	ko <sup>33</sup> khja <sup>55</sup>	whose back-basket	
who	(poss.)	back-basket		
za <sup>31</sup> maŋ <sup>31</sup>	ba <sup>31</sup>	xɤ <sup>33</sup>	kha <sup>31</sup> lau <sup>33</sup>	the old people's clothes
elderly person	(pl.)	(poss.)	clothes	
kha <sup>55</sup> tshaŋ <sup>55</sup>	kha <sup>55</sup> tshaŋ <sup>55</sup>	xɤ <sup>33</sup>	aŋ <sup>33</sup> kvŋ <sup>31</sup>	everybody's things
everybody		(poss.)	things	
zaŋ <sup>33</sup>	xɤ <sup>33</sup>	zum <sup>55</sup>	sɿ <sup>31</sup>	his new house
he	(poss.)	house	new	
ga <sup>33</sup>	xɤ <sup>33</sup>	ni <sup>55</sup>	mja <sup>33</sup>	this knife of mine
my	(poss.)	this	knife	

Possessive constructions formed by using [xɤ<sup>33</sup>] can sometimes be used independently, with deletion of the head following [xɤ<sup>33</sup>]. This occurs under the following circumstances:

(1) If the heads of two coordinated possessive constructions are identical, the first one may be deleted, with a common head following two possessive constructions, as in:

ga<sup>33</sup> xɤ<sup>33</sup> naŋ<sup>33</sup> xɤ<sup>33</sup> tsum<sup>33</sup>mja<sup>31</sup> kha<sup>55</sup>ku<sup>33</sup> xan<sup>55</sup> la<sup>55</sup> la<sup>31</sup>.  
 I (poss.) you (poss.) bowl all bring here (part.)  
 Your bowl and mine have both been brought here.

(2) If the head following a possessive construction has already been mentioned, and the meaning is therefore very clear, it can be deleted.

ga<sup>33</sup> xɤ<sup>33</sup> khu<sup>31</sup> naŋ<sup>33</sup> xɤ<sup>33</sup> (khu<sup>31</sup>) tha<sup>31</sup>ɤ<sup>33</sup> aŋ<sup>33</sup>xu<sup>31</sup> lin<sup>31</sup>.  
 I (poss.) dog you (poss.) (dog) above big very  
 My dog is much bigger than your (dog).  
 ni<sup>55</sup> tuŋ<sup>31</sup> na<sup>31</sup> xau<sup>33</sup> xɤ<sup>33</sup> (na<sup>31</sup>).  
 this piece field other people (poss.) (field)  
 This field is somebody else's (field).

(3) If the main semantic load is conveyed by the possessive construction, the head does not need to be specially stated and may be deleted.

ni<sup>55</sup> a<sup>31</sup> ga<sup>33</sup>it<sup>31</sup> xɤ<sup>33</sup> xi<sup>55</sup> a<sup>31</sup> na<sup>55</sup>it<sup>31</sup> xɤ<sup>33</sup>.  
 this (part.) two of us (poss.) that (part.) two of you (poss.)  
 i<sup>55</sup> a<sup>31</sup> za<sup>33</sup>it<sup>31</sup> xɤ<sup>33</sup>.  
 that (part.) two of them (poss.)  
 This belongs to us (two), that belongs to you two, that belongs to the two of them.

[a<sup>31</sup>]

The particle [a<sup>31</sup>] follows nouns, pronouns, or noun phrases to indicate a declarative relationship. In clauses with nominal predicates which are used to indicate affirmation or interrogation, [a<sup>31</sup>] is usually situated in between the subject and the predicate, to indicate clearly the declarative relationship between the two nominal constituents. In isolated cases, it may also follow the nominal predicate, in order to emphasise the declarative content of the whole clause.

aŋ<sup>33</sup>xu<sup>31</sup>la<sup>33</sup> a<sup>31</sup> sum<sup>31</sup>tche<sup>31</sup>thi<sup>33</sup> nuŋ<sup>33</sup>,  
 big month thirty-one days  
 aŋ<sup>33</sup>i<sup>55</sup>la<sup>33</sup> a<sup>31</sup> sum<sup>31</sup>tche<sup>31</sup> nuŋ<sup>33</sup>.  
 small month thirty days

There are thirty-one days in a "big" month, thirty days in a "small" month.

zaŋ<sup>33</sup> a<sup>31</sup> sam<sup>55</sup>the<sup>33</sup>fu<sup>33</sup> naŋ<sup>33</sup> a<sup>31</sup> sam<sup>55</sup>the<sup>33</sup>fu<sup>33</sup> la<sup>31</sup>?  
 he blacksmith you blacksmith (part.)  
 He is a blacksmith. Are you a blacksmith?

ni<sup>55</sup> a<sup>31</sup> a<sup>31</sup>saŋ<sup>31</sup> xɤ<sup>33</sup> ko<sup>33</sup>khja<sup>55</sup>?  
 this who (poss.) back-basket  
 Whose back-basket is this?



In sentences with a verbal predicate, [a<sup>31</sup>] is usually used in the construction for the sake of symmetry. However, in two coordinated clauses with different subjects, [a<sup>31</sup>] is used to emphasise the different subject in one of the clauses.

gu<sup>33</sup> a<sup>31</sup> za<sup>55</sup> kun<sup>55</sup> la<sup>55</sup>,  
we ground dig come

noj<sup>33</sup> a<sup>31</sup> o<sup>31</sup>khur<sup>31</sup> xan<sup>55</sup> le<sup>33</sup>.  
you (pl.) manure carry on the back go  
We will dig the ground, you go and carry the manure.

zaj<sup>33</sup> ai<sup>55</sup> ni<sup>31</sup>fu<sup>33</sup>, thi<sup>31</sup> fu<sup>33</sup> a<sup>31</sup> ko<sup>33</sup> ki<sup>33</sup> le<sup>33</sup> ne<sup>55</sup>,  
he elder brother two (cl.) one (cl.) grain grind go (part.)  
thi<sup>31</sup> fu<sup>33</sup> a<sup>31</sup> mi<sup>31</sup>tho<sup>31</sup> ty<sup>33</sup> ne<sup>55</sup>.  
one (cl.) chop firewood chop (part.)

Of his two elder brothers, one has gone to grind rice, one has gone to chop firewood.

The particle [a<sup>31</sup>] is mainly used to emphasise the subject, whether in sentences with nominal or verbal predicates. As it does not affect the sentence construction or its semantic expression, its use is essentially optional. However, its use follows the normal patterns of the language, and, especially in existential nominal predicates, the particle [a<sup>31</sup>] usually follows the subject. In affirmative clauses where the predicate constituent has been deleted, [a<sup>31</sup>] must be used to mark the object.

zaj<sup>33</sup> a<sup>31</sup> naj<sup>33</sup> tchi<sup>33</sup> la<sup>31</sup>? zaj<sup>33</sup> a<sup>33</sup>.  
she you elder sister she (part.)

Is she your elder sister? She is.

zong<sup>33</sup> a<sup>31</sup> phu<sup>55</sup>te<sup>33</sup>ba<sup>31</sup> la<sup>31</sup>? zong<sup>33</sup> a<sup>31</sup>.  
they silversmith (part.) they

Are they silversmiths? They are.

xi<sup>55</sup> maj<sup>55</sup> a<sup>31</sup> va<sup>31</sup>ba<sup>33</sup> la<sup>31</sup>? xi<sup>55</sup> maj<sup>55</sup> a<sup>31</sup>.  
that (cl.) sow (part.) that (cl.)

Is that a sow? That is.

[ne<sup>33</sup>]

This particle usually follows verbs, adjectives, verbs, or numeral-classifier phrases to form modifying constructions which function as verbal modifiers.

muoj<sup>31</sup>nuoj<sup>31</sup> to<sup>33</sup> ne<sup>33</sup> la<sup>55</sup> aj<sup>55</sup> tci<sup>55</sup>a<sup>31</sup>.  
sun appear come (part.) (part.)

The sun has come out.

zaj<sup>33</sup> vai<sup>31</sup> ne<sup>33</sup> xa<sup>33</sup>sɿ<sup>31</sup> tsa<sup>31</sup> tci<sup>55</sup>a<sup>31</sup>.  
he fast bananas eat (part.)

He is eating bananas very quickly.

za<sup>31</sup>ki<sup>33</sup> xy<sup>33</sup> da<sup>55</sup> kam<sup>31</sup>kam<sup>31</sup> ne<sup>33</sup> pju<sup>33</sup> aj<sup>55</sup> la<sup>55</sup>.  
child (poss.) illness gradually recover (part.) come

The child is gradually recovering from his illness.

ga<sup>33</sup> kha<sup>55</sup>ga<sup>33</sup> ne<sup>33</sup> le<sup>33</sup>.  
I certainly go

I must go.

naj<sup>33</sup> thi<sup>31</sup> lum<sup>31</sup> thi<sup>31</sup> lum<sup>31</sup> ne<sup>33</sup> tsa<sup>31</sup>.  
you one (cl.) one (cl.) eat

You are eating them one by one.

[v<sup>33</sup>]

The particle [v<sup>33</sup>] follows a locative or common noun to form a locative construction, which indicates the time or place at which an action has taken place. It can be used in the following ways:

(1) It is used with some locative nouns to form fixed expressions with specific meanings:

[aj <sup>33</sup> fu <sup>31</sup> ]	"front, first"	>	[fu <sup>31</sup> v <sup>33</sup> ]	"first, before this, firstly"
[aj <sup>33</sup> noj <sup>31</sup> ]	"after, late"	>	[noj <sup>31</sup> v <sup>33</sup> ]	"after, then, after this"
[aj <sup>33</sup> tha <sup>31</sup> ]	"on top of"	>	[tha <sup>31</sup> v <sup>33</sup> ]	"furthermore, above"

(2) It is used with locative nouns to form constructions expressing spatial locations. A locative construction can combine with nouns representing objects or places, in order to indicate the specific position of an object:

thi<sup>31</sup>ba<sup>31</sup> aj<sup>33</sup>khau<sup>55</sup> y<sup>33</sup> le<sup>33</sup>au<sup>55</sup>, thi<sup>31</sup>ba<sup>31</sup> aj<sup>33</sup>ni<sup>55</sup> y<sup>33</sup> le<sup>33</sup>au<sup>55</sup>.  
some inside go across some outside go across

Some went inside, some went outside.

aj<sup>33</sup>thaj<sup>33</sup> y<sup>33</sup> lo<sup>33</sup>ba<sup>33</sup> aj<sup>33</sup>xu<sup>31</sup> thi<sup>31</sup>lo<sup>33</sup>.  
on the side stone big one (cl.)

There is a big stone to the side.

laj<sup>55</sup>poj<sup>31</sup> xi<sup>55</sup> poj<sup>31</sup> khau<sup>55</sup> y<sup>33</sup> lo<sup>33</sup>tchin<sup>55</sup> aj<sup>33</sup>tsa<sup>33</sup>.  
bamboo tube that (cl.) inside rice has

That bamboo tube has rice inside.

tsum<sup>33</sup>mja<sup>31</sup> xaj<sup>31</sup>phyn<sup>31</sup> tha<sup>31</sup> y<sup>33</sup> tchi<sup>55</sup>.  
bowl table on put

The bowl has been put on the table.

(3) It is used with common nouns to indicate the location of an object or action.

kaj<sup>31</sup>pha<sup>31</sup> y<sup>33</sup> la<sup>31</sup>phi<sup>31</sup> tsa<sup>33</sup>.  
vegetables chillies have

There are chillies among the vegetables.

naŋ<sup>33</sup> kha<sup>31</sup>toŋ<sup>33</sup> za<sup>55</sup> y<sup>33</sup> tshu<sup>33</sup> za<sup>31</sup>zo<sup>33</sup>.  
 you oneself field pick (part.)

You [can] go to the fields to pick [them] yourself.

zaŋ<sup>33</sup> a<sup>55</sup>mu<sup>55</sup> na<sup>31</sup> y<sup>33</sup> la<sup>55</sup>le<sup>31</sup>.  
 he now fields come back

He has just returned from the fields.

gu<sup>33</sup> thi<sup>31</sup>ga<sup>33</sup> tshoŋ<sup>31</sup>koŋ<sup>31</sup> y<sup>33</sup> le<sup>33</sup> aŋ<sup>55</sup>.  
 we together hills go (part.)

We will go up the hills together.

Locative constructions formed by using the particle [v<sup>33</sup>] mainly function as verbal modifiers. When temporal or spatial nouns function as other types of constituents, [v<sup>33</sup>] is not necessary, as in the following example:

zaŋ<sup>33</sup> zu<sup>31</sup> aŋ<sup>33</sup>noŋ<sup>31</sup>, tho<sup>55</sup>mu<sup>55</sup> da<sup>31</sup> y<sup>33</sup> tha<sup>33</sup>aŋ<sup>55</sup> la<sup>33</sup>.  
 he sleep late but early get up (part.)

He went to bed late, but has got up early.

In this sentence, [aŋ<sup>33</sup>noŋ<sup>31</sup>] “late” follows the verb [zu<sup>31</sup>] “sleep” and functions as its complement. Therefore, [v<sup>33</sup>] is not needed. The word [da<sup>31</sup>] “early”, however, precedes and modifies the verb [tha<sup>33</sup>la<sup>33</sup>] “get up”, so [v<sup>33</sup>] is added to function together as the modifier.

The particle [v<sup>33</sup>] often exhibits morphophonemic alternations in connected speech. When it combines with a noun, it is affected by the syllable coda of the preceding noun, and an identical or similar syllable onset is added (for details see 2.4 “Morphophonemic Alternations”).

## (ii) Aspectual particles

As verbs in Bisu do not undergo morphological changes, the grammatical meanings of verbs such as tense, aspect, and mood are expressed by aspectual particles.

[ni<sup>55</sup>a<sup>31</sup>]

This word is used to express that an action is about to begin or that a certain condition is about to be realised.

ga<sup>33</sup> la<sup>55</sup> ni<sup>55</sup>a<sup>31</sup>.  
 I come

I am coming soon.

zum<sup>55</sup> aŋ<sup>33</sup>sŋ<sup>31</sup> vai<sup>31</sup> tsho<sup>33</sup> pyn<sup>55</sup> ni<sup>55</sup>a<sup>31</sup>.  
 house new soon cover complete

The new house will soon be completed.

a<sup>31</sup>mjaŋ<sup>31</sup> aŋ<sup>33</sup>za<sup>31</sup> kvt<sup>55</sup> lu<sup>33</sup> ni<sup>55</sup>a<sup>31</sup>.  
 cow little born come down

The calf is about to be born.

[ne<sup>55</sup>]

This word expresses an action or state which is already in existence. It is used for events which are visible factual realities, or conditions which will not change within a short period of time.

khu<sup>31</sup> aŋ<sup>33</sup>paŋ<sup>55</sup> thi<sup>31</sup> maŋ<sup>55</sup> buŋ<sup>55</sup> ne<sup>55</sup>.  
 dog black one (cl.) bark

A black dog is barking.

za<sup>33</sup>ti<sup>31</sup> tshoŋ<sup>31</sup>koŋ<sup>31</sup> y<sup>33</sup> mi<sup>31</sup>tho<sup>31</sup> tv<sup>33</sup> e<sup>55</sup> ne<sup>55</sup>.  
 two of them up the hill (part.) firewood chop go

The two of them have gone up to the hills to chop firewood.

za<sup>31</sup>maŋ<sup>31</sup> ne<sup>33</sup> za<sup>31</sup>ki<sup>33</sup> zaŋ<sup>55</sup> taŋ<sup>31</sup>an<sup>31</sup>  
 elderly person (conj.) children he story  
 kuaŋ<sup>31</sup> na<sup>33</sup> na<sup>55</sup> ci<sup>55</sup> ne<sup>55</sup>.  
 listen (part.) listen want

Young and old all love listening to him telling stories.

Factitive verbs followed by [ne<sup>55</sup>] often do not express specific actions, but are used to indicate certain states.

ga<sup>33</sup> xau<sup>33</sup> xy<sup>33</sup> kha<sup>31</sup>lau<sup>33</sup> na<sup>33</sup> tum<sup>33</sup> ne<sup>55</sup>.  
 I other people (poss.) clothes (part.) wear

I am wearing other people's clothes.

zaŋ<sup>33</sup> zum<sup>55</sup>tum<sup>31</sup> xan<sup>55</sup>fu<sup>33</sup> tsa<sup>33</sup> ne<sup>55</sup>.  
 he house four (cl.) have

There are four people in his household.

ni<sup>55</sup>u<sup>55</sup> kaŋ<sup>31</sup>pha<sup>31</sup> a<sup>55</sup>me<sup>33</sup> xan<sup>55</sup> ne<sup>55</sup>?  
 these vegetables how call

What are these vegetables called?

[pyn<sup>33</sup>ne<sup>55</sup>]

This particle indicates that an action is in progress.

gu<sup>33</sup> tsa<sup>31</sup> pyn<sup>33</sup>ne<sup>55</sup>.  
 we eat

We are eating.

zaŋ<sup>33</sup> zo<sup>31</sup> pyn<sup>33</sup>ne<sup>55</sup>.  
 he walk

He is walking.

za<sup>33</sup>bu<sup>55</sup>za<sup>31</sup>ba<sup>31</sup> na<sup>31</sup> thai<sup>55</sup> vau<sup>55</sup> pyn<sup>33</sup>ne<sup>55</sup>.  
 farmers fields plough busy

The farmers are busy ploughing the fields.

[aŋ<sup>55</sup>]

This particle indicates that an action has already begun or that a condition has already been realised. It emphasises that the event which is being described has already become a reality.

muŋ<sup>31</sup>xo<sup>31</sup> ka<sup>33</sup>lu<sup>33</sup> lu<sup>33</sup> aŋ<sup>55</sup>.  
rain down come

It is raining already.

le<sup>31</sup>tu<sup>31</sup> ton<sup>31</sup> aŋ<sup>55</sup>.  
rope broken

The rope has snapped off.

zaŋ<sup>33</sup> fu<sup>33</sup> zau<sup>33</sup> aŋ<sup>33</sup>be<sup>33</sup> aŋ<sup>55</sup>.  
he look (conj.) understand

He understood after just one look.

The association between [aŋ<sup>55</sup>] and the preceding word is very intimate. Sometimes [aŋ<sup>55</sup>] and its preceding monosyllabic verb coalesce to become a single syllable (for details see 2.4). When a directional verb follows this verb as its complement, [aŋ<sup>55</sup>] is often situated between the two verbs, or may even be placed in between the two syllables of a bisyllabic verb.

xa<sup>55</sup>man<sup>55</sup> aŋ<sup>33</sup>xu<sup>31</sup> to<sup>33</sup> aŋ<sup>55</sup> la<sup>55</sup>.  
wind big appear come

It is becoming very windy.

tsho<sup>31</sup>mja<sup>31</sup> khv<sup>33</sup> aŋ<sup>55</sup> la<sup>55</sup> stuŋ<sup>33</sup>tstuŋ<sup>55</sup> aŋ<sup>33</sup>pha<sup>31</sup> sɿ<sup>55</sup>aŋ<sup>55</sup>.  
autumn arrive come tree leaves yellow

Autumn has come; the leaves are yellow.

zaŋ<sup>33</sup> tha<sup>33</sup>aŋ<sup>55</sup>la<sup>33</sup>.  
he get out of bed

He has got out of bed.

The word [tha<sup>33</sup>la<sup>33</sup>] “get out of bed” is a compound word, and the particle [aŋ<sup>55</sup>] is placed between the two morphemes. Phonologically, [aŋ<sup>55</sup>] coalesces with the preceding syllable and is pronounced as [thaŋ<sup>55</sup>].

[sɿ<sup>55</sup>], [ne<sup>55</sup>sɿ<sup>33</sup>]

These particles indicate the continuation of an action or a state, but have different uses in negative and affirmative clauses. The particle [sɿ<sup>55</sup>] is used specifically in negative clauses together with the negating adverb [ba<sup>31</sup>], to indicate that an action or state has not yet happened.

zoŋ<sup>33</sup> ba<sup>31</sup> tsa<sup>31</sup> sɿ<sup>55</sup>.  
they not eat

They have not eaten yet.

va<sup>31</sup> ba<sup>31</sup> ka<sup>33</sup>lu<sup>33</sup> sɿ<sup>55</sup>.  
pig not come down

The pig has not come down.

za<sup>31</sup>ki<sup>33</sup> ba<sup>31</sup> la<sup>55</sup> sɿ<sup>55</sup>.  
children not come

The children have not come.

The particle [ne<sup>55</sup>sɿ<sup>33</sup>] is used specifically in affirmative clauses to indicate that an action is still continuing or that it will carry on occurring.

kha<sup>55</sup>tshaŋ<sup>55</sup>tshaŋ<sup>55</sup> tsa<sup>31</sup> ne<sup>55</sup>sɿ<sup>33</sup>.  
everybody eat

Everybody is still eating.

zaŋ<sup>33</sup> zo<sup>31</sup> ne<sup>55</sup>sɿ<sup>33</sup>.  
he walk

He is still walking.

ga<sup>33</sup> tsv<sup>31</sup> ne<sup>55</sup>sɿ<sup>33</sup>.  
I sing

I want to continue singing.

[an<sup>31</sup>]

This particle indicates that an action has already happened.

miŋ<sup>55</sup>koŋ<sup>55</sup> muŋ<sup>31</sup>xo<sup>31</sup> lu<sup>33</sup> an<sup>31</sup>.  
yesterday rain come down

It rained yesterday.

zaŋ<sup>33</sup> a<sup>31</sup>ciŋ<sup>33</sup> tsa<sup>31</sup> an<sup>31</sup>.  
he just eat

He has just eaten.

ga<sup>33</sup> ni<sup>55</sup> taŋ<sup>31</sup> tsv<sup>31</sup>taŋ<sup>31</sup> na<sup>55</sup> an<sup>31</sup>.  
I this (cl.) music hear

I have heard this piece of music before.

Several aspectual particles may be used simultaneously to indicate different aspects of an action or a combined condition. The particles [pvn<sup>33</sup>ne<sup>55</sup>] (indicating that an action is in progress) and [ne<sup>55</sup>sɿ<sup>33</sup>] (indicating that an action is continuing) are often used together. The combined form [pvn<sup>33</sup>ne<sup>55</sup>sɿ<sup>33</sup>] shows the continuous progression of an action.

za<sup>31</sup>ki<sup>33</sup> tshaŋ<sup>55</sup> ni<sup>31</sup> tsv<sup>31</sup> pvn<sup>33</sup>ne<sup>55</sup>sɿ<sup>33</sup>.  
children (cl.) two sing

Two children are singing.

gu<sup>33</sup> zum<sup>55</sup>tun<sup>31</sup> paŋ<sup>31</sup>na<sup>33</sup> za<sup>55</sup> thai<sup>55</sup> pyŋ<sup>33</sup>ne<sup>55</sup>sq<sup>33</sup>.  
 we family ox land plough

Our family's ox is ploughing the field.

When the particles [ni<sup>55</sup>a<sup>31</sup>] (indicating that an action is about to begin) and [aŋ<sup>55</sup>] (indicating that an action has already begun) are used together, they lend a strong sense of movement and reality to an event which is about to happen, as in the following example:

zɔŋ<sup>33</sup> ko<sup>33</sup> vai<sup>31</sup> kju<sup>31</sup> aŋ<sup>55</sup>ni<sup>55</sup>a<sup>31</sup>.  
 they grain fast cut

They will be cutting the rice soon.

### (iii) Quantifying particles

Two particles, [zɔŋ<sup>33</sup>] and [ba<sup>31</sup>], are used to express plural quantities, but there are distinct differences in their meaning and usage.

[zɔŋ<sup>33</sup>]

This particle follows nouns or noun phrases to express plurality. Its special feature is its very wide usage domain. Not only can it be used for people, animals, and plants, but it can also be used for any countable object with a definable shape. Apart from combining with nouns, it can also follow a noun phrase which is modified by a numeral-classifier phrase.

tshaŋ <sup>55</sup> zɔŋ <sup>33</sup>	people	za <sup>31</sup> bi <sup>31</sup> zɔŋ <sup>33</sup>	girls
va <sup>31</sup> the <sup>31</sup> zɔŋ <sup>33</sup>	many wild boars	stuŋ <sup>33</sup> tsuŋ <sup>55</sup> zɔŋ <sup>33</sup>	many trees
zum <sup>55</sup> zɔŋ <sup>33</sup>	many houses	tsum <sup>33</sup> mja <sup>31</sup> zɔŋ <sup>33</sup>	many bowls

tche <sup>55</sup> fu <sup>33</sup> za <sup>31</sup> ki <sup>33</sup> zɔŋ <sup>33</sup>	ten children
sum <sup>55</sup> xan <sup>55</sup> fu <sup>33</sup> za <sup>31</sup> maŋ <sup>31</sup> zɔŋ <sup>33</sup>	three or four elderly people
thi <sup>31</sup> tsum <sup>55</sup> aŋ <sup>33</sup> lai <sup>31</sup> lin <sup>31</sup> ba <sup>31</sup> zɔŋ <sup>33</sup>	a group of students

[ba<sup>31</sup>]

This particle is used to express plurality for people only, and follows personal pronouns.

za <sup>31</sup> maŋ <sup>31</sup> ba <sup>31</sup>	elderly people	za <sup>31</sup> ki <sup>33</sup> ba <sup>31</sup>	children
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[koŋ<sup>55</sup>]

This particle indicates a group which is formed by many people, and follows personal pronouns, personal nouns, or phrases. As the quantities expressed exceed two people, [koŋ<sup>55</sup>] usually occurs in combination with plural personal pronouns. It may also be used together with [tsum<sup>55</sup>] "group" to indicate large numbers of people, as in the following examples:

gu<sup>33</sup> naŋ<sup>33</sup> koŋ<sup>55</sup> thi<sup>31</sup>ga<sup>31</sup> e<sup>55</sup>.  
 we you together go

We are going together with you.

za<sup>33</sup>it<sup>31</sup> na<sup>33</sup> gu<sup>33</sup> koŋ<sup>55</sup> thi<sup>31</sup>ga<sup>31</sup> ba<sup>31</sup> pi<sup>31</sup> le<sup>33</sup> ci<sup>55</sup>.  
 two of them (part.) we together not let go want

We don't want to let the two of them go together with us.

zɔŋ<sup>33</sup> tsum<sup>55</sup> koŋ<sup>33</sup> thi<sup>31</sup>fu<sup>33</sup> lyk<sup>33</sup> kuan<sup>31</sup>fu<sup>33</sup>.  
 they group one (cl.) choose group leader

Choose a group leader from among them.

[ny<sup>31</sup>]

This particle expresses a restriction of quantity, and follows personal pronouns, nouns, or numeral-classifier phrases to indicate that there are only a limited number of people or objects.

ga<sup>33</sup> thi<sup>31</sup>lum<sup>31</sup> ny<sup>31</sup> a<sup>31</sup>.  
 I one (cl.) (part.)

I am the only one.

zaŋ<sup>33</sup> ny<sup>33</sup> ku<sup>31</sup> khi<sup>31</sup>.  
 she sew can

She is the only one who knows how to sew.

[tsan<sup>55</sup>]

This particle follows a numeral-classifier phrase to indicate a surplus amount. In some cases, the classifier preceding [tsan<sup>55</sup>] may be deleted, with [tsan<sup>55</sup>] combining directly with the numeral.

aŋ <sup>33</sup> tche <sup>55</sup>	maŋ <sup>55</sup>	tsan <sup>55</sup>	za <sup>33</sup>	over ten chickens
ten	(cl.)	more	chickens	
sum <sup>55</sup> tche <sup>55</sup>	fu <sup>33</sup>	tsan <sup>55</sup>		over thirty people
thirty	(cl.)	more		
thi <sup>31</sup> pak <sup>31</sup>	(fu <sup>33</sup> )	tsan <sup>55</sup>	tshaŋ <sup>55</sup>	over a hundred people
one hundred	(cl.)	more	people	
ko <sup>33</sup> tchin <sup>55</sup>	ni <sup>31</sup> pak <sup>31</sup>	(kin <sup>55</sup> )	tsan <sup>55</sup>	over 200 catties of rice
rice	two hundred	catty	more	

### (iv) Sentential particles

[tei<sup>55</sup>a<sup>31</sup>]

This particle expresses a declarative mood, and is used in affirmative sentences describing or depicting objects in an objective manner, as in the following examples:

zaj<sup>33</sup> a<sup>31</sup>khon<sup>31</sup> pak<sup>31</sup> tci<sup>55</sup>a<sup>31</sup>.  
he bamboo break

He has broken the bamboo stick.

zoj<sup>33</sup> paj<sup>31</sup>na<sup>33</sup> na<sup>33</sup> laj<sup>55</sup>ba<sup>33</sup> thanj<sup>33</sup>v<sup>33</sup> aŋ<sup>33</sup>t<sup>55</sup>sa<sup>55</sup> tsa<sup>31</sup> tci<sup>55</sup>a<sup>31</sup>.  
they cow (part.) river side fodder eat

They are letting the cattle eat grass by the river.

ni<sup>55</sup>ky<sup>33</sup> suŋj<sup>33</sup>tsuŋj<sup>55</sup> zyŋj<sup>33</sup> xau<sup>33</sup> tv<sup>33</sup> khu<sup>33</sup> tci<sup>55</sup>a<sup>31</sup>.  
here tree (part.) other people chop finish

The trees here have all been chopped down by other people.

### [tci<sup>55</sup>]

This particle also expresses a declarative mood, but is used in affirmative sentences expressing subjective judgement.

na<sup>55</sup>it<sup>31</sup> xv<sup>33</sup> tsv<sup>31</sup>taŋ<sup>31</sup> tsv<sup>31</sup> men<sup>31</sup>men<sup>31</sup> tci<sup>55</sup>.  
two of you (poss.) song sing good

The two of you sing really well.

mi<sup>55</sup>nu<sup>33</sup> ko<sup>33</sup> aŋj<sup>33</sup>men<sup>31</sup> tci<sup>55</sup>.  
this year grain good

The grain has grown well this year.

munj<sup>31</sup>xo<sup>31</sup> ni<sup>55</sup>ne<sup>33</sup> ba<sup>33</sup>ba<sup>33</sup>xu<sup>31</sup> tci<sup>55</sup>.  
rain like this big

This rain is really heavy.

### [ga<sup>33</sup>]

This particle expresses probability, and can be used in affirmative, negative, and interrogative sentences. It either affirms or negates the probability of an event or queries its probability. It is often used together with the modal verb [phv<sup>31</sup>] "can, may".

za<sup>31</sup>maŋ<sup>31</sup> xaŋ<sup>31</sup>thun<sup>31</sup> tsa<sup>31</sup> phv<sup>31</sup> ga<sup>33</sup>,  
elderly person zamba eat can

u<sup>55</sup>mu<sup>55</sup> a<sup>31</sup> tsa<sup>31</sup> bja<sup>31</sup> tso<sup>33</sup>.  
but don't eat many should

Elderly people can eat zamba (roasted cakes made of barley flour), but shouldn't eat too much.

khu<sup>31</sup> ka<sup>33</sup>lu<sup>33</sup> phv<sup>31</sup> ga<sup>33</sup>, va<sup>31</sup> ba<sup>31</sup> lu<sup>33</sup> to<sup>33</sup> ga<sup>33</sup>.  
dog come down can pig not come appear

The dog can come down, the pig cannot come down.

ga<sup>33</sup> ni<sup>55</sup> lum<sup>31</sup> kho<sup>33</sup> zau<sup>55</sup> phv<sup>31</sup> ga<sup>33</sup> la<sup>31</sup>? naj<sup>33</sup> ni<sup>55</sup> lum<sup>31</sup>  
I this (cl.) hoe use can (part.) you this (cl.)

kho<sup>33</sup> ba<sup>31</sup> zau<sup>55</sup> phv<sup>31</sup> ga<sup>33</sup>,  
hoe not use can

naj<sup>33</sup> xi<sup>55</sup> lum<sup>31</sup> kho<sup>33</sup> zau<sup>55</sup> phv<sup>31</sup> ga<sup>33</sup>.  
you that (cl.) hoe use can

Can I use this hoe? You cannot use this one, you can use that one.

### [la<sup>31</sup>]

This particle indicates an interrogative mood, and is used in yes-no questions.

nij<sup>55</sup> a<sup>31</sup> xa<sup>33</sup>s<sup>31</sup> la<sup>31</sup>?  
this (cl.) (part.) banana

Is this a banana?

tsum<sup>33</sup>mja<sup>31</sup> xan<sup>31</sup>phvn<sup>31</sup> tha<sup>31</sup>v<sup>33</sup> ba<sup>31</sup> tsa<sup>33</sup> la<sup>31</sup>?  
bowl table on not have not

Is the bowl on the table?

naj<sup>33</sup> ga<sup>33</sup> na<sup>33</sup> ba<sup>31</sup> ptu<sup>31</sup> la<sup>55</sup> la<sup>31</sup>?  
you I (part.) not remember come

Can't you remember me?

### [ni<sup>55</sup>v<sup>31</sup>]

This particle also indicates an interrogative mood, and is used in specific interrogative sentences which have interrogative pronouns.

a<sup>31</sup>ciŋ<sup>33</sup> a<sup>31</sup>saŋ<sup>31</sup> la<sup>55</sup> ni<sup>55</sup>v<sup>31</sup>?  
just who come

Who has just been here?

naj<sup>33</sup> a<sup>55</sup>lo<sup>55</sup>koŋ<sup>33</sup> la<sup>31</sup>phi<sup>31</sup> zau<sup>55</sup> ci<sup>55</sup> ni<sup>55</sup>v<sup>31</sup>?  
you which pile chilli want want to have

Do you want to have that pile of chillies?

zaj<sup>33</sup> a<sup>31</sup>ciŋ<sup>33</sup> la<sup>55</sup>le<sup>31</sup> ci<sup>55</sup>me<sup>33</sup> le<sup>33</sup>le<sup>31</sup> ci<sup>55</sup> ni<sup>55</sup>v<sup>31</sup>?  
he just return why go back want to

He has just returned, why does he want to go back?

#### 4.1.9 Conjunctions

Conjunctions have a connecting function within a clause, and may join words, phrases, or clauses to indicate the semantic relationship between different constituents.

##### A. Types of conjunctions

Conjunctions may be classified in many different ways. In terms of function, they can be divided into two types: those linking words or phrases within a clause and those linking clauses within compound sentences. In terms of the semantic relationships which they express, they may be divided into six types, including conjunctions of coordination, progression, and condition. These different types of conjunctions are listed in the table below.

Function Semantic relationship	Connecting words or phrases	Connecting clauses
coordinating/ consecutive	[ne <sup>33</sup> ] connecting nouns, pronouns, or noun phrases	[zau <sup>33</sup> ]
	[zau <sup>33</sup> ] connecting verbs, adjectives, or verbal phrases	
progressive	[ze <sup>31</sup> ... ze <sup>31</sup> ] "more ... more"	[za <sup>55</sup> tce <sup>55</sup> ...] "even more"
	[za <sup>55</sup> tce <sup>55</sup> ... za <sup>55</sup> tce <sup>55</sup> ] "more ... more"	
	[za <sup>55</sup> tce <sup>55</sup> ] "even more"	
hypothetical	[zau <sup>33</sup> va <sup>31</sup> ] connecting verbal phrases	[a <sup>55</sup> a <sup>31</sup> ... va <sup>31</sup> ] "if"
		[... (zau <sup>33</sup> ) va <sup>31</sup> ] "if"
		[thi <sup>55</sup> ne <sup>33</sup> va <sup>31</sup> ...] "if"
conditional	[y <sup>33</sup> my <sup>55</sup> ] "no matter"	[... o <sup>33</sup> mu <sup>55</sup> ] "even if"
	[zau <sup>33</sup> y <sup>33</sup> ] "only if"	[ba <sup>31</sup> kuan <sup>31</sup> ...] "whatever happens"
		[... o <sup>33</sup> mu <sup>55</sup> ba <sup>31</sup> kuan <sup>31</sup> ...] o <sup>33</sup> mu <sup>55</sup> ba <sup>31</sup> kuan <sup>31</sup> ] "no matter"
		[... zau <sup>33</sup> y <sup>33</sup> ...] "if only"
transitional		[u <sup>55</sup> mu <sup>55</sup> ...] "but"
		[thu <sup>55</sup> mu <sup>55</sup> ...] "but"
		[tho <sup>55</sup> mu <sup>55</sup> ...] "but"
causal		[thu <sup>55</sup> mu <sup>55</sup> ...] "because"
		[u <sup>55</sup> a <sup>31</sup> ] "so"
		[ni <sup>55</sup> ne <sup>33</sup> mu <sup>55</sup> ...] "since"

##### B. Special features in the use of conjunctions

(1) In general, Bisu conjunctions are used singly, with correlative pairs seldom used. When a single conjunction is used, it can either precede or follow the constituent which is being linked.

te<sup>31</sup>kha<sup>31</sup>    thaj<sup>55</sup>    za<sup>55</sup>tce<sup>55</sup>    taj<sup>55</sup>    ci<sup>55</sup>.  
wine    drink    more    drink    want to have

The more [one] drinks wine the more [one] wants to drink.

zaj<sup>33</sup>    pe<sup>33</sup>le<sup>33</sup>    ba<sup>31</sup>    tsa<sup>33</sup>    za<sup>55</sup>tce<sup>55</sup>    a<sup>31</sup>mjan<sup>31</sup>    ba<sup>31</sup>    tsa<sup>33</sup>.  
he    sheep    not    have    more    cow    not    have

He doesn't have any sheep, nor does he have any cattle.

la<sup>55</sup>    ba<sup>31</sup>    la<sup>55</sup>    y<sup>33</sup>my<sup>55</sup>    aj<sup>33</sup>phy<sup>31</sup>.  
come    not    come    no matter what    possible

Whether [you] come or not, it's fine.

kha<sup>55</sup>khu<sup>33</sup>    e<sup>55</sup>    ci<sup>55</sup>    va<sup>31</sup>    kha<sup>55</sup>khu<sup>33</sup>    e<sup>55</sup>    y<sup>31</sup>.  
all    go    want    if    all    go    (part.)

If all [of you] want to go, then go.

zoj<sup>33</sup>    ko<sup>33</sup>kha<sup>33</sup>    ni<sup>31</sup>lum<sup>31</sup>    aj<sup>33</sup>tsa<sup>33</sup>,  
they    large bamboo basket    two (cl.)    have  
u<sup>55</sup>a<sup>31</sup>    zoj<sup>33</sup>    naj<sup>33</sup>    na<sup>33</sup>    tsvk<sup>55</sup>    thi<sup>31</sup>lum<sup>31</sup>.  
therefore    they    you    (part.)    lend    one (cl.)

They have two large bamboo baskets, so they can lend you one.

naj<sup>33</sup>    fu<sup>31</sup>y<sup>33</sup>    thi<sup>31</sup>ba<sup>31</sup>    zu<sup>55</sup>    aj<sup>55</sup>    liu<sup>55</sup>,    thi<sup>55</sup>ne<sup>33</sup>va<sup>31</sup>    naj<sup>33</sup>    ba<sup>31</sup>  
you    first    some    take    across    if    you    not  
tsa<sup>31</sup>    ko<sup>55</sup>,    naj<sup>33</sup>    kha<sup>31</sup>toj<sup>33</sup>    za<sup>55</sup>y<sup>33</sup>    tshu<sup>33</sup>    za<sup>31</sup>zo<sup>33</sup>.  
eat    enough    you    oneself    in the field    pick    (part.)

[You] take some first, if [they are] not enough to eat, then you can pick some yourself from the field.

Correlative pairs of conjunctions are used mainly under the following circumstances:

The correlative conjunctions which indicate a progressive relationship [ze<sup>31</sup> ... ze<sup>31</sup> ...] and [za<sup>55</sup>tce<sup>55</sup> ... za<sup>55</sup>tce<sup>55</sup> ...] "more ... more" are used to join words or phrases, and precede each of the constituents which are being joined.

zaj<sup>33</sup>    ze<sup>31</sup>    tsv<sup>31</sup>    ze<sup>31</sup>    san<sup>33</sup>.  
he    more    sing    more    happy

The more he sang the happier he became.

muŋ<sup>31</sup>ntuŋ<sup>31</sup>    za<sup>55</sup>tce<sup>55</sup>    khi<sup>33</sup>    za<sup>55</sup>tce<sup>55</sup>    vuŋ<sup>55</sup>.  
sky    more    late in the evening    more    dark

The later it is the darker it is.

The correlative conjunctions which indicate a hypothetical relationship [a<sup>55</sup>a<sup>31</sup> ... va<sup>31</sup>] are used at the beginning and end of the hypothetical phrase. When they are used, the

hypothetical mood is more prominent than if a single word [va<sup>31</sup>] is used at the end of the phrase, as in the following example:

a<sup>55</sup>a<sup>31</sup> nau<sup>33</sup>sy<sup>55</sup> nuŋ<sup>55</sup>tsha<sup>55</sup> tsho<sup>31</sup> va<sup>31</sup>, gu<sup>33</sup> na<sup>31</sup> thai<sup>55</sup>.  
if tomorrow weather fine if we field plough

If the weather is fine tomorrow, we will plough the fields.

The correlative conjunctions [...o<sup>33</sup>mu<sup>55</sup>ba<sup>31</sup>kuan<sup>31</sup> ... o<sup>33</sup>mu<sup>55</sup>ba<sup>31</sup>kuan<sup>31</sup>]□"no matter..." which indicate a conditional relationship, are used together. In practice, however, these conjunctions indicate the indifference of the speaker to certain conditions, as in:

nuŋ<sup>55</sup>tsha<sup>55</sup> loŋ<sup>55</sup> o<sup>33</sup>mu<sup>55</sup>ba<sup>31</sup>kuan<sup>31</sup> tsho<sup>31</sup> o<sup>33</sup>mu<sup>55</sup>ba<sup>31</sup>kuan<sup>31</sup>,  
weather hot no matter cold no matter  
gu<sup>33</sup> za<sup>55</sup>y<sup>33</sup> e<sup>55</sup> ne<sup>55</sup>.  
we in the fields go (part.)

We go to work in the fields whether it is hot or cold.

In some cases, conjunctions expressing conditional relationships may be used with adverbs, with the conjunction preceding the corresponding adverb [mu<sup>55</sup>] "also, still".

naŋ<sup>33</sup> ba<sup>31</sup> up<sup>31</sup> o<sup>33</sup>mu<sup>55</sup> ga<sup>33</sup> mu<sup>55</sup> aŋ<sup>33</sup>be<sup>33</sup>.  
you not say even if I still know

Even if you don't say [it], I still know.

zaj<sup>33</sup> le<sup>33</sup> zau<sup>33</sup>y<sup>33</sup> ga<sup>33</sup> mu<sup>55</sup> le<sup>33</sup>.  
he go only I also go

I will go only if he goes.

(2) The position of conjunctions within a clause is not entirely consistent. There are three possible situations:

- conjunctions which are used independently, or are used to join words or phrases, are usually placed between the two elements being connected:

ga<sup>33</sup> ne<sup>33</sup> naŋ<sup>33</sup> you and I  
I and you  
thi<sup>31</sup>ba<sup>31</sup> aŋ<sup>33</sup>lai<sup>31</sup> ne<sup>33</sup> aŋ<sup>33</sup>pu<sup>55</sup> some books and notebooks  
some book and notebook  
zoŋ<sup>33</sup> la<sup>31</sup>pu<sup>31</sup> tshu<sup>33</sup> zau<sup>33</sup> na<sup>55</sup> laŋ<sup>33</sup>ga<sup>33</sup>.  
they hand grasp ask after each other

They are shaking hands and asking after each other.

ga<sup>33</sup> e<sup>55</sup>le<sup>31</sup> zau<sup>33</sup> na<sup>31</sup> kha<sup>33</sup> e<sup>55</sup>.  
I go back field plant go

I am going back to do some planting in the fields.

gu<sup>33</sup> zum<sup>55</sup> tsho<sup>33</sup> pvn<sup>55</sup> zau<sup>33</sup>y<sup>33</sup> cen<sup>31</sup>.  
we house build complete only then rest

We can have a rest only when we have finished building the house.

The position of some conjunctions is shows a certain flexibility, as in [ne<sup>33</sup>], which connects nominal constituents. It may follow both constituents, as in the following example:

zaj<sup>33</sup> tshaj<sup>31</sup> zaj<sup>33</sup> ne<sup>33</sup> he and his friend(s)  
he friend he and

- conjunctions which are used to connect clauses are usually situated at the beginning of a clause. These include [za<sup>55</sup>tce<sup>55</sup>...] "more...", [u<sup>55</sup>mu<sup>55</sup>...] and [tho<sup>55</sup>mu<sup>55</sup>...] "but...", [thu<sup>55</sup>mu<sup>55</sup>...] "because...", [u<sup>55</sup>a<sup>31</sup>...] and [ni<sup>55</sup>ne<sup>33</sup>mu<sup>55</sup>...] "therefore ...":

ga<sup>33</sup> mja<sup>33</sup> ba<sup>31</sup> tsa<sup>33</sup>, za<sup>55</sup>tce<sup>55</sup> suŋ<sup>33</sup>nat<sup>33</sup> ba<sup>31</sup> tsa<sup>33</sup>.  
I knife not have more gun not have

I don't have a knife; furthermore, [I] don't have a gun.

za<sup>33</sup>it<sup>31</sup> aŋ<sup>33</sup>ai<sup>55</sup> aŋ<sup>33</sup>tsa<sup>33</sup>, u<sup>55</sup>mu<sup>55</sup> aŋ<sup>33</sup>tchi<sup>33</sup> ba<sup>31</sup> tsa<sup>33</sup>.  
they (dual) elder brother have but elder sister not have

The two of them have elder brothers, but no elder sisters.

ni<sup>55</sup>ky<sup>33</sup> suŋ<sup>33</sup>tsuŋ<sup>55</sup> zyŋ<sup>33</sup> xau<sup>33</sup> ty<sup>33</sup> khu<sup>33</sup> tci<sup>55</sup>a<sup>31</sup>,  
here tree (part.) others chop down finish (part.)

ni<sup>55</sup>ne<sup>33</sup>mu<sup>55</sup> ni<sup>55</sup>ky<sup>33</sup> suŋ<sup>33</sup>tsuŋ<sup>55</sup> ba<sup>31</sup> tsa<sup>33</sup> la<sup>55</sup>.  
therefore here tree not have (part.)

The trees here have all been chopped down, so there are none left.

- in some cases, conjunctions connecting clauses are situated at the end of the first clause. These include [...va<sup>31</sup>] "if ..." and [...o<sup>33</sup>mu<sup>55</sup>] "even if ...":

zaj<sup>33</sup> liu<sup>35</sup> va<sup>31</sup>, ga<sup>33</sup> mu<sup>55</sup> kha<sup>55</sup>ga<sup>33</sup> ne<sup>33</sup> le<sup>33</sup>.  
he go over there if I also certainly (part.) go

If he goes, I will certainly go also.

naŋ<sup>33</sup> ba<sup>31</sup> e<sup>55</sup> o<sup>33</sup>mu<sup>55</sup>, ga<sup>33</sup> mu<sup>55</sup> e<sup>55</sup> ci<sup>55</sup>.  
you not go even if I also go want

Even if you don't go, I still want to go.

#### 4.1.10 Interjections

Words expressing exclamations or responses are usually independent of the sentence structure and are not related structurally to the other words within the sentence. Therefore, they are not considered to be clausal constituents. The phonological forms of Bisu interjections are relatively simple, with the majority being monosyllabic words consisting of single vowels. The main interjections are as follows:

[a<sup>55</sup>] expresses pleasant surprise.

a<sup>55</sup>, muŋ<sup>31</sup>ntuŋ<sup>31</sup> to<sup>33</sup> ne<sup>33</sup> la<sup>55</sup> aŋ<sup>55</sup> ne<sup>33</sup> tci<sup>55</sup>a<sup>31</sup>.  
ah sun appear (part.) come (part.) (part.) (part.)

Ah, the sun has come out.

[o<sup>33</sup>] expresses astonishment or sudden realisation.

o<sup>33</sup>,    men<sup>31</sup>    ne<sup>31</sup>    na<sup>55</sup>o<sup>31</sup>.  
oh    beautiful    (part.)    (part.)

Oh, how very beautiful!

o<sup>33</sup>,    ga<sup>33</sup>    be<sup>33</sup>    aŋ<sup>55</sup>    ni<sup>55</sup>a<sup>31</sup>.  
oh    I    understand    (part.)    (part.)

Oh, if only I had known!

[y<sup>55</sup>y<sup>31</sup>] expresses regret.

y<sup>55</sup>y<sup>31</sup>,    tshy<sup>33</sup>    e<sup>55</sup>    aŋ<sup>55</sup>    tci<sup>55</sup>a<sup>31</sup>.  
oh dear    cart    go    (part.)    (part.)

Oh dear, the cart has already gone.

[a<sup>33</sup>la<sup>33</sup>] expresses pain.

a<sup>33</sup>la<sup>33</sup>,    ga<sup>33</sup>    la<sup>31</sup>pu<sup>31</sup>    nen<sup>31</sup>    ga<sup>33</sup>    la<sup>31</sup>.  
ouch    I    hand    squeeze    (part.)    (part.)

Ouch, my hand is being squeezed.

[y<sup>55</sup>] indicates a shout or a call.

y<sup>55</sup>,    vai<sup>31</sup>    e<sup>55</sup>    aŋ<sup>55</sup>    y<sup>31</sup>.  
oi    fast    go    (part.)    (part.)

Oi, let's go.

[m<sup>31</sup>] expresses assent.

m<sup>31</sup>,    ga<sup>33</sup>    la<sup>55</sup>    ni<sup>55</sup>a<sup>31</sup>.  
m-hm    I    come    (part.)

M-hm, I'm coming.

## 4.2 Sentence Structure

In terms of structure, Bisu sentences may be divided into two main types: simple and compound sentences.

A simple sentence has a complete core meaning, with fixed mood or intonation. The vast majority of simple sentences are subject-predicate sentences, with the subject being followed by the predicate. If the verb in the predicate has an object, then the object precedes the verb. According to the structure of the predicates, subject-predicate sentences may be divided into simple predicate sentences and complex predicate sentences.

Some simple sentences are not subject-predicate sentences. They have no subject but only a predicate and are termed "subjectless sentences" and "single word sentences". They are usually declarative or imperative sentences used in colloquial speech, as in the following examples:

mi<sup>55</sup>nuŋ<sup>33</sup>    o<sup>31</sup>khu<sup>31</sup>    xan<sup>55</sup>.  
today    manure    carry on the back  
Today [we] carry the manure.

kam<sup>31</sup>kam<sup>31</sup>,    aŋ<sup>33</sup>za<sup>31</sup>    a<sup>31</sup>    xa<sup>33</sup>    ci<sup>55</sup>    tso<sup>33</sup>.  
slowly slowly    seedling    don't    make    die    should

[Go] Slowly, don't trample the seedlings to death.

lau<sup>55</sup>,    vai<sup>31</sup>    lau<sup>55</sup>!  
come here    quickly    come here  
Come here, quickly! Come here!

Compound sentences are formed from two or more clauses with definite semantic relationships. There may be pauses between each clause, or the clauses may be connected by conjunctions or adverbs.

A detailed analysis of simple predicate sentences, complex predicate sentences, and compound sentences is given below.

### 4.2.1 Simple Predicate Sentences

In terms of structure, a simple predicate sentence has only one type of subject-predicate construction. In terms of semantics, it has only one central meaning.

According to the nature of the predicate, simple predicate sentences may be divided into those with verbal, adjectival, and nominal predicates.

#### A. Verbal predicates

Verbal predicates may consist of only a single verb, or may be a compound structure consisting of two verbs which together express a central meaning. These different types will be described below.

##### (i) Sentences with single verbal predicates

In these sentences, the predicate is either a single verb or a single verbal construction. Verbal constructions include verb-object phrases consisting of one or two objects, or verbal phrases consisting of modifiers or complements.

a<sup>31</sup>khoŋ<sup>31</sup>    ŋeŋ<sup>31</sup>    aŋ<sup>55</sup>    tci<sup>55</sup>a<sup>31</sup>.  
bamboo    split    (part.)    (part.)

The bamboo has split.

zaŋ<sup>33</sup>    a<sup>55</sup>mu<sup>55</sup>    kha<sup>31</sup>lau<sup>33</sup>    ku<sup>31</sup>.  
she    now    clothes    sew

She is sewing clothes right now.

gu<sup>33</sup>    maŋ<sup>55</sup>pum<sup>31</sup>    tci<sup>33</sup>    sy<sup>31</sup>.  
we    corn    break off    (part.)

We are breaking off corncobs.



koŋ<sup>55</sup> khau<sup>55</sup>v<sup>33</sup> laŋ<sup>55</sup>tsho<sup>31</sup> tsa<sup>33</sup>.  
bottle inside water have

There is water inside the bottle.

ga<sup>33</sup> zaŋ<sup>33</sup> na<sup>33</sup> tsum<sup>33</sup>mja<sup>31</sup> ni<sup>31</sup> tsum<sup>33</sup> pi<sup>31</sup>.  
I he (part.) bowl two (cl.) give

I passed him two bowls.

gu<sup>33</sup> tsa<sup>31</sup> o<sup>31</sup>pyŋ<sup>33</sup> ni<sup>55</sup>a<sup>31</sup>.  
we eat full (part.)

We have eaten till we are full.

gu<sup>33</sup> ma<sup>55</sup>tsup<sup>31</sup> ba<sup>31</sup> tsa<sup>31</sup>.  
we tangerine not eat

We don't eat tangerines.

lo<sup>33</sup>kho<sup>31</sup> khau<sup>55</sup>v<sup>33</sup> kaŋ<sup>31</sup>pha<sup>31</sup> ba<sup>31</sup> tsa<sup>33</sup>.  
plate inside vegetable not not have

There are no vegetables on the plates.

Most sentences with verbal predicates may express affirmation, or indicate negation by adding a negating adverb in front of the verb. However, copulas in existential clauses have negative forms only. Copulas can therefore be used only in negative sentences; with affirmative judgements being expressed by clauses with nominal predicates.

## (ii) Sentences with compound verbal predicates

Compound verbal predicates consist of two verbs which together express a central meaning. These two verbs have an intimate semantic association, with one verb being a factitive verb expressing a specific action or behaviour, and the second verb being a modal or directional verb, or a verb which indicates the realisation or result of an action. Apart from modal verbs, these other verbs which can occupy this second slot can also function as predicates themselves. However, when used within compound sentences as the second verb, they are semantically bleached, with consequent grammaticalisation. In negative constructions, it is the first verb which is negated by a preceding adverb, as it carries the main semantic load. These sentences are discussed in more detail based on the different types of "second verbs".

### (1) Compound verbal predicates consisting of a factitive and a modal verb.

Modal verbs do not usually function independently as predicates, and are only used in combination with factitive verbs to form predicates within compound sentences. They express a subjective desire or wish, or the objective probability of the occurrence of an action or behaviour.

ga<sup>33</sup> tsum<sup>33</sup>mja<sup>31</sup> xi<sup>55</sup> tsum<sup>33</sup> zau<sup>55</sup> ci<sup>55</sup>.  
I bowl that (cl.) want want to have

I want to have that bowl.

zaŋ<sup>33</sup> ba<sup>31</sup> tsy<sup>31</sup> kha<sup>31</sup>kha<sup>33</sup>.  
he not sing willing

He is not willing to sing.

naŋ<sup>33</sup> a<sup>31</sup> le<sup>33</sup> tso<sup>33</sup> naŋ<sup>33</sup> cen<sup>31</sup> xo<sup>31</sup>.  
you do not go should you rest should

You shouldn't go, you ought to rest.

zaŋ<sup>33</sup> za<sup>31</sup> zo<sup>31</sup> khi<sup>31</sup> ga<sup>33</sup> za<sup>31</sup> ba<sup>31</sup> zo<sup>31</sup> khi<sup>31</sup>.  
he child walk can I child not walk can

His child can walk, my child cannot walk.

za<sup>31</sup>maŋ<sup>31</sup> ma<sup>55</sup>tsup<sup>31</sup> tsa<sup>31</sup> phy<sup>31</sup> ba<sup>31</sup> tsa<sup>31</sup> phy<sup>31</sup> ga<sup>33</sup> la<sup>31</sup>?  
elderly person tangerine eat can (part.) eat can (part.) (part.)  
za<sup>31</sup>maŋ<sup>31</sup> (ma<sup>55</sup>tsup<sup>31</sup>) aŋ<sup>33</sup>tsa<sup>31</sup> phy<sup>31</sup> ga<sup>33</sup>.  
elderly person tangerine eat can (part.)

Can elderly people eat tangerines? They can.

### (2) Compound verbal predicates consisting of a factitive and a directional verb.

Directional verbs may function independently as predicates to express directional movement of a subject, but can also follow a factitive verb, in order to express the directionality of a certain action or behaviour.

za<sup>33</sup>it<sup>31</sup> me<sup>31</sup>tho<sup>31</sup> ty<sup>33</sup> e<sup>55</sup> ne<sup>55</sup>.  
two of them firewood chop go (part.)

The two of them have gone to chop firewood.

aŋ<sup>33</sup>xu<sup>31</sup> no<sup>31</sup> xyŋ<sup>31</sup> ok<sup>31</sup>.  
big (part.) run out

The big one has run away.

aŋ<sup>33</sup>lai<sup>31</sup>ma<sup>31</sup>fu<sup>33</sup> zo<sup>31</sup> oŋ<sup>55</sup>la<sup>55</sup>.  
teacher walk in here

The teacher is walking in.

(3) Verbs such as [pyn<sup>55</sup>] "complete", [mjaŋ<sup>55</sup>] "see", [khy<sup>33</sup>] "arrive", and [ko<sup>55</sup>] "cross" can often function as the second verb in sentences with compound verbal predicates. These verbs indicate the realisation of the action described by the first verb. When they are used in isolation, they have very specific meanings. However, semantic bleaching occurs when they function as "second verbs", with consequent grammaticalisation.

[pyn<sup>55</sup>]

AS THE MAIN VERB

zoŋ<sup>33</sup> aŋ<sup>33</sup>tche<sup>55</sup>ntuŋ<sup>33</sup>tsan<sup>55</sup> ba<sup>31</sup> pyn<sup>55</sup> ga<sup>33</sup>.  
they more than ten days not finish (part.)

They still haven't finished in over ten days.

AS THE SECOND VERB

kha<sup>31</sup>lau<sup>33</sup> aŋ<sup>33</sup>sŋ<sup>31</sup> vai<sup>31</sup> ku<sup>31</sup> pyn<sup>55</sup> ni<sup>55</sup>a<sup>31</sup>.  
garment new quickly sew finish (part.)

The new garment is about to be finished.

ko<sup>33</sup>tci<sup>55</sup>    aŋ<sup>33</sup>sɿ<sup>31</sup>    tsho<sup>33</sup>    pɿŋ<sup>55</sup>.  
 granary    new    cover    finish

The new granary has been built.

[mjaŋ<sup>55</sup>]

This verb has a few distinctive features. First, it exhibits grammaticalisation under certain conditions. When used alone as the predicate of a sentence, it has the lexical meaning of "see, look". However, it often functions as the second verb in sentences with compound verbal predicates. When [mjaŋ<sup>55</sup>] is used with some verbs, it retains its original meaning, as in [fu<sup>33</sup>mjaŋ<sup>55</sup>] "seen" and [sa<sup>55</sup>mjaŋ<sup>55</sup>] "found". With used with some other verbs, however, [mjaŋ<sup>55</sup>] is semantically bleached, with consequent grammaticalisation. In such cases, it is used to indicate that the action or behaviour described by the first verb has already happened, as in [le<sup>33</sup>mjaŋ<sup>55</sup>] "has been there before", [la<sup>55</sup>mjaŋ<sup>55</sup>] "has been here before", and [tsa<sup>31</sup>mjaŋ<sup>55</sup>] "has eaten". Secondly, the object of [mjaŋ<sup>55</sup>] does not usually precede the verb but follows it instead.

AS THE MAIN PREDICATE

ga<sup>33</sup>it<sup>31</sup>    xi<sup>55</sup>mv<sup>33</sup>    mjaŋ<sup>55</sup>    laŋ<sup>33</sup>ga<sup>33</sup>    an<sup>31</sup>.  
 two of us    that time    see    each other    (part.)

The two of us have met before.

AS THE SECOND VERB

ga<sup>33</sup>    ba<sup>31</sup>    fu<sup>33</sup>    mjaŋ<sup>55</sup>    lan<sup>55</sup>.  
 I    not    see    look    axe

I have not seen the axe.

ni<sup>55</sup>ky<sup>33</sup>    zaŋ<sup>33</sup>    la<sup>55</sup>    mjaŋ<sup>55</sup>.  
 here    he    come    before

He has been here [before].

zoŋ<sup>33</sup>    ba<sup>31</sup>    tsa<sup>31</sup>    mjaŋ<sup>55</sup>    xa<sup>33</sup>sɿ<sup>31</sup>.  
 they    not    eat    before    banana

They have never eaten bananas.

[khy<sup>33</sup>]

AS THE MAIN VERB

tsa<sup>31</sup>zam<sup>31</sup>    khy<sup>33</sup>    aŋ<sup>55</sup>    la<sup>55</sup>    la<sup>31</sup>?  
 time for dinner    arrive    (part.)    come    (part.)

Is it time for dinner yet?

AS THE SECOND VERB

ga<sup>33</sup>it<sup>31</sup>    khoŋ<sup>31</sup>v<sup>33</sup>    thi<sup>31</sup>    tsan<sup>55</sup>    le<sup>33</sup>    khy<sup>33</sup>.  
 two of us    in the village    one    time    go    arrive

The two of us have been in the village once.

[ko<sup>55</sup>]

AS THE MAIN VERB

ni<sup>31</sup>ntuŋ<sup>33</sup>    ko<sup>55</sup>    le<sup>33</sup>    aŋ<sup>55</sup>.  
 two days    pass    go    (part.)

Two days have passed.

AS THE SECOND VERB

gu<sup>33</sup>    xaŋ<sup>31</sup>    tsa<sup>31</sup>    ko<sup>55</sup>    an<sup>31</sup>.  
 we    rice    eat    pass    (part.)

We have already had dinner.

(4) Verbs such as [xa<sup>33</sup>] "make, do, get" may sometimes require a corresponding verb to express the result of an action, with the two verbs forming a compound verbal predicate.

le<sup>31</sup>tu<sup>31</sup>    na<sup>33</sup>    xa<sup>33</sup>    ton<sup>31</sup>.  
 rope    (part.)    make    broken

The rope has been broken.

kha<sup>31</sup>lau<sup>33</sup>    xa<sup>33</sup>    zik<sup>31</sup>    tci<sup>55</sup>a<sup>31</sup>.  
 clothes    make    torn    (part.)

The clothes have been torn.

ga<sup>33</sup>    py<sup>33</sup>    gaŋ<sup>33</sup>.  
 I    shoot    on target

I have hit the target.

va<sup>31</sup>za<sup>31</sup>    vai<sup>31</sup>    nen<sup>31</sup>    da<sup>55</sup>    ni<sup>55</sup>a<sup>31</sup>.  
 little pig    quickly    squeeze, jostle    injured    (part.)

The little pig is about to be injured through jostling.

kha<sup>55</sup>zum<sup>55</sup>zum<sup>55</sup>    zum<sup>55</sup>    aŋ<sup>33</sup>sɿ<sup>31</sup>    ga<sup>33</sup>    duŋ<sup>55</sup>.  
 every family    house    new    obtain    live

Every family is living in new houses.

ga<sup>33</sup>    tchi<sup>31</sup>    pi<sup>31</sup>    zoŋ<sup>33</sup>    na<sup>33</sup>    ko<sup>33</sup>tchin<sup>55</sup>    thi<sup>31</sup>pak<sup>31</sup>    tsan<sup>55</sup>.  
 I    lend    give    they    (part.)    rice    one hundred    more

I lent them over 100 catties of rice.

## B. Adjectival predicates

Adjectives often function as predicates in a sentence, and mainly describe the shape, appearance, or condition of the subject, as in the following examples:

u<sup>31</sup>ku<sup>33</sup> thi<sup>31</sup> sɿ<sup>31</sup> thi<sup>31</sup> sɿ<sup>31</sup> pa<sup>33</sup> aŋ<sup>55</sup> tɕi<sup>55</sup>a<sup>31</sup>.  
 stars one (cl.) one (cl.) bright (part.) (part.)

The stars are coming out one by one.

ne<sup>55</sup> ne<sup>33</sup> aŋ<sup>33</sup>men<sup>31</sup> sɿ<sup>55</sup> ne<sup>33</sup> ba<sup>31</sup> men<sup>31</sup>.  
 red (part.) good yellow (part.) not good

The red one is good, the yellow one is not good.

ma<sup>55</sup>tsup<sup>31</sup> aŋ<sup>33</sup>nu<sup>55</sup> aŋ<sup>33</sup>tchin<sup>55</sup> aŋ<sup>33</sup>sɿ<sup>55</sup> aŋ<sup>33</sup>tshau<sup>55</sup>.  
 tangerine green sour yellow sweet

Green tangerines are sour, yellow ones are sweet.

za<sup>33</sup>it<sup>31</sup> thi<sup>31</sup>ga<sup>31</sup>lo<sup>55</sup>me<sup>33</sup> tuŋ<sup>31</sup>.  
 two of them equally fat

The two of them are equally fat.

### C. Nominal predicates

Nominal predicates include nouns, pronouns, numeral-classifier phrases, and constructions with [xy<sup>33</sup>], the particle expressing possession. Nominal predicates are usually evaluative or existential, and involve the coordination of several clauses which have similar constructions.

#### (i) Nouns as predicates

ni<sup>55</sup>ky<sup>33</sup> xa<sup>33</sup>sɿ<sup>31</sup> bi<sup>55</sup>ky<sup>33</sup> ma<sup>55</sup>tsup<sup>31</sup> xi<sup>55</sup>ky<sup>33</sup> sɿ<sup>31</sup>kho<sup>31</sup>.  
 here banana there tangerine there cucumber

Here are the bananas, there are the tangerines, there are the cucumbers.

mi<sup>55</sup>nuŋ<sup>33</sup> kat<sup>55</sup>nuŋ<sup>33</sup>.  
 today market day

Today is market day.

#### (ii) Pronouns as predicates

xan<sup>31</sup> ni<sup>55</sup>ky<sup>33</sup> kaŋ<sup>31</sup>pha<sup>31</sup> bi<sup>55</sup>ky<sup>33</sup> aŋ<sup>33</sup>tsha<sup>55</sup> xi<sup>55</sup>ky<sup>33</sup>.  
 rice here vegetables there soup there

The rice is here, the vegetables are there, the soup is there.

naŋ<sup>33</sup> xy<sup>33</sup> kha<sup>31</sup>lau<sup>33</sup> a<sup>55</sup>lo<sup>55</sup>ky<sup>33</sup>?  
 you (poss.) clothes where

Where are your clothes?

#### (iii) Numeral-classifier phrases as predicates

ni<sup>55</sup>u<sup>55</sup> ma<sup>55</sup>khy<sup>55</sup> sum<sup>55</sup> xan<sup>55</sup> kin<sup>55</sup>.  
 these aubergine three four catty

These aubergines weigh nearly three or four catties.

ga<sup>33</sup> xy<sup>33</sup> thi<sup>31</sup>paŋ<sup>31</sup> naŋ<sup>33</sup> xy<sup>33</sup> thi<sup>31</sup>paŋ<sup>31</sup>.  
 I (poss.) half you (poss.) half

I have half, you have half.

#### (iv) Constructions with [xy<sup>33</sup>] as predicate

thi<sup>31</sup>pha<sup>33</sup> ga<sup>33</sup>xy<sup>33</sup> thi<sup>31</sup>pha<sup>33</sup> zaŋ<sup>33</sup>xy<sup>33</sup>.  
 half I (poss.) half he (poss.)

Half is mine; half is his.

xi<sup>55</sup> tuŋ<sup>31</sup> na<sup>31</sup> xau<sup>33</sup>xy<sup>33</sup>.  
 that place field other people (poss.)

That field belongs to other people.

The above sentences show that sentences with nominal predicates are mainly evaluative or existential.

Sentences with nominal predicates which are evaluative in nature can only express affirmation or interrogation and not negation. Negation is expressed by sentences with verbal predicates, by using [ba<sup>31</sup>a<sup>31</sup>] "not be", as in the following example:

ni<sup>55</sup> kaŋ<sup>31</sup>ba<sup>33</sup>ba<sup>33</sup>tɕin<sup>31</sup> la<sup>31</sup>? xi<sup>55</sup> ba<sup>33</sup>tɕin<sup>31</sup> ba<sup>31</sup>a<sup>31</sup>.  
 this Chinese cabbage (part.) that Chinese cabbage not be

xi<sup>55</sup> kaŋ<sup>31</sup>paŋ<sup>33</sup>tshɿ<sup>55</sup>.  
 that rape

Is this Chinese cabbage? That is not Chinese cabbage. That is rape.

Ellipsis of certain constituents may occur in evaluative sentences. Ellipsis occurs in affirmative or negative clauses when the content of the evaluation is identical to that in the preceding sentence, in order to avoid repetition. However, in an affirmative evaluative sentence whose predicate has been ellipsed, the structural particle [a<sup>31</sup>], which indicates the object, usually follows the subject. In the following sentences, the items in parentheses may be ellipsed.

noŋ<sup>33</sup> (a<sup>31</sup>) aŋ<sup>33</sup>lai<sup>31</sup>ma<sup>31</sup>ba<sup>31</sup> la<sup>31</sup>? ga<sup>33</sup> a<sup>31</sup> (aŋ<sup>33</sup>lai<sup>31</sup>ma<sup>31</sup>fu<sup>33</sup>).  
 you (pl.) (part.) teacher (part.) I (part.) teacher  
 u<sup>55</sup>mtu<sup>55</sup> zoŋ<sup>33</sup> (aŋ<sup>33</sup>lai<sup>31</sup>ma<sup>31</sup>ba<sup>31</sup>) ba<sup>31</sup> a<sup>31</sup>.  
 but they teacher not be

Are you teachers? I am (a teacher), but they are not (teachers).

The difference between sentences with nominal predicates which are existential and sentences with verbal predicates lies in the absence or presence of the verb [aŋ<sup>33</sup>tsa<sup>33</sup>] "have", which indicates existence or appearance. When [aŋ<sup>33</sup>tsa<sup>33</sup>] is added to some of the above sentences with nominal predicates, they become sentences with verbal predicates, as in the following examples:

ni <sup>55</sup> ky <sup>33</sup>	xa <sup>33</sup> sɿ <sup>31</sup>	aŋ <sup>33</sup> tsa <sup>33</sup> ,	bi <sup>55</sup> ky <sup>33</sup>	ma <sup>55</sup> tsup <sup>31</sup>	aŋ <sup>33</sup> tsa <sup>33</sup> ,
here	banana	have	there	tangerine	have

xi <sup>55</sup> ky <sup>33</sup>	sɿ <sup>31</sup> kho <sup>31</sup>	aŋ <sup>33</sup> tsa <sup>33</sup> .
there	cucumber	have

The bananas are here, the tangerines are there, the cucumbers are there.

#### 4.2.2 Complex Predicate Sentences

The construction of these sentences are complex, and the meanings expressed are multifocal. These sentences may be divided into different types according to the features of their predicates: consecutive, causative, subject-predicate, comparative, and repetitive.

##### A. Consecutive type

The predicate includes two verbs or verbal phrases expressing two main points, *i.e.* describing separately two types of actions performed by the subject. The two verbs may be directly connected, or may be linked by conjunctions such as [zau<sup>33</sup>], [ze<sup>31</sup>], or [za<sup>55</sup>tce<sup>55</sup>]. Different types of temporal relationships may exist between the two actions.

##### (i) Simultaneous actions

zɔŋ <sup>33</sup>	za <sup>55</sup> bu <sup>55</sup>	ba <sup>31</sup>	ɕen <sup>31</sup> .
they	work	not	stop

They are busy working.

kha <sup>55</sup> tshaj <sup>55</sup> tshaj <sup>55</sup>	luŋ <sup>33</sup> ba <sup>33</sup> bu <sup>31</sup>	zau <sup>33</sup>	pyk <sup>33</sup>	zau <sup>33</sup>	tshaj <sup>31</sup> .
everybody	happy	(conj.)	jump	(conj.)	dance

Everybody was so happy that they jumped and danced.

ga <sup>33</sup>	tsy <sup>31</sup>	za <sup>55</sup> tce <sup>55</sup>	tsy <sup>31</sup>	ci <sup>55</sup> .
I	sing	more	sing	want

The more I sing, the more I want to sing.

##### (ii) Consecutive actions

ga <sup>33</sup>	aŋ <sup>33</sup> fy <sup>33</sup>	zau <sup>33</sup>	naŋ <sup>33</sup>	na <sup>33</sup>	xau <sup>55</sup>	la <sup>31</sup> ne <sup>31</sup> .
I	wake up	(conj.)	you	(part.)	call	(part.)

As soon as I wake up I will call you.

gu <sup>33</sup>	xaj <sup>31</sup>	tse <sup>31</sup>	pvn <sup>55</sup>	zau <sup>33</sup>	le <sup>33</sup> .
we	rice	eat	finish	(conj.)	go

We will go when we have finished eating.

zɔŋ <sup>33</sup>	nau <sup>33</sup> sy <sup>55</sup>	aŋ <sup>33</sup> mvŋ <sup>55</sup>	le <sup>33</sup>	aŋ <sup>33</sup> lai <sup>31</sup>	zyŋ <sup>33</sup>	vy <sup>55</sup> .
they	tomorrow	into town	go	book	(part.)	buy

They are going into town tomorrow to buy books.

##### B. Causative type

The predicate consists of two verbs which indicate different initiators of the actions, with one action being initiated by the subject, and the other by the object. The former has a causative meaning, *i.e.* it causes the object to perform another action. Therefore, one action leads to the occurrence of the other, so that the patient of the first action is also the agent of the following action.

The causative verb [pi<sup>31</sup>] is often used in such sentences, but other verbs may also be used. These include certain factitive verbs which have a causative meaning.

The usual order of the constituents within this type of sentence is: Subject - Object - Verb qualifying the subject - Verb qualifying the object. As the basic Bisu word order is OV, the two verbs both follow the object. The noun which represents the object, especially if it is a personal pronoun, is usually used with the particle for patient: [na<sup>33</sup>]. In some cases, the verb qualifying the subject, and which has a causative meaning, may follow the verb which qualifies the object.

naŋ <sup>33</sup>	pu <sup>55</sup>	naŋ <sup>33</sup>	na <sup>33</sup>	xau <sup>55</sup>	la <sup>31</sup>	a <sup>55</sup> mu <sup>55</sup>
you	grandfather	you	(part.)	call	(part.)	now
za <sup>55</sup>	y <sup>33</sup>	thi <sup>31</sup>	tsaj <sup>55</sup>	e <sup>55</sup> .		
in the fields	(part.)	one	time	go		

Your grandfather tells you to go to the fields immediately.

zaj <sup>33</sup>	ga <sup>33</sup>	na <sup>33</sup>	xau <sup>55</sup> la <sup>31</sup>	thi <sup>31</sup> tchit <sup>31</sup>	taŋ <sup>31</sup> .
he	I	(part.)	call, let	a little while	wait

He let me wait for a little while.

gu <sup>33</sup>	zaj <sup>33</sup>	na <sup>33</sup>	poŋ <sup>31</sup>	xa <sup>33</sup>	za <sup>33</sup> .
we	he	(part.)	help	make	(part.)

We are helping him to make [it] together.

naŋ <sup>33</sup>	za <sup>31</sup> ki <sup>33</sup>	na <sup>33</sup>	a <sup>31</sup>	pi <sup>31</sup>	e <sup>55</sup>	tso <sup>33</sup> .
you	child	(part.)	don't	let, allow	go	should

Don't [you] let the child go out.

a <sup>55</sup> boŋ <sup>55</sup>	ga <sup>33</sup>	na <sup>33</sup>	tse <sup>31</sup>	pi <sup>31</sup>	ne <sup>55</sup> .
father	I	(part.)	eat	let, allow	(part.)

[My] father let me eat.

##### C. Subject-predicate type

This type of construction consists of a subject and a predicate which form an integrated whole in order to describe the subject of the whole sentence.

kha <sup>31</sup> toŋ <sup>33</sup>	tsum <sup>33</sup> mja <sup>31</sup>	kha <sup>31</sup> toŋ <sup>33</sup>	zau <sup>55</sup> .
myself	bowl	myself	use

My own bowl I will use myself.

ga <sup>33</sup>	kyŋ <sup>31</sup>	ga <sup>33</sup>	bu <sup>55</sup> .
I	affairs	I	do

My own affairs, I will manage myself.

ni<sup>55</sup> tsum<sup>55</sup> za<sup>33</sup> aŋ<sup>33</sup>ba<sup>33</sup> aŋ<sup>33</sup>bja<sup>31</sup>.  
 this flock chicken female more

This flock of chickens consists mainly of hens.

#### D. Comparative type

In comparative sentences, adjectives are either the main constituents in the predicate or complements of the verb in the predicate. These sentences are used specifically to compare two objects, with the word [tha<sup>31</sup>y<sup>33</sup>] being used to connect the two. The item which is being compared precedes [tha<sup>31</sup>y<sup>33</sup>].

xa<sup>33</sup>sɿ<sup>31</sup> ni<sup>55</sup>khan<sup>31</sup> tha<sup>31</sup>y<sup>33</sup> xa<sup>33</sup>sɿ<sup>31</sup> xi<sup>55</sup>khan<sup>31</sup> xtu<sup>31</sup>.  
 banana this bunch above banana that bunch big

That bunch of bananas is larger than this (bunch of bananas).

xi<sup>55</sup>ky<sup>33</sup> tha<sup>31</sup>y<sup>33</sup> ni<sup>55</sup>ky<sup>33</sup> loŋ<sup>55</sup>.  
 there above here hot

It is hotter here than there.

zaj<sup>33</sup> xyn<sup>31</sup> tha<sup>31</sup>y<sup>33</sup> ga<sup>33</sup> vai<sup>31</sup>.  
 he run above I fast

I can run faster than he [can].

In some cases, [tha<sup>31</sup>y<sup>33</sup>] may not need to be situated between the two compared objects. However, the item which is being compared always closely precedes [tha<sup>31</sup>y<sup>33</sup>]. Therefore, the last example above, "I can run faster than he can", may also be expressed by using a different word order: [ga<sup>33</sup> xyn<sup>31</sup> zaj<sup>33</sup> tha<sup>31</sup>y<sup>33</sup> vai<sup>31</sup>].

If the compared objects are phrases, constituents in the second phrase which are identical to those in the first group may be ellipted. In the following sentence, the constituents in parentheses may be ellipted in order to make the sentence more succinct.

ga<sup>33</sup> xy<sup>33</sup> tsum<sup>33</sup>mja<sup>31</sup> naŋ<sup>33</sup> xy<sup>33</sup> (tsum<sup>33</sup>mja<sup>31</sup>) tha<sup>31</sup>y<sup>33</sup> aŋ<sup>33</sup>xu<sup>31</sup>.  
 I (poss.) bowl you (poss.) bowl above big

My bowl is bigger than your (bowl).

In a comparative sentence, the adjective in the predicate may be used with a complement, in order to emphasise more strongly the result of the comparison, as in:

ga<sup>33</sup> xy<sup>33</sup> khu<sup>31</sup> naŋ<sup>33</sup> xy<sup>33</sup> tha<sup>31</sup>y<sup>33</sup> xu<sup>31</sup> lin<sup>31</sup>.  
 I (poss.) dog you (poss.) above big very

My dog is much bigger than yours.

#### E. Repetitive type

Repetition is used in Bisu sentences to emphasise the main point of the whole sentence or a portion which needs to be highlighted. As the predicate is usually the part which expresses the main point of the whole sentence, repetition usually involves the verb which functions as the head of the predicate. However, other constituents such as nouns functioning as modifiers, may also be repeated for emphasis.

Repetition can involve the same word or different words. Although both types of repetition are used to render the main point of the sentence more prominent, there are distinctive features in their usage.

##### (i) Repetition of the same word

The same word is repeated within the sentence. This is not the same as reduplication, and can occur in different ways:

(1) A different form of the word is repeated.

zoŋ<sup>33</sup> xyn<sup>31</sup> ne<sup>33</sup> aŋ<sup>33</sup>xyn<sup>31</sup> vai<sup>31</sup>vai<sup>31</sup>.  
 they run (part.) run fast

They run very fast.

The verb [xyn<sup>31</sup>] "run" is used twice, but the word is repeated in a different form. The first one is monosyllabic, and the second has the prefix [aŋ<sup>33</sup>]. In addition, the particle [ne<sup>33</sup>], which expresses a modifying relationship, is situated in between the two repeated words. This differs from the reduplicated form [vai<sup>31</sup>vai<sup>31</sup>] of the verbal complement [aŋ<sup>33</sup>vai<sup>31</sup>] "fast".

za<sup>33</sup>it<sup>31</sup> fu<sup>33</sup>fu<sup>33</sup>le<sup>55</sup> xi<sup>55</sup>ky<sup>33</sup> fu<sup>33</sup> ni<sup>55</sup>ky<sup>33</sup> fu<sup>33</sup>.  
 two of them take a look there look here look

The two of them looked here and there.

In the above sentence, the verb [fu<sup>33</sup>] "look" is repeated twice: the first form is the fixed expression [fu<sup>33</sup>fu<sup>33</sup>le<sup>55</sup>] "have a look", and the other is the original form [fu<sup>33</sup>].

(2) The two repeated words may be associated with different constituents.

mi<sup>55</sup>nu<sup>33</sup> maŋ<sup>55</sup>pum<sup>31</sup> by<sup>31</sup> la<sup>31</sup> ne<sup>33</sup> by<sup>31</sup> men<sup>31</sup>men<sup>31</sup>.  
 this year maize grow (part.) (part.) grow good, well

The maize has grown exceptionally well this year.

In the above sentence, the verb in the predicate, [by<sup>31</sup>] "grow healthy and strong" is repeated. First, it is used with a particle, and an adjectival complement follows its second appearance, in order to enhance the meaning of the sentence.

ni<sup>55</sup>ky<sup>33</sup> a<sup>55</sup>maŋ<sup>55</sup> aŋ<sup>33</sup>sɿ<sup>31</sup> tsa<sup>33</sup> bja<sup>31</sup> tsa<sup>33</sup> xu<sup>31</sup> ni<sup>55</sup>y<sup>31</sup>?  
 here what fruit have many have big (part.)

Which kind of fruit is most plentiful here?

In the above sentence, the verb [tsa<sup>33</sup>] "have" is repeated, with the two words being associated with the complements [bja<sup>31</sup>] "many, several" and [xu<sup>31</sup>] "big" respectively, in order to emphasise that the speaker wishes to ask about the type of fruit whose production is most plentiful.

(3) The words may appear in different positions to indicate different emphases.

zaj<sup>33</sup> za<sup>55</sup>kho<sup>31</sup> ba<sup>31</sup> tsj<sup>33</sup>, te<sup>31</sup>kha<sup>31</sup> ba<sup>31</sup> taj<sup>55</sup>  
 he cigarette not smoke wine not drink

za<sup>55</sup>tce<sup>55</sup> ba<sup>31</sup> taj<sup>55</sup> ci<sup>55</sup>.  
 furthermore not drink want

He doesn't smoke, and doesn't drink (wine).

In the above sentence, the word [ba<sup>31</sup> taj<sup>55</sup>] "doesn't drink" appears twice, with the two occurrences being connected by the conjunction [za<sup>55</sup>tce<sup>55</sup>] "furthermore", which expresses progression. The modal verb [ci<sup>55</sup>] "willing, want to have" is added on to the second phrase to emphasise that "not drinking" is a voluntary action.

mi<sup>55</sup>nu<sup>33</sup> ko<sup>33</sup> mi<sup>55</sup>nu<sup>33</sup>sv<sup>55</sup> tha<sup>31</sup>y<sup>33</sup> mi<sup>55</sup>nu<sup>33</sup> ga<sup>33</sup> bja<sup>31</sup> thi<sup>31</sup>pa<sup>31</sup>.  
 this year grain last year above this year obtain more twice

This year [we] harvested twice as much grain as last year.

In the above sentence, [mi<sup>55</sup>nu<sup>33</sup>] "this year" is used twice, the first time as the modifier of [ko<sup>33</sup>] "grain", and the second expressing time in a comparative construction.

#### (ii) Repetition of different words

Two near-synonyms may be used consecutively to express the same meaning and function. Sentence structure and form are not altered, and the word order of other constituents is unaffected.

up<sup>31</sup>up<sup>31</sup> tsy<sup>31</sup>tsy<sup>31</sup> san<sup>33</sup> lu<sup>33</sup>ba<sup>33</sup>bu<sup>31</sup>.  
 talking singing happy cheerful, in a good mood

[They were] very happily talking and singing.

The words [san<sup>33</sup>] and [lu<sup>33</sup>ba<sup>33</sup>bu<sup>31</sup>] both mean "happy, cheerful, in a good mood" and may be used separately. However, using both together in the predicate position increases the depth of meaning.

kha<sup>33</sup>te<sup>33</sup> ze<sup>31</sup>svj<sup>31</sup> ga<sup>33</sup> a<sup>55</sup>mu<sup>55</sup> khv<sup>33</sup> tsj<sup>31</sup>ga<sup>33</sup> e<sup>55</sup> a<sup>33</sup>be<sup>33</sup> bat<sup>33</sup>.  
 in the past affairs I now until remember go know clearly

What happened in the past I can still remember very clearly now.

In the above sentence, the two verbs [tsj<sup>31</sup>ga<sup>33</sup>] "remember" and [a<sup>33</sup>be<sup>33</sup>] "know" are used together in the predicate to emphasise the clarity of the memory.

#### 4.2.3 Compound Sentences

A compound sentence consists of two or more clauses, with the clauses having different kinds of semantic associations. These clauses may be connected by conjunctions or adverbs. Compound sentences may be divided into eight types according to the semantic categories of their constituent clauses.

#### A. Coordinated compound sentences

Coordinated compound sentences may be divided into three types: non-consecutive and non-contrastive, consecutive, and contrastive types.

##### (i) Non-consecutive and non-contrastive

The following are examples of non-consecutive and non-contrastive coordinated compound sentences:

mtuj<sup>31</sup>nutj<sup>31</sup> mtuj<sup>31</sup>byn<sup>31</sup> aj<sup>33</sup>t<sup>33</sup>sa<sup>33</sup>, nutj<sup>55</sup>tsha<sup>31</sup> mo<sup>31</sup>ka<sup>31</sup> aj<sup>33</sup>t<sup>33</sup>sa<sup>33</sup>.  
 sky cloud have ground grass have

There are clouds in the sky, there is grass on the ground.

ko<sup>33</sup>kha<sup>33</sup> ni<sup>55</sup> lum<sup>31</sup> khau<sup>55</sup> y<sup>33</sup> ko<sup>33</sup>tchin<sup>55</sup> aj<sup>33</sup>t<sup>33</sup>sa<sup>33</sup>,  
 large bamboo basket this (cl.) inside (part.) rice have

ko<sup>33</sup>kha<sup>33</sup> bi<sup>55</sup> lum<sup>31</sup> khau<sup>55</sup> y<sup>33</sup> maj<sup>55</sup>pum<sup>31</sup> aj<sup>33</sup>t<sup>33</sup>sa<sup>33</sup>,  
 large bamboo basket that (cl.) inside (part.) maize have

ko<sup>33</sup>kha<sup>33</sup> xi<sup>55</sup> lum<sup>31</sup> khau<sup>55</sup> y<sup>33</sup> kaj<sup>31</sup>ba<sup>33</sup> aj<sup>33</sup>t<sup>33</sup>sa<sup>33</sup>.  
 large bamboo basket that (cl.) inside (part.) vegetables have

This large bamboo basket contains rice; that large bamboo basket contains maize; that large bamboo basket contains green vegetables.

zaj<sup>33</sup> tchi<sup>33</sup> ni<sup>31</sup>fu<sup>33</sup>, thi<sup>31</sup>fu<sup>33</sup> a<sup>31</sup> khonj<sup>31</sup> an<sup>55</sup> du<sup>33</sup>uj<sup>55</sup>,  
 he elder sister two (cl.) one (cl.) (part.) hamlet old live

thi<sup>31</sup>fu<sup>33</sup> a<sup>31</sup> khonj<sup>31</sup> s<sup>31</sup> dmj<sup>55</sup>.  
 one (cl.) (part.) hamlet new live

He has two elder sisters: one living in the old hamlet, one living in the new hamlet.

##### (ii) Consecutive

These clauses occur in sequence, as in the following examples:

la<sup>33</sup>ba<sup>33</sup> la<sup>33</sup>tsho<sup>31</sup> tsa<sup>33</sup>, la<sup>33</sup>ba<sup>33</sup> tha<sup>31</sup> y<sup>33</sup> kai<sup>55</sup>khu<sup>33</sup> tsa<sup>33</sup>.  
 river water have river on top (part.) bridge have

There is water in the river, with a bridge on top of it.

aj<sup>33</sup>fu<sup>31</sup> y<sup>33</sup> stuj<sup>33</sup>tsuj<sup>55</sup> ni<sup>31</sup> tsuj<sup>55</sup>, stuj<sup>33</sup>tsuj<sup>55</sup> aj<sup>33</sup>o<sup>31</sup>.  
 in front (part.) tree two (cl.) tree below

tshaj<sup>55</sup> thi<sup>31</sup>fu<sup>33</sup>, aj<sup>33</sup>tshaj<sup>33</sup> y<sup>33</sup> lo<sup>33</sup>ba<sup>33</sup> aj<sup>33</sup>xu<sup>31</sup> thi<sup>31</sup>lo<sup>33</sup>,  
 person one (cl.) beside (part.) stone big a piece

lo<sup>33</sup>ba<sup>33</sup> no<sup>31</sup>kho<sup>31</sup> y<sup>33</sup> thi<sup>31</sup>ba<sup>31</sup> pe<sup>33</sup>le<sup>33</sup>.  
 stone behind (part.) some sheep

There are two trees ahead, with a person under the tree. Beside the person is a large rock. Behind the rock are some sheep.

### (iii) Contrastive

These clauses have corresponding or contrasting meanings.

tsa <sup>55</sup> tchit <sup>31</sup>	pjam <sup>55</sup>	khi <sup>31</sup> ,	a <sup>31</sup> kau <sup>31</sup>	ba <sup>31</sup>	pjam <sup>55</sup>	khi <sup>31</sup> .
sparrow	fly	can	duck	not	fly	can

Sparrows can fly; ducks cannot fly.

kaŋ <sup>31</sup> pha <sup>31</sup>	v <sup>33</sup>	la <sup>31</sup> phi <sup>31</sup>	tsa <sup>33</sup> ,	aŋ <sup>33</sup> tsha <sup>55</sup>	la <sup>31</sup> phi <sup>31</sup>	ba <sup>31</sup>	tsa <sup>33</sup> .
vegetables	(part.)	chilli	have	soup	chilli	not	have

There is chilli in the vegetable dish: there is no chilli in the soup.

### B. Compound sentences expressing a temporal sequence

The clauses follow a chronological sequence, and are ordered according to the way in which events happened. In some cases, temporal phrases may be used to clarify the sequence of events.

a <sup>31</sup> ba <sup>33</sup>	e <sup>55</sup>	aŋ <sup>55</sup> ,	za <sup>31</sup> ki <sup>33</sup>	uŋ <sup>55</sup>	aŋ <sup>55</sup>	la <sup>55</sup> .
mother	go	(part.)	child	cry	(part.)	come, start

As soon as the mother went, the child began to cry.

muŋ <sup>31</sup> nuŋ <sup>31</sup>	to <sup>33</sup>	la <sup>31</sup>	ba <sup>31</sup> maŋ <sup>55</sup> ,	muŋ <sup>31</sup> xo <sup>31</sup>	lu <sup>33</sup>	aŋ <sup>55</sup> .
sun	appear	(part.)	not long	rain	come down	(part.)

No sooner had the sun come out than it started raining.

zoŋ <sup>33</sup>	aŋ <sup>33</sup> kyŋ <sup>31</sup>	pi <sup>31</sup>	laŋ <sup>33</sup> ga <sup>33</sup>	noŋ <sup>31</sup>	v <sup>33</sup>	la <sup>31</sup> pu <sup>31</sup>	tshu <sup>33</sup>
they	objects	give	each other	after	(part.)	hand	grasp

zau <sup>33</sup>	na <sup>55</sup>	laŋ <sup>33</sup> ga <sup>33</sup> .
(conj.)	ask	each other

After they had exchanged presents, they shook hands and asked after each other.

### C. Alternative compound sentences

The clauses list a choice of situations, and as the result is not yet known, the sentence is in the interrogative form. In some cases, the Chinese loan word [xai<sup>31</sup>s<sup>55</sup>] “or” is added to the front of the first clause to emphasize the concept of selection, but its usage is different from that in Chinese, as it does not have to be used in a correlative pair.

naŋ <sup>33</sup>	xyn <sup>31</sup>	vai <sup>31</sup>	gai <sup>55</sup>	la <sup>31</sup> ?	ga <sup>33</sup>	xyn <sup>31</sup>	vai <sup>31</sup>	gai <sup>55</sup>	la <sup>31</sup> ?
you	run	fast	(part.)	(part.)	I	run	fast	(part.)	(part.)

Do you run fast, or do I?

xai <sup>31</sup> s <sup>55</sup>	ga <sup>33</sup>	e <sup>55</sup>	lai <sup>55</sup>	la <sup>31</sup> ?	zaŋ <sup>33</sup>	e <sup>55</sup>	lai <sup>55</sup>	la <sup>31</sup> ?
or	I	go	(part.)	(part.)	he	go	(part.)	(part.)

Either I will go, or he will.

### D. Progressive compound sentences

In these sentences, the conjunction [za<sup>55</sup>tce<sup>55</sup>] “more...”, or adverbs such as [s<sup>31</sup>] “also” and [mu<sup>55</sup>] “and” are used.

za <sup>33</sup> it <sup>31</sup>	aŋ <sup>33</sup> ai <sup>55</sup>	ba <sup>31</sup>	tsa <sup>33</sup> ,	za <sup>55</sup> tce <sup>55</sup>	aŋ <sup>33</sup> tchi <sup>33</sup>	ba <sup>31</sup>	tsa <sup>33</sup> .
they (dual)	elder brother	not	have	more	elder sister	not	have

The two of them do not have elder brothers. Moreover, they do not have elder sisters.

ke <sup>55</sup> ba <sup>33</sup>	aŋ <sup>33</sup> za <sup>31</sup>	aŋ <sup>33</sup> zaŋ <sup>31</sup> ,	aŋ <sup>33</sup> v <sup>31</sup>	s <sup>31</sup>	tsa <sup>33</sup>	i <sup>55</sup> .
road	little	difficult	far	and	have	a little

The narrow road is not only difficult to travel along, but is also further.

zaŋ <sup>33</sup>	ny <sup>31</sup>	ne <sup>33</sup>	py <sup>33</sup>	khi <sup>31</sup>	ne <sup>31</sup>	ba <sup>31</sup>	a <sup>31</sup> ,
he	only	(part.)	shoot	can	(part.)	not	be

gu <sup>33</sup>	mu <sup>55</sup>	aŋ <sup>33</sup> py <sup>33</sup>	khi <sup>31</sup> .
we	also	shoot	can

He's not the only one who can shoot, we can also shoot.

### E. Hypothetical compound sentences

In hypothetical compound sentences, the first clause states the hypothesis, while the second clause indicates what might happen if the hypothesis becomes a reality. The conjunctions [thi<sup>55</sup>ne<sup>33</sup>va<sup>31</sup>...] and [...va<sup>31</sup>] are used at the beginning and end of the first clause. Alternatively, the correlative conjunctions [a<sup>55</sup>a<sup>31</sup>...va<sup>31</sup>] can also be used at the beginning and end of the first clause as a corresponding pair. The positions of different conjunctions may vary, but the meaning expressed is essentially the same.

thi <sup>55</sup> ne <sup>33</sup> va <sup>31</sup>	zoŋ <sup>33</sup>	ba <sup>31</sup>	ko <sup>55</sup> ,	zoŋ <sup>33</sup>	kha <sup>31</sup> toŋ <sup>33</sup>	na <sup>33</sup>	la <sup>55</sup>
if	they	not	enough	they	oneself	(part.)	come

zau <sup>33</sup>	zu <sup>55</sup>	za <sup>33</sup> .
(conj.)	fetch	(part.)

If they do not have enough, let them come and fetch [more] themselves.

muŋ <sup>31</sup> xo <sup>31</sup>	lu <sup>33</sup>	va <sup>31</sup> ,	ga <sup>33</sup>	ba <sup>31</sup>	le <sup>33</sup> .
rain	down	if	I	not	go

If it rains, I will not go.

a <sup>55</sup> a <sup>31</sup>	zaŋ <sup>33</sup>	ba <sup>31</sup>	lu <sup>33</sup>	va <sup>31</sup> ,	gu <sup>33</sup>	naŋ <sup>33</sup>	koŋ <sup>55</sup>	thi <sup>31</sup> ga <sup>33</sup>
if	he	not	come	then	we	you	(part.)	together

e <sup>55</sup>	aŋ <sup>55</sup>	za <sup>33</sup> .
go	(part.)	(part.)

If he doesn't come, you can go together with us.

### F. Conditional compound sentences

In these sentences, the first clause expresses the condition, while the second clause states the result. There are two ways in which condition can be expressed:

(1) Conjunctions are used to express specific or arbitrary conditions.

Conjunctions indicating specific conditions include [... zau<sup>33</sup>ɣ<sup>33</sup> ...] “only if”, which is used between the two clauses and [o<sup>33</sup>mu<sup>55</sup> ...] “even if”, which is used at the end of the first clause. Conjunctions expressing more general conditions include [ba<sup>31</sup>kuan<sup>31</sup> ...] “no matter”, which is used at the beginning of the first clause. These conjunctions are often used with a corresponding adverb [mu<sup>55</sup>] “still, then”.

za<sup>31</sup>ki<sup>33</sup> tsa<sup>31</sup> o<sup>31</sup>pvj<sup>33</sup> zau<sup>33</sup>ɣ<sup>33</sup> ga<sup>33</sup> mu<sup>55</sup> tsa<sup>31</sup>.  
child eat full (conj.) I then eat

Only when the child has eaten his fill will I eat.

ba<sup>31</sup>kuan<sup>31</sup> xa<sup>33</sup>svj<sup>31</sup> tsa<sup>33</sup> ba<sup>31</sup> tsa<sup>33</sup>  
no matter affairs have not have

mu<sup>55</sup> ga<sup>33</sup> thi<sup>31</sup> tsaj<sup>55</sup> e<sup>55</sup> ne<sup>33</sup>.  
still I one time go (part.)

Whether I am busy or not, I will still go once.

(2) A special construction may be used. This involves the use of an indefinite pronoun or a negating adverb to indicate that if certain conditions exist, then certain results will occur.

a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup> ba<sup>31</sup> loj<sup>55</sup> ga<sup>33</sup> a<sup>55</sup>lo<sup>31</sup>my<sup>33</sup> le<sup>33</sup> lai<sup>55</sup>.  
whenever not hot I whenever go (part.)

Whenever it's not hot, I will go.

a<sup>55</sup>lo<sup>31</sup>ky<sup>33</sup> laj<sup>55</sup>tsho<sup>31</sup> tsa<sup>33</sup> va<sup>31</sup>,  
wherever water have if

a<sup>55</sup>lo<sup>31</sup>ky<sup>33</sup> ko<sup>33</sup> men<sup>31</sup> maj<sup>55</sup>man<sup>55</sup>.  
wherever grain good definitely

Wherever there is water, the grain will grow well.

ga<sup>33</sup> ba<sup>31</sup> up<sup>31</sup>la<sup>55</sup> va<sup>31</sup>, naj<sup>33</sup> a<sup>31</sup> le<sup>33</sup> tso<sup>33</sup>.  
I not call if you don't go should

If I don't call you, don't go.

### G. Transitional compound sentences

In transitional compound sentences, the second clause is a transition from the first, with the clauses being connected by the correlative conjunctions [u<sup>55</sup>mu<sup>55</sup> ..., tho<sup>55</sup>mu<sup>55</sup> ...] “but”.

mu<sup>55</sup>tsha<sup>55</sup> ku<sup>33</sup> u<sup>55</sup>mu<sup>55</sup> ko<sup>33</sup> aj<sup>33</sup>men<sup>31</sup>.  
weather dry but grain good

Even though it is dry, the grain is still growing well.

gu<sup>33</sup> a<sup>31</sup> zum<sup>55</sup>tsho<sup>33</sup>ba<sup>31</sup> u<sup>55</sup>mu<sup>55</sup> zaj<sup>33</sup> ba<sup>31</sup> a<sup>31</sup>.  
we (part.) tiler but he not be

We are tilers, but he is not.

zaj<sup>33</sup> kha<sup>55</sup>nuj<sup>33</sup>nuj<sup>33</sup> le<sup>33</sup>le<sup>31</sup> aj<sup>33</sup>noj<sup>31</sup>, tho<sup>55</sup>mu<sup>55</sup> da<sup>31</sup>ɣ<sup>33</sup> lu<sup>33</sup>.  
he every day return late but early come

Although he goes home very late, he [still] arrives very early every day.

### H. Causal compound sentences

Causal compound sentences consist of two clauses expressing cause and effect which may be connected by a conjunction. The conjunction [thu<sup>55</sup>mu<sup>55</sup> ...] “because” indicates cause, while conjunctions indicating effect include: [u<sup>55</sup>a<sup>31</sup> ...] and [ni<sup>55</sup>ne<sup>33</sup>mu<sup>55</sup> ...] “therefore”. All these conjunctions are used independently of one another.

ga<sup>33</sup> ba<sup>31</sup> tsyk<sup>55</sup> phy<sup>31</sup> la<sup>31</sup>ga<sup>33</sup>, thu<sup>55</sup>mu<sup>55</sup>.  
I not lend can (part.) because

ga<sup>33</sup> thi<sup>31</sup> lum<sup>31</sup> ny<sup>31</sup> a<sup>31</sup>.  
I one (cl.) only (part.)

I cannot lend [it], because I only have one.

zaj<sup>33</sup> tsa<sup>31</sup> an<sup>31</sup>, u<sup>55</sup>a<sup>31</sup> zaj<sup>33</sup> ba<sup>31</sup> tsa<sup>31</sup> ci<sup>55</sup>.  
they eat (part.) therefore they not eat want

They have already eaten, therefore they don't want to eat.

mi<sup>55</sup>nu<sup>33</sup> mu<sup>31</sup>xo<sup>31</sup> aj<sup>33</sup>khi<sup>31</sup>, ni<sup>55</sup>ne<sup>33</sup>mu<sup>55</sup> ko<sup>33</sup> aj<sup>33</sup>men<sup>31</sup> tci<sup>55</sup>.  
this year rainfall satisfactory therefore grain good (part.)

This year the rain is satisfactory, therefore the grain has grown well.

Sometimes, conjunctions are not used, and the causal relationship between the clauses is expressed through the semantic content of the sentence itself. In these cases, the clause which indicates cause precedes the one indicating effect, although this order may sometimes be reversed.

aj<sup>33</sup>ni<sup>55</sup> ɣ<sup>33</sup> mu<sup>31</sup>xo<sup>31</sup> lu<sup>33</sup>, za<sup>31</sup>ki<sup>33</sup> na<sup>33</sup> a<sup>31</sup>.  
outside (part.) rain down child (part.) do not

pi<sup>31</sup> ok<sup>31</sup> aj<sup>55</sup> tso<sup>33</sup>.  
let out (part.) should

It is raining outside, don't let the child go out.

mu<sup>31</sup>nuj<sup>31</sup> vu<sup>55</sup> ma<sup>55</sup>man<sup>55</sup> tci<sup>55</sup>ɣ<sup>31</sup>,  
sky dark really (part.)

zaj<sup>33</sup> thi<sup>31</sup> fu<sup>33</sup> khe<sup>33</sup> ba<sup>31</sup> ga<sup>33</sup>.  
he one (cl.) afraid not obtain

The sky is really dark and, being on his own, he is really afraid.

ga<sup>33</sup> xij<sup>55</sup> ba<sup>31</sup> tsa<sup>31</sup> ci<sup>55</sup>, xij<sup>55</sup> a<sup>55</sup>ma<sup>55</sup>ma<sup>55</sup> aj<sup>33</sup>tchin<sup>55</sup>.  
I that one not eat want that one really sour

I don't want to eat that one, it is really sour.



## 5 Dialects

The Bisu language is distributed across the border regions of China, Thailand, Myanmar, and Laos. As no geographical connections exist between the main areas where Bisu is spoken, there is very little or indeed any communication between them. This scattered and isolated distribution pattern has led to the development of closer relationships with surrounding languages than within the Bisu dialects themselves. Thus, the geographical distribution of Bisu is a major factor in dialect formation. Different influences from surrounding languages have led to different rates of development of the Bisu spoken in different regions and have given rise to several dialects.

Based on the results of investigations conducted to date, this chapter attempts to classify and compare the Bisu dialects, so as to present a more comprehensive overview of the Bisu spoken in different areas.

### 5.1 Classification of the Bisu Dialects

According to data collected so far, there are three Bisu dialects: the Lanmeng dialect in China, and the Huaipa and Tako dialects in Thailand. The Lanmeng dialect has the largest number of speakers, and has been greatly influenced by both the Dai and Chinese languages. The numerous recent Chinese loan words in this dialect have given rise to distinct characteristics within its lexical system which differ from the other dialects. In Thailand, the Huaipa dialect is the main dialect spoken by the Bisu people, and although it has been greatly influenced by the Thai language, the inherent features of the Bisu language are still very evident in its phonology. The Tako dialect has the least number of speakers, but possesses distinctive features, with many older forms being retained within its phonological system.

#### 5.1.1 The Lanmeng Dialect

The Lanmeng dialect is spoken in Bisu villages in the counties of Lancang, Menghai, Ximeng, and Menglian in the southern part of Yunnan Province in China. There are two vernaculars:

##### A. The Laomian vernacular

This is spoken by the Laomian people in the counties of Lancang, Ximeng, and Menglian, with the representative form being the vernacular spoken in the hamlet of Dongzhu Laomian in Zhutang Village in Lancang County.

##### B. The Laopin vernacular

This is spoken in the hamlet of Laopin in Mengzhe Village in Menghai County.

As the differences between the two vernaculars are not great, speakers of either form can communicate with each other. Differences exist mainly in the phonology as well as in the lexicon. Phonologically, the Laopin vernacular has more syllable rhymes than Laomian. It has a total of 58 syllable rhymes and, owing to influence by the Dai language spoken in Xishuangbanna, has many rhymes with stop codas. It also has two additional vowel phonemes which function as rhymes: /e/ and /o/. In the Laomian vernacular, these two phonemes have been assimilated respectively into /i/ and /u/, so that the following correspondences may be drawn:

Laopin vernacular	i/e	e	u/o	ɔ
Laomian vernacular	i	e	u	o

Word	Laopin /i/	Laomian /i/
hand over	[pi <sup>31</sup> ]	[pi <sup>31</sup> ]
blow (a fire)	[mi <sup>33</sup> ]	[mi <sup>33</sup> ]
wash (hands)	[tchi <sup>31</sup> ]	[tchi <sup>31</sup> ]
close (eyes)	[mit <sup>33</sup> ]	[mit <sup>33</sup> ]
lean against	[iŋ <sup>55</sup> ]	[iŋ <sup>55</sup> ]

Word	Laopin /u/	Laomian /u/
float	[pu <sup>55</sup> ]	[pu <sup>55</sup> ]
we	[ŋgu <sup>33</sup> ]	[gu <sup>33</sup> ]
say	[up <sup>31</sup> ]	[up <sup>31</sup> ]
bury	[phum <sup>33</sup> ]	[phum <sup>33</sup> ]
swollen	[uŋ <sup>31</sup> ]	[uŋ <sup>31</sup> ]

Word	Laopin /e/	Laomian /i/
scissors	[te <sup>55</sup> lek <sup>55</sup> ]	[ti <sup>55</sup> lik <sup>55</sup> ]
mother's younger brother	[a <sup>55</sup> tche <sup>55</sup> ]	[a <sup>55</sup> tchi <sup>55</sup> ]
sharp, pointed	[aŋ <sup>33</sup> lcm <sup>55</sup> ]	[aŋ <sup>33</sup> lim <sup>55</sup> ]
louse	[cen <sup>55</sup> ]	[cin <sup>55</sup> ]
study, learn	[len <sup>31</sup> ]	[lin <sup>31</sup> ]

Word	Laopin /ɔ/	Laomian /o/
mend	[tɔ <sup>31</sup> ]	[to <sup>31</sup> ]
shave	[tshɔ <sup>33</sup> ]	[tsho <sup>33</sup> ]
out	[ɔk <sup>31</sup> ]	[ok <sup>31</sup> ]
fragrant	[aŋ <sup>33</sup> xɔm <sup>55</sup> ]	[aŋ <sup>33</sup> xom <sup>55</sup> ]
enter	[ɔŋ <sup>55</sup> ]	[oŋ <sup>55</sup> ]

Word	Laopin /e/	Laomian /e/
lick, lap	[mbe <sup>31</sup> ]	[be <sup>31</sup> ]
go (up)	[le <sup>33</sup> ]	[le <sup>33</sup> ]
drunk (on wine)	[xet <sup>31</sup> ]	[xet <sup>31</sup> ]
kick	[thek <sup>33</sup> ]	[thek <sup>33</sup> ]
repair	[teŋ <sup>33</sup> ]	[teŋ <sup>33</sup> ]

Word	Laopin /o/	Laomian /u/
six	[kho <sup>31</sup>	[khu <sup>31</sup> ]
bark (v.)	[xoj <sup>55</sup>	[xuj <sup>31</sup> ]
husband of paternal aunt	[a <sup>55</sup> soj <sup>31</sup>	[a <sup>31</sup> soj <sup>31</sup> ]
bracelet	[la <sup>31</sup> koj <sup>31</sup>	[la <sup>31</sup> kuj <sup>31</sup> ]
throat	[luj <sup>55</sup> khøj <sup>31</sup> ]	[luj <sup>55</sup> khuj <sup>31</sup> ]

In terms of the lexicon, the Laopin vernacular has been influenced by Dai as it is spoken in Dai areas. Therefore, it has large numbers of Dai loan words. Among 264 commonly used words which are different between the two vernaculars, 62 are related to Dai, *i.e.* 24% of the lexical differences are due to Dai loan words. In general, meanings which are expressed in the Laopin vernacular by means of Dai loan words are expressed in the Laomian vernacular using words found only in Bisu or with Chinese loan words borrowed from the regional Chinese dialect, as in the following examples:

Word	Laopin	Dai	Laomian	Cognate words from Burmese-Yipho languages	
cross (a river)	[phai <sup>31</sup> ]	[phai <sup>3</sup> ]	[ku <sup>31</sup> ]	Hani [kɤ <sup>31</sup> ]	Zaiwa [ku <sup>21</sup> ]
return, compensate	[sai <sup>55</sup> ]	[sai <sup>3</sup> ]	[pi <sup>31</sup> ]	Hani [pi <sup>31</sup> te <sup>55</sup> ]	Jino [pi <sup>35</sup> ]
palm-bark rain cape	[thui <sup>33</sup> ]	[tɔi <sup>1</sup> ]	[ke <sup>31</sup> bu <sup>31</sup> ]	Burmese [ka <sup>1</sup> du <sup>3</sup> ]	Lahu [ge <sup>53</sup> bu <sup>21</sup> ]
raise, lift up	[lam <sup>33</sup> ]	[ha:m <sup>1</sup> ]	[pa <sup>31</sup> ]	Haya Hani [ba <sup>31</sup> ]	Jino [pa <sup>44</sup> ]

Word	Laopin	Dai	Laomian	Chinese
cart	[lut <sup>33</sup> ]	[lot <sup>3</sup> ]	[tchi <sup>55</sup> tshv <sup>33</sup> ]	[qi <sup>4</sup> che <sup>1</sup> ]
soap	[nam <sup>31</sup> laŋ <sup>35</sup> ]	[nam <sup>4</sup> daŋ <sup>5</sup> ]	[fe <sup>13</sup> tsau <sup>31</sup> ]	[fei <sup>2</sup> zao <sup>4</sup> ]
shop	[cɛŋ <sup>55</sup> kho <sup>31</sup> ]	[sɛŋ <sup>5</sup> xo <sup>2</sup> ]	[saŋ <sup>33</sup> tie <sup>33</sup> ]	[shang <sup>1</sup> dian <sup>1</sup> ]
lock	[kha <sup>55</sup> tɛ <sup>55</sup> ]	[xa <sup>7</sup> tse <sup>1</sup> ]	[suo <sup>55</sup> ]	[suo <sup>3</sup> ]

Unless otherwise indicated, when the Lanmeng dialect is mentioned in this book, the Laomian vernacular is the one which is used.

### 5.1.2 The Huaipa Dialect

The Huaipa dialect is spoken in Bisu villages in Muang and Mae Lao Districts of Chiangrai Province and Phan District of Phayao Province in northern Thailand, and has the largest number of Bisu speakers in Thailand. It may be subdivided into two vernaculars:

#### A. The Huai Chomphu vernacular

The representative vernacular is that spoken in the village of Huai Chomphu (also known as Ban Doi Chompuu) 23 miles south of Muang District in Chiangrai Province. It also includes the neighbouring Doi Pui vernacular.

#### B. The Phadaeng vernacular

The representative form is the vernacular spoken in Phadaeng Village of Phan District in Phayao Province.

The differences between these vernaculars are not great. Phonologically, the most obvious difference is that the voiced stop onsets /b/, /d/, and /j/ in the Huai Chomphu vernacular have become the nasal onsets /m/, /n/, and /l/ respectively in the corresponding places of articulation in the Phadaeng vernacular, as shown below.

Word	Huai Chomphu	Phadaeng
baby monkey	[bi <sup>21</sup> hne <sup>55</sup> ]	[mi <sup>21</sup> hne <sup>55</sup> ]
Bisu person	[bi <sup>21</sup> su <sup>21</sup> ]	[mi <sup>21</sup> su <sup>21</sup> ]
fire	[bi <sup>21</sup> tho <sup>33</sup> ]	[mi <sup>21</sup> tho <sup>33</sup> ]
reptile	[de <sup>21</sup> thoŋ <sup>21</sup> ]	[ne <sup>21</sup> thoŋ <sup>21</sup> ]
spirit	[de <sup>21</sup> ja <sup>21</sup> ]	[ne <sup>21</sup> la <sup>21</sup> ]
young girl	[ja <sup>21</sup> bi <sup>21</sup> ]	[la <sup>21</sup> bi <sup>21</sup> ]
cup	[jo <sup>21</sup> kho <sup>21</sup> ]	[lo <sup>21</sup> kho <sup>21</sup> ]
flower	[ve <sup>33</sup> ja <sup>21</sup> ]	[ve <sup>33</sup> la <sup>21</sup> ]
mountain valley	[laŋ <sup>55</sup> ja <sup>21</sup> ]	[laŋ <sup>55</sup> la <sup>21</sup> ]

In terms of the lexicon, the differences are fairly small, so that among 643 commonly used words, only 46 or 7.15% are different between the two vernaculars. These differences result mainly from Thai loan words: in the majority of cases, different Thai words have been borrowed by the two vernaculars. Sometimes, meanings expressed in Phadaeng using loan words may be expressed in Huai Chomphu using words found only in Bisu, as in the following examples:

Word	Phadaeng	Thai	Huai Chomphu
animal	[sat <sup>33</sup> ]	[sat <sup>7</sup> ]	[di <sup>33</sup> phu <sup>55</sup> ]
fly (n.)	[meŋ <sup>55</sup> tan <sup>21</sup> ]	[meŋ <sup>2</sup> van <sup>2</sup> ]	[ʔo <sup>21</sup> ton <sup>21</sup> ]
young person	[ʔaŋ <sup>33</sup> num <sup>21</sup> ]	[khun <sup>2</sup> num <sup>5</sup> ]	[ja <sup>21</sup> ke <sup>33</sup> ]
blacksmith	[caŋ <sup>33</sup> hle <sup>55</sup> ]	[ca:ŋ <sup>3</sup> lek <sup>7</sup> ]	[ʃam <sup>55</sup> ʃi <sup>55</sup> div <sup>55</sup> lv <sup>33</sup> ]
conversation	[hiŋ <sup>55</sup> kan <sup>55</sup> ]	[kan <sup>2</sup> ] (together)	[ʔu <sup>55</sup> ]
(a) pair	[ku <sup>21</sup> ]	[khu <sup>3</sup> ]	[chan <sup>21</sup> ]

Unless otherwise indicated, when the Huaipa dialect is mentioned in this book, it is the Huai Chomphu vernacular which is used.

#### 5.1.3 The Tako Dialect

This dialect is spoken in Tako Village (also known as Ban Thako) in Mae Suai District of Chiangrai Province in Thailand. There are very few speakers, but it has distinct phonological and lexical features.

The phonology of the Tako dialect is relatively conservative, and has retained some older phonological forms. The most obvious feature is that the development of its stop syllable

codas has been slower than in other dialects, so that they still persist in many syllable rhymes. In other dialects, the codas in the rhymes /ap/ and /at/ have already been lost, and have become /aw/, /au/ and /e/, /e/, but they are still retained in the Tako dialect. In addition, the onsets /ts/ and /tsh/ in other dialects have the forms /c/ and /ch/ in the Tako dialect, which are closer to the Burmese forms, as shown below.

Word	Tako dialect		Huaipa dialect	Lanmeng dialect
	/ap/	:	/aw/	/au/
nasal mucus	[hnàp]	(Burmese [hnəp])	[hnaw <sup>21</sup> ]	[nau <sup>33</sup> ]
wrap (headscarf)	[pəp]		[paw <sup>33</sup> ]	[pau <sup>33</sup> ]
needle	[kòŋkjàp]	(Burmese [əp])	[kòŋ <sup>21</sup> kjàw <sup>21</sup> ]	[khuŋ <sup>31</sup> kjàu <sup>31</sup> ]
duck	[ʔukàp]		[ʔa <sup>33</sup> kaw <sup>21</sup> ]	[a <sup>31</sup> kau <sup>31</sup> ]
shirt	[khàlap]		[kha <sup>21</sup> law <sup>33</sup> ]	[kha <sup>31</sup> lau <sup>33</sup> ]
	/at/	:	/e/	/e/
kill	[jàt]	(Burmese [that])	[se <sup>21</sup> ]	[ce <sup>31</sup> ]
be afraid of	[khat]	(Burmese [krək])	[khe <sup>33</sup> ]	[khe <sup>33</sup> ]
deer	[chàt]		[tshē <sup>21</sup> ]	[tche <sup>31</sup> ]
live	[ʔaŋtət]		[ʔaŋ <sup>33</sup> te <sup>21</sup> ]	[te <sup>31</sup> ]
hungry	[hàŋbət]		[haŋ <sup>21</sup> be <sup>21</sup> ]	[be <sup>31</sup> ]
empty	[ʔaŋʔat]		[ʔaŋ <sup>33</sup> ʔe <sup>21</sup> ]	
	/c/, /ch/	:	/ts/, /tsh/	/ts/, /tsh/
eat	[ca]	(Burmese [sə <sup>3</sup> ])	[tsa <sup>21</sup> ]	[tsa <sup>31</sup> ]
medicine	[cÿkàja]	(Burmese [hse <sup>3</sup> ])	[tsu <sup>21</sup> ka <sup>21</sup> ]	[tsh <sup>31</sup> ka <sup>31</sup> ]
salt	[chàmē]	(Burmese [hsa <sup>3</sup> ])	[tshə <sup>21</sup> mē <sup>21</sup> ]	[tsha <sup>31</sup> me <sup>31</sup> ]
deer	[chət]		[tshē <sup>21</sup> ]	[tche <sup>33</sup> ]
person	[chánja]		[tshaŋ <sup>55</sup> ]	[tshaŋ <sup>55</sup> ]
tiger	[chàla]		[tsha <sup>21</sup> la <sup>21</sup> ]	[tsha <sup>31</sup> la <sup>31</sup> ] (leopard)

In terms of the lexicon, from the limited data available, the Tako dialect differs considerably from the other dialects. Comparison with the Huaipa dialect reveals that among 428 commonly used words, 324 (75.7%) are the same or related, while 104 (24.3%) are entirely different. When compared with the Lanmeng dialect, among 370 most commonly used words, 235 (63.51%) are the same or related, with 135 (36.4%) being entirely different. The major reason for these lexical differences is the greater influence of Thai loan words on the Tako dialect compared to the other dialects. In the other dialects, many words which are found only in Bisu are still retained or coexist with loan words, but these have been replaced entirely by Thai words in the Tako dialect, as in the following examples:

Word	Tako dialect	Thai word	Huaipa dialect	Lanmeng dialect
ship, boat	[huaa]	[ruə <sup>2</sup> ]	[lɔŋ <sup>55</sup> ]	[luŋ <sup>55</sup> ]
iron	[hlék]	[lek <sup>7</sup> ]	[hjam <sup>55</sup> ]	[sam <sup>55</sup> ]
ride	[khi]	[khi <sup>5</sup> ]	[ta <sup>33</sup> ]	[ta <sup>33</sup> ]
play	[len]	[len <sup>6</sup> ]	[bɔ <sup>21</sup> ]	[bo <sup>31</sup> ]
cough	[ʔaj]	[khai <sup>3</sup> ]	[tshaw <sup>21</sup> ]	[tshau <sup>31</sup> ]
exchange	[lek]	[le:k <sup>8</sup> ]	[khlaɰ <sup>21</sup> ]	[khai <sup>31</sup> ]
know	[cak]	[ru <sup>4</sup> tsak <sup>7</sup> ]	[be <sup>21</sup> ]	[be <sup>33</sup> ]
right (side)	[munkhwà]	[khwə <sup>1</sup> ]	[la <sup>21</sup> hma <sup>33</sup> ]	[la <sup>31</sup> ma <sup>31</sup> ]
stars	[daw]	[dau <sup>2</sup> ]	[ʔu <sup>21</sup> ku <sup>21</sup> ]	[u <sup>31</sup> ku <sup>33</sup> ]
palm (hand)	[ʔümü]	[fa <sup>5</sup> mu <sup>2</sup> ]	[la <sup>21</sup> wa <sup>21</sup> ]	[la <sup>31</sup> va <sup>31</sup> ]

## 5.2 Brief Description of the Huaipa Dialect

The Huaipa dialect is the main dialect of the Bisu spoken in Thailand, and is one of the most important Bisu dialects. This description of the Huaipa dialect is based on the results of investigations conducted by the Japanese linguist Professor Tatsuo Nishida and the Australian linguist Professor David Bradley<sup>15</sup>.

### 5.2.1 Phonology

The phonological system of the Huaipa vernacular, which is representative of the Huaipa dialect, is described below.

#### A. Syllable onsets

There are 42 syllable onsets in total, of which 31 are single consonants.

p	ph	b		f	w	m	hm		
t	th	d				n	hn	l	hl
k	kh	g		h	ʔ	ŋ	hŋ		
			ts	tsh	s				
			c	ch	ʃ	j	hj	ɲ	hɲ

There are 11 consonant clusters and palatalised onsets.

pj	phj	bj	kj	khj	hmj
pl	phl	bl	kl	kh	

<sup>15</sup> Nishida, Tatsuo. 1988-89. *Dictionary of Linguistics Vol.2*. Japan: Sanxiantong Publishers.  
Bradley, David. 1977. Bisu Dialects. *Languages and History in East Asia: Festschrift for Tatsuo Nishida on the Occasion of His 60th Birthday*.

Examples of syllable onsets:

[p]	[pa <sup>21</sup> pa <sup>33</sup> ]	“cheek”	[ph]	[ʔaŋ <sup>33</sup> pha <sup>21</sup> ]	“leaf”
[b]	[ʔa <sup>33</sup> ba <sup>33</sup> ]	“mother”	[t]	[ta <sup>33</sup> ]	“rising”
[th]	[tha <sup>33</sup> ]	“sharp”	[d]	[da <sup>21</sup> ]	“morning”
[k]	[ka <sup>33</sup> ]	“dance”	[kh]	[kha <sup>21</sup> ]	“bitter”
[g]	[ga <sup>33</sup> ]	“I”	[ts]	[tsa <sup>33</sup> ]	“unique”
[tsh]	[tsha <sup>21</sup> ]	“connect”	[c]	[ca <sup>33</sup> ]	“have”
[ch]	[ʔaŋ <sup>33</sup> cho <sup>21</sup> ]	“cold”	[f]	[fiuaŋ <sup>33</sup> ]	“rice straw”
[w]	[wa <sup>21</sup> ]	“do, make”	[h]	[ha <sup>33</sup> ]	“bamboo”
[ʔ]	[ʔu <sup>33</sup> wam <sup>55</sup> ]	“bear” (n.)	[s]	[sa <sup>21</sup> ]	“steam”
[ʃ]	[ʃa <sup>21</sup> ]	“meat”	[j]	[ja <sup>21</sup> ]	“child”
[hj]	[hja <sup>33</sup> ba <sup>33</sup> ]	“elephant”	[m]	[muŋ <sup>21</sup> ]	“sky”
[hm]	[la <sup>21</sup> hma <sup>33</sup> ]	“right”	[n]	[naŋ <sup>33</sup> ]	“you”
[hn]	[hna <sup>55</sup> khaj <sup>55</sup> ]	“nose”	[ŋ]	[ŋi <sup>33</sup> ]	“two”
[hŋ]	[hŋe <sup>21</sup> ]	“leech”	[ŋ]	[ŋam <sup>33</sup> pəŋ <sup>55</sup> ]	“locust”
[hɲ]	[la <sup>21</sup> hɲuŋ <sup>55</sup> ]	“finger”	[l]	[tsha <sup>21</sup> la <sup>21</sup> ]	“tiger”
[hl]	[ʔu <sup>21</sup> hla <sup>33</sup> ]	“moon”	[pj]	[pja <sup>21</sup> ]	“honey-bee”
[phj]	[phja <sup>33</sup> ]	“damage”	[bj]	[bja <sup>21</sup> ]	“many”
[kj]	[kja <sup>33</sup> ]	“ill”	[khj]	[ʔu <sup>33</sup> khja <sup>33</sup> ]	“crab”
[hmj]	[hmjaŋ <sup>55</sup> ]	“seen”	[pl]	[ʔaŋ <sup>33</sup> plum <sup>33</sup> ]	“full”
[phl]	[phlə <sup>21</sup> ]	“be”	[bl]	[bla <sup>21</sup> ]	“arrow”
[kl]	[kla <sup>33</sup> ]	“fall down”	[khl]	[khla <sup>33</sup> ]	“grow”

The syllable onsets have the following features:

- (1) Voiced consonants contrast with voiceless consonants, with the voiced consonants being prenasalised.
- (2) Voiced-voiceless contrast exists in nasals and fricatives; although the voiced nasal onsets [ŋ] and [hŋ] are very rarely used, the addition of loan words have strengthened the contrast between them.
- (3) There are only minor differences between the onsets [ŋ], [hŋ], [ŋ], and [hɲ], and they may be free variants in certain words.
- (4) The onset [f] appears mainly in Thai loan words.
- (5) Some loan words may consist of single or double consonantal syllable onsets which are not found in the Huai Chomphu phonological system. As they only appear infrequently, they have not been incorporated into Huai Chomphu phonology.

B. Syllable rhymes

There are a total of 50 syllable rhymes, including 9 monophthong rhymes, 21 with nasal codas, 18 with stop codas, and 2 with glide codas.

i	e	ɛ	a	ə	u	o	ɔ	u
im		ɛm	am		um	om	ɔm	um
in	en		an	ən		on	ɔn	
iŋ		eŋ	aŋ	əŋ	uŋ	oŋ	ɔŋ	uŋ
ip		ɛp	ap		up	op		up
it		ɛt		ət		ot		
	ek	ɛk	ak	ək	uk	ok	ɔk	uk
aj								aw

Examples of syllable rhymes:

[i]	[pi <sup>33</sup> ]	“give”	[e]	[ʔa <sup>33</sup> che <sup>21</sup> ]	“mother’s younger brother”
[ɛ]	[pɛ <sup>21</sup> ]	“abandon”	[a]	[pa <sup>55</sup> ]	“request”
[ə]	[wə <sup>33</sup> ]	“fishing rod”	[u]	[pu <sup>21</sup> ]	“rotten”
[o]	[to <sup>55</sup> ]	“table”	[ɔ]	[ʔa <sup>33</sup> pə <sup>21</sup> ]	“younger sister”
[u]	[ʔaŋ <sup>33</sup> pu <sup>55</sup> ]	“purple”	[im]	[tu <sup>33</sup> cim <sup>55</sup> ]	“dive”
[ɛm]	[tɛm <sup>55</sup> ]	“write”	[am]	[bi <sup>21</sup> hlam <sup>21</sup> ]	“flame”
[um]	[ʔa <sup>55</sup> mum <sup>55</sup> ]	“binturong”	[om]	[pa <sup>21</sup> hom <sup>21</sup> ]	“shoulder”
[ɔm]	[ʔaŋ <sup>33</sup> cəm <sup>21</sup> ]	“narrow”	[um]	[hən <sup>55</sup> tum <sup>55</sup> ]	“garlic”
[in]	[haŋ <sup>21</sup> hmin <sup>33</sup> ]	“cooked rice”	[ɛn]	[hlen <sup>21</sup> ]	“study, learn”
[an]	[tsan <sup>55</sup> ba <sup>33</sup> ]	“eagle”	[ən]	[lən <sup>33</sup> pən <sup>21</sup> ]	“mud”
[on]	[ʔaŋ <sup>33</sup> bon <sup>21</sup> ]	“round”	[ɔn]	[kən <sup>33</sup> ]	“spoon”
[iŋ]	[tam <sup>55</sup> piŋ <sup>55</sup> ]	“box”	[ɛŋ]	[pɛŋ <sup>33</sup> ]	“yeast”
[aŋ]	[ʔa <sup>33</sup> hmjaŋ <sup>21</sup> ]	“cow”	[əŋ]	[man <sup>33</sup> təŋ <sup>21</sup> ]	“chin”
[uŋ]	[hɲuŋ <sup>55</sup> ]	“finger”	[oŋ]	[tshoŋ <sup>33</sup> ]	“hide”
[ɔŋ]	[hə <sup>33</sup> pəŋ <sup>33</sup> ]	“muntjac”	[uŋ]	[ʔaŋ <sup>33</sup> pluŋ <sup>33</sup> ]	“full”
[ip]	[ʔaŋ <sup>33</sup> hli <sup>55</sup> ʔʔ]	“custom”	[ɛp]	[kɛp <sup>21</sup> ]	“squeeze”
[ap]	[bi <sup>21</sup> chap <sup>33</sup> ]	“pliers”	[up]	[təŋ <sup>33</sup> tup <sup>55</sup> ]	“crow pheasant”
[op]	[top <sup>33</sup> ]	“fold”	[up]	[khuw <sup>21</sup> ]	“finger span”
[it]	[bit <sup>55</sup> ]	“rub, knead”	[ɛt]	[plɛt <sup>21</sup> ]	“pine”
[ət]	[khət <sup>21</sup> ]	“tired”	[ot]	[lot <sup>33</sup> ]	“cart”
[ɛk]	[ɛk <sup>33</sup> ]	“Han person”	[ɛk]	[tek <sup>33</sup> ]	“press”
[ak]	[plak <sup>33</sup> ]	“cut”	[ək]	[pək <sup>33</sup> ]	“jump”
[uk]	[hə <sup>33</sup> chuk <sup>33</sup> ]	“ground rat”	[ok]	[hok <sup>55</sup> ]	“six”
[ɔk]	[ʔaŋ <sup>33</sup> ʔək <sup>21</sup> ]	“underneath”	[uik]	[ʔu <sup>33</sup> thuik <sup>55</sup> ]	“sneeze”
[aj]	[caj <sup>55</sup> ]	“use”	[aw]	[caw <sup>33</sup> ]	“wash” (clothes)

The syllable rhymes have the following features:

(1) Words contrasting the vowel phonemes /e/ and /ɛ/, /o/ and /ɔ/ are very rare in words found only in Bisu, but their numbers have gradually increased due to the influence of loan words. However, this varies between regions and also between individual speakers.

(2) Apart from stop and nasal codas (except [-ŋ]) which basically follow monophthongs, other codas are subject to many restrictions. The frequency with which codas are used in different vernaculars also varies.

(3) There are more syllable rhymes with stop than nasal codas. Among stop codas, there are more rhymes with the [-k] coda. Some rhymes which have already disappeared in the representative Huai Chomphu vernacular, such as [əp], [ut], [at], [ut], [ot], or [ik] may still be found in other villages.

(4) The rhyme with the glide coda, [aw], is relatively common in its distribution.

### C. Tone

The tonal system is relatively simple, and is basically similar to the other dialects. The three tones are:

High level tone	55	[pa <sup>55</sup> ]	“request”
Middle level tone	33	[ha <sup>33</sup> ]	“bamboo”
Low falling tone	21	[pja <sup>21</sup> ]	“honey-bee”

The tonal system has the following features:

(1) Among words found only in Bisu, the high level tone is rarely found in syllables with nasal codas. The origins of these syllables are both uncertain and non-uniform.

(2) Syllables with middle level tones are associated with a degree of tenseness in the throat.

### 5.2.2 The Lexicon

While the lexical system of the Huaipa dialect shows the common characteristics of the Bisu lexicon, it also has special features. As Bisu lexical features have already been discussed in Chapter 3 (The Lexicon), only those features distinct to the Huaipa dialect will be described here.

#### A. Word formation

New words may be formed through phonological, semantic, morphological, and structural changes, with the last being most common. Special features relating to word formation are as follows:

##### (i) Special affixes used in word formation

[ji<sup>21</sup>-] is used for liquids, and denotes “containing water”, as in [ji<sup>21</sup>ʃi<sup>21</sup>] “urine”.

[ka<sup>33</sup>-] is borrowed from Thai and appears in many words, as in [ka<sup>33</sup>taj<sup>21</sup>] “rabbit”, [ka<sup>33</sup>svj<sup>55</sup>] “monkey”, and [ka<sup>33</sup>paw<sup>33</sup>] “bag”.

[-ŋe<sup>33</sup>] is a verbal suffix and corresponds to the nominal prefix [ʔaŋ<sup>33</sup>-]. These affixes can form nouns or verbs when combined with the same root, as in [ʔaŋ<sup>33</sup>hja<sup>21</sup>] “itch”/ [hja<sup>21</sup>ŋe<sup>33</sup>] “become itchy”; and [ʔaŋ<sup>33</sup>khji<sup>21</sup>] “in debt”/ [khji<sup>21</sup>ŋe<sup>33</sup>] “borrow”.

[-chi<sup>33</sup>] changes a transitive into an intransitive verb when it combines with a verb root, as in [plɔŋ<sup>21</sup>ŋe<sup>33</sup>] “drill a hole”/ [plɔŋ<sup>21</sup>chi<sup>33</sup>] “a hole has appeared”, and [chit<sup>33</sup>ŋe<sup>33</sup>] “vanquish” / [chit<sup>33</sup>chi<sup>33</sup>] “suffer defeat”.

##### (ii) Transitive and intransitive verbs

These are distinguished by contrasting syllable onsets: verbs with unaspirated onsets are intransitive, and those with aspirated onsets are transitive, as in [kla<sup>33</sup>ŋe<sup>33</sup>] “fall down” / [khla<sup>33</sup>ŋe<sup>33</sup>] “hit till it falls, make it fall”, and [lum<sup>55</sup>ŋe<sup>33</sup>] “warm” / [hlum<sup>55</sup>ŋe<sup>33</sup>] “add warmth”.

### B. Loan words

The Huaipa dialect has been greatly influenced by the Thai language and has assimilated large numbers of loan words. Even for cardinal numbers, where most other dialects have retained forms which are specific to Bisu, the Huaipa dialect uses mainly Thai loan words. However, loan words were assimilated into the dialect at different periods, and the ways of borrowing were also different, so that various kinds of situations may exist.

##### (i) Loan periods

Thai words were assimilated into the Huaipa dialect over a long period of time, and three different chronological periods of borrowing may be inferred from the forms of the loans.

(1) The earliest loan words were assimilated into the Huaipa dialect from the ancient Thai language spoken in Myanmar and Yunnan Province in China. The phonological forms of some of these words no longer exist in modern Thai. Onsets such as [hm], [hn], and [hl] existed in ancient Thai, as illustrated by the words below.

Word	Huaipa dialect	13th century Thai
thin, tough silk	[ʔaŋ <sup>33</sup> hmaj <sup>55</sup> ]	[hmajA]
oil	[nam <sup>33</sup> hman <sup>33</sup> ]	[namB manA]
north	[huŋ <sup>55</sup> hnv <sup>33</sup> ]	[hnuaA]
sprout	[hlem <sup>55</sup> ŋe <sup>33</sup> ]	[hle:ma]

(2) The second loan period occurred during migration of the Bisu to northern Thailand, so that these words have features of northern Thai.

Word	Huaipa dialect	Northern Thai
dye	[tɔm <sup>21</sup> ŋe <sup>33</sup> ]	[nɔ:m <sup>4</sup> ]
car	[ʔaŋ <sup>33</sup> ju <sup>33</sup> ]	[ʔa-nu <sup>8</sup> ]
umbrella	[cɔŋ <sup>33</sup> ]	[tsɔ:ŋ <sup>1</sup> ]
(an) iron	[taw <sup>21</sup> nit <sup>33</sup> ]	[tau <sup>1</sup> ri:t <sup>8</sup> ]
market	[kat <sup>55</sup> ]	[ka:t <sup>9</sup> ]

(3) The third loan period involves the assimilation of standard Thai words into Bisu in recent decades.

Word	Huaipa dialect	Standard Thai
toothbrush	[maj <sup>33</sup> si <sup>33</sup> fan <sup>33</sup> ]	[pre:n <sup>2</sup> si: <sup>1</sup> fan <sup>2</sup> ]
read	[ʔan <sup>33</sup> ŋe <sup>33</sup> ]	[ʔa:n <sup>5</sup> ]
container	[can <sup>33</sup> ben <sup>33</sup> ]	[ca:n <sup>2</sup> -be:n <sup>2</sup> ]

## (ii) Ways of borrowing

There were also three different ways in which loan words assimilated into the Huaipa dialect during the above periods were borrowed:

(1) Assimilation of the original forms, *i.e.*, retaining the Thai words completely, as in the following words from the above lists: [taw<sup>21</sup>nit<sup>33</sup>] “(an) iron”, [kat<sup>55</sup>] “market”, and [maj<sup>33</sup>si<sup>33</sup>fan<sup>33</sup>] “toothbrush”.

(2) Adaptation of the original form to Bisu ways of word formation, as in the following words from the above lists:

- [ʔaŋ<sup>33</sup>ŋu<sup>33</sup>] “year”, where the Thai prefix [ʔa-] has been changed into the Bisu nominal prefix [ʔaŋ<sup>33</sup>-].
- [ŋəm<sup>21</sup>ŋe<sup>33</sup>] “dye” and [ʔan<sup>33</sup>ŋe<sup>33</sup>] “read”, where the verbal suffix [-ŋe<sup>33</sup>] has been added to the monosyllabic Thai word, in order to create a word form which corresponds to Bisu lexical features.

(3) Using Thai words or morphemes as raw materials for word formation, and combining them with Bisu morphemes to form new words, as in the following examples:

- [bi<sup>21</sup>khit<sup>33</sup>] “match”, which is formed by combining the Bisu morpheme for “fire” [bi<sup>21</sup>], with the morpheme [khit<sup>9</sup>] from the Thai word [mai<sup>3</sup>khit<sup>9</sup>] for “match”.
- [ʔa<sup>21</sup>məŋ<sup>21</sup>kip<sup>33</sup>] “horse’s hoof”, which is formed by combining the Bisu morpheme for “horse” [ʔa<sup>21</sup>məŋ<sup>21</sup>] with the loan form [kip<sup>33</sup>] derived from the Thai morpheme [ki:p<sup>9</sup>] for “hoof”.

### 5.2.3 Grammar

All the Bisu dialects possess the same basic types of grammatical constructions. The Huaipa dialect does not have any particularly distinctive grammatical features, although there may be some specific differences in forms of expression.

(1) The basic word order is SOV, with no agreement in number or case between the subject, object, and predicate. Grammatical relationships between clausal constituents are expressed through the use of particles which follow nouns or verbs.

(2) Modifiers essentially follow the constituents which are being modified, such as the modification of nouns by adjectives or by a combination of numerals and classifiers, as in the following examples:

laŋ <sup>55</sup> water	hləŋ <sup>55</sup> hot	hot soup	tshaŋ <sup>55</sup> person	hməŋ <sup>55</sup> tall	tall stature
tshaŋ <sup>55</sup> person	le <sup>21</sup> -khaw <sup>21</sup> steal	petty thief	tshaŋ <sup>55</sup> person	tu <sup>21</sup> one	maŋ <sup>21</sup> (cl.) one person

(3) Personal pronouns are categorised into singular, dual, and plural.

	Singular	Dual	Plural
First person	[ga <sup>33</sup> ]	[gaŋ <sup>33</sup> ]	[gu <sup>33</sup> ]
Second person	[na <sup>33</sup> ]/[naŋ <sup>33</sup> ]	[naŋ <sup>33</sup> ]	[nəŋ <sup>33</sup> ]
Third person	[ja <sup>33</sup> ]/[jaŋ <sup>33</sup> ]	—	[jəŋ <sup>33</sup> ]

Demonstrative pronouns may be divided into five categories, with the pronouns representing “near”, “far”, and “further” having two free variants each:

near	far	farther	even farther	farthest
[ni <sup>33</sup> ]/[niŋ <sup>33</sup> ]	[the <sup>33</sup> theŋ <sup>33</sup> ]	[he <sup>33</sup> heŋ <sup>33</sup> ]	[hjo <sup>33</sup> ]	[hək <sup>21</sup> hjo <sup>33</sup> ]

(4) Classifiers are still in the process of development, so that there are very few specific classifiers with a clear function of categorisation. The classifiers [ma<sup>33</sup>] and [maŋ<sup>21</sup>] are used for counting people or animals, and [stu<sup>21</sup>] and [lum<sup>33</sup>] are used for fruits or other objects.

(5) There are many different types of particles, and they have wide-ranging functions. Some are used after verbs express the manner in which actions are being performed. These are illustrated in the following sentences:

[ca<sup>33</sup>ŋe<sup>33</sup>] denotes progression:

ga <sup>33</sup>	bi <sup>21</sup> -su <sup>21</sup>	taŋ <sup>21</sup>	ci <sup>21</sup>	ca <sup>33</sup> ŋe <sup>33</sup> .
I	Bisu	language	speak	

I am speaking Bisu.

[tsha<sup>55</sup>] denotes completion:

məŋ <sup>21</sup> məŋ <sup>21</sup>	hmig <sup>33</sup>	tsha <sup>55</sup> .
mango	ripe	

The mango is ripe.

[kan<sup>55</sup>su<sup>21</sup>] denotes a past event:

ga <sup>33</sup>	la <sup>55</sup>	kan <sup>55</sup> su <sup>21</sup> .
I	come	

I have been here [before].

[ga<sup>33</sup>ŋe<sup>33</sup>] expresses possibility:

ga<sup>33</sup> ʔe<sup>55</sup> ga<sup>33</sup>ŋe<sup>33</sup>.  
I go

I can go. (*i.e.* I have the ability to go, but I may or may not go).

[si<sup>21</sup>kha<sup>21</sup>] expresses hope:

ga<sup>33</sup> ʔe<sup>55</sup> si<sup>21</sup>kha<sup>21</sup>.  
I go

I want to go.

[chi<sup>33</sup>] indicates permission:

naŋ<sup>33</sup> kja<sup>21</sup> chi<sup>33</sup>.  
you listen

You may listen.

[ʔo<sup>55</sup>] indicates a command:

la<sup>55</sup> ʔo<sup>55</sup>.  
come

Come here!

[ka<sup>33</sup>ŋe<sup>33</sup>] expresses reciprocity:

ga<sup>33</sup> kji<sup>21</sup> ka<sup>33</sup>ŋe<sup>33</sup>.  
we chat

We are chatting (to each other).

Particles can also be used within clauses to express different grammatical relationships, as in the following examples:

[na<sup>33</sup>] indicates the beneficiary:

ga<sup>33</sup> naŋ<sup>33</sup> na<sup>33</sup> niŋ<sup>33</sup> pi<sup>21</sup> ŋe<sup>33</sup>.  
I you this one give

I am giving you this one.

[caj<sup>21</sup>] indicates the source (*i.e.* where the action originated):

ga<sup>33</sup> caŋ<sup>21</sup>-haj<sup>21</sup> caj<sup>21</sup> lu<sup>33</sup> ŋe<sup>33</sup>.  
I Chiangrai come

I come from Chiangrai.

[ʔv<sup>33</sup>] indicates the location of an action:

ga<sup>33</sup> nu<sup>33</sup> ʔv<sup>33</sup> duŋ<sup>21</sup> ŋe<sup>33</sup>.  
I here sit

I am sitting here.

[hu<sup>55</sup>] indicates the object being possessed:

ga<sup>33</sup> hu<sup>55</sup> hmeŋ<sup>21</sup> ŋe<sup>33</sup>.  
I good

Mine is good.

[ne<sup>33</sup>] indicates the relationship or connection between people or objects:

ga<sup>33</sup> naŋ<sup>33</sup> ne<sup>33</sup> ʔe<sup>55</sup> ŋe<sup>33</sup>.  
I you go

You and I are going.

[lo<sup>21</sup>ba<sup>21</sup>pa<sup>55</sup>] indicates objects which are being compared:

ga<sup>33</sup> naŋ<sup>33</sup> lo<sup>21</sup>ba<sup>21</sup>pa<sup>55</sup> hməŋ<sup>55</sup> ŋe<sup>33</sup>.  
I you tall

I am taller than you.

### 5.3 Comparison of the Dialects

As has been mentioned previously, the Lanmeng and Huaipa dialects of Bisu have the largest numbers of speakers in China and Thailand respectively, and are also the two most important Bisu dialects. These two dialects will be compared in this section.

#### 5.3.1 Phonological Comparison

Distinct differences exist between the phonological systems of the two dialects. In general, Lanmeng phonology is simpler, and has fewer onsets and rhymes. In terms of onsets, rhymes, and tones, the differences are more pronounced in the first group, then the second, with the tones being basically the same. Many of the phonological differences have relatively precise correspondences.

##### A. Syllable onsets

The Lanmeng dialect has 31 onsets, and the Huaipa dialect has 42, *i.e.* a difference of 11 onsets. This is mainly due to two additional sets of phonemes in the latter. The first set includes the voiceless nasals and laterals, /hm/, /hn/, /hŋ/, /hl/, and /hj/. The second set includes the consonant clusters /ph/, /phl/, /bl/, /kl/, and /kh/. In the Lanmeng dialect, these two sets of onsets have been assimilated into the voiced onset phonemes /m/, /n/, /ŋ/, /l/, and /j/ and the single consonantal onset phonemes /p/, /ph/, /b/, /k/, and /kh/ at the corresponding places of articulation. In other cases, the phonemes may be different, but the number of onsets has remained the same:

- the set of onsets, /c/, /ch/, and /ʃ/ in the Huaipa dialect, has differentiated into the two sets /ts/, /tsh/, /s/ and /tɕ/, /tɕh/, /c/ in the Lanmeng dialect. These are apical sounds when preceding a rhyme consisting of a back vowel, and laminal sounds when preceding a rhyme consisting of a front vowel.
- the voiced consonant /b/ in some words in the Huaipa dialect corresponds to the nasal /m/ in the corresponding place of articulation in the Lanmeng dialect. This difference also exists within the vernaculars of the Huaipa dialect (for a detailed discussion, see 5.1 on the Huaipa vernaculars).

The words below illustrate the correspondences between the different onsets in the two dialects:

	Huaipa dialect /hm/, /hn/, /hŋ/	Lanmeng dialect /m/, /n/, /ŋ/
knife	[hmja <sup>33</sup> ]	[mja <sup>33</sup> ]
look	[hmjaŋ <sup>55</sup> ]	[mjaŋ <sup>55</sup> ]
blow	[hmi <sup>33</sup> ]	[mi <sup>33</sup> ]
hear	[hna <sup>55</sup> ]	[na <sup>55</sup> ]
swallow	[hnaŋ <sup>33</sup> ]	[naŋ <sup>33</sup> ]
this	[hni <sup>33</sup> ]	[ni <sup>55</sup> ]
nasal mucus	[hnaw <sup>21</sup> ]	[nau <sup>31</sup> ]
leech	[hŋe <sup>21</sup> ]	[ŋe <sup>21</sup> ]
easy	[ʔaŋ <sup>33</sup> hŋaŋ <sup>33</sup> ]	[aŋ <sup>33</sup> ŋai <sup>31</sup> ]

	Huaipa dialect /hl/, /hʃ/	Lanmeng dialect /l/, /z/
learn, study	[hlen <sup>21</sup> ]	[lin <sup>31</sup> ]
moon	[hla <sup>33</sup> ]	[aŋ <sup>33</sup> la <sup>33</sup> ]
increase warmth	[hlum <sup>55</sup> ]	[lum <sup>55</sup> ]
chicken	[hja <sup>33</sup> ]	[za <sup>33</sup> ]
land	[hja <sup>55</sup> ]	[za <sup>55</sup> ]
itch	[hja <sup>21</sup> ]	[za <sup>21</sup> ]

	Huaipa dialect /pl/, /phl/, /bl/	Lanmeng dialect /p/, /ph/, /b/
help	[pləŋ <sup>21</sup> ]	[poŋ <sup>31</sup> ]
black	[ʔaŋ <sup>33</sup> pləŋ <sup>55</sup> ]	[aŋ <sup>33</sup> paŋ <sup>55</sup> ]
Buddhist monk	[phla <sup>233</sup> ]	[pha <sup>33</sup> ]
silver	[phlu <sup>55</sup> ]	[phu <sup>55</sup> ]
arrow	[bla <sup>21</sup> ]	[ba <sup>31</sup> ]
husband	[ʔaŋ <sup>33</sup> bləŋ <sup>55</sup> ]	[aŋ <sup>33</sup> boŋ <sup>55</sup> ]

	Huaipa dialect /kl/, /khl/	Lanmeng dialect /k/, /kh/
drop, fall down	[kla <sup>33</sup> ]	[ka <sup>33</sup> ]
slow	[ʔaŋ <sup>33</sup> klam <sup>21</sup> ]	[aŋ <sup>33</sup> kam <sup>31</sup> ]
exchange	[khlaŋ <sup>21</sup> ]	[khai <sup>31</sup> ]

	Huaipa dialect /c/, /ch/, /ʃc/	Lanmeng dialect /ts/, /tsh/, /s/
weigh	[caŋ <sup>21</sup> ]	[tsaŋ <sup>31</sup> ]
along	[cuŋ <sup>33</sup> ]	[tsuŋ <sup>33</sup> ]
have	[ca <sup>33</sup> ]	[tsa <sup>33</sup> ]
hang	[chtu <sup>21</sup> ]	[tsh <sup>31</sup> ]
sweet	[ʔaŋ <sup>33</sup> chaw <sup>55</sup> ]	[aŋ <sup>33</sup> tshau <sup>55</sup> ]
cold	[ʔaŋ <sup>33</sup> cho <sup>21</sup> ]	[aŋ <sup>33</sup> tsho <sup>31</sup> ]
new	[ʔaŋ <sup>33</sup> ʃu <sup>21</sup> ]	[aŋ <sup>33</sup> s <sup>31</sup> ]
yellow	[ʔaŋ <sup>33</sup> ʃu <sup>55</sup> ]	[aŋ <sup>33</sup> s <sup>55</sup> ]
muscle	[ʔaŋ <sup>33</sup> ʃa <sup>21</sup> ]	[za <sup>33</sup> sa <sup>31</sup> ]

	Huaipa dialect /c/, /ch/, /ʃ/	Lanmeng dialect /tɕ/, /tɕh/, /c/
cogongrass	[la <sup>33</sup> ce <sup>55</sup> ]	[la <sup>55</sup> tɕi <sup>55</sup> ]
thunder	[muŋ <sup>21</sup> ce <sup>21</sup> ]	[muŋ <sup>31</sup> tɕi <sup>31</sup> khuŋ <sup>31</sup> ]
borrow	[chi <sup>21</sup> ]	[tɕhi <sup>31</sup> ]
mother's younger brother	[ʔa <sup>33</sup> che <sup>21</sup> ]	[a <sup>55</sup> tɕhi <sup>55</sup> ]
blood	[ʃi <sup>55</sup> ]	[cɕi <sup>31</sup> ]
die	[ʃi <sup>55</sup> ]	[cɕi <sup>55</sup> ]
water (v.)	[ʃet <sup>33</sup> ]	[cɕit <sup>33</sup> ]

In a few syllables, the onset /b/ in the Huaipa dialect corresponds to /m/ in the Lanmeng dialect:

grass	[bo <sup>21</sup> ka <sup>21</sup> ]	[mo <sup>31</sup> ka <sup>31</sup> ]
fire	[bi <sup>21</sup> tho <sup>33</sup> ]	[mi <sup>31</sup> tho <sup>31</sup> ]

## B. Syllable rhymes

There are 45 syllable rhymes in the Lanmeng dialect, and 50 in the Huaipa dialect. Although the numbers are not identical, the general features of the rhymes are similar. Very few rhymes have consonantal codas, as rhymes such as /ap/ which have been retained in the Tako dialect have been replaced by /aw/ or /au/ in the Lanmeng and Huaipa dialects. Such rhymes only appear in isolated words, indicating synchronic development of the rhymes in these two dialects. The difference between the two dialects lies mainly in two additional



phonemes /e/ and /o/ in the Huaipa dialect, which have been assimilated into /i/ and /u/ in the Lanmeng dialect, resulting in the following correspondences:

Lanmeng dialect	i	e	u	o
Huaipa dialect	i, e	ɛ	u, o	ɔ

In addition, the Lanmeng dialect has an additional monophthong rhyme which has the apical vowel /ɣ/. In the Huaipa dialect, the vowel /u/, which is used in combination with the alveolar onsets /th/, /ts/, /tsh/, /s/ or the alveolo-palatal onsets /c/, /ch/, and /ʃ/, corresponds to the vowel /ɣ/ in the Lanmeng dialect. When combined with other onsets, it is still realised as [u] in the Lanmeng dialect.

The words below illustrate the correspondences between different rhymes in the two dialects:

	Huaipa dialect /e/	Lanmeng dialect /i/
mother's younger brother	[ʔa <sup>33</sup> che <sup>21</sup> ]	[a <sup>55</sup> tchi <sup>55</sup> ]
tooth	[so <sup>21</sup> phe <sup>21</sup> ]	[so <sup>31</sup> phi <sup>31</sup> ]
cogongrass	[la <sup>33</sup> ce <sup>55</sup> ]	[la <sup>55</sup> tci <sup>55</sup> ]

	Huaipa dialect /e/	Lanmeng dialect /i/
blanket	[ʔa <sup>21</sup> phen <sup>21</sup> ]	[a <sup>31</sup> phin <sup>31</sup> ]
wet	[ʔaŋ <sup>33</sup> cen <sup>55</sup> ]	[aŋ <sup>33</sup> tcin <sup>55</sup> ]
sour	[ʔaŋ <sup>33</sup> chen <sup>55</sup> ]	[aŋ <sup>33</sup> tchin <sup>55</sup> ]

	Huaipa dialect /e/	Lanmeng dialect /e/
go	[ʔe <sup>55</sup> ]	[e <sup>55</sup> ]
hard	[ʔaŋ <sup>33</sup> ken <sup>33</sup> ]	[aŋ <sup>33</sup> ken <sup>31</sup> ]
urine	[ʔeŋ <sup>21</sup> ]	[eŋ <sup>31</sup> ]
press	[kep <sup>21</sup> ]	[kep <sup>33</sup> ]
chest (thorax)	[lɔŋ <sup>33</sup> pet <sup>33</sup> ]	[lutŋ <sup>33</sup> pet <sup>33</sup> ]
kick	[thek <sup>33</sup> ]	[thek <sup>33</sup> ]

	Huaipa dialect /o/	Lanmeng dialect /u/
rotten	[ʔaŋ <sup>33</sup> po <sup>21</sup> ]	[pu <sup>31</sup> nam <sup>55</sup> ]
bridge	[kaŋ <sup>55</sup> kho <sup>33</sup> ]	[ka <sup>55</sup> khu <sup>33</sup> ]
knee	[pa <sup>21</sup> to <sup>33</sup> ]	[pu <sup>31</sup> tu <sup>33</sup> ]
hand	[la <sup>21</sup> po <sup>21</sup> ]	[la <sup>31</sup> pu <sup>31</sup> ]
fold	[top <sup>33</sup> ]	[tup <sup>33</sup> ]
cart	[lot <sup>33</sup> ]	[lut <sup>55</sup> ]

	Huaipa dialect /ɔ/	Lanmeng dialect /o/
play	[bo <sup>21</sup> ]	[bo <sup>31</sup> ]
walk	[jo <sup>21</sup> ]	[zo <sup>31</sup> ]
fragrant	[ʔaŋ <sup>33</sup> hom <sup>55</sup> ]	[aŋ <sup>33</sup> xom <sup>55</sup> ]
spoon	[kon <sup>33</sup> ]	[kon <sup>31</sup> ]
open	[phoŋ <sup>33</sup> ]	[phoŋ <sup>33</sup> ]
sell	[koŋ <sup>21</sup> ]	[koŋ <sup>31</sup> ]

	Huaipa dialect /u/	Lanmeng dialect /ɣ/
also, still	[su <sup>21</sup> ]	[sɣ <sup>55</sup> ]
hang	[chu <sup>21</sup> ]	[tshɣ <sup>31</sup> ]
new	[ʔaŋ <sup>33</sup> ʃu <sup>21</sup> ]	[aŋ <sup>33</sup> sɣ <sup>31</sup> ]
yellow	[ʔaŋ <sup>33</sup> ʃu <sup>55</sup> ]	[aŋ <sup>33</sup> sɣ <sup>55</sup> ]
cool	[ʔaŋ <sup>33</sup> tsu <sup>33</sup> ]	[aŋ <sup>33</sup> tsɣ <sup>33</sup> ]
fruit	[ʔaŋ <sup>33</sup> su <sup>21</sup> ]	[aŋ <sup>33</sup> sɣ <sup>31</sup> ]

### 5.3.2 Lexical Comparison

Differences in their lexical inventories constitute the main distinction between the Lanmeng and Huaipa dialects. Comparison of 641 commonly used words showed that 467 were the same or related, *i.e.* 72.85%, with 174 words which were entirely different, *i.e.* 27.15%.

These lexical differences are specifically expressed under two kinds of circumstances:

- firstly, the general forms of the words in the two dialects may be different, but the words are related in some way, either semantically or with associations between constituents of the word.
- secondly, there may be no relationship at all between the words in the two dialects.

The reasons for these lexical differences will be described below.

#### A. Semantic differences

The same word form may exist in the two dialects and although the meanings expressed by the two words are related, they may have different semantic loads. This is often the case for words found only in Bisu whose semantic domains have developed. Expansion of the semantic content of a word leads to differentiation among different dialects, eventually forming two different words. However, connections or associations often exist between such words, as in the following examples:

- the meaning "catch" is expressed by the word [tshu<sup>33</sup>] in the Lanmeng dialect; in the Huaipa dialect, the same word means "take out", with "catch" being expressed by another word [khe<sup>33</sup>khvt<sup>33</sup>].
- the word [ko<sup>33</sup>] means "lift, raise" in the Huaipa dialect, but indicates "pick up" in the Lanmeng dialect, where another word [tchi<sup>31</sup>] is used for "lift".

- the words [ʔaŋ<sup>33</sup>hnum<sup>33</sup>] and [aŋ<sup>33</sup>num<sup>33</sup>] in the Huaipa dialect mean “low”, but in the Lanmeng dialect, they express the related meaning of “short”, with another word [me<sup>31</sup>] being used to express “low”. In the Huaipa dialect, however, “short” is indicated by the compound word [tshaŋ<sup>55</sup>thaj<sup>33</sup>].

This non-reciprocity between a word form and its meaning is a major cause of lexical differences between the two dialects. More examples are given below:

Word form	Huaipa dialect	Lanmeng dialect
[tsha <sup>21</sup> la <sup>21</sup> ], [tsha <sup>31</sup> la <sup>31</sup> ]	“tiger”	“leopard”
[stuŋ <sup>21</sup> hna <sup>33</sup> ], [stuŋ <sup>33</sup> nan <sup>33</sup> ]	“bow”	“gun”
[jum <sup>55</sup> khəŋ <sup>55</sup> ], [zum <sup>55</sup> khon <sup>55</sup> ]	“ridgepole, beam”	“ridge of the house”
[ja <sup>21</sup> kha <sup>21</sup> ], [za <sup>31</sup> kha <sup>31</sup> ]	“friend”	“young man”
[kha <sup>21</sup> law <sup>33</sup> ], [kha <sup>31</sup> lau <sup>33</sup> ]	“shirt”	“clothes”
[ly <sup>21</sup> ], [ly <sup>31</sup> ]	“saw”	“strip, peel off”
[sən <sup>21</sup> ], [sun <sup>55</sup> ]	“teach”	“calculate”
[pjo <sup>33</sup> ], [pju <sup>33</sup> ]	“treat”	“recover”

## B. Ways of word formation

Bisu words may be monomorphemic words, words derived by affixation, or compound words. Thus, the same meaning may be expressed through different ways of word formation in different dialects, leading to varying word forms. However, as the word roots conveying the primary meaning are often the same, there are partial similarities. This phenomenon whereby similarities and differences coexist reflects the close association between the lexical systems in different dialects.

Word formation may occur in the following ways:

(1) A monomorphemic word in one dialect may be a polysyllabic polymorphemic word in another, as in the following examples:

- the word for “moon” in the Huaipa dialect is the monomorphemic word [hla<sup>33</sup>], whereas in the Lanmeng dialect, “moon” is [aŋ<sup>33</sup>la<sup>33</sup>], a word derived by the addition of a prefix to the word root.
- the word “water” in the Huaipa dialect is the monomorphemic word [laŋ<sup>55</sup>], whereas in the Lanmeng dialect, it is the compound word [laŋ<sup>55</sup>tsho<sup>31</sup>], formed from two morphemes.

Similar pairs of words include the following:

Word	Lanmeng dialect	Huaipa dialect
year	[aŋ <sup>33</sup> nu <sup>33</sup> ]	[hnu <sup>55</sup> ]
grass	[mō <sup>31</sup> ka <sup>31</sup> ]	[bo <sup>21</sup> ]
mushroom	[moŋ <sup>55</sup> tshau <sup>55</sup> ]	[hmoŋ <sup>55</sup> ]
catch	[tshu <sup>33</sup> ]	[khe <sup>33</sup> khyt <sup>33</sup> ]
cooked rice	[xaŋ <sup>31</sup> ]	[haŋ <sup>21</sup> hmin <sup>33</sup> ]
hoe	[kho <sup>33</sup> ]	[kho <sup>33</sup> bop <sup>55</sup> ]

(2) The words are polysyllabic in both dialects, but in one dialect, the word is derived by the addition of an affix, while in the other, the word is a compound word formed from combining two word roots, as in the following examples:

- the word for “food” in the Lanmeng dialect is formed by combining the word root [tsa<sup>31</sup>] with the prefix [aŋ<sup>33</sup>-]. In the Huaipa dialect, “food” is expressed by compounding two word roots [tsa<sup>21</sup>] “eat” and [kvyŋ<sup>21</sup>] “object, thing”.
- the word for “root” in the Lanmeng dialect is formed by combining the word root [tchi<sup>55</sup>] with the prefix [aŋ<sup>33</sup>-]. In the Huaipa dialect, “root” is expressed by compounding two morphemes [tsuŋ<sup>33</sup>] “tree” and [che<sup>55</sup>] “root”.

Similar pairs of words include the following:

Word	Lanmeng dialect	Huaipa dialect
flower	[aŋ <sup>33</sup> ve <sup>33</sup> ]	[ve <sup>33</sup> ja <sup>21</sup> ]
small and short	[aŋ <sup>33</sup> num <sup>33</sup> ]	[tshaŋ <sup>55</sup> thaj <sup>33</sup> ]
wooden board	[taŋ <sup>31</sup> pen <sup>31</sup> ]	[ʔaŋ <sup>33</sup> pen <sup>33</sup> ]
muscle	[za <sup>33</sup> sa <sup>31</sup> ]	[ʔaŋ <sup>33</sup> ja <sup>21</sup> ]

(3) The words are compound words in both dialects, but different morphemes or compounding methods so that different words are formed, as in the following examples:

- “bile” is [pi<sup>31</sup>kha<sup>31</sup>aŋ<sup>33</sup>tsha<sup>55</sup>] in the Lanmeng dialect, formed by compounding [pi<sup>31</sup>kha<sup>31</sup>] “gall bladder” and [aŋ<sup>33</sup>tsha<sup>55</sup>] “juice”; it is [pe<sup>33</sup>kha<sup>21</sup>laŋ<sup>55</sup>] in the Huaipa dialect, formed by compounding [pe<sup>33</sup>kha<sup>21</sup>] “gall bladder” and “water” [laŋ<sup>55</sup>].
- “wild boar” is [va<sup>31</sup>the<sup>31</sup>] in the Lanmeng dialect, formed by combining the word for “pig” [va<sup>31</sup>] and the morpheme [the<sup>31</sup>] which has a modifying function, indicating “wild region, countryside”. In the Huaipa dialect, “wild boar” is [tsəŋ<sup>21</sup>kəŋ<sup>21</sup>wa<sup>21</sup>], formed from the words [tsəŋ<sup>21</sup>kəŋ<sup>21</sup>] “wild mountainous areas” and [wa<sup>21</sup>] “pig”.

Similar pairs of words include the following:

Word	Lanmeng dialect	Huaipa dialect
milk	[luŋ <sup>33</sup> tsha <sup>55</sup> ]	[ləŋ <sup>33</sup> pet <sup>33</sup> laŋ <sup>55</sup> ]
ring	[la <sup>31</sup> pan <sup>31</sup> ]	[la <sup>21</sup> tshəŋ <sup>21</sup> ]
night	[khi <sup>31</sup> thaŋ <sup>33</sup> ]	[muŋ <sup>21</sup> khi <sup>21</sup> ]

## C. Loan words

The Bisu language has been subject to influences from other languages, with loan words being the most direct and important way in which these influences have been exerted. Loan words were assimilated into Bisu over two different periods, with the first period involving early loans. Historically, Bisu was influenced over long periods by the Thai/Dai languages, so that many Thai/Dai loan words exist within its core vocabulary. The second period involves recent loan words, when different dialects have been influenced by the Thai, Dai, or Chinese

languages. Each dialect has assimilated loan words from different languages into its lexicon, leading to a wide divergence in those portions of the lexicon relating to cultural terms.

As recent loans are still in the process of assimilation, their phonological and structural forms may not yet be completely determined, nor are they fully regular (see 3.4 "Loan words"). These words will not be discussed in this section, which focuses mainly on the analysis of early loans, *i.e.* Thai/Dai loan words.

Some of the Thai/Dai loan words within the Huaipa and Lanmeng dialects are identical, as in the following examples: [kat<sup>55</sup>] "market", [na<sup>21</sup>/na<sup>31</sup>] "field", [kvt<sup>55</sup>] "think", [ʔaŋ<sup>33</sup>ʔan<sup>55</sup>] "old", [ʔaŋ<sup>33</sup>kvŋ<sup>21</sup>]/[aŋ<sup>33</sup>kvŋ<sup>31</sup>] "objects, things", and [ja<sup>33</sup>khon<sup>21</sup>]/[za<sup>33</sup>khon<sup>31</sup>] "tobacco". However, the majority of loan words are different and result in lexical differences between the two dialects. The main reasons for these differences are discussed below.

### (i) Differences in specific loans

For the expression of certain concepts, one dialect may use Thai/Dai loan words, but another dialect may use terms found only in Bisu, as shown below.

	Lanmeng dialect (Bisu term)	Huaipa dialect (Thai loan)
drunk	[xet <sup>31</sup> ]	[maw <sup>33</sup> ]
love	[aŋ <sup>33</sup> kja <sup>31</sup> ]	[hlak <sup>33</sup> ]
tea	[li <sup>55</sup> laŋ <sup>55</sup> ]	[sa <sup>55</sup> ]
table	[xaŋ <sup>31</sup> phyn <sup>31</sup> ]	[to <sup>2</sup> 55]
shoes	[suŋ <sup>31</sup> no <sup>33</sup> ]	[khep <sup>55</sup> ]

	Lanmeng dialect (Dai loan)	Huaipa dialect (Bisu term)
cut	[sui <sup>31</sup> ]	[təŋ <sup>21</sup> ]
wide	[aŋ <sup>33</sup> vaŋ <sup>31</sup> ]	[ʔaŋ <sup>33</sup> klut <sup>55</sup> ]
trousers	[tui <sup>31</sup> ]	[khu <sup>21</sup> tshəŋ <sup>33</sup> ]
headscarf	[pha <sup>55</sup> tci <sup>33</sup> ]	[tu <sup>21</sup> paw <sup>33</sup> ]
goat	[pe <sup>33</sup> le <sup>33</sup> ]	[la <sup>33</sup> wo <sup>21</sup> ]

### (ii) Chronological and geographical differences

Although both dialects may use loan words, differences in the period or the source of the loan have led to intrinsic variations within the loan words themselves. Chronologically, differences exist between ancient Thai and the modern Thai/Dai languages; geographically, there are differences between standard Thai and northern Thai, as well as between the Dai spoken in Xishuangbanna and Dehong. In general, the Lanmeng dialect has borrowed from the Dai spoken within Chinese borders, mainly from Xishuangbanna; whereas the Huaipa dialect has borrowed from standard or northern Thai. Therefore, although they are both Thai loan words, the word forms differ, as in the following examples:

	Lanmeng dialect	Huaipa dialect
borrow (objects)	[tsyk <sup>55</sup> ]	[jum <sup>21</sup> ]
axe	[lan <sup>55</sup> ]	[maj <sup>33</sup> ]
copper	[toŋ <sup>55</sup> ]	[təŋ <sup>33</sup> dəŋ <sup>33</sup> ]
soldier	[len <sup>55</sup> ]	[ta <sup>55</sup> han <sup>55</sup> ]
hundred	[aŋ <sup>33</sup> pak <sup>55</sup> ]	[hlaj <sup>55</sup> ]

### (iii) Different ways of borrowing

Different ways of borrowing lead to differences in the structural forms of the loan words.

Some words are borrowed in their original forms, while others have undergone definite changes, as in the following examples:

- "rabbit" in the Huaipa dialect has retained the original form [ka<sup>33</sup>taj<sup>21</sup>]; in the Lanmeng dialect, one of its morphemes has been changed to become [pan<sup>33</sup>tai<sup>31</sup>]
- "sand" in the Huaipa dialect has retained the original form [saj<sup>21</sup>]; in the Lanmeng dialect, an additional morpheme [sɿ<sup>31</sup>] which denotes the idea of "a grain" has been added to form the word [sai<sup>31</sup>sɿ<sup>31</sup>]
- "sweep" is [kwat<sup>21</sup>] in the Huaipa dialect; in the Lanmeng dialect, a Bisu morpheme has been added to form a bisyllabic word [kue<sup>31</sup>kat<sup>31</sup>]

In addition, differences occur because a whole word or only one of its morphemes may have been borrowed. In the word for "hoe", the Huaipa dialect has borrowed the whole word [khe<sup>33</sup>bop<sup>55</sup>], while the Lanmeng dialect has only borrowed one of its morphemes to form a monosyllabic word [kho<sup>33</sup>]. Therefore, different ways of borrowing have given rise to variant forms from the same source.

### 5.3.3 Grammatical Comparison

Grammatical differences between the dialects are not great. In terms of grammatical constructions, grammatical categories, and means of expression, the different dialects show a distinct uniformity. They are all analytical, with identical word orders, and grammatical categories which are basically similar, with particles having important functions. However, specific differences may be discovered in some areas.

(1) The different numerical categories of the personal pronouns in the Lanmeng and Huaipa dialects are expressed through phonological mutations. These phonological changes have been retained more completely in the Huaipa compared to the Lanmeng dialect. This may be seen from the following table:

	Lanmeng dialect		
	Singular	Dual	Plural
First person	[ga <sup>33</sup> ]	[ga <sup>33</sup> it <sup>31</sup> ]	[gu <sup>33</sup> ]/[zaŋ <sup>33</sup> xv <sup>33</sup> ]
Second person	[naŋ <sup>33</sup> ]	[na <sup>33</sup> it <sup>31</sup> ]	[noŋ <sup>33</sup> ]/[naŋ <sup>33</sup> xv <sup>33</sup> ]
Third person	[zaŋ <sup>33</sup> ]	[za <sup>33</sup> it <sup>31</sup> ]	[zoŋ <sup>33</sup> ]/[zoŋ <sup>33</sup> xv <sup>33</sup> ]

	Huaipa dialect		
	Singular	Dual	Plural
First person	[ga <sup>33</sup> ]	[gaɲ <sup>33</sup> ]	[gu <sup>33</sup> ]
Second person	[na <sup>33</sup> naɲ <sup>33</sup> ]	[naɲ <sup>33</sup> ]	[nɔŋ <sup>33</sup> ]
Third person	[ja <sup>33</sup> ]/[jaɲ <sup>33</sup> ]	[jaɲ <sup>33</sup> ]	[jɔŋ <sup>33</sup> ]

The dual form of the third person pronoun in the Huaipa dialect has been deduced from the symmetry in the system, due to unavailable field data. Similarly, it may be inferred that the plural forms of the second and third personal pronouns may once have been [nu<sup>33</sup>] and [ju<sup>33</sup>] with a [u] rhyme, and that they have now been replaced by [nɔŋ<sup>33</sup>] and [jɔŋ<sup>33</sup>].

Affixation as a way of word formation is found in the Lanmeng dialect, so that although the plural forms can be expressed through phonological mutations or affixation, the dual forms are essentially only expressed through affixation, thus revealing a faster progression in their grammatical expression.

(2) The system of classifiers in Bisu is still in the developmental stage, as indicated by the very limited range of specific classifiers. Comparing the two dialects, the development of classifiers in the Huaipa dialect has been even slower, with specific classifiers comprising only [ma<sup>33</sup>], [maɲ<sup>21</sup>], and [lum<sup>33</sup>], and the rest being classifiers which also function as nouns. Within the specific classifiers, [ma<sup>33</sup>] and [maɲ<sup>21</sup>] are used for people, but may also be used for animals and other objects. They therefore have a very wide range of meanings.

Although the Lanmeng dialect also has a limited number of specific classifiers, their functions are very distinct. There is a more definite notion of categorisation, especially in the distinction between classifiers used for counting people compared with those for counting animals. The classifiers [fu<sup>33</sup>] and [saɲ<sup>55</sup>] are used for people, [maɲ<sup>55</sup>] is used for animals, and [lum<sup>31</sup>] is used for other objects. In isolated cases, [maɲ<sup>55</sup>] may still be used for people, as in the collocation [kha<sup>55</sup>khu<sup>33</sup>maɲ<sup>55</sup>] "all the ...". However, it is never used for counting people when used in isolation. This type of distinction is very strict, reflecting the development of the semantic categorisation of classifiers.

(3) Although the Bisu numeral system is very simple, there are considerable dialectal differences. The two dialects use two completely different systems for their numerals. The Lanmeng dialect essentially uses terms only found in Bisu for the cardinal numbers, and Chinese loan words for words such as "thousand", "ten thousand", and "hundred million". In the Huaipa dialect, however, except for "one" and "two" which combine Bisu terms and Thai loan words, the cardinal numbers are all Thai loans, as shown in the following table:

	Lanmeng dialect	Huaipa dialect
one	[thi <sup>31</sup> ]	[nuɲ <sup>21</sup> ]/[thu <sup>21</sup> ]
two	[ni <sup>31</sup> ]	[sɔŋ <sup>33</sup> ]/[ni <sup>21</sup> ]
three	[sum <sup>55</sup> ]	[sam <sup>33</sup> ]
four	[xan <sup>55</sup> ]	[si <sup>21</sup> ]
five	[ŋa <sup>31</sup> ]	[ha <sup>33</sup> ]
six	[khu <sup>31</sup> ]	[hok <sup>55</sup> ]
seven	[cɛt <sup>31</sup> ]	[cet <sup>55</sup> ]
eight	[xet <sup>31</sup> ]	[pɛt <sup>21</sup> ]

	Lanmeng dialect	Huaipa dialect
nine	[kau <sup>31</sup> ]	[kaw <sup>33</sup> ]
ten	[tche <sup>55</sup> ]	[sip <sup>55</sup> ]/[tshɛ <sup>21</sup> ]
hundred	[aɲ <sup>33</sup> pak <sup>55</sup> ]	[hlaj <sup>55</sup> ]
thousand	[aɲ <sup>33</sup> xɪŋ <sup>55</sup> ]	[pan <sup>21</sup> ]
ten thousand	[aɲ <sup>33</sup> vaɲ <sup>55</sup> ]	[mɪv <sup>55</sup> ]
hundred thousand	—	[sen <sup>33</sup> ]
million	—	[lan <sup>55</sup> ]
hundred million	[aɲ <sup>33</sup> zi <sup>33</sup> ]	—

As cardinal numbers are relatively stable constituents in a language, the use of Thai loan words in the Huaipa dialect and the marked differences between the two dialects are very striking.

(4) The Bisu language has several demonstrative pronouns, with very fine distinctions in meaning. Although there is a common origin for both dialects in the individual forms of the words and in the whole demonstrative pronominal system, differences in usage exist. The table overleaf shows the system of demonstrative pronouns and the dialectal differences.

There are four sets of distal demonstrative pronouns in both dialects, indicating not only differences in distance, but also in direction or vertical positions. However, the demonstrative pronoun [thi<sup>55</sup>] "that" in the Lanmeng dialect has a different usage from the other distal demonstrative pronouns. It is only used in contrast to [ni<sup>55</sup>] "this", and not used to differentiate distance or range. In practice, therefore, the Huaipa dialect has four different sets of distal demonstrative pronouns, while the Lanmeng dialect has only three.

In both dialects, there are two sets of pronouns indicating "near", "far", and "further", one with vowel rhymes and the other with nasal codas. In the Huaipa dialect, these two sets of pronouns are free variants, with no differences in meaning or usage. However, in the Lanmeng dialect, there are differences in both meaning and usage between the two sets. The forms with vowel rhymes, [ni<sup>55</sup>]/[xi<sup>55</sup>] "this, that" are general demonstrative pronouns, and when used to indicate people or objects, must be combined with a classifier or a phrase consisting of a demonstrative pronoun and a classifier, as in [ni<sup>55</sup>lum<sup>31</sup>] "this one", [thi<sup>55</sup>lum<sup>31</sup>] "that one", [ni<sup>55</sup>fu<sup>33</sup>] "this (cl. for person)", and xi<sup>55</sup>maɲ<sup>55</sup> "that (cl. for animals)". The forms with nasal codas, however, [niɲ<sup>55</sup>]/[xiɲ<sup>55</sup>], are compound forms, and indicate "this one" and "that one". Therefore, they do not need to be combined with classifiers, and do not function as modifiers. They are used in isolation to indicate animals or objects, but not people.

	Lanmeng dialect	Huaipa dialect
near	[ni <sup>55</sup> ], [niɲ <sup>55</sup> ]	[ni <sup>33</sup> ], [niɲ <sup>33</sup> ]
far	[bi <sup>55</sup> ], [biɲ <sup>55</sup> ], [thi <sup>55</sup> ]	[the <sup>33</sup> ], [theɲ <sup>33</sup> ]
further	[xi <sup>55</sup> ], [xiɲ <sup>55</sup> ]	[he <sup>33</sup> ], [heɲ <sup>33</sup> ]
even further	[i <sup>55</sup> ], [iɲ <sup>55</sup> ]	[hɔɔ <sup>33</sup> ]
furthest	—	[hɔk <sup>21</sup> hɔɔ <sup>33</sup> ]

### 5.3.4 Reasons for Dialectal Differences

The above comparisons have shown that the main differences between the Lanmeng and Huaipa dialects lie in the areas of phonology and the lexicon, with the latter exhibiting the most differences. The phonological differences are governed by relatively precise correspondences and the grammatical differences have essentially arisen from lexical ones.

Although the specific expressions of dialectal differences are many and varied, and occur to different degrees and on different levels, there are two main reasons for their development. The more direct and obvious cause is the effect of contact with the Thai/Dai languages, while the other is the development of the language itself.

#### A. Effect of contact with the Thai/Dai languages

The Bisu spoken in every region has been influenced by contact with the Thai/Dai languages. This contact has given rise to changes in the lexicon, phonology, and grammar. The varying extents and results of this influence have led to dialectal differences. In general, the following changes can be seen:

(1) The large number of loan words has led to lexical differences. Varying extents of contact result in different numbers of loan words, so that those dialects who have been influenced more have assimilated more Thai/Dai loan words. Among the three dialects, the Tako dialect contains the most Thai/Dai loan words. In the Tako dialect, Thai loan words have completely replaced words found only in Bisu which have been retained or which coexist with the loan words in both the Lanmeng and Huaipa dialects.

(2) The increase in vowel phonemes has led to changes in the phonological system. Influence from the Thai/Dai languages has led to two additional independent phonemes /ɛ / and /ɔ / in the Huaipa compared to the Lanmeng dialect, contrasting with the vowels /e / and /o / respectively. In words found only in Bisu, words containing the vowels /e / and /ɛ / do not contrast semantically, nor do words containing the vowels /o / and /ɔ /. However, these are contrasting pairs in Thai/Dai phonology. Therefore, along with the assimilation of Thai/Dai loan words, this contrast has extended to include Bisu words and led to changes in the Huaipa phonological system, with the addition of the two phonemes /ɛ / and /ɔ /.

(3) The replacement of the numeral system is a clear indication of the effects of the Thai/Dai languages on Bisu grammar. In the Huaipa dialect, only Thai loan words are used to express cardinal numbers and words such as "hundred" and "thousand". This is in contrast to the Lanmeng dialect, which has retained Bisu terms for its numerals.

#### B. Development of the language itself

The uneven development of the language itself has led to different rates and degrees of progression in the language spoken in different regions. This is one of the main reasons for the differences which exist among the Bisu dialects. These differences are mainly expressed in the phonological systems, and more specifically in the following three areas:

(1) Syllable rhymes with consonantal codas are a phonological feature of Burmese-Yipho languages, and the retention or loss of consonantal codas can reflect distinctive stages in the phonological development of these languages. The Tako dialect of Bisu has many consonantal codas, but only a few exist in the Huaipa and Lanmeng dialects, which have limited categories of consonantal codas as well as very few specific words with such codas. Rhymes such as /ap / and /at /, which have essentially disappeared from these two dialects, and have become /aw / or /au / and /e / or /ɛ /, are retained in the Tako dialect.

(2) In Burmese-Yipho languages, both nasal and lateral syllable onsets had contrasting voiced and voiceless forms, but the development of voicing in voiceless forms have led to the assimilation of the voiceless into the voiced forms in the vast majority of these languages. In the Huaipa dialect, the contrast between voiced and voiceless forms has been retained; whereas in the Lanmeng dialect, these two categories have been incorporated into the voiced groups. Thus, different rates of phonological development have led to dialectal differences.

(3) The trend towards simplification of complex onsets is also an important aspect of the phonological development of Burmese-Yipho languages, and is reflected in dialectal differences. Complex onsets are relatively well-retained in the Huaipa dialect. Not only do they correspond to the remaining forms in a small number of Burmese-Yipho languages, but they also have very typical forms, such as /ph /, /phl /, /kl /, and /khl /, revealing the special features of the earlier forms of such onsets. However, in the Lanmeng dialect, these types of onsets have basically become single consonants, as with the majority of Burmese-Yipho languages.

The above analysis of the factors leading to dialectal differences has shown that an association exists between the two main causes for the formation of the Bisu dialects. Dialects which have been influenced profoundly by the Thai/Dai languages have also retained older phonological features, and their development has been slower. The Tako and Huaipa dialects have been greatly influenced by the Thai/Dai languages, and have large numbers of loan words. The assimilation of phonological and grammatical features from Thai/Dai languages has led to changes in the phonology and grammar in these dialects. At the same time, however, these dialects have retained earlier phonological features, with slower development in the following major areas: elimination of consonantal codas, voicing of voiceless nasal and lateral syllable onsets, and simplification of complex onsets.

On the other hand, dialects which have been less influenced by the Thai/Dai languages reveal relatively rapid development in certain areas. The Lanmeng dialect has not been influenced greatly by the Thai/Dai languages, and has fewer loan words, so that Thai/Dai influences are not evident in its phonology and grammar. However, its phonological development has been relatively rapid, with the retention of few older phonological features.

#### C. Specific Expressions of Dialectal Differences

##### (i) Different rates of development of consonantal codas

In Burmese-Yipho languages, the developmental trend is towards a decrease in number or complete elimination of consonantal codas. In languages within the Yipho branch, whose phonological development is relatively rapid, consonantal codas have basically disappeared, with a shift towards the contrasting features of tenseness vs. laxity in vowel rhymes. Within the Burmese branch, where phonological development is slower, there has been non-uniform retention of different types of consonantal codas.

On the one hand, Bisu conforms to the general trend in Burmese-Yipho languages, with consonantal codas having been eliminated from many words and replaced by vowel rhymes. On the other hand, however, Bisu shows two distinctive features:

- there is a complete set of consonantal codas and a fixed number of words with [-p], [-t], and [-k] codas
- the greater the influence of the Thai/Dai languages on a dialect, the larger the number of consonantal codas

The reason for the above characteristics may be shown by the analysis of specific words. Among words with consonantal codas, a relatively large proportion have originated from Thai/Dai loan words, as in the following examples:

	think	give birth	market	tear	measure	upright
Lanmeng dialect	[kʏt <sup>55</sup> ]	[kʏt <sup>55</sup> ]	[kat <sup>55</sup> ]	[zik <sup>55</sup> ]	[tek <sup>31</sup> ]	[pok <sup>33</sup> ]
Dai	[kuut <sup>8</sup> ]	[kət <sup>9</sup> ]	[ka:t <sup>9</sup> ]	[sik <sup>9</sup> ]	[tek <sup>8</sup> ]	[pok <sup>7</sup> ]
	ten	calculate	bend	eight	six	exchange
Huaipa dialect	[sip <sup>55</sup> ]	[hnap <sup>55</sup> ]	[bit <sup>55</sup> ]	[pet <sup>21</sup> ]	[hok <sup>55</sup> ]	[lek <sup>21</sup> ]
Thai	[sip <sup>7</sup> ]	[nap <sup>8</sup> ]	[bit <sup>7</sup> ]	[pet <sup>7</sup> ]	[hok <sup>7</sup> ]	[lek <sup>8</sup> ]
	squeeze	broom	poison	wash	iron	know
Tako dialect	[hit]	[ʔaŋwat]	[japhit]	[sák]	[hlek]	[cak]
Thai	[bit <sup>7</sup> ]	[kwat <sup>7</sup> ]	[phik <sup>8</sup> ]	[sák <sup>8</sup> ]	[hlek <sup>7</sup> ]	[ru <sup>4</sup> tsák <sup>7</sup> ]

The Thai/Dai languages have an abundance of consonantal codas, so that when Thai/Dai words are assimilated into Bisu, the number of words with consonantal codas within the lexicon increases. In this way, the contrasting function of consonantal codas, which has been progressing towards elimination, is strengthened and consolidated, thus halting their loss.

#### (ii) Retention or elimination of voiced nasals and laterals

Among Burmese-Yipho languages, the general trend is towards the voicing of voiceless nasals and laterals (which stood in contrast to their corresponding voiced forms), with the voiceless forms having been gradually eliminated and assimilated into the voiced forms. However, this development is not uniform among the Burmese-Yipho languages. Some languages show slower development by retaining voiceless nasals and laterals, or at least have remnants of such forms. In other languages with more rapid development, voicelessness has disappeared completely, with the previously contrastive voiceless forms being entirely assimilated into the voiced forms. This different rate of development is reflected in Bisu: dialects which have been greatly influenced by the Thai/Dai languages have retained the typical voiceless nasals and laterals; while the Lanmeng dialect, which has been subjected to less influence from the Thai/Dai languages, shows complete elimination of the contrastive voiceless forms, which have been assimilated into the voiced forms. Thus, the retention of voiceless nasals and laterals is intimately associated with the extent of contact with and influence by the Thai/Dai languages.

In modern Thai/Dai, there is only one set of voiced nasals and laterals, but they can be seen to have two different historical origins from the study of tonal contrast and different Thai scripts. In Thai, nasal and lateral onsets with tones 1, 3, 5, and 7 are written in Thai as [hm], [hn], [hŋ], and [hl]; whereas those with tones 2, 4, 6, and 8 are written as [m], [n], [ŋ], and [l]. Thus, from the corroborating evidence of both Thai tones and Thai script, ancient Thai must have consisted of two sets of nasal and lateral onsets. When the set which contrasted with the voiced forms was assimilated into Bisu, they were incorporated into the voiceless nasals and laterals of Bisu words, as in the following examples:

Word	Huaipa dialect	Thai script	Standard Thai	Northern Thai
doctor	[hmɔ <sup>33</sup> ]	[hmɔ <sup>1</sup> ]	[mɔ <sup>1</sup> ]	[mɔ <sup>1</sup> ]
widow	[mɛ <sup>33</sup> hmaj <sup>55</sup> ]	[mɛ <sup>6</sup> hma:i <sup>3</sup> ]	[mɛ <sup>3</sup> ma:i <sup>3</sup> ]	[mɛ <sup>6</sup> ma:i <sup>3</sup> ]
this	[hni <sup>33</sup> ]	[hni <sup>1</sup> ]	[ni <sup>3</sup> ]	[ni <sup>3</sup> ]
north	[huŋ <sup>55</sup> hny <sup>33</sup> ]	[hnuɔ <sup>1</sup> ]	[nuɔ <sup>1</sup> ]	[nɔ <sup>1</sup> ]
iron	[hlek] (Tako)	[hlek <sup>7</sup> ]	[lek <sup>7</sup> ]	[lek <sup>7</sup> ]
pointed	[ʔaŋ <sup>33</sup> hlem <sup>55</sup> ]	[hlem <sup>1</sup> ]	[lem <sup>1</sup> ]	[lem <sup>1</sup> ]

In modern Thai, the forms which used to contrast with voiced nasals and laterals no longer exist, but are instead expressed in Thai loan words which have been assimilated into the Huaipa dialect. As these loan words have a consolidating function towards similar onsets in Bisu, the Huaipa dialect has retained these typically early voiceless nasals and laterals. Its development has therefore been slowest within the Bisu language, and indeed, among all the Burmese-Yipho languages.

#### (iii) Developmental differences in complex onsets

Although the development of complex onsets between early and modern Burmese-Yipho languages is not entirely identical, they all reflect a general trend towards simplification. In those languages where features or remnants of compound consonants are still retained, only one type remains in the vast majority, including the Lanmeng dialect of Bisu. However, compared to other Burmese-Yipho languages, the Huaipa dialect has retained the most complete set of such onsets and has more typical forms. Complex onsets which are found in Burmese-Yipho languages are shown in the following table:

Burmese	pr, phr, mr, kr, khr, pj, phj, bj, mj, hmj, kj, khj, gj
Huaipa dialect of Bisu	pl, phl, bl, kl, khl, pj, phj, bj, hmj, kj, khj
Jino	pɿ, phɿ, mɿ, kɿ, khɿ, pj, phj, mj
Achang	pz, phz, mz, mɿ*z, kɿ, khɿ, xz
Zaiwa	pj, phj, mj, kj, khj, xj, nj
Lanmeng dialect of Bisu	ph, phj, bj, mj, kj, khj

It can be seen from the above table that, among modern Burmese-Yipho languages, the development of complex onsets in the Huaipa dialect of Bisu has been slowest, and has occurred at the same rate as Burmese, which also has earlier forms.

The consonant clusters in Thai may also be divided into two groups: [pl], [phl], [kl], [khl] and [pr], [phr], [kr], [khr], [mr]. When compared with the above table, the pattern of the complex onsets in the Huaipa dialect is very similar to that in Thai, revealing the result of influence due to contact between the languages.

Therefore, owing to the conformity of the unstable elements within the development of Bisu to certain phonological features in the Thai/Dai languages, contact with Thai/Dai languages has not led to the differentiation of certain distinctive phonological features in Bisu, but has instead strengthened and consolidated them, leading to their retention. In those dialects which have been greatly influenced by the Thai/Dai languages, earlier features have been retained and development has been slower. In conclusion, the primary reason for the formation of dialectal differences in Bisu is contact with and influence by the Thai/Dai languages.

## 6 The Position of Bisu within its Language Family

This chapter analyses the position of Bisu within its language family and its relationship with surrounding languages by investigating its historical development. The large number of cognate words, the precise correspondences between their phonological systems, and their common grammatical features show that Bisu belongs to the Tibeto-Burman family within the Sino-Tibetan phylum, and that it is intimately associated with the Burmese-Yipho group. Compared with other Burmese-Yipho languages, the development of the Bisu phonological system is more similar to languages of the Burmese branch. However, there are more Bisu words which are cognate with those in the languages of the Yipho branch. In addition, Bisu also has unique features which are different from the general features which characterise Burmese-Yipho languages.

- phonologically, Bisu reveals a unique development from nasals to voiced stops
- in terms of the lexicon, there are many words which are only found in Bisu
- grammatically, Bisu personal pronouns and classifiers have developed much more slowly than the majority of Burmese-Yipho languages, with the retention of grammatical features which are representative of an earlier stage in development

The above characteristics have therefore led to the formation of a new branch within the Burmese-Yipho group: the Bisoid branch, which includes Bisu and those languages with which it is most intimately associated, such as the Phunoi, Sangkong, Mpi, and Pyen languages. As most of the languages in the Bisoid branch are not spoken within Chinese territory, knowledge of this branch has been limited among Chinese linguists. Some overseas linguists consider the Bisoid branch to be a sub-branch of the Yipho branch of the Burmese-Yipho group of languages<sup>16</sup>.

### 6.1 Phonological Comparison

Many items of core vocabulary in Bisu are cognate with words in other Burmese-Yipho languages. These cognate words have precise phonological correspondences and may be divided into two main groups.

(1) The first group of words are similar or even identical in form, and have correspondences between their onsets and rhymes. These onsets and rhymes constitute the most stable component of the phonological system of Burmese-Yipho languages, and are the clearest indicators of the cognate relationship between them and Bisu.

(2) In the second group, there are distinct differences between the forms of the words in Bisu and in other Burmese-Yipho languages. These differences reflect the phonological development of these Burmese-Yipho languages, as well as the historical development of Bisu and its position within its language family.

<sup>16</sup> Bradley, David. 1989. *Historical Sketch of the Bisu Language*. Translated into Chinese by Chen Kang in *Minzu Yuwen*, Vol.4: 35-41.  
—, 1979. *Proto-Loloish*. Copenhagen: Scandinavian Institute of Asian Studies Monograph Series No.39, Curzon Press.

### 6.1.1 Phonological correspondences

#### Category 1

Phonological correspondences for syllable onsets may be divided into five categories. The symbol □ indicates another syllable in a polysyllabic word. These syllables have been omitted owing to page restrictions.

Stops	/p/, /ph/ /t/, /th/ /k/, /kh/							
Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
open	phoŋ <sup>33</sup>	phwan <sup>1</sup>	phoŋ <sup>35</sup>	phoŋ <sup>55</sup>	phu <sup>33</sup>	pho <sup>33</sup>	pho <sup>33</sup>	pho <sup>31</sup>
spicy	phi <sup>55</sup>	—	—	phjik <sup>55</sup>	phi <sup>55</sup>	phe <sup>21</sup>	phi <sup>33</sup>	phōi <sup>55</sup>
vomit	phe <sup>31</sup>	—	phat <sup>55</sup>	pje <sup>55</sup>	phi <sup>33</sup> □	phe <sup>21</sup>	phi <sup>55</sup>	phiu <sup>55</sup>
cry	tan <sup>55</sup>	ton <sup>2</sup>	thun <sup>55</sup>	tun <sup>51</sup>	te <sup>55</sup>	—	tō <sup>31</sup>	tuō <sup>35</sup>
up	ta <sup>33</sup>	tak	tō <sup>55</sup>	to <sup>21</sup>	tā <sup>33</sup>	tā <sup>54</sup>	—	—
dig	tu <sup>31</sup>	tu <sup>3</sup>	tu <sup>31</sup>	—	tū <sup>31</sup>	—	tu <sup>33</sup>	—
thick	thu <sup>55</sup>	htu <sup>2</sup>	thu <sup>51</sup>	thu <sup>51</sup>	thu <sup>55</sup>	thu <sup>33</sup>	thu <sup>55</sup>	thu <sup>31</sup>
handspan	tho <sup>55</sup>	htwa <sup>2</sup>	tho <sup>55</sup>	tho <sup>51</sup>	thu <sup>55</sup>	thu <sup>33</sup>	tho <sup>55</sup>	thua <sup>35</sup>
one	thi <sup>31</sup>	tas	ta <sup>31</sup>	—	thv <sup>31</sup>	te <sup>53</sup>	thi <sup>33</sup>	thi <sup>53</sup>
sharp	thak <sup>33</sup>	htak	tho <sup>55</sup>	tho <sup>33</sup>	thā <sup>31</sup>	—	tha <sup>31</sup>	thu <sup>53</sup>
bent	kue <sup>31</sup>	kək	kok <sup>55</sup>	koi <sup>55</sup>	ky <sup>31</sup>	qo <sup>33</sup>	kyo <sup>44</sup>	—
pick up	ko <sup>33</sup>	kək	ku <sup>55</sup>	ku <sup>21</sup>	ky <sup>33</sup>	yo <sup>54</sup>	ko <sup>42</sup>	—
chase	ka <sup>31</sup>	—	—	khat <sup>55</sup>	kā <sup>31</sup>	ya <sup>21</sup>	ka <sup>55</sup>	khua <sup>31</sup>
bitter	kha <sup>31</sup>	kha <sup>3</sup>	xo <sup>31</sup>	kho <sup>21</sup>	khō <sup>31</sup>	qha <sup>53</sup>	khō <sup>55</sup>	kha <sup>53</sup>
dog	khur <sup>31</sup>	khwe <sup>3</sup>	xui <sup>31</sup>	khui <sup>21</sup>	khv <sup>31</sup>	—	khur <sup>33</sup> □	khui <sup>55</sup>
ladle	khu <sup>31</sup>	khat	kā <sup>55</sup>	ko <sup>21</sup>	khv <sup>31</sup>	—	khur <sup>44</sup>	khui <sup>55</sup>

Affricates	/ts/, /tsh/ /tʃ/, /tʃh/							
Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
fat	tshj <sup>55</sup>	shu <sup>2</sup> □	tcho <sup>55</sup>	tshu <sup>51</sup>	tshy <sup>55</sup>	tshu <sup>33</sup>	tshu <sup>33</sup>	tshu <sup>35</sup> □
shave	tsho <sup>33</sup>	sham <sup>2</sup> □	zo <sup>55</sup>	—	tshy <sup>33</sup>	tshi <sup>53</sup>	—	—
thorn	tshu <sup>31</sup>	hsu <sup>3</sup>	tco <sup>31</sup>	tsu <sup>21</sup>	—	tshu <sup>33</sup>	tco <sup>35</sup>	dzu <sup>55</sup>
cram	tshau <sup>31</sup>	hso <sup>1</sup>	—	tshau <sup>55</sup>	tshj <sup>31</sup>	—	tshi <sup>44</sup>	tshj <sup>31</sup>
boil	tshu <sup>55</sup>	hsu <sup>2</sup>	su <sup>55</sup>	tsu <sup>51</sup>	tshy <sup>55</sup>	—	tshu <sup>42</sup>	tsu <sup>35</sup>
friend	tshaj <sup>31</sup>	hswe <sup>3</sup>	tso <sup>55</sup> □	tsum <sup>55</sup>	tshy <sup>31</sup>	tsho <sup>53</sup>	tsho <sup>44</sup>	tsha <sup>55</sup>
join	tsha <sup>31</sup>	hsak	—	tsho <sup>55</sup>	*tsa <sup>31</sup>	tsa <sup>35</sup>	tsha <sup>33</sup>	tsha <sup>53</sup>
plant	tshok <sup>33</sup>	sok	tcho <sup>55</sup>	tshu <sup>55</sup>	tshy <sup>33</sup>	—	tsher <sup>31</sup>	tshu <sup>53</sup>
wash	tshi <sup>31</sup>	she <sup>3</sup>	tshi <sup>31</sup>	tshi <sup>21</sup>	tsj <sup>31</sup>	tshj <sup>53</sup>	tshi <sup>33</sup>	tchi <sup>55</sup>
ten	tche <sup>55</sup>	hsaj <sup>2</sup>	tche <sup>55</sup>	tshē <sup>51</sup>	tshv <sup>55</sup>	tshi <sup>33</sup>	tshu <sup>42</sup>	tshē <sup>35</sup>
liver	tchin <sup>31</sup>	tham <sup>3</sup>	tsoŋ <sup>31</sup>	siŋ <sup>21</sup>	tshj <sup>31</sup>	se <sup>31</sup>	tshu <sup>33</sup>	tsō <sup>55</sup>
deer	tche <sup>33</sup>	tha <sup>1</sup> □	—	tshat <sup>55</sup>	tshē <sup>33</sup>	zj <sup>31</sup>	tshē <sup>33</sup>	tsha <sup>55</sup>

\*The phonetic transcription of the Hani word marked with an asterisk in the above table is that of the Haya dialect spoken in the Dazhai Village in Luchun County.

**Fricatives**

/s/ /ç/ /v/

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
grind	sʰ <sup>31</sup>	thwe <sup>3</sup>	soi <sup>31</sup>	sui <sup>21</sup>	sʰ <sup>31</sup>	si <sup>11</sup>	su <sup>33</sup>	sui <sup>55</sup>
three	sum <sup>55</sup>	thum <sup>3</sup>	sum <sup>31</sup>	sum <sup>21</sup>	se <sup>55</sup>	se <sup>53</sup>	so <sup>33</sup>	so <sup>35</sup>
new	sʰ <sup>31</sup>	thas	ʂək <sup>55</sup>	ʂsik <sup>55</sup>	ʂsʰ <sup>31</sup>	ʂsʰ <sup>35</sup>	ʂci <sup>55</sup>	ʂse <sup>55</sup>
iron	sam <sup>55</sup>	tham <sup>2</sup>	ʂam <sup>55</sup>	ʂam <sup>51</sup>	se <sup>55</sup>	so <sup>33</sup>	ʂe <sup>42</sup>	ʂa <sup>31</sup>
fruit	ʂsʰ <sup>31</sup>	thas	ʂə <sup>31</sup>	ʂi <sup>21</sup>	ʂsʰ <sup>31</sup>	ʂsi <sup>11</sup>	su <sup>33</sup>	ʂsi <sup>31</sup>
die	ci <sup>55</sup>	the <sup>2</sup>	ʂi <sup>55</sup>	ʂi <sup>51</sup>	sʰ <sup>55</sup>	sʰ <sup>33</sup>	ci <sup>31</sup>	ʂi <sup>35</sup>
louse	cin <sup>55</sup>	than <sup>3</sup>	ʂan <sup>31</sup>	ʂin <sup>21</sup>	se <sup>55</sup>	se <sup>33</sup>	ʂe <sup>33</sup>	ʂa <sup>55</sup>
blood	ci <sup>31</sup>	thwe <sup>3</sup>	sui <sup>31</sup>	sui <sup>21</sup>	ʂsi <sup>31</sup>	ʂsʰ <sup>11</sup>	ʂci <sup>44</sup>	sui <sup>55</sup>
kill	ʂe <sup>31</sup>	that	—	sat <sup>55</sup>	sʰ <sup>31</sup>	—	se <sup>55</sup>	sha <sup>53</sup>
pig	va <sup>31</sup>	wak	oʰ <sup>55</sup>	vaʰ <sup>21</sup>	va <sup>31</sup>	va <sup>21</sup>	va <sup>44</sup>	ʂva <sup>53</sup>
buy	vui <sup>55</sup>	waj <sup>2</sup>	oi <sup>55</sup>	vui <sup>51</sup>	ʂ <sup>55</sup>	va <sup>31</sup>	—	ue <sup>35</sup>
far	vy <sup>31</sup>	we <sup>3</sup>	ve <sup>31</sup>	ve <sup>21</sup>	mu <sup>55</sup>	vui <sup>53</sup>	xu <sup>44</sup>	—

**Nasals**

/m/ /n/ /ŋ/

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
sky	mutɕ <sup>31</sup>	mo <sup>3</sup>	mau <sup>31</sup>	mau <sup>21</sup>	mi <sup>31</sup>	mu <sup>53</sup>	—	mu <sup>55</sup>
old	maŋ <sup>31</sup>	o <sup>2</sup>	muang <sup>31</sup>	maŋ <sup>21</sup>	mu <sup>31</sup>	mo <sup>53</sup>	—	mu <sup>53</sup>
hair	ʂmy <sup>31</sup>	ʂmwe <sup>3</sup>	ʂmui <sup>31</sup>	ʂmau <sup>55</sup>	—	ʂmu <sup>33</sup>	ʂmur <sup>33</sup>	ŋui <sup>55</sup>
name	ʂme <sup>55</sup>	ʂman <sup>2</sup>	ʂniŋ <sup>55</sup>	mjiŋ <sup>51</sup>	ʂmi <sup>55</sup>	ʂme <sup>33</sup>	ʂmi <sup>33</sup>	ŋə <sup>35</sup>
teach	ma <sup>31</sup>	—	ŋə <sup>35</sup>	mɕə <sup>55</sup>	*me <sup>31</sup>	ma <sup>11</sup>	—	—
you	naŋ <sup>33</sup>	naŋ <sup>2</sup>	nuang <sup>55</sup>	naŋ <sup>51</sup>	ny <sup>55</sup>	no <sup>31</sup>	ne <sup>31</sup>	no <sup>55</sup>
trample	naŋ <sup>31</sup>	naŋ <sup>3</sup>	nuang <sup>31</sup>	naŋ <sup>21</sup>	ny <sup>31</sup>	na <sup>54</sup>	ne <sup>33</sup>	—
smell	nam <sup>31</sup>	nam <sup>3</sup>	nam <sup>31</sup>	nam <sup>51</sup>	ne <sup>55</sup>	nu <sup>31</sup>	ne <sup>42</sup>	—
red	ne <sup>55</sup>	ni <sup>2</sup>	na <sup>55</sup>	ne <sup>51</sup>	ny <sup>55</sup>	ni <sup>35</sup>	ʂnu <sup>44</sup>	—
deep	na <sup>31</sup>	nak	—	nik <sup>21</sup>	na <sup>31</sup>	na <sup>35</sup>	ʂna <sup>44</sup>	*nuŋ <sup>31</sup>
five	ŋa <sup>31</sup>	ŋa <sup>3</sup>	ŋə <sup>31</sup>	ŋə <sup>21</sup>	ŋə <sup>31</sup>	ŋa <sup>53</sup>	ŋə <sup>33</sup>	ŋa <sup>55</sup>

\*The phonetic transcription of the Hani word is that of the Haya dialect spoken in Dazhai Village in Luchun County; for the Nu word, the transcription is that of the Fugong dialect.

**Laterals**

/l/

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
come	la <sup>55</sup>	la <sup>2</sup>	—	le <sup>55</sup>	la <sup>55</sup>	la <sup>31</sup>	lo <sup>33</sup>	la <sup>35</sup>
roll	lɕŋ <sup>33</sup>	lim <sup>1</sup>	liŋ <sup>35</sup>	lej <sup>21</sup>	lu <sup>33</sup>	—	lu <sup>44</sup>	ʂlo <sup>53</sup>
armspan	lam <sup>55</sup>	lam <sup>2</sup>	lam <sup>55</sup>	lam <sup>51</sup>	le <sup>55</sup>	ʂlo <sup>31</sup>	ʂe <sup>31</sup>	la <sup>35</sup>
moon	ʂla <sup>33</sup>	la <sup>1</sup>	ʂla <sup>35</sup>	ʂlə <sup>55</sup>	lo <sup>33</sup>	—	ʂə <sup>33</sup>	ʂa <sup>31</sup>

Correspondences for syllable rhymes may be divided into five categories according to the vowels. These are shown in the tables below.

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
five	ŋa <sup>31</sup>	ŋa <sup>3</sup>	ŋə <sup>31</sup>	ŋə <sup>21</sup>	ŋə <sup>31</sup>	ŋa <sup>53</sup>	ŋə <sup>33</sup>	ŋa <sup>55</sup>
bitter	kha <sup>31</sup>	kha <sup>3</sup>	xə <sup>31</sup>	kho <sup>21</sup>	kho <sup>31</sup>	qha <sup>53</sup>	ʂkha <sup>55</sup>	kha <sup>53</sup>
eat	tʂa <sup>31</sup>	sa <sup>3</sup>	tə <sup>31</sup>	tso <sup>21</sup>	tso <sup>31</sup>	tsa <sup>53</sup>	tso <sup>33</sup>	dza <sup>55</sup>
moon	ʂla <sup>33</sup>	la <sup>1</sup>	ʂla <sup>35</sup>	lə <sup>55</sup>	lo <sup>33</sup>	xə <sup>31</sup>	ʂə <sup>33</sup>	ʂa <sup>31</sup>
not	ba <sup>31</sup>	ma <sup>1</sup>	ma <sup>31</sup>	a <sup>21</sup>	mo <sup>31</sup>	ma <sup>53</sup>	mo <sup>33</sup>	ma <sup>33</sup>
obtain	ga <sup>33</sup>	ra <sup>1</sup>	zua <sup>35</sup>	—	jo <sup>33</sup>	ya <sup>33</sup>	jo <sup>33</sup>	ga <sup>33</sup>
I	ga <sup>33</sup>	ŋə <sup>2</sup>	ŋə <sup>55</sup>	ŋə <sup>51</sup>	ŋa <sup>55</sup>	ŋa <sup>31</sup>	ŋə <sup>31</sup>	ga <sup>35</sup>
come	la <sup>55</sup>	la <sup>2</sup>	—	le <sup>55</sup>	la <sup>55</sup>	la <sup>31</sup>	lo <sup>33</sup>	la <sup>35</sup>
bee	pja <sup>31</sup>	pja <sup>3</sup>	—	pjə <sup>21</sup>	pə <sup>31</sup>	pe <sup>53</sup>	pjə <sup>33</sup>	bia <sup>55</sup>

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
thick	thu <sup>55</sup>	htu <sup>2</sup>	—	thu <sup>51</sup>	xvu <sup>55</sup>	thu <sup>33</sup>	ʂthu <sup>55</sup>	thu <sup>31</sup>
boil	ʂtʂu <sup>55</sup>	hsu <sup>2</sup>	su <sup>55</sup>	tsu <sup>51</sup>	tʂy <sup>55</sup>	—	tʂu <sup>42</sup>	tsu <sup>35</sup>
dig	tu <sup>31</sup>	tu <sup>3</sup>	tu <sup>31</sup>	—	tʂy <sup>31</sup>	—	tu <sup>33</sup>	—
cross	ku <sup>31</sup>	ʂku <sup>3</sup>	kzə <sup>31</sup>	ku <sup>21</sup>	kʂy <sup>31</sup>	kha <sup>31</sup>	kha <sup>55</sup>	gu <sup>55</sup>
stab	ʂtʂu <sup>31</sup>	hsu <sup>3</sup>	tə <sup>31</sup>	tsu <sup>21</sup>	—	tʂu <sup>33</sup>	ʂtə <sup>35</sup>	dzu <sup>55</sup>
tendon	ʂku <sup>31</sup>	ʂkrə <sup>3</sup>	ʂkzə <sup>31</sup>	ʂkji <sup>21</sup>	ʂkʂy <sup>51</sup>	ʂku <sup>33</sup>	ʂtə <sup>44</sup>	—

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
handspan	tho <sup>55</sup>	htwa <sup>2</sup>	tho <sup>55</sup>	tho <sup>51</sup>	*thu <sup>55</sup>	ʂthu <sup>33</sup>	tho <sup>55</sup>	thua <sup>35</sup>
crawl	to <sup>31</sup>	twa <sup>3</sup>	thə <sup>35</sup>	to <sup>21</sup>	—	lo <sup>53</sup>	ʂo <sup>31</sup>	dua <sup>53</sup>
walk	zo <sup>31</sup>	—	so <sup>31</sup>	so <sup>21</sup>	ju <sup>31</sup>	dzu <sup>54</sup>	zo <sup>33</sup>	shua <sup>55</sup>

\*This phonetic transcription for this Hani word is that of the Haya dialect spoken in Dazhai Village, Luchun County.

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
nine	kau <sup>31</sup>	ko <sup>3</sup>	kau <sup>31</sup>	kau <sup>21</sup>	tsi <sup>31</sup>	qə <sup>53</sup>	təy <sup>33</sup>	gu <sup>35</sup>
steal	khau <sup>31</sup>	kho <sup>2</sup>	xau <sup>31</sup>	khau <sup>21</sup>	tʂhi <sup>31</sup>	qho <sup>53</sup>	təhə <sup>33</sup>	khui <sup>55</sup>
horn	ʂkhjau <sup>55</sup>	khjo <sup>2</sup>	khzəu <sup>55</sup>	khju <sup>51</sup>	ʂtʂhi <sup>55</sup>	kho <sup>53</sup>	ʂkhi <sup>33</sup>	khui <sup>35</sup>
sweet	tʂhau <sup>55</sup>	khjo <sup>2</sup>	uai <sup>31</sup>	tʂhui <sup>21</sup>	tʂhə <sup>55</sup>	tʂho <sup>33</sup>	ʂtʂhi <sup>33</sup>	təhui <sup>55</sup>
cram	tʂhau <sup>31</sup>	hso <sup>1</sup>	—	tʂhau <sup>55</sup>	ʂtʂhə <sup>31</sup>	—	tʂhi <sup>44</sup>	tʂhə <sup>31</sup>

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
wash	tʂhi <sup>31</sup>	she <sup>3</sup>	tʂhi <sup>31</sup>	tʂhi <sup>21</sup>	tʂy <sup>31</sup>	tʂhə <sup>53</sup>	tʂhi <sup>33</sup>	tʂhi <sup>55</sup>
die	ci <sup>55</sup>	the <sup>2</sup>	ʂi <sup>55</sup>	ʂi <sup>51</sup>	sʰ <sup>55</sup>	sʰ <sup>33</sup>	ci <sup>31</sup>	ʂi <sup>35</sup>
borrow	tʂhi <sup>31</sup>	khje <sup>3</sup>	—	tʂi <sup>21</sup>	—	tʂhi <sup>33</sup>	—	tʂi <sup>53</sup>
blood	ci <sup>31</sup>	thwe <sup>3</sup>	sui <sup>31</sup>	sui <sup>21</sup>	ʂsi <sup>31</sup>	ʂsʰ <sup>11</sup>	ʂci <sup>44</sup>	sui <sup>55</sup>
grind	sʰ <sup>31</sup>	thwe <sup>3</sup>	soi <sup>31</sup>	sui <sup>21</sup>	sʰ <sup>31</sup>	si <sup>11</sup>	su <sup>33</sup>	sui <sup>55</sup>
two	ni <sup>31</sup>	hnas	sək <sup>55</sup>	i <sup>55</sup>	ne <sup>31</sup>	ni <sup>53</sup>	ni <sup>55</sup>	ŋ <sup>55</sup>
one	thi <sup>31</sup>	tas	ta <sup>31</sup>	—	tʂy <sup>31</sup>	te <sup>53</sup>	thi <sup>33</sup>	thi <sup>53</sup>
new	sʰ <sup>31</sup>	thas	ʂək <sup>55</sup>	ʂsik <sup>55</sup>	ʂsʰ <sup>31</sup>	ʂsʰ <sup>35</sup>	ʂci <sup>55</sup>	dzo <sup>53</sup>



In terms of tone, five main types of correspondences may be found among the eight Burmese-Yipho languages being compared:

	Burmese	Bisu	Achang	Zaiwa	Hani	Lahu	Jino	Nu
(a)	1	33	35	55	33	33	33	31
(b)	2	55	55	51	55	33	33	35
(c)	3	31	31	21	31	53	33	55
(d)	Stop codas	33	55	55/21	33	54	31	53
(e)	Stop codas	31	55	55	31	—	—	53

Correspondences among tone categories are illustrated below.

Word	Burmese	Bisu	Achang	Zaiwa	Hani	Lahu	Jino	Nu
open	phwaŋ <sup>1</sup>	phoŋ <sup>33</sup>	phoŋ <sup>35</sup>	phoŋ <sup>55</sup>	phu <sup>33</sup>	pho <sup>33</sup>	pho <sup>33</sup>	phɔ <sup>31</sup>
full	praŋ <sup>1</sup>	puŋ <sup>33</sup>	pzəŋ <sup>35</sup>	pjiŋ <sup>55</sup>	py <sup>33</sup>	bi <sup>53</sup>	puu <sup>33</sup>	bɔ <sup>31</sup>
ulcer	—	peŋ <sup>33</sup>	pzəŋ <sup>51</sup>	pjiŋ <sup>35</sup>	—	ʈtshu <sup>53</sup>	ʈtshu <sup>33</sup>	ʈbɔ <sup>35</sup>
obtain	ra <sup>1</sup>	ga <sup>33</sup>	zua <sup>35</sup>	—	jo <sup>33</sup>	ʎa <sup>33</sup>	jo <sup>33</sup>	ga <sup>31</sup>
tall	mraŋ <sup>1</sup>	moŋ <sup>33</sup>	mzəŋ <sup>55</sup>	mjaŋ <sup>51</sup>	—	mu <sup>33</sup>	mjo <sup>31</sup>	mju <sup>31</sup>
moon	la <sup>1</sup>	ʈla <sup>33</sup>	ʈjo <sup>35</sup>	ʈɔ <sup>55</sup>	ʈɔ <sup>33</sup>	xə <sup>33</sup>	ʈɔ <sup>33</sup>	ʈa <sup>31</sup>
deer	tha <sup>1</sup>	tche <sup>33</sup>	—	tshat <sup>55</sup>	ʈtshə <sup>33</sup>	—	tshə <sup>33</sup>	tsha <sup>55</sup>

Word	Burmese	Bisu	Achang	Zaiwa	Hani	Lahu	Jino	Nu
sour	khjaŋ <sup>2</sup>	ʈtchin <sup>55</sup>	mzək <sup>55</sup>	tʃin <sup>51</sup>	tshy <sup>55</sup>	tsi <sup>33</sup>	ʈtshu <sup>33</sup>	tʃɔ <sup>35</sup>
fat	shu <sup>2</sup>	tshɿ <sup>55</sup>	tcho <sup>55</sup>	tshu <sup>51</sup>	tshy <sup>55</sup>	tshu <sup>33</sup>	—	tshu <sup>35</sup>
die	the <sup>2</sup>	ɕi <sup>55</sup>	ʃi <sup>55</sup>	ʃi <sup>51</sup>	ʃi <sup>55</sup>	ʃi <sup>33</sup>	ɕi <sup>31</sup>	ʃi <sup>35</sup>
fungus	hmo <sup>2</sup>	moŋ <sup>55</sup>	mau <sup>55</sup>	mau <sup>51</sup>	me <sup>55</sup>	mu <sup>11</sup>	mo <sup>33</sup>	mju <sup>35</sup>
name	ʈman <sup>2</sup>	ʈmiŋ <sup>55</sup>	ʈniŋ <sup>55</sup>	mjiŋ <sup>51</sup>	ʈmi <sup>55</sup>	ʈme <sup>33</sup>	ʈmi <sup>33</sup>	mɕ <sup>35</sup>
ear (grain)	ʈhnam <sup>2</sup>	ʈnam <sup>55</sup>	ʈŋam <sup>55</sup>	ʈŋam <sup>51</sup>	ʈne <sup>55</sup>	ʈnu <sup>33</sup>	ʈne <sup>44</sup>	ŋa <sup>35</sup>
armspan	lam <sup>2</sup>	lam <sup>35</sup>	lam <sup>55</sup>	lam <sup>51</sup>	le <sup>55</sup>	ʈlo <sup>31</sup>	ʈe <sup>33</sup>	la <sup>35</sup>
horn	khjo <sup>2</sup>	ʈkhjau <sup>55</sup>	khzau <sup>55</sup>	khjui <sup>51</sup>	ʈtshi <sup>55</sup>	khɔ <sup>53</sup>	ʈkhi <sup>33</sup>	khru <sup>35</sup>

Word	Burmese	Bisu	Achang	Zaiwa	Hani	Lahu	Jino	Nu
wash	she <sup>3</sup>	tchi <sup>31</sup>	tshi <sup>31</sup>	tʃhi <sup>21</sup>	tsɿ <sup>31</sup>	tshɿ <sup>53</sup>	tshi <sup>33</sup>	tchi <sup>55</sup>
eat	sa <sup>3</sup>	tsa <sup>31</sup>	tɕo <sup>31</sup>	tso <sup>21</sup>	tsɔ <sup>31</sup>	tsa <sup>53</sup>	tsɔ <sup>33</sup>	dza <sup>55</sup>
raw	sim <sup>3</sup>	tsum <sup>31</sup>	tsin <sup>31</sup>	ʈtʃum <sup>21</sup>	ʈtse <sup>31</sup>	ʈtsɿ <sup>53</sup>	ʈtɕe <sup>33</sup>	dzo <sup>53</sup>
sharpen	thwe <sup>3</sup>	ʃi <sup>31</sup>	soi <sup>31</sup>	sui <sup>21</sup>	ʃi <sup>31</sup>	si <sup>11</sup>	su <sup>33</sup>	sui <sup>55</sup>
nine	ko <sup>3</sup>	kau <sup>31</sup>	kau <sup>31</sup>	kau <sup>21</sup>	*yo <sup>31</sup>	qo <sup>53</sup>	tɕy <sup>33</sup>	gu <sup>35</sup>
bee	pja <sup>3</sup>	pja <sup>31</sup>	—	pjo <sup>21</sup>	po <sup>31</sup>	pe <sup>53</sup>	pjo <sup>33</sup>	bia <sup>55</sup>
horse	mraŋ <sup>3</sup>	ʈmoŋ <sup>31</sup>	mzəŋ <sup>31</sup>	mjaŋ <sup>21</sup>	mu <sup>31</sup>	ʈmu <sup>53</sup>	mjo <sup>33</sup>	muu <sup>31</sup>
five	ŋa <sup>3</sup>	ŋa <sup>31</sup>	ŋo <sup>31</sup>	ŋo <sup>21</sup>	ŋo <sup>31</sup>	ŋa <sup>53</sup>	ŋo <sup>33</sup>	ŋa <sup>55</sup>

Word	Burmese	Bisu	Achang	Zaiwa	Hani	Lahu	Jino	Nu
sharp	htək	thək <sup>33</sup>	tho <sup>255</sup>	tho <sup>255</sup>	tha <sup>33</sup>	tsɿ <sup>54</sup>	tha <sup>31</sup>	thu <sup>53</sup>
drop	sək	tsək <sup>33</sup>	tɕək <sup>55</sup>	—	tsa <sup>33</sup>	tsa <sup>54</sup>	tse <sup>31</sup>	dza <sup>53</sup>
insert	sək	tshək <sup>33</sup>	tcho <sup>233</sup>	tshu <sup>255</sup>	tshy <sup>33</sup>	—	tsher <sup>31</sup>	tshu <sup>53</sup>
fear	krək	khe <sup>33</sup>	—	kju <sup>21</sup>	khe <sup>33</sup>	ko <sup>54</sup>	tcho <sup>35</sup>	gu <sup>53</sup>
pick up	kək	ko <sup>33</sup>	ku <sup>255</sup>	ku <sup>21</sup>	ky <sup>33</sup>	yo <sup>54</sup>	ko <sup>42</sup>	—
blow	hmut	mi <sup>33</sup>	mut <sup>55</sup>	mut <sup>21</sup>	—	mo <sup>54</sup>	—	—
pinch	hnas	kjap <sup>33</sup>	—	tsup <sup>55</sup>	*tsy <sup>33</sup>	tshɿ <sup>21</sup>	tshu <sup>55</sup>	tsɔ <sup>53</sup>

Word	Burmese	Bisu	Achang	Zaiwa	Hani	Lahu	Jino	Nu
six	khɾək	khu <sup>31</sup>	xzo <sup>255</sup>	khju <sup>255</sup>	khɿ <sup>31</sup>	khɔ <sup>21</sup>	tʃho <sup>33</sup>	khɿ <sup>53</sup>
leaf	ʈrwək	ʈpha <sup>31</sup>	ʈxzo <sup>255</sup>	ʈxa <sup>255</sup>	ʈpha <sup>31</sup>	ʈpha <sup>31</sup>	ʈpha <sup>33</sup>	ʈphɔ <sup>53</sup>
join	hsək	tsha <sup>31</sup>	—	tsho <sup>255</sup>	*tsa <sup>31</sup>	tsa <sup>35</sup>	ʈtsha <sup>33</sup>	tsha <sup>53</sup>
weave	jak	ga <sup>31</sup>	zua <sup>255</sup>	—	ja <sup>31</sup>	—	ja <sup>44</sup>	ɾa <sup>53</sup>
two	hnas	ni <sup>31</sup>	sək <sup>55</sup>	i <sup>55</sup>	ne <sup>31</sup>	ni <sup>53</sup>	ni <sup>55</sup>	ŋ <sup>55</sup>
new	thas	sɿ <sup>31</sup>	sək <sup>55</sup>	ʈsik <sup>55</sup>	ʈsɿ <sup>31</sup>	ʈsɿ <sup>35</sup>	ʈɕi <sup>55</sup>	dzo <sup>53</sup>
mucus	hnap	nau <sup>31</sup>	ŋap <sup>55</sup>	nap <sup>55</sup>	—	nu <sup>53</sup>	ne <sup>44</sup>	ŋa <sup>35</sup>

\*The phonetic transcriptions of the Hani words marked with asterisks in the above tables are those of the Haya dialect spoken in Dazhai Village in Luchun County.

The above correspondences for syllable onsets, rhymes, and tone categories reveal the following features:

(1) For each corresponding item among syllable onsets, the phonological forms of the Bisu words are basically identical to those of other Burmese-Yipho languages.

(2) Correspondences among syllable rhymes are entirely those of monophthong rhymes. Although the vowel forms are not completely identical among the different languages for each corresponding item, the sound qualities of the words are very similar. Apart from the three syllable rhymes, /i/, /ɿ/, and /u/, which appear in correspondences within the same sound category owing to complementary distribution due to the effect of syllable onsets, the other rhymes show very clear distinctions. Rhymes containing high vowels do not form correspondences with rhymes containing low vowels. This is also the case with rhymes containing front vowels and those containing back vowels.

(3) Of the five categories of tone correspondences, three sets are correspondences between the tones of unchecked syllables, while the remaining two are correspondences between the tones of checked syllables due to stop codas. Correspondences between different languages are very precise. Exceptions are found in Lahu and Jino, where there is some divergence, especially in the fifth set. Very few exceptions are found in Bisu, Achang, Zaiwa, Hani, Nu, and Burmese. In addition, consistent correspondences exist across tone categories among tones not originating in stop codas. In terms of the actual tone values, those in Bisu are identical or very similar to those in Hani and Achang.

These precise correspondences among syllable onsets, rhymes, and tone categories provide clear and reliable evidence of the cognate relationship between Bisu and other Burmese-Yipho languages.

## Category 2

Within this category, the phonological forms in Bisu are not completely identical to those of the cognate words in the other languages. These will be analysed in different groups.

### Group One

Word	Bisu	Burmese	Achang	Zaiwa	*Hani	Nu	Yi	Lisu
shoot	py <sup>33</sup>	pas	pək <sup>55</sup>	pik <sup>21</sup>	by <sup>33</sup>	be <sup>53</sup>	bΔ <sup>33</sup>	bu <sup>44</sup>
rotten	ɔpu <sup>31</sup>	pup	pup <sup>55</sup>	pup <sup>21</sup>	by <sup>31</sup>	ɔbɔm <sup>55</sup>	—	—
deaf	ɔpaŋ <sup>31</sup>	ɔpaŋ <sup>3</sup>	—	—	ɔbo <sup>31</sup>	bɔ <sup>55</sup> ɔ	ɔbo <sup>33</sup>	ɔbo <sup>31</sup>
thin	pa <sup>31</sup>	pa <sup>3</sup>	—	—	ba <sup>31</sup>	ɔbɔ <sup>55</sup>	bo <sup>33</sup>	ba <sup>31</sup>
float	pu <sup>55</sup>	pɔ <sup>2</sup>	—	—	bu <sup>55</sup>	—	phiv <sup>33</sup>	bu <sup>33</sup>
push	tan <sup>31</sup>	ton <sup>3</sup>	tun <sup>31</sup>	—	de <sup>31</sup>	duɔ <sup>55</sup>	ti <sup>55</sup>	di <sup>31</sup>
wing	ɔtoŋ <sup>55</sup>	tɔŋ <sup>2</sup> ɔ	ɔtuŋ <sup>55</sup>	tun <sup>51</sup>	ɔdɔ <sup>55</sup>	ɔdū <sup>55</sup>	do <sup>21</sup> ɔ	ɔdu <sup>44</sup> ɔ
weep	tan <sup>55</sup>	ton <sup>2</sup>	thun <sup>55</sup>	tun <sup>51</sup>	de <sup>55</sup>	tuɔ <sup>35</sup>	—	—
blunt	tum <sup>31</sup>	tum <sup>3</sup>	təm <sup>35</sup>	tum <sup>21</sup>	dɔ <sup>31</sup>	—	du <sup>33</sup>	di <sup>31</sup> ɔ
go up	ta <sup>33</sup>	tək	tɔ <sup>55</sup>	tɔ <sup>21</sup>	dɔ <sup>33</sup>	—	dɛ <sup>33</sup>	dɛ <sup>44</sup>
sting	tan <sup>31</sup>	tut	—	—	de <sup>31</sup>	—	*du <sup>21</sup>	dɛ <sup>31</sup>
drink	taŋ <sup>55</sup>	thək	—	—	do <sup>55</sup>	—	dɔ <sup>21</sup>	dɔ <sup>33</sup>
nine	kau <sup>31</sup>	ko <sup>3</sup>	kau <sup>31</sup>	kau <sup>21</sup>	ɣo <sup>31</sup>	gu <sup>35</sup>	ku <sup>33</sup>	ku <sup>55</sup>
cross	ku <sup>31</sup>	ɔku <sup>3</sup>	kzɔ <sup>31</sup>	ku <sup>21</sup>	—	gu <sup>55</sup>	ko <sup>55</sup>	ko <sup>55</sup>
wilted	ku <sup>33</sup>	—	—	kju <sup>55</sup>	gu <sup>33</sup>	—	—	—
full	puŋ <sup>33</sup>	pran <sup>1</sup>	pzəŋ <sup>35</sup>	pjiŋ <sup>55</sup>	bjɔ <sup>33</sup>	bɔ <sup>33</sup>	—	bi <sup>44</sup> ɔ
clear	ktun <sup>55</sup>	kran <sup>2</sup>	—	kjiŋ <sup>21</sup>	ɔɔ <sup>55</sup>	gu <sup>35</sup> ɔ	dze <sup>21</sup>	ʃɛ <sup>44</sup> ɔ
scarf	khe <sup>33</sup>	krək	—	kju <sup>21</sup>	gu <sup>33</sup>	gu <sup>53</sup>	dzu <sup>33</sup>	dʒo <sup>44</sup>
muscle	ɔku <sup>31</sup>	ɔkrɔ <sup>3</sup>	ɔkzɔ <sup>31</sup>	ɔkji <sup>21</sup>	ɔgu <sup>31</sup>	—	dzu <sup>33</sup>	dʒu <sup>31</sup>
dry	ku <sup>33</sup>	khɾək	—	xui <sup>55</sup>	gu <sup>33</sup>	*geŋ <sup>55</sup>	—	—
grind	ki <sup>33</sup>	krit	—	—	dzi <sup>33</sup>	*dʒɔ <sup>53</sup>	tshj <sup>33</sup>	dʒi <sup>44</sup>
eat	tɔa <sup>31</sup>	sɔ <sup>3</sup>	tɔɔ <sup>31</sup>	tɔɔ <sup>21</sup>	dza <sup>31</sup>	dza <sup>55</sup>	dzo <sup>33</sup>	dza <sup>31</sup>
drop	tsaŋ <sup>33</sup>	sək	tɔk <sup>55</sup>	—	dʒa <sup>33</sup>	dza <sup>53</sup>	*dʒɛ <sup>33</sup>	dʒɛ <sup>44</sup>
raw	tsum <sup>31</sup>	sim <sup>3</sup>	tsin <sup>31</sup>	ɔtʃum <sup>21</sup>	dzo <sup>53</sup>	dzo <sup>53</sup>	dʒɛ <sup>33</sup>	ɔdʒi <sup>31</sup>

\*The phonetic transcriptions for all the Hani words in Group One are those of the Haya dialect spoken in Dazhai Village in Luchun County. The phonetic transcriptions for the Yi words which are marked with asterisks are those of the Dapingdi vernacular (a southeastern dialect) spoken in Nile County; for the Nu words, the phonetic transcriptions are those of the Fugong dialect.

The correspondences illustrated in Group One include onsets such as stops and affricates. Each onset has both voiceless and voiced forms which correspond to one another. Voiceless forms are found in Bisu, Burmese, Achang, Zaiwa, and Jino, while corresponding voiced forms exist in Hani, Nu, Yi, and Lisu.

### Group Two

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
not	ba <sup>31</sup>	ma <sup>1</sup>	ma <sup>31</sup>	a <sup>21</sup>	mɔ <sup>31</sup>	ma <sup>53</sup>	mɔ <sup>33</sup>	ma <sup>33</sup>
mother	ɔba <sup>33</sup>	ɔme <sup>2</sup>	me <sup>31</sup>	—	ɔmɔ <sup>33</sup>	—	ɔmɔ <sup>44</sup>	ɔm <sup>31</sup>
contain	bom <sup>55</sup>	ŋum <sup>2</sup>	om <sup>55</sup>	ŋum <sup>51</sup>	me <sup>55</sup>	mɛ <sup>31</sup>	mɔ <sup>42</sup>	mɔ <sup>31</sup>
hungry	be <sup>31</sup>	—	—	ɔmut <sup>55</sup>	mɛ <sup>31</sup>	mɔ <sup>11</sup>	mɛ <sup>44</sup>	muɔ <sup>453</sup>
fire	*bi <sup>21</sup> ɔ	mi <sup>3</sup>	—	mji <sup>21</sup>	mi <sup>31</sup> ɔ	ɔmi <sup>31</sup>	mi <sup>33</sup>	mi <sup>55</sup>
near	du <sup>31</sup>	ni <sup>3</sup>	ne <sup>31</sup>	—	*ni <sup>31</sup>	ne <sup>53</sup>	—	ɔni <sup>53</sup>
early	da <sup>31</sup>	—	nɔ <sup>55</sup>	nɔ <sup>21</sup>	nɔ <sup>31</sup>	nɔ <sup>21</sup>	na <sup>55</sup>	nɔ <sup>53</sup> ɔ
soft	dɔ <sup>31</sup>	—	nɔt <sup>55</sup>	—	nɔ <sup>31</sup>	nu <sup>35</sup>	—	nɔ <sup>53</sup> ɔ
painful	dɔ <sup>55</sup>	—	*nɔ <sup>55</sup>	nɔ <sup>55</sup>	na <sup>55</sup>	nɔ <sup>31</sup>	nɔ <sup>42</sup>	na <sup>35</sup>
I	ga <sup>33</sup>	ŋa <sup>2</sup>	ŋɔ <sup>55</sup>	go <sup>51</sup>	ŋa <sup>55</sup>	ŋa <sup>31</sup>	ŋɔ <sup>31</sup>	ga <sup>35</sup>

\*The phonetic transcription of this Bisu word is that of the Huaipa vernacular of the Huaipa dialect. For the Hani word marked with an asterisk, the transcription is that of the Haya dialect in Dazhai Village in Luchun County. The Achang word marked with an asterisk means "ill".

In the above correspondences illustrated in Group Two, the syllable-initial voiced stops in Bisu at three places of articulation correspond completely with the nasal onsets at the same places of articulation in the other languages. These correspondences are very precise, with hardly any exceptions in any of the other languages, apart from a few isolated words. These correspondences between voiced stops and nasals are not only confined to syllable onsets consisting of single consonants, but also include complex onsets which consist of consonant clusters, as in the following examples:

Bisu /bj/: Burmese /mj/

The word for "many" is [bja<sup>31</sup>] in Bisu, [mja<sup>3</sup>] in Burmese, [mjo<sup>21</sup>] in Zaiwa, [mɔ<sup>31</sup>] in Hani, and [ma<sup>53</sup>] in Lahu.

Bisu /bl/: Burmese /hmr/

The word for "arrow" is [bla<sup>31</sup>] in the Huaipa dialect of Bisu, [hmra<sup>3</sup>] in Burmese, [kaŋ<sup>35</sup>mzua<sup>31</sup>] in Achang, [lai<sup>21</sup>mjo<sup>21</sup>] in Zaiwa, [ka<sup>33</sup>mja<sup>31</sup>] in Hani (Haya dialect), and [ma<sup>55</sup>] in Nu.

**Group Three**

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
fungus	moŋ <sup>55</sup>	hmo <sup>2</sup>	mau <sup>55</sup>	mau <sup>51</sup>	me <sup>55</sup> ∅	mu <sup>11</sup>	mø <sup>33</sup> ∅	ŋu <sup>35</sup>
blow	mi <sup>33</sup>	hmut	mut <sup>55</sup>	mut <sup>21</sup>	*mv <sup>33</sup>	mə <sup>54</sup>	—	—
close	mit <sup>33</sup>	hmit	—	—	∅mi <sup>33</sup>	—	mi <sup>35</sup>	—
mucus	nau <sup>31</sup>	hnap	ŋap <sup>55</sup>	nap <sup>55</sup>	na <sup>55</sup> ∅	nu <sup>53</sup> ∅	ne <sup>44</sup> ∅	ŋa <sup>35</sup>
ear (grain)	∅nam <sup>55</sup>	∅hnam <sup>2</sup>	∅ŋam <sup>55</sup>	∅nam <sup>51</sup>	∅ne <sup>55</sup>	∅nu <sup>33</sup>	∅ne <sup>44</sup>	ŋa <sup>35</sup>
two	ni <sup>31</sup>	hnas	—	i <sup>55</sup>	ne <sup>31</sup>	ni <sup>53</sup>	ni <sup>55</sup>	ŋ <sup>55</sup>
sun-dry	lau <sup>31</sup>	hlon <sup>3</sup>	lap <sup>55</sup>	lap <sup>55</sup>	li <sup>31</sup>	le <sup>31</sup>	lo <sup>55</sup>	la <sup>53</sup>
roast	lum <sup>55</sup>	hlum <sup>2</sup>	—	—	le <sup>55</sup>	le <sup>31</sup>	—	lo <sup>31</sup>
boat	luŋ <sup>55</sup>	hle <sup>2</sup>	xə <sup>55</sup>	lai <sup>51</sup>	lu <sup>31</sup>	∅lo <sup>31</sup> ∅	la <sup>33</sup> ∅	—

\*The phonetic transcription for this Hani word is that of the vernacular (Haobai dialect) spoken in Shuigui in Mojiang County.

The words in Group Three illustrate the correspondences between voiceless and voiced forms of nasal and lateral syllable onsets in Burmese-Yipho languages. With the exception of Burmese, only Nu, Achang, and Jino have retained aspiration as a feature in nasal and lateral syllable onsets which have originated from voiceless forms.

Development of voiceless nasal and lateral syllable onsets in Bisu has occurred at different rates in its dialects. In the Lanmeng dialect, the nasals and laterals have lost their voicelessness, as indicated by the words in the above table. However, in the Huaipa and Tako dialects, earlier phonological features have been retained, so that some of the above words may have voiceless nasal onsets in the Huaipa dialect, as in the following examples: “blow” [hmi<sup>33</sup>], “mushroom” [hməŋ<sup>55</sup>], and “nasal mucus” [hnaw<sup>21</sup>]. The following are more examples of such forms:

	Bisu	Nu	Other Burmese-Yipho Languages
feather	ʔaŋ <sup>33</sup> hmu <sup>33</sup>	ŋu <sup>55</sup>	
tall	ʔaŋ <sup>33</sup> hmoŋ <sup>33</sup>	ŋu <sup>31</sup>	ŋ*zaŋ <sup>55</sup> (Achang)
listen	hna <sup>55</sup>	ŋa <sup>35</sup>	
finger	la <sup>21</sup> hjuŋ <sup>55</sup>	ʔla <sup>53</sup> ŋu <sup>55</sup>	
low	ʔaŋ <sup>33</sup> hjuŋ <sup>33</sup>	ŋiə <sup>53</sup>	ŋ*on <sup>55</sup> (Achang)
moon	ʔu <sup>21</sup> hla <sup>33</sup>	la <sup>31</sup>	
spirit	ʔaŋ <sup>33</sup> hla <sup>55</sup>	iə <sup>53</sup> la <sup>35</sup>	
hot	ʔaŋ <sup>33</sup> hləŋ <sup>55</sup>	—	lo <sup>31</sup> (Jino), lu <sup>55</sup> (Hani)
tongue tip	man <sup>33</sup> hla <sup>21</sup>	—	hlja <sup>2</sup> (Burmese)

The above words reveal that voiceless nasals and laterals in Bisu share a common origin with other Burmese-Yipho languages.

**Group Four**

Word	Bisu	Burmese	Achang	Zaiwa	Nu	Jino	Hani
fly (v.)	pjam <sup>55</sup>	pjam <sup>2</sup>	tʃam <sup>55</sup>	—	bia <sup>55</sup>	pɛ <sup>33</sup>	pe <sup>55</sup>
bee	pja <sup>31</sup>	pja <sup>3</sup>	—	pjə <sup>21</sup> ∅	bia <sup>55</sup> ∅	pjo <sup>33</sup>	po <sup>31</sup>
lose	pju <sup>33</sup>	pjək	tʃo <sup>755</sup>	∅phju <sup>755</sup>	phiu <sup>53</sup> ∅∅	∅phi <sup>55</sup>	phi <sup>31</sup>
many	bja <sup>31</sup>	nja <sup>3</sup>	nə <sup>31</sup>	mjo <sup>21</sup>	—	—	mə <sup>31</sup>
horn	∅khjau <sup>55</sup>	khjo <sup>2</sup>	khzau <sup>55</sup>	khju <sup>51</sup>	khau <sup>35</sup> ∅	∅khi <sup>33</sup>	∅tshi <sup>55</sup>
comb	khja <sup>33</sup>	—	—	kjo <sup>755</sup>	kɔ <sup>53</sup>	khi <sup>31</sup>	khɔ <sup>33</sup>
branch	khjaŋ <sup>31</sup>	—	∅kzaŋ <sup>55</sup>	∅kjaŋ <sup>51</sup>	∅kə <sup>53</sup> ∅∅	—	∅ja <sup>55</sup>
narrow	khjaŋ <sup>31</sup>	khaŋ <sup>3</sup>	—	tʃaŋ <sup>55</sup>	∅tə <sup>53</sup>	∅tche <sup>42</sup>	tsy <sup>35</sup>
love	∅kja <sup>31</sup>	khjas	—	tʃit <sup>55</sup>	—	—	*ga <sup>31</sup>
sour	tchin <sup>55</sup>	khjaŋ <sup>2</sup>	—	tʃin <sup>51</sup>	tʃə <sup>35</sup>	∅tʃhu <sup>33</sup>	tʃhy <sup>55</sup>
borrow	tchi <sup>31</sup>	khje <sup>3</sup>	—	tʃi <sup>21</sup>	tə <sup>21</sup>	—	—
select	tche <sup>55</sup>	—	za <sup>31</sup>	khjin <sup>51</sup>	—	tʃhu <sup>31</sup>	tʃhy <sup>55</sup>
sweet	tshau <sup>55</sup>	khjo <sup>2</sup>	uai <sup>31</sup>	tʃhui <sup>21</sup>	tʃhu <sup>55</sup>	∅tʃhi <sup>33</sup>	tʃhɔ <sup>55</sup>
cold	tsho <sup>31</sup>	—	kzua <sup>55</sup>	kjo <sup>721</sup>	gɔ <sup>53</sup>	tʃho <sup>55</sup>	tʃhy <sup>31</sup>
soup	∅tsha <sup>55</sup>	∅khjo <sup>2</sup>	—	—	∅tə <sup>53</sup>	—	∅tsha <sup>55</sup>
hang	tʃhɔ <sup>31</sup>	khjit	xuai <sup>31</sup>	—	—	∅tʃhu <sup>33</sup>	∅tʃhy <sup>31</sup>

\*The phonetic transcription of this Hani word is that of the Haya dialect which is spoken in Dazhai Village in Luchun County.

Word	Bisu	Burmese	Achang	Zaiwa	Nu	Jino	Hani
untic	phu <sup>55</sup>	phre <sup>2</sup>	phi <sup>55</sup>	phji <sup>51</sup>	phi <sup>35</sup>	phu <sup>33</sup> ∅	*phu <sup>55</sup>
white	pon <sup>31</sup>	phru <sup>2</sup>	phzo <sup>55</sup>	phju <sup>51</sup>	pho <sup>55</sup> ∅	∅phro <sup>33</sup>	phju <sup>55</sup>
full	puŋ <sup>33</sup>	praŋ <sup>1</sup>	pzəŋ <sup>35</sup>	pjiŋ <sup>55</sup>	bə <sup>31</sup>	pu <sup>33</sup>	bjo <sup>33</sup>
horse	∅moŋ <sup>31</sup>	mraŋ <sup>3</sup>	ŋzaŋ <sup>31</sup>	mjaŋ <sup>21</sup>	mɔu <sup>31</sup> ∅	mjo <sup>33</sup>	mo <sup>31</sup>
tall	moŋ <sup>33</sup>	mraŋ <sup>1</sup>	ŋzaŋ <sup>55</sup>	mjaŋ <sup>51</sup>	ŋu <sup>21</sup>	mjo <sup>31</sup>	—
seen	∅mjaŋ <sup>55</sup>	mraŋ <sup>2</sup>	∅mzaŋ <sup>55</sup>	mjaŋ <sup>51</sup>	—	mje <sup>42</sup>	mu <sup>55</sup> ∅
knife	mja <sup>33</sup>	—	mzau <sup>31</sup>	faŋ <sup>51</sup>	mru <sup>55</sup>	mje <sup>33</sup> ∅	—
fall	ka <sup>33</sup>	—	kzua <sup>35</sup>	kjo <sup>55</sup>	∅khua <sup>31</sup>	∅kɔ <sup>33</sup>	kə <sup>33</sup> ∅
muscle	∅ku <sup>31</sup>	∅krə <sup>3</sup>	∅kzə <sup>31</sup>	∅kji <sup>21</sup>	—	∅təu <sup>44</sup>	∅gu <sup>31</sup>
grind	ki <sup>33</sup>	krit	—	—	*dzɔ <sup>53</sup>	—	dzi <sup>33</sup>
six	ku <sup>31</sup>	khɾək	xzə <sup>755</sup>	khju <sup>755</sup>	khau <sup>53</sup>	tʃho <sup>33</sup>	ku <sup>31</sup>
clear	kyŋ <sup>55</sup>	krən <sup>2</sup>	—	kjin <sup>21</sup>	gu <sup>35</sup> ∅	tʃhi <sup>42</sup>	gə <sup>55</sup>
fear (v.)	khe <sup>33</sup>	krək	—	kju <sup>721</sup>	gɔ <sup>53</sup>	tʃho <sup>35</sup>	gu <sup>33</sup>
grow up	kho <sup>31</sup>	kri <sup>3</sup>	kzə <sup>31</sup>	kə <sup>21</sup>	—	xu <sup>44</sup>	xu <sup>31</sup>
dry	ku <sup>33</sup>	khɾək	—	xui <sup>55</sup>	*geŋ <sup>55</sup>	∅ku <sup>44</sup>	gu <sup>33</sup>

\*The phonetic transcription of the Hani word marked with an asterisk is that of the Haya dialect spoken in Dazhai Village in Luchun County. The phonetic transcriptions of the two Nu words marked with asterisks are those of the Fugong dialect.

The words in Group Four illustrate correspondences between complex onsets in Burmese-Yipho languages. Two types of complex onsets, expressed in Burmese as [-j-] and [-r-], have developed at different rates in different languages. However, a common feature is the merging of the two types during development. In Achang, the two types of complex onsets have become [-z-]; in Zaiwa, they have both become [-j-]. However, there are still definite distinctions between the two types of complex onsets: the [-j-] type onsets have tended to become affricates; while the [-r-] type onsets have mostly developed into pure stops. Thus, development of [-r-] type onsets has been slower, and remnants of syllable-initial consonant clusters derived from such onsets may still be found in different languages.

The complex onsets in Bisu have, on the one hand, conformed to the general developmental trend of the other Burmese-Yipho languages as described above. On the other hand, however, they have their own special features: their development has been slower and rather non-uniform, so that some types of onsets are still in transition. This transition is expressed in both vertical and horizontal dimensions.

The vertical dimension involves the differential development of the [-j-] type complex onsets at different places of articulation. The correspondences show that, in a proportion of words, the [-j-] type complex onsets at the velar position have become affricates, as in the vast majority of Burmese-Yipho languages. However, in some other words and at the bilabial position, palatalisation has been retained in [-j-] type complex onsets.

The horizontal dimension involves the differential development of the [-r-] type complex onsets in different dialects. The correspondences show that, in the Lanmeng dialect of Bisu, apart from a proportion of words with the nasal consonant cluster [mr-] as onset where palatalisation has been retained, the remaining onsets [pr], [prh] and [kr], [khr] have all become pure stops. However, in the Huaipa dialect of Bisu, these complex onsets have been retained. For example, the corresponding forms in the Huaipa dialect for some of the words in the above table are [phlu<sup>55</sup>] "white", [ʔaŋ<sup>33</sup>phuŋ<sup>33</sup>] "full", and [kla<sup>33</sup>] or [khla<sup>33</sup>] "fall, drop" respectively. The following examples further illustrate this feature:

Word	Bisu	Burmese	Other Burmese-Yipho Languages
sever	plak <sup>33</sup>	prat	ɣrat <sup>55</sup> (Achang)
straight	ʔaŋ <sup>33</sup> pləŋ <sup>33</sup>	phrəŋ <sup>1</sup>	—
light (weight)	ʔaŋ <sup>33</sup> plən <sup>33</sup>	—	phja <sup>55</sup> (Hani), a <sup>33</sup> ʔə <sup>33</sup> phrɛ <sup>33</sup> (Jino)
be	phly <sup>55</sup>	phras	—
arrow	bla <sup>21</sup>	hmra <sup>3</sup>	mra <sup>55</sup> (Nu), kaŋ <sup>35</sup> mzua <sup>31</sup> (Achang) lai <sup>21</sup> mjo <sup>21</sup> (Zaiwa)
lightning	muŋ <sup>21</sup> blap <sup>21</sup>	hljap prak	—
sparrow	ca <sup>55</sup> klu <sup>55</sup>	—	tʃə <sup>31</sup> khjə <sup>55</sup> (Langsu), tʃə <sup>51</sup> khjaŋ <sup>55</sup> (Zaiwa)
bathe	khlaw <sup>21</sup>	re <sup>2</sup> khjo <sup>3</sup>	—
break	khlyk <sup>33</sup>	—	kzop <sup>55</sup> (Achang), khjop <sup>55</sup> (Zaiwa)
inside	ʔaŋ <sup>33</sup> khlaw <sup>55</sup>	—	khɿ <sup>35</sup> ba <sup>31</sup> (Nu)

The above words reveal that Bisu phonology is still at the complex onset stage, with consonant clusters.

#### Group Five

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
three	sum <sup>55</sup>	thum <sup>3</sup>	sum <sup>31</sup>	sum <sup>21</sup>	se <sup>55</sup>	se <sup>53</sup>	sə <sup>33</sup>	sə <sup>35</sup>
roast	lum <sup>55</sup>	hlum <sup>2</sup>	—	—	le <sup>55</sup>	le <sup>31</sup>	—	ʔə <sup>31</sup>
blunt	tum <sup>31</sup>	tum <sup>3</sup>	təm <sup>35</sup>	tum <sup>21</sup>	tj <sup>31</sup>	—	—	—
raw	tsum <sup>31</sup>	sim <sup>3</sup>	tsin <sup>31</sup>	ʔtʃum <sup>21</sup>	ʔtse <sup>31</sup>	ʔtʃɛ <sup>53</sup>	tʃɛ <sup>33</sup>	dzə <sup>53</sup>
contain	bum <sup>55</sup>	ɣum <sup>2</sup>	—	ɣum <sup>51</sup>	me <sup>55</sup>	me <sup>31</sup>	me <sup>31</sup>	mə <sup>31</sup>
armspan	lam <sup>55</sup>	lam <sup>2</sup>	lam <sup>55</sup>	lam <sup>51</sup>	le <sup>55</sup>	ʔlo <sup>31</sup>	ʔe <sup>33</sup>	la <sup>35</sup>
smell	nam <sup>31</sup>	nam <sup>3</sup>	nam <sup>31</sup>	nam <sup>51</sup>	ne <sup>55</sup>	nu <sup>31</sup>	ne <sup>42</sup> ʔ	—
ear (grain)	ʔnam <sup>55</sup>	ʔhnam <sup>2</sup>	ʔnam <sup>55</sup>	ʔnam <sup>51</sup>	ʔne <sup>55</sup>	ʔnu <sup>33</sup>	ʔne <sup>44</sup>	na <sup>35</sup>
smelly	nam <sup>55</sup>	—	nam <sup>55</sup>	nam <sup>51</sup>	—	ʔnu <sup>31</sup>	ʔne <sup>44</sup>	—
iron	sam <sup>55</sup>	tham <sup>2</sup>	ʃam <sup>55</sup>	ʃam <sup>51</sup> ʔ	se <sup>55</sup>	so <sup>33</sup>	ʃɛ <sup>42</sup>	ʃa <sup>31</sup> ʔ
fly (v.)	pjam <sup>55</sup>	pjam <sup>2</sup>	tʃam <sup>55</sup>	—	pe <sup>55</sup>	po <sup>31</sup>	pɛ <sup>33</sup>	bia <sup>55</sup>
weep	tan <sup>55</sup>	ton <sup>2</sup>	thun <sup>55</sup>	tun <sup>51</sup>	te <sup>55</sup>	—	tə <sup>31</sup>	tuə <sup>35</sup>
push	tan <sup>31</sup>	ton <sup>3</sup>	tun <sup>31</sup>	tʃun <sup>21</sup>	te <sup>33</sup>	—	tə <sup>33</sup>	duə <sup>55</sup>
flat	tan <sup>33</sup>	—	—	—	tɛ <sup>33</sup> ʔʔ	tə <sup>31</sup>	ʔtʃə <sup>55</sup>	—
louse	cin <sup>55</sup>	than <sup>3</sup>	ʃan <sup>31</sup>	ʃin <sup>21</sup>	se <sup>55</sup> ʔ	se <sup>33</sup>	se <sup>33</sup> ʔ	ʃa <sup>55</sup>
horse	ʔmoŋ <sup>31</sup>	mraŋ <sup>31</sup>	mzəŋ <sup>31</sup>	mjaŋ <sup>21</sup>	mu <sup>31</sup>	ʔmu <sup>53</sup>	mjo <sup>33</sup>	mu <sup>31</sup> ʔ
tall	moŋ <sup>33</sup>	mraŋ <sup>1</sup>	mzəŋ <sup>55</sup>	mjaŋ <sup>51</sup>	—	mu <sup>33</sup>	mjo <sup>31</sup>	mju <sup>31</sup>
open	phoŋ <sup>33</sup>	phwaŋ <sup>1</sup>	phəŋ <sup>35</sup>	phoŋ <sup>55</sup>	phu <sup>33</sup>	phə <sup>33</sup>	phə <sup>33</sup>	phə <sup>31</sup>
wing	ʔtoŋ <sup>55</sup>	təŋ <sup>2</sup> ʔ	ʔtuŋ <sup>55</sup>	tuj <sup>51</sup>	ʔtu <sup>55</sup>	tə <sup>31</sup> ʔʔ	ʔto <sup>44</sup>	—
bark	xoŋ <sup>55</sup>	həŋ <sup>2</sup>	—	—	lu <sup>55</sup>	lə <sup>53</sup>	ʔə <sup>33</sup>	lə <sup>35</sup>
fungus	moŋ <sup>55</sup>	hmo <sup>2</sup>	mau <sup>55</sup>	mau <sup>51</sup>	me <sup>55</sup> ʔ	mu <sup>11</sup>	mə <sup>33</sup> ʔ	mju <sup>35</sup>
you	naŋ <sup>33</sup>	nuəŋ <sup>55</sup>	naŋ <sup>51</sup>	nɣ <sup>55</sup>	nə <sup>31</sup>	ne <sup>31</sup>	nə <sup>55</sup>	—
trample	naŋ <sup>31</sup>	naŋ <sup>3</sup>	nuəŋ <sup>31</sup>	naŋ <sup>21</sup>	nɣ <sup>31</sup>	nə <sup>54</sup>	ne <sup>33</sup>	—
old	maŋ <sup>31</sup>	o <sup>2</sup>	muəŋ <sup>31</sup>	maŋ <sup>21</sup>	mu <sup>31</sup>	mə <sup>53</sup>	—	mu <sup>53</sup> ʔ
seen	mjaŋ <sup>55</sup>	mraŋ <sup>2</sup>	ʔmzəŋ <sup>55</sup>	mjaŋ <sup>51</sup>	mu <sup>55</sup> ʔ	ʔmə <sup>31</sup>	mje <sup>42</sup>	—
spread	khəŋ <sup>31</sup>	khəŋ <sup>3</sup>	—	—	khu <sup>31</sup>	quə <sup>53</sup>	kha <sup>44</sup>	khū <sup>55</sup>
branch	ʔkhəŋ <sup>31</sup>	ʔkhak	ʔkzəŋ <sup>55</sup>	ʔkjaŋ <sup>51</sup>	—	ʔqha <sup>35</sup>	ʔla <sup>55</sup>	—
name	ʔmiŋ <sup>55</sup>	ʔman <sup>2</sup>	ʔniŋ <sup>55</sup>	mjin <sup>51</sup>	ʔmi <sup>55</sup>	ʔme <sup>33</sup>	ʔmi <sup>33</sup>	mjə <sup>35</sup>
liver	ʔtchiŋ <sup>31</sup>	ʔthan <sup>3</sup>	ʔʃəŋ <sup>31</sup>	ʃin <sup>21</sup>	ʔtʃhɿ <sup>31</sup>	ʔse <sup>31</sup>	ʔtʃhu <sup>33</sup>	tʃə <sup>55</sup>
full	puŋ <sup>33</sup>	pran <sup>1</sup>	pzəŋ <sup>35</sup>	pjin <sup>55</sup>	pv <sup>33</sup>	bi <sup>53</sup>	pɿ <sup>33</sup>	bə <sup>31</sup>
ulcer	peŋ <sup>33</sup>	—	pzəŋ <sup>55</sup>	pjin <sup>51</sup>	—	ʔtʃhu <sup>53</sup>	ʔtʃhu <sup>33</sup>	ʔbə <sup>35</sup>
clear	kɣn <sup>55</sup>	kran <sup>2</sup>	—	kjin <sup>21</sup>	tʃhi <sup>33</sup>	ke <sup>31</sup>	tʃhi <sup>42</sup>	gɿ <sup>35</sup> ʔ
sour	tchin <sup>55</sup>	khjaŋ <sup>2</sup>	—	tʃin <sup>51</sup>	tʃhɿ <sup>55</sup>	tsi <sup>33</sup>	ʔtʃhu <sup>33</sup>	tʃə <sup>35</sup>

In Group Five, the correspondences for rhymes with nasal codas reveal an obvious trend: Bisu, along with Achang and Zaiwa (which belong to the Burmese branch), and Burmese itself, have all retained nasal codas; but in Hani, Lahu, and Jino, which belong to the Yipho branch, the nasal codas have become monophthong rhymes. Nu is in transition, with surviving remnants of nasal codas being seen in some nasalised vowels.

Even among languages which have retained nasal codas, there are still different stages of development:

(1) The number of categories of nasal codas is not uniform, with the most complete set being retained in Burmese, which has five types: [-m], [-n], [-ŋ], [-ɲ], and [-ŋ̃]. In Bisu, Achang, and Zaiwa, the last two types have been lost and have become [-ŋ] and [-n] respectively, reflecting a trend towards assimilation of coda categories.

(2) The retention of the rhymes in each nasal coda category is not uniform, with most rhymes consisting of back vowels and a nasal coda. Very few rhymes contain front vowels.

Bisu essentially conforms to the general situation among Burmese-Yipho languages, indicating that these languages are at the same stage with respect to the development of rhymes with nasal codas.

### Group Six

Word	Bisu	Burmese	Achang	Zaiwa	Hani	Lahu	Jino	Nu
sharp	thak <sup>33</sup>	htak	thoʔ <sup>55</sup>	thoʔ <sup>55</sup>	thə <sup>33</sup>	—	tha <sup>31</sup>	thu <sup>53</sup>
join	tsha <sup>31</sup>	hsak	—	tshoʔ <sup>55</sup>	*tsə <sup>31</sup>	tsə <sup>35</sup>	ʈtsha <sup>33</sup>	tshə <sup>53</sup>
pig	va <sup>31</sup>	wək	oʔ <sup>55</sup>	vaʔ <sup>21</sup>	və <sup>31</sup>	və <sup>21</sup>	va <sup>44</sup> ʈ	və <sup>53</sup>
leaf	ʈpha <sup>31</sup>	ʈrwək	ʈxzoʔ <sup>55</sup>	ʈxaʔ <sup>55</sup>	ʈpha <sup>31</sup> ʈpha <sup>21</sup>	ʈpha <sup>33</sup>	ʈphə <sup>53</sup> ʈ	—
deep	na <sup>31</sup>	nək	—	nik <sup>21</sup>	nə <sup>31</sup>	na <sup>35</sup>	ʈna <sup>44</sup>	—
drop	tsəj <sup>33</sup>	sək	tək <sup>55</sup>	—	tsə <sup>33</sup>	tsə <sup>54</sup>	tse <sup>31</sup>	dza <sup>53</sup>
weave	ga <sup>31</sup>	jak	zuaʔ <sup>55</sup>	—	ja <sup>31</sup>	—	ja <sup>44</sup>	ɹə <sup>53</sup> ʈ
insert	tshok <sup>33</sup>	sək	tchoʔ <sup>55</sup>	tshuʔ <sup>55</sup>	tshy <sup>33</sup>	—	tsher <sup>31</sup>	tshy <sup>53</sup>
six	khu <sup>31</sup>	khək	xzoʔ <sup>55</sup>	khjuʔ <sup>55</sup>	khv <sup>31</sup>	khə <sup>21</sup>	tʃho <sup>33</sup>	khəu <sup>53</sup>
dappled	ʈpju <sup>31</sup>	ʈprək	—	—	ʈpa <sup>31</sup>	gə <sup>21</sup>	ʈpjo <sup>33</sup>	pio <sup>53</sup>
pick up	ko <sup>33</sup>	kək	kuʔ <sup>55</sup>	kuʔ <sup>21</sup>	ky <sup>33</sup>	γə <sup>54</sup>	ko <sup>42</sup>	—
bent	kue <sup>31</sup>	kək	kok <sup>55</sup>	koi <sup>55</sup>	ʈky <sup>31</sup>	qə <sup>21</sup>	ʈkho <sup>44</sup>	ʔuē <sup>35</sup> ʈ
dry	kuu <sup>33</sup>	khək	—	xui <sup>55</sup>	ky <sup>33</sup>	—	ʈku <sup>44</sup>	—
fear	khe <sup>33</sup>	krək	—	kjuʔ <sup>21</sup>	khe <sup>33</sup>	kə <sup>54</sup>	tchə <sup>35</sup>	gəu <sup>53</sup>

\*The phonetic transcription for the Hani word marked with an asterisk is that of the Haya dialect spoken in Dazhai Village in Luchun County.

The correspondences in Group Six reveal clearly the relationship between the rhymes with stop codas in Burmese, Achang, and Zaiwa and the tense vowel rhymes in Nu and the monophthong rhymes in Lahu and Jino. Although Bisu has retained stop codas which are cognate with other Burmese-Yipho languages, there are in practice very few rhymes with stop codas and very few words containing such rhymes. In the above words, only isolated ones

have retained stop codas. In the vast majority of words, stop codas have been replaced by monophthong rhymes.

A special feature in the development of stop codas in Burmese-Yipho languages involves the velar stop coda, [-k], whose development has been relatively slow. Therefore, precise correspondences involving [-k] can be found. For codas at other places of articulation, such as [-p] and [-t], regular correspondences are difficult to establish, especially in languages of the Yipho branch. Their development has been more rapid and the changes are therefore greater. In Bisu, however, development has been the same for different types of stop codas. Although stop codas have disappeared from most Bisu words, they have still been retained in a small number. Therefore, although there are not many words with stop codas, different types of stop codas still exist, as shown in the following words: [kja<sup>33</sup>] “pinch”, [khja<sup>31</sup>] “narrow”, [mit<sup>33</sup>] “shut”, [ci<sup>31</sup>] “seven”, [aŋ<sup>33</sup>mit<sup>31</sup>] “bamboo shoot”, and [xet<sup>31</sup>] “drunk (with wine)”. The Tako dialect of Bisu has retained more stop codas, and there are even more words which have [-p] and [-t] codas. More examples of words with stop codas are shown below.

Word	Bisu	Burmese	Other Burmese-Yipho Languages
mucus	khəp <sup>21</sup>	hnək	ŋək <sup>55</sup> (Achang), nəp <sup>55</sup> (Zaiwa)
needle	kəŋ <sup>21</sup> kja <sup>21</sup>	ək	əp <sup>55</sup> (Achang), əp <sup>55</sup> (Zaiwa)
lungs	ʔəŋ <sup>33</sup> həp <sup>33</sup>	ə <sup>1</sup> hsək	—
sleep	ju <sup>21</sup>	ip	ju <sup>55</sup> (Zaiwa)
rotten	ʔəŋ <sup>33</sup> pək <sup>21</sup>	pək	pək <sup>55</sup> (Achang), pək <sup>21</sup> (Zaiwa)
kill	ʃət <sup>21</sup>	tək	sət <sup>55</sup> (Zaiwa)
deer	chət <sup>21</sup>	tshət <sup>55</sup>	tshə <sup>55</sup> (Langsu)
fear	khət <sup>33</sup>	krək	zoʔ <sup>55</sup> (Achang), kjuʔ <sup>21</sup> (Zaiwa)
blow	mət <sup>33</sup>	hmət	mət <sup>55</sup> (Achang), mət <sup>21</sup> (Zaiwa)
broken	plət <sup>33</sup>	prat	pzət <sup>55</sup> (Achang), pjit <sup>21</sup> (Zaiwa)

### 6.1.2 Special Features in Phonological Development

The correspondences described above indicate the main developmental trends in Bisu phonology and the position of the Bisu language among the different stages of phonological development among Burmese-Yipho languages.

#### A. Developmental trends in phonology

While phonological development in Bisu essentially conforms to the general trends in the phonological development of Burmese-Yipho languages, it also has unique features in several areas.

(1) A proportion of syllable-initial voiced stops have originated from nasals at the same places of articulation. The development of nasal onsets into voiced stop onsets at the same places of articulation is unique among Burmese-Yipho languages, and is thus a representative feature in Bisu phonological development.

The traces of this developmental trend from nasals to voiced stops are not only reflected in correspondences between words in Bisu and most Burmese-Yipho languages, but may also be seen within Bisu itself. Some words have two forms in different dialects: one with a nasal onset and the other with a voiced stop onset. The [m] onset in some words in the Lanmeng

dialect corresponds to [b] in the Huaipa dialect. Thus, “grass” and “fire” are [mo<sup>31</sup>ka<sup>31</sup>] and [mi<sup>31</sup>tho<sup>31</sup>] in the Lanmeng dialect, but [bo<sup>21</sup>ka<sup>21</sup>] and [bi<sup>21</sup>tho<sup>33</sup>] respectively in the Huaipa dialect. Another typical example is the word “count” which is [hnap] in the Tako dialect, [hnap<sup>55</sup>] or [dap<sup>55</sup>] in the Huaipa dialect, and [dap<sup>33</sup>] in the Lanmeng dialect. Free variation between a nasal and a stop onset also exists in the Lanmeng dialect, as in the following examples: “nod” which is [mot<sup>33</sup>] or [bot<sup>33</sup>], “sky” which is [muŋ<sup>31</sup>] or [buŋ<sup>31</sup>], and “not” which is [ma<sup>31</sup>] or [ba<sup>31</sup>]. In these words, the onsets [m] and [b] are free variants. These words show clearly that some of the voiced stop onsets in Bisu are cognate with nasal onsets.

(2) A proportion of voiceless stops and affricative onsets have originated from voiced forms, as in “shoot” [py<sup>33</sup>], “push” [tan<sup>31</sup>], “nine” [kau<sup>31</sup>], and “have” [tsa<sup>33</sup>]. The development of voiced stops and affricates into voiceless forms in Burmese-Yipho languages is shown especially clearly when comparing Bisu and those languages in the Yipho branch which show more complete retention of the earlier voiced forms, as shown in the table below.

Word	Bisu	*Hani	Yi	Lisu	Nu
bright	pa <sup>33</sup>	bja <sup>33</sup>	bo <sup>21</sup>	ba <sup>33</sup>	ba <sup>31</sup>
open (eyes)	phaŋ <sup>33</sup>	bje <sup>33</sup>	—	bu <sup>33</sup>	ba <sup>31</sup>
flat	tan <sup>33</sup>	de <sup>33</sup>	de <sup>21</sup>	di <sup>44</sup>	—
hit	tu <sup>31</sup>	di <sup>31</sup>	de <sup>21</sup>	tu <sup>31</sup>	—
poison	to <sup>31</sup>	du <sup>31</sup>	*du <sup>31</sup>	do <sup>41</sup>	du <sup>55</sup>
strike	thak <sup>33</sup>	di <sup>31</sup>	de <sup>33</sup>	tu <sup>31</sup>	—
melt	ku <sup>55</sup>	gu <sup>55</sup>	—	—	gi <sup>35</sup>
skin	khho <sup>33</sup>	gu <sup>55</sup>	—	gu <sup>33</sup>	ku <sup>31</sup>
double	tsum <sup>31</sup>	dzo <sup>55</sup>	dzu <sup>21</sup>	dze <sup>41</sup>	dzo <sup>35</sup>
have	tsa <sup>33</sup>	dza <sup>33</sup>	dza <sup>21</sup>	dzo <sup>35</sup>	dzo <sup>31</sup>

\*The phonetic transcriptions of the Hani words in the above table are those of the Haya dialect spoken in Dazhai Village in Luchun County. The phonetic transcription for the Yi word marked with an asterisk is the Dapingdi vernacular (a southeastern dialect) which is spoken in Nile County.

(3) Assimilation of the voiceless and voiced forms of nasal and lateral onsets, as in the words “shut” [mit<sup>33</sup>] and “old” [maj<sup>31</sup>], “ear of grain” [aŋ<sup>33</sup>nam<sup>55</sup>] and “smell” [nam<sup>31</sup>]; and “dry in the sun” [lau<sup>31</sup>] and “come” [la<sup>55</sup>]. The changing of voiceless nasals and laterals into the voiced forms is still in transition, which is reflected in dialectal differences, as in the differential development of the [-r-] type complex onsets mentioned previously. In the Lanmeng dialect, voiceless nasals and laterals have all become voiced, and aspiration has completely disappeared in the voiceless forms. Voiceless and voiced forms now form a single category. However, in the Huaipa and Tako dialects, voiceless nasals and laterals have still been retained in some words, reflecting an intermediate stage in development.

(4) A proportion of onsets which are stops and affricates have originated from complex onsets, as in the words “untie” [phu<sup>55</sup>], “withered” [ku<sup>33</sup>], “sour” [aŋ<sup>33</sup>tchin<sup>55</sup>], and “cold” [aŋ<sup>33</sup>tsho<sup>31</sup>]. The development of complex onsets is still in transition, with nearly all the forms within this process being found in Bisu: [p]/[k], [p]/[k], [p]/[k], and [tɕ]/[ts], *i.e.* original, transitional, and final forms.

(5) Nasal codas are in the process of development. This is mainly expressed *via* a decrease in the number of categories, both in the types of nasal codas and of rhymes. Thus, [-n] and [-ŋ] codas have now become [-ŋ] and [-n] respectively. The [-n] coda is also rarely retained, and the number of words with this coda are few compared to those with the [-m], and especially the [-ŋ], codas.

(6) A proportion of monophthong rhymes have originated from rhymes with stop codas, as in [ga<sup>31</sup>] “weave”, [ko<sup>33</sup>] “pick up”, [khu<sup>31</sup>] “six”, [kue<sup>31</sup>] “bent”, [ki<sup>33</sup>] “grind”, and [tsh] “hang”. Although most of the rhymes with stop codas have become monophthong rhymes, they still exist in a few words. The non-uniform nature of the transitional period is mostly expressed *via* dialectal differences.

## B. The position of Bisu in phonological development

Phonological development in Bisu has been relatively slow compared to other Burmese-Yipho languages, with many of its phonological features being at the same stage as the Burmese branch. The more prominent similarities between phonological forms in Bisu and languages of the Burmese branch include the following:

(1) Voiced stops and affricates have become voiceless stops and affricates, unlike the majority of languages in the Yipho branch, where voiced forms have been retained.

(2) Voiceless nasals and laterals have been retained, so that nasals and laterals have two contrasting sets of voiceless and voiced onsets.

(3) Complex onsets have been retained, whereas in most languages in the Yipho branch, these types of onsets or their remnants have entirely disappeared.

(4) Retention of nasal codas. Rhymes with nasal codas have been relatively well-retained in the languages of the Burmese branch, whereas they have essentially become monophthong rhymes in the languages of the Yipho branch. However, traces of nasal codas may be seen in a few languages, such as Nu, which has nasalised vowels.

(5) Retention of rhymes with stop codas. The disappearance or retention of stop codas is one of the important differences between the languages of the Burmese and Yipho branches. The former have retained stop codas, whereas in the latter, stop codas have disappeared and been replaced by “tenseness” of their vowel rhymes. Although there are not many words with stop codas in Bisu, many types have still been retained. In addition, in those rhymes in Bisu where the stop codas have disappeared, they have not, unlike languages in the Yipho branch, developed into contrasting lax and tense vowel rhymes.

(6) In terms of tone categories, correspondences between Bisu and the languages of the Burmese branch are more uniform.

However, Bisu phonology still has unique features, with the most striking being the development of nasals to become voiced stops at the same places of articulation. This trend does not exist in the languages of either the Burmese or Yipho branches. Secondly, in terms of rhymes with stop codas, they are still retained in Bisu, although retention is not as complete as in languages of the Burmese branch. Bisu also does not show a change in categories as in Achang and Zaiwa, where [-k] codas have all become [-ʔ]. In Bisu, retention is seen only in isolated words, and the disappearance of stop codas has not affected the vowels, so that there is no compensatory lax-tense contrast. All these features represent areas where the developmental trend of Bisu does not conform to languages in either the Burmese or Yipho branches.

## 6.2 Lexical Comparison

The phonological correspondences in the previous section have already shown that there are many words in Bisu which are cognate with those in other Burmese-Yipho languages. However, in addition to these cognate words, Bisu also has words which are separately cognate with words in languages of the Burmese and Yipho branches. There are definite associations between Bisu and the lexical inventories of these two branches, such as the word for "listen", which is represented by two non-cognate words in the Burmese and Yipho branches and has the following forms in the different languages:

Achang	Zaiwa	Langsu	Hani	Lahu	Jino	Nu	Mojiang Yi
kzua <sup>31</sup>	kjo <sup>21</sup>	kjo <sup>35</sup>	na <sup>55</sup> te <sup>31</sup>	na <sup>33</sup>	no <sup>35</sup>	no <sup>35</sup>	no <sup>55</sup>

The Bisu word [na<sup>55</sup>] "listen" is very evidently cognate with the words in languages of the Yipho branch, while [kja<sup>31</sup>] "hear" is cognate with the words in languages of the Burmese branch. This phenomenon, whereby two words from different sources are used as near-synonyms, is very typical but also very distinctive. In general, some words will be cognate with words in languages of the Burmese branch, while other words will be cognate with those in languages of the Yipho branch.

The following are cognate words in Bisu in the categories of stop, nasal, and lateral onsets which have correspondences with some representative languages of the Yipho branch, including Hani, Lahu, Yi, Lisu, and Jino.

Word	Bisu	Hani	Lahu	Yi	Lisu	Jino
leaf	ɔpha <sup>31</sup>	ɔph <sup>31</sup>	ɔph <sup>21</sup>	phe <sup>21</sup>	ɔphie <sup>31</sup>	ɔpha <sup>33</sup>
see	phu <sup>31</sup>	ɔphy <sup>31</sup>	phu <sup>54</sup>	ɔpho <sup>21</sup>	—	—
blue	phu <sup>55</sup>	*phu <sup>55</sup>	—	phe <sup>21</sup>	—	—
grandmother	ɔphi <sup>31</sup>	*ɔphi <sup>31</sup>	ɔpi <sup>33</sup>	ɔphi <sup>21</sup>	—	ɔphi <sup>33</sup>
silver	phu <sup>55</sup>	phy <sup>55</sup>	phu <sup>33</sup>	—	phu <sup>44</sup>	phu <sup>31</sup>
weave	phe <sup>31</sup>	phi <sup>31</sup>	phe <sup>53</sup>	—	phi <sup>31</sup>	phue <sup>33</sup>
wrap	thau <sup>33</sup>	*to <sup>33</sup>	thi <sup>54</sup>	pe <sup>55</sup>	—	ther <sup>31</sup>
spread	khan <sup>31</sup>	khu <sup>31</sup>	qho <sup>53</sup>	kh <sup>33</sup>	kho <sup>31</sup>	kha <sup>44</sup>
missing	khe <sup>31</sup>	*xa <sup>31</sup>	qhe <sup>21</sup>	kh <sup>21</sup>	kho <sup>41</sup>	—
steal	kha <sup>31</sup>	*xo <sup>31</sup>	qho <sup>53</sup>	kh <sup>33</sup>	kh <sup>31</sup>	—
salty	kha <sup>31</sup>	kh <sup>31</sup>	qha <sup>53</sup>	kh <sup>33</sup>	khua <sup>31</sup>	—
obtain	ga <sup>33</sup>	jo <sup>33</sup>	ya <sup>33</sup>	yo <sup>21</sup>	—	jo <sup>33</sup>
knit	ga <sup>31</sup>	ja <sup>31</sup>	—	—	—	ja <sup>44</sup>
good	men <sup>31</sup>	mu <sup>31</sup>	—	no <sup>55</sup>	—	mu <sup>31</sup>
classifier	man <sup>31</sup>	mu <sup>55</sup>	—	—	ma <sup>33</sup>	me <sup>33</sup>
day	nuu <sup>33</sup>	ni <sup>33</sup>	ni <sup>33</sup>	ni <sup>21</sup>	ni <sup>33</sup>	ni <sup>33</sup>
listen	na <sup>55</sup>	na <sup>55</sup>	na <sup>33</sup>	no <sup>55</sup>	na <sup>44</sup>	no <sup>35</sup>
ask	na <sup>55</sup>	na <sup>55</sup>	na <sup>33</sup>	no <sup>55</sup>	na <sup>44</sup>	no <sup>42</sup>
green	nu <sup>55</sup>	ni <sup>55</sup>	no <sup>35</sup>	ni <sup>55</sup>	ni <sup>35</sup>	ny <sup>55</sup>
refine	lo <sup>31</sup>	lej <sup>55</sup>	lo <sup>31</sup>	*le <sup>55</sup>	—	le <sup>33</sup>
hot (weather)	loj <sup>55</sup>	le <sup>55</sup>	—	*le <sup>55</sup>	—	to <sup>31</sup>
shed	le <sup>33</sup>	le <sup>33</sup>	—	*lu <sup>21</sup>	—	ter <sup>31</sup>

\*The phonetic transcriptions for the five Hani words marked with asterisks are those of the Haya dialect spoken in Dazhai Village in Luchun County. The phonetic transcriptions for the three Yi words marked with asterisks are vernacular forms (of the southeastern dialect) which are spoken in Dapingdi in Nile County.

However, for some other words, their relationship, whether phonologically or structurally, appears to be closer to languages in the Burmese branch, as in the table below.

Word	Burmese	Achang	Zaiwa	Bisu	Hani	Lahu	Jino
home	im <sup>2</sup>	in <sup>55</sup>	jum <sup>51</sup>	zum <sup>55</sup>	je <sup>55</sup> kh <sup>55</sup>	Λ <sup>35</sup> kh <sup>31</sup>	tso <sup>31</sup>
smelly	—	nam <sup>55</sup>	nam <sup>51</sup>	nam <sup>55</sup>	py <sup>31</sup>	kh <sup>53</sup> nu <sup>31</sup>	a <sup>33</sup> ne <sup>44</sup>
classifier	lum <sup>3</sup>	lum <sup>31</sup>	—	lum <sup>31</sup>	kh <sup>31</sup>	kh <sup>31</sup>	phu <sup>33</sup>
nine	ko <sup>3</sup>	kau <sup>31</sup>	kau <sup>21</sup>	kau <sup>31</sup>	tsi <sup>31</sup>	q <sup>53</sup>	tey <sup>33</sup>
bind	hto <sup>2</sup>	toi <sup>31</sup>	thau <sup>21</sup>	thu <sup>33</sup>	tshe <sup>33</sup>	dzu <sup>54</sup>	tshe <sup>31</sup>
itchy	ja <sup>3</sup>	zo <sup>31</sup>	jo <sup>21</sup>	za <sup>31</sup>	tsj <sup>33</sup>	dzi <sup>54</sup>	tsu <sup>42</sup>

Thus, the Bisu lexicon is associated to different extents with those in languages of the Yipho and Burmese branches. In order to determine the closeness of the relationship of the Bisu lexicon to other Burmese-Yipho languages, a statistical analysis of cognate words among Bisu and several Burmese-Yipho languages has been performed, and the results are shown below.

The lexical items used for this comparative analysis are based on the 200 items of core vocabulary devised by M. Swadesh, with some appropriate changes having been made. These changes consist of replacing certain words which do not correspond to items of core vocabulary in the Burmese-Yipho languages. A total of 25 words were replaced, *i.e.* 12.5% of all the words being compared.

Words were replaced under the following three circumstances:

(1) Conjunctions such as "and", "because", and "if". Conjunctions are not well-developed in Burmese-Yipho languages, and have appeared relatively late in their development. Their semantic content is often inconsistent, and thus very difficult to compare.

(2) Words which are far removed from the realities of life reflected in Bisu and other Burmese-Yipho languages, such as "ice", "form ice", "hail", "snow", "frost", "sea", "lake", and "river". These words may not exist in Bisu and other Burmese-Yipho languages, and even if they do, they may not show fine or clear distinctions. Such missing or non-specific terms have therefore been replaced.

(3) Thai/Dai loan words in the Bisu language, such as "broken", "tear", "think", and "here" were not included in the comparison.

Words used as replacement are items of core vocabulary which conform to the language reality of Burmese-Yipho languages and which reflect general social conditions. These 25 words were selected after consideration of the following five aspects:

(1) Natural objects with a local flavour: "honeybee", "mushroom", "ear of grain", "thorn", and "branch (of a tree)".

(2) Concepts which are intimately associated with farming in mountainous areas and with hunting: "tall" and "blunt (knife)".

(3) Objects related to the human body: "muscle", "sore", "saliva", and "faeces".

(4) Words reflecting body movements or sensations: "swallow", "keep in the mouth", "open (eyes)", "close (eyes)", "trample", "jump", "crawl", "painful", and "hungry".

(5) Words reflecting basic food production activities: "dry in the sun", "lift", "plant or insert", "water (v.), and "have".

The comparative study between Bisu and six Burmese-Yipho languages shows that, within 200 items of core vocabulary, the proportion of cognate words are:

Hani	Jino	Lahu	Zaiwa	Nu	Achang
64.25%	59.25%	57%	55.5%	54%	50%

From the above figures, Hani is most closely related to Bisu in its lexicon, with Jino, Lahu, Zaiwa, Nu, and Achang in descending order. This shows that, with respect to the lexicon, the Bisu language has a more intimate association with languages in the Yipho branch.

### 6.3 Grammatical Comparison

In general, Bisu grammar shows the general grammatical features of Burmese-Yipho languages, conforming to the basic grammatical framework in structural and grammatical categories as well as in its forms of expression. However, in some specific aspects, Bisu has retained its own special features. These differences reflect the different stages of grammatical development among these languages. This section compares Bisu with other Burmese-Yipho languages by using the different ways of expression of personal pronouns and the development of classifiers as specific examples.

#### 6.3.1 Personal Pronouns

Personal pronouns in the Burmese-Yipho languages have both cognate elements, as well as non-cognate elements which have appeared at a later stage of development. Their grammatical categories include number, with concepts of singular, dual, and plural in the first, second, and third persons. This category of number is expressed through morpheme addition in the vast majority of languages, or by a combination of morpheme addition and phonological changes within the syllable itself. Bisu personal pronouns have a cognate basis with those of the other Burmese-Yipho languages. However, in the expression of number, Bisu has its own distinctive features which differ from most Burmese-Yipho languages. These features represent important differences in the grammatical development of Bisu compared with the other languages in the Burmese-Yipho group.

The personal pronouns of several Burmese-Yipho languages are compared below:

Bisu (Huaipa dialect)			Bisu (Lanmeng dialect)				
	Singular	Dual	Plural		Singular	Dual	Plural
1p	[ga <sup>33</sup> ]	[gaj <sup>33</sup> ]	[gu <sup>33</sup> ]	1p	[ga <sup>33</sup> ]	[ga <sup>33</sup> it <sup>31</sup> ]	[gu <sup>33</sup> ]
2p	[na <sup>33</sup> ]/ [nan <sup>33</sup> ]	[naj <sup>33</sup> ]	[noŋ <sup>33</sup> ]	2p	[nan <sup>33</sup> ]	[na <sup>55</sup> it <sup>31</sup> ]	[noŋ <sup>33</sup> ]/ [nan <sup>33</sup> xv <sup>33</sup> ]
3p	[ja <sup>33</sup> ]/ [jan <sup>33</sup> ]	—	[joŋ <sup>33</sup> ]	3p	[zaj <sup>33</sup> ]	[za <sup>33</sup> it <sup>31</sup> ]	[zoŋ <sup>33</sup> ]/ [zoŋ <sup>33</sup> xv <sup>33</sup> ]

	Singular	Zaiwa <sup>17</sup>	
		Dual	Plural
1p	[ŋo <sup>51</sup> ]	[ŋa <sup>55</sup> njk <sup>55</sup> ]	[ŋa <sup>55</sup> moʔ <sup>55</sup> ]
2p	[naŋ <sup>51</sup> ]	[nuŋ <sup>51</sup> njk <sup>55</sup> ]	[nuŋ <sup>55</sup> moʔ <sup>55</sup> ]
3p	[jaŋ <sup>31</sup> ]	[jaŋ <sup>55</sup> njk <sup>55</sup> ]	[jaŋ <sup>55</sup> moʔ <sup>55</sup> ]

	Singular	Hani <sup>18</sup>	
		Dual	Plural
1p	[ŋa <sup>55</sup> ]	[ŋo <sup>31</sup> v <sup>33</sup> ne <sup>31</sup> ko <sup>31</sup> ]	[ŋo <sup>31</sup> v <sup>33</sup> ]
2p	[ny <sup>55</sup> ]	[no <sup>31</sup> v <sup>33</sup> ne <sup>31</sup> ko <sup>31</sup> ]	[no <sup>31</sup> v <sup>33</sup> ]
3p	[je <sup>31</sup> khɔ <sup>31</sup> ]	[je <sup>31</sup> khɔ <sup>31</sup> me <sup>31</sup> ko <sup>31</sup> ]	[jo <sup>31</sup> v <sup>33</sup> ]

	Singular	Achang <sup>19</sup>	
		Dual	Plural
1p	[ŋo <sup>55</sup> ]	[ŋo <sup>55</sup> ŋək <sup>55</sup> ]	[ŋo <sup>55</sup> tuʔ <sup>31</sup> ]
2p	[nuan <sup>55</sup> ]	[nuan <sup>55</sup> ŋək <sup>55</sup> ]	[nuan <sup>55</sup> tuʔ <sup>31</sup> ]
3p	[ŋ*an <sup>31</sup> ]	[ŋan <sup>31</sup> ŋək <sup>55</sup> ]	[ŋan <sup>31</sup> tuʔ <sup>31</sup> ]

	Singular	Lahu <sup>20</sup>	
		Dual	Plural
1p	[ŋA <sup>31</sup> ]	[ŋA <sup>31</sup> xu <sup>33</sup> ne <sup>31</sup> ]	[ŋA <sup>31</sup> xu <sup>33</sup> ]
2p	[no <sup>31</sup> ]	[no <sup>31</sup> xu <sup>33</sup> ne <sup>31</sup> ]	[no <sup>31</sup> xu <sup>33</sup> ]
3p	[zo <sup>53</sup> ]	[zo <sup>53</sup> xu <sup>33</sup> ne <sup>31</sup> ]	[zo <sup>53</sup> xu <sup>33</sup> ]

There are four ways in which number is expressed in personal pronouns in these Burmese-Yipho languages:

(1) The first group involves only phonological mutations. In the Huaipa dialect of Bisu, the singular, dual, and plural forms of the first, second, and third person pronouns are all distinguished through changes in the rhymes. The word for the third person dual pronoun is unavailable, as there is no field data, but is probably [ja<sup>33</sup>] according to the Japanese scholar Professor Tatsuo Nishida. The common rhyme for the plural forms of the second and third person pronouns is now [oŋ], but these forms may well have coexisted in the past with [nu] and [ju], i.e. forms which correspond to [gu], the form for the first person.

(2) The second group involves both phonological and morphological changes. Some concepts are distinguished through phonological mutations, while others are expressed through morphological changes. Sometimes, the same concept may be expressed by two coexisting methods. In the Lanmeng dialect of Bisu, there are phonological changes in the rhymes, as in the plural forms of the second and third person pronouns; but there is also

<sup>17</sup> Xu Xihen & Xu Guizhen. 1984. *A Brief Description of the Zaiwa Language*: 45. Beijing: Ethnic Publishing House.

<sup>18</sup> Li Yongsui & Wang Ersong. 1986. *A Brief Description of the Hani Language*: 75-76. Beijing: Ethnic Publishing House.

<sup>19</sup> Dai Qingxia & Chui Zhichao. 1985. *A Brief Description of the Achang Language*: 33. Beijing: Ethnic Publishing House.

<sup>20</sup> Chang Hong'en. 1986. *A Brief Description of the Lahu Language*: 38. Beijing: Ethnic Publishing House.



morpheme addition, as in the third person dual pronoun. In the second and third person plural forms, both types coexist, with the former (*i.e.* words formed through phonological mutations) being more commonly used in everyday conversation. Further analysis reveals that the plural forms which have arisen through morpheme addition are not very typical, as the rhymes of the word roots also undergo phonological changes at the same time.

(3) The third group consists of both phonological and morphological changes within the same word. In the dual and plural personal pronouns in Zaiwa and Hani, both types of changes are found. A pluralising morpheme is added, and the rhymes within the syllable of the word roots also change.

(4) The fourth group involves only morphological changes. In the dual and plural forms of the personal pronouns in Achang and Lahu, the singular forms are used as the word roots, and morphemes indicating "dual" or "plural" meaning are suffixed on to the roots.

The above four groups summarise all the different ways in which number is expressed in personal pronouns among Burmese-Yipho languages, with Groups Three and Four being most common. In Bisu, expression of number in personal pronouns tends to involve phonological mutations: this is distinct from other Burmese-Yipho languages which favour morphological changes.

This complicated situation with respect to personal pronouns has developed due to different stages in the historical development of grammatical means of expression in Burmese-Yipho languages. In the early stages of development, number in personal pronouns is expressed through phonological mutations, with morphological changes being a later development, which then became the main way of expression. Evidence for the direction of this trend is discussed below:

(1) The first and second person singular forms have phonological correspondences among Burmese-Yipho languages and even among Sino-Tibetan languages. In Ancient Chinese, no clear distinction existed between the concepts of singular or dual in the first and second personal pronouns, but many forms coexisted, as in [ŋɑ], [ŋa], and [ŋɑŋ] (all first person); and [nǎɑ], [nǎa], [nǎak], [nə], [nǎ], and [nǎwəm] (all second person)<sup>21</sup>. If these words, which are related phonologically, had been used to express grammatical categories such as number, then phonological mutations certainly appeared to exist among personal pronouns in Ancient Chinese. Thus, phonological changes in personal pronouns have a very long history, and may well have been used in the earliest stages of development. The forms used to express number in Bisu personal pronouns may therefore be remnants of a very ancient phenomenon.

(2) The plural forms of the second and third personal pronouns in Bisu also involve the addition of [xv<sup>33</sup>] to forms which had already undergone phonological mutations. This pluralising element does not appear to be cognate with words in any other Burmese-Yipho languages. However, the use of this element is consistent with the situation in Sino-Tibetan languages, where pluralisers have arisen after the differentiation of the Sino-Tibetan, the Tibeto-Burman, and even the Burmese-Yipho languages. The pluraliser for personal pronouns, "men", in Chinese only appeared during the 10th and 11th centuries. It is therefore a later phenomenon. In Bisu, these forms still coexist with earlier forms (*i.e.* those with phonological mutations), indicating that Bisu is in a transitional stage of development.

(3) In Sino-Tibetan languages, dual forms of personal pronouns are not as common as plural forms. Neither are there corresponding forms in Burmese. Hence, this concept has

<sup>21</sup> Wang Li. 1980. *History of the Chinese Language*: 260. Beijing: China Books Publishing House.

arisen relatively late. In terms of expression of dual number, apart from isolated words in the Huaipa dialect of Bisu, which involves phonological mutations, all other languages (including the Lanmeng dialect of Bisu) only show morpheme addition. This differs from the concept of plurality, which has developed earlier and which has coexistent forms involving both phonological changes and morpheme addition. This also indicates that morpheme addition is a late development. Languages which are at different stages of development within this continuum will form personal pronouns in different ways. Bisu tends towards using phonological mutations, retaining many words which show phonological changes. This indicates that its development is slower than that of other Burmese-Yipho languages, and is therefore at an earlier stage within this process.

### 6.3.2 Development of Classifiers

Classifiers are important components of Sino-Tibetan languages, but among Tibeto-Burman languages, they are still in the process of development. There are very few specific classifiers in Bisu, and the usage of its classifiers and their combination relationships with other words also show distinct differences compared with most Burmese-Yipho languages. These differences reflect the discrepancies between the developmental stages of their classifiers, and are clearly shown in the following areas:

(1) There are few specific classifiers. Among Tibeto-Burman languages, classifiers are relatively abundant among Burmese-Yipho languages, with some having many specific classifiers. This is similar to Chinese, the Kam-Tai and Miao-Yao languages, as in the following examples:

Liangshan Xide, a northern Yi dialect, has the following classifiers denoting individual objects<sup>22</sup>: [ma<sup>33</sup>] (chicken, horse, stone), [bo<sup>33</sup>] (tree), [ku<sup>33</sup>] (vehicle), [dzɿ<sup>33</sup>] (long object), [tɕi<sup>33</sup>] (long, thin object), [tsi<sup>21</sup>] (level), [dzi<sup>55</sup>] (book), [pho<sup>55</sup>] (foot), [tchi<sup>55</sup>] (knife), [pu<sup>33</sup>] (flower), [bu<sup>55</sup>] (piece, document), [tho<sup>55</sup>] (a drop), [qu<sup>33</sup>] (clothes), and [yo<sup>33</sup>] (piece of meat).

Lahu has the following classifiers denoting individual items<sup>23</sup>: [ya<sup>53</sup>] (person), [khe<sup>33</sup>] (horse), [pha<sup>21</sup>] (knife), [pu<sup>31</sup>] (meal), [kɔ<sup>33</sup>] (bottle, jar), [pe<sup>54</sup>] (piece of meat), [tsa<sup>54</sup>] (road), [qu<sup>54</sup>] (piece of paper), [pɿ<sup>31</sup>] (sentence), and [dza<sup>54</sup>] (a drop).

Achang has the following classifiers denoting individual items<sup>24</sup>: [zu<sup>55</sup>] (person), [tu<sup>31</sup>] (animal), [tseŋ<sup>55</sup>] (flower, grass, vegetable, tree), [khzəp<sup>55</sup>] (knife, hoe, comb), [lum<sup>31</sup>] (person), [zau<sup>31</sup>] (short, thick object), [tuŋ<sup>31</sup>] (paper, clothes, blanket), and [khzəŋ<sup>55</sup>] (thread, rope, grass).

Zaiwa has the following classifiers denoting individual items<sup>25</sup>: [lum<sup>21</sup>] (person), [ju<sup>21</sup>] (person), [tu<sup>21</sup>] (animals), [kam<sup>51</sup>] (grass, vegetable, tree), [tuŋ<sup>21</sup>] (clothes, blanket), [tʃham<sup>21</sup>] (grain), [khat<sup>55</sup>] (long thin object), [khjəp<sup>55</sup>] (piece), [se<sup>21</sup>] (piece), [khji<sup>55</sup>] (piece

<sup>22</sup> Chen Shilin, Bian Shiming & Li Xiuqing. 1985. *A Brief Description of the Yi Language*: 122. Beijing: Ethnic Publishing House.

<sup>23</sup> Chang Hong'en. 1986. *A Brief Description of the Lahu Language*: 34-35. Beijing: Ethnic Publishing House.

<sup>24</sup> Dai Qingxia & Chui Zhichao. 1985. *A Brief Description of the Achang Language*: 38-40. Beijing: Ethnic Publishing House.

<sup>25</sup> Xu Xihen & Xu Guizhen. 1984. *A Brief Description of the Zaiwa Language*: 58-61. Beijing: Ethnic Publishing House.

of meat, lump of soil), [pəʔ<sup>55</sup>] (a drop), [ma<sup>51</sup>] (a meal), [khun<sup>21</sup>] (a sentence), [phu<sup>21</sup>] (gun), and [thau<sup>55</sup>] (a suit, clothing).

Unlike the above languages, Bisu has very few specific classifiers, especially the Huaipa dialect, which has only three classifiers for individual items, [maŋ<sup>21</sup>], [ma<sup>33</sup>], and [lum<sup>33</sup>]. Categorisation is very general, with no differentiation between classifiers used for people or animals: [maŋ<sup>21</sup>] is used throughout. The Lanmeng dialect has a finer distinction among its classifiers, with [maŋ<sup>55</sup>] being used specifically for animals, while [fu<sup>33</sup>] and [saŋ<sup>55</sup>] are used for people. Nevertheless, only four specific classifiers exist, with the rest being nouns functioning also as classifiers. The latter show no categorisation, and have a wide range of usage.

(2) Most of the classifiers in Bisu have originated from nouns, and have identical or similar forms to their associated nouns. The range of use of such classifiers is subject to restrictions, so that they are only used for counting specific items, and must be used in combination with specific nouns, as in the following examples:

za <sup>55</sup> knife	thi <sup>31</sup> two	za <sup>55</sup> cl. (knife)	a piece of land
mja <sup>33</sup> land	ni <sup>31</sup> one	mja <sup>33</sup> piece (land)	two knives
zum <sup>55</sup> house	thi <sup>31</sup> one	zum <sup>55</sup> cl. (building)	a house
koŋ <sup>55</sup> jar	ni <sup>31</sup> two	koŋ <sup>55</sup> cl.	two jars
thi <sup>31</sup> one	nur <sup>33</sup> year		a year
lo <sup>33</sup> ba <sup>33</sup> stone	thi <sup>31</sup> a	lo <sup>33</sup> piece (stone)	a stone
thi <sup>31</sup> one	koŋ <sup>33</sup> pile		a pile
stun <sup>33</sup> tsun <sup>55</sup> tree	ni <sup>31</sup> two	tsun <sup>55</sup> cl.	two trees
tsum <sup>33</sup> mja <sup>31</sup> bowl	thi <sup>31</sup> one	tsum <sup>33</sup> cl. (bowl)	a bowl
aŋ <sup>33</sup> the <sup>55</sup> speech	thi <sup>31</sup> one	the <sup>55</sup> sentence	a sentence
tsy <sup>31</sup> taŋ <sup>31</sup> song	thi <sup>31</sup> one	taŋ <sup>31</sup> song	a song

aŋ <sup>33</sup> pha <sup>31</sup> leaf	thi <sup>31</sup> one	pha <sup>31</sup> piece (leaf)	a leaf
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Although the majority of Burmese-Yipho languages have similar classifiers which have originated from nouns, these are few in number and their relationships to their associated nouns differ. Most of these languages have a group of specific classifiers which have developed to become an independent lexical category.

(3) Demonstrative pronouns in Burmese-Yipho languages do not modify nouns directly, but must combine with classifiers to form demonstrative-classifier phrases. The position of such phrases is relatively stable, usually following the nouns which they modify.

In Bisu, when demonstrative pronouns combine with classifiers to form demonstrative-classifier phrases, their position within the clause is not fixed. They usually precede the nouns, but may also follow them. Demonstrative pronouns may modify nouns directly, but these nouns are subject to certain restrictions, *i.e.*, they must be nouns which do not have specific classifiers, but themselves function also as classifiers, as in [ni<sup>55</sup>mja<sup>33</sup>] "this knife" and [thi<sup>55</sup>khəŋ<sup>31</sup>] "that village". In practice, the precise nature of such words which are modified by demonstrative pronouns is unclear. They may be regarded as nouns or classifiers, or may be considered to perform two functions, combining the natures of both noun and classifier. This indicates that these words are in a transitional stage which involves a change from noun to classifier, and their nature and usage have not yet differentiated from those of nouns.

(4) Classifiers in many languages of the Yipho branch may combine with numerals to modify nouns or verbs independently. In such cases, classifiers do not only indicate quantity, but also have the meaning of "one". They may also be demonstrative in function, and their categorisation is usually very clear and precise. When they follow nouns, they indicate the group features of that particular noun. The multi-functional nature and the wide semantic content of classifiers within languages of the Yipho branch are lacking in Bisu.

The above differences are representative of features in the differential development of classifiers. Features of classifiers in Burmese-Yipho languages include: a large number of specific classifiers, with borrowed forms being subjugated to a secondary role; the clear and independent nature of classifiers; the stability of their combination relationships and word order; and the precise substantiation of their functions and meanings. All these characteristics reveal that they belong to a later stage within the development of classifiers in Tibeto-Burman languages. In comparison, the development of classifiers in Bisu is at an early stage, and differs from other Burmese-Yipho languages.

#### 6.4 The Position of Bisu within its Language Family

This section investigates the cognate relationship of several languages which have common features with Bisu, by comparing the rules of correspondence between cognate words and their phonological characteristics.

##### 6.4.1 The Position of Bisu within its Language Family

The previous sections compared Bisu and several major Burmese-Yipho languages in the areas of phonology, the lexicon, and grammar. Large numbers of cognate words and precise phonological correspondences indicate that Bisu has a cognate relationship with the Burmese-Yipho languages, and is an independent language which has developed from among them.

However, the results of the comparative analysis also revealed the complex relationship between Bisu and languages of the Burmese and Yipho branches. In terms of phonological development, Bisu is closer to the Burmese branch; in terms of the lexicon, however, it is more intimately associated with the Yipho branch. Bisu also has its own distinctive features: it has developmental trends in phonology which differ from those in languages of both Burmese and Yipho branches. In the development of certain aspects of its grammar, Bisu also differs from the majority of Burmese-Yipho languages.

A few languages distributed in the southern part of China, northern Thailand, Laos, and Myanmar also have similar language features and developmental trends. In the following discussion, these languages will be compared with Bisu, in order to determine the extent of their affinity.

#### A. Cognate words in Bisu and Sangkong

Many cognate words exist between Bisu and Sangkong, which is spoken in the Xishuangbanna Dai Autonomous Prefecture of Yunnan Province in China. Very precise correspondences exist in different phonological categories, as shown in the examples below.

##### (i) Syllable onsets

Stops	Sangkong	Huaipa dialect
rotten	pe <sup>31</sup>	puŋ <sup>33</sup> tsha <sup>55</sup>
headscarf	tu <sup>31</sup> pap <sup>33</sup>	tu <sup>21</sup> paw <sup>33</sup>
deaf person	na <sup>31</sup> paŋ <sup>31</sup>	na <sup>21</sup> paŋ <sup>21</sup>
open	phoŋ <sup>33</sup>	phoŋ <sup>33</sup>
bury	phəm <sup>33</sup>	phum <sup>33</sup>
untie	phum <sup>55</sup>	phu <sup>55</sup>
spit	phɛ <sup>31</sup> qha <sup>33</sup>	phe <sup>55</sup>
leaf	aŋ <sup>33</sup> pha <sup>31</sup>	?aŋ <sup>33</sup> pha <sup>21</sup>
hit	ti <sup>31</sup>	tu <sup>21</sup>
drink	taŋ <sup>55</sup>	taŋ <sup>55</sup>
wear	tem <sup>33</sup>	tum <sup>55</sup>
head	aŋ <sup>33</sup> tu <sup>31</sup>	?aŋ <sup>33</sup> tu <sup>21</sup>
wing	aŋ <sup>33</sup> toŋ <sup>55</sup>	?aŋ <sup>33</sup> toŋ <sup>55</sup>
get out of bed	tha <sup>33</sup>	tha <sup>33</sup>
sell	qoŋ <sup>31</sup>	kəŋ <sup>21</sup>
duck	a <sup>31</sup> qap <sup>31</sup>	?a <sup>33</sup> kaw <sup>21</sup>
yawn	a <sup>31</sup> qap <sup>31</sup>	?a <sup>33</sup> kaw <sup>21</sup>
rice	qo <sup>33</sup>	kə <sup>33</sup> tshen <sup>55</sup>
grass	mbə <sup>31</sup> qa <sup>31</sup>	mə <sup>21</sup> ka <sup>21</sup>
stars	a <sup>31</sup> ku <sup>55</sup>	u <sup>21</sup> ku <sup>21</sup>
steal	qhə <sup>31</sup>	khaw <sup>21</sup>
be afraid of	qhe <sup>33</sup>	khe <sup>33</sup>
ash	qha <sup>55</sup> lo <sup>55</sup>	kha <sup>21</sup> la <sup>21</sup>

Word	Sangkong	Huaipa dialect
nose	na <sup>55</sup> qhaŋ <sup>55</sup>	le <sup>33</sup> khaŋ <sup>55</sup>
smoke	mi <sup>31</sup> qhə <sup>31</sup>	bi <sup>21</sup> khaw <sup>21</sup>
back	ta <sup>31</sup> qha <sup>55</sup>	ta <sup>21</sup> khaŋ <sup>55</sup>
thread	khuiŋ <sup>55</sup>	khuiŋ <sup>55</sup>
wall	kham <sup>55</sup> the <sup>33</sup>	kham <sup>55</sup> thu <sup>33</sup>
pillow	tu <sup>31</sup> kum <sup>31</sup>	tu <sup>21</sup> kho <sup>33</sup>
foot	aŋ <sup>33</sup> khui <sup>55</sup>	la <sup>21</sup> khui <sup>21</sup>
hungry	mbe <sup>31</sup>	bɛ <sup>21</sup>
arrow	mba <sup>31</sup>	bla <sup>21</sup>
husband	aŋ <sup>33</sup> mboŋ <sup>55</sup>	bləŋ <sup>55</sup>
taste (v.)	mbja <sup>31</sup>	be <sup>31</sup> za <sup>31</sup> *
lightning	muŋ <sup>31</sup> mbat <sup>31</sup>	muŋ <sup>21</sup> blap <sup>21</sup>
dream	mba <sup>33</sup>	bun <sup>55</sup>
horse	a <sup>31</sup> mboŋ <sup>31</sup>	?aŋ <sup>33</sup> məŋ <sup>21</sup>
wind	ho <sup>55</sup> mban <sup>55</sup>	haŋ <sup>55</sup> man <sup>55</sup>
bamboo shoot	a <sup>55</sup> mbi <sup>31</sup>	ha <sup>33</sup> mit <sup>55</sup>
ill	nda <sup>55</sup>	da <sup>55</sup>
obtain	ŋga <sup>33</sup>	ga <sup>33</sup>
knit	ŋga <sup>31</sup>	ga <sup>33</sup>

\*This word is in the Lanmeng dialect.

Affricates	Sangkong	Huaipa dialect
eat	tsa <sup>31</sup>	tsa <sup>21</sup>
eagle	tsan <sup>55</sup> mba <sup>33</sup>	tsan <sup>55</sup> ba <sup>33</sup>
deer	ho <sup>33</sup> tshɛ <sup>33</sup>	tshɛ <sup>33</sup>
throat	lmɔŋ <sup>55</sup> tshɔŋ <sup>31</sup>	luŋ <sup>55</sup> tshu <sup>55</sup>
tiger	tsha <sup>31</sup> la <sup>31</sup>	tsha <sup>31</sup> la <sup>31</sup>
mortar	tshem <sup>55</sup> si <sup>31</sup>	toŋ <sup>21</sup> tshum <sup>55</sup>

Fricatives	Sangkong	Huaipa dialect
die	si <sup>55</sup>	ʃi <sup>33</sup>
kill	se <sup>31</sup>	se <sup>21</sup>
iron	sam <sup>55</sup>	ʃam <sup>55</sup>
louse	san <sup>55</sup>	ʃen <sup>21</sup>
yellow	sɿ <sup>55</sup>	?aŋ <sup>33</sup> ʃu <sup>55</sup>
tooth	aŋ <sup>33</sup> so <sup>31</sup>	sə <sup>21</sup> phje <sup>21</sup>
claw	lɑ <sup>31</sup> stuiŋ <sup>31</sup>	pa <sup>33</sup> stuiŋ <sup>21</sup>
field	laŋ <sup>55</sup> ca <sup>55</sup>	hja <sup>55</sup>
fetch, bring	zu <sup>55</sup>	ju <sup>55</sup>

Word	Sangkong	Huaipa dialect
home	zim <sup>55</sup>	jum <sup>55</sup>
sleep	zu <sup>31</sup>	ju <sup>21</sup>
flower	aŋ <sup>33</sup> zə <sup>33</sup>	ve <sup>33</sup> ja <sup>21</sup>
dance	zan <sup>33</sup>	jen <sup>55</sup>
land, earth	ca <sup>55</sup>	hja <sup>55</sup>
elephant	ca <sup>33</sup> mba <sup>33</sup>	hjaŋ <sup>21</sup> ba <sup>33</sup>
drunk (on wine)	ce <sup>31</sup> le <sup>55</sup>	het <sup>21</sup> [Tako]

#### Nasals

Word	Sangkong	Huaipa dialect
sky	muŋ <sup>31</sup>	muŋ <sup>21</sup>
eyes	mi <sup>33</sup> si <sup>31</sup>	me <sup>21</sup> hnu <sup>33</sup>
cooked	aŋ <sup>33</sup> miŋ <sup>33</sup>	?aŋ <sup>33</sup> hmiŋ <sup>33</sup>
mush-room	muŋ <sup>55</sup>	hməŋ <sup>55</sup>
blow	mi <sup>33</sup>	hmit <sup>33</sup>
tall	moŋ <sup>33</sup>	?aŋ <sup>33</sup> hməŋ <sup>33</sup>
see	hu <sup>33</sup> mjaŋ <sup>55</sup>	hmjaŋ <sup>55</sup>
knife	mja <sup>33</sup>	hmja <sup>33</sup>
street	muŋ <sup>31</sup>	?aŋ <sup>33</sup> hmɤŋ <sup>33</sup>
feather	mja <sup>33</sup> mu <sup>31</sup>	?aŋ <sup>33</sup> hmu <sup>21</sup>
right (side)	a <sup>55</sup> ma <sup>55</sup>	la <sup>21</sup> hma <sup>33</sup>
name	aŋ <sup>33</sup> miŋ <sup>55</sup>	?aŋ <sup>33</sup> hmeŋ <sup>55</sup>
heart	nuŋ <sup>33</sup> mba <sup>33</sup>	nuŋ <sup>33</sup> ba <sup>33</sup>
you	naŋ <sup>55</sup>	naŋ <sup>33</sup>
nasal mucus	nap <sup>31</sup>	hnaw <sup>21</sup>
smelly	nam <sup>55</sup>	hnam <sup>21</sup>
deep	ŋa <sup>31</sup>	?aŋ <sup>33</sup> hna <sup>21</sup>
finger	la <sup>31</sup> nuŋ <sup>55</sup>	la <sup>21</sup> hpuŋ <sup>55</sup>
low	ni <sup>33</sup>	hñum <sup>33</sup>
five	ŋa <sup>31</sup>	ŋa <sup>31</sup> [Lanmeng]
earthworm	ŋe <sup>31</sup>	hŋe <sup>21</sup>

#### Laterals

Word	Sangkong	Huaipa dialect
come	la <sup>55</sup>	la <sup>55</sup>
first, primary	lum <sup>55</sup>	?aŋ <sup>33</sup> lum <sup>21</sup>
water	laŋ <sup>55</sup> (təŋ <sup>31</sup> )	laŋ <sup>55</sup> ba <sup>33</sup>
hand	aŋ <sup>33</sup> la <sup>31</sup>	la <sup>21</sup> pu <sup>21</sup>
ash	qha <sup>55</sup> lo <sup>55</sup>	kha <sup>21</sup> la <sup>21</sup>
moon	pe <sup>31</sup> la <sup>33</sup>	u <sup>21</sup> hla <sup>33</sup>

#### Palatalised and complex onsets

Word	Sangkong	Huaipa dialect
bee	pja <sup>31</sup>	pja <sup>21</sup>
fly	pjam <sup>55</sup>	pjam <sup>55</sup>
full	puŋ <sup>33</sup>	pluŋ <sup>33</sup>
taro	pəm <sup>31</sup>	plum <sup>21</sup>
silver	phu <sup>55</sup>	phlu <sup>55</sup>
lock	qha <sup>33</sup> tce <sup>55</sup>	kaj <sup>21</sup> kje <sup>33</sup>
thunder	muŋ <sup>31</sup> tce <sup>31</sup>	muŋ <sup>21</sup> kje <sup>21</sup>
borrow	tci <sup>31</sup>	khji <sup>21</sup>
sour	tchan <sup>55</sup>	khjen <sup>55</sup>
horn	aŋ <sup>33</sup> tchə <sup>55</sup>	?aŋ <sup>33</sup> khjaw <sup>55</sup>

#### (ii) Syllable rhymes

##### Vowel rhymes

Word	Sangkong	Huaipa dialect
pig	wa <sup>31</sup>	wa <sup>33</sup>
l	ŋa <sup>55</sup>	ga <sup>33</sup>
bamboo	ha <sup>31</sup>	ha <sup>33</sup>
chicken	xə <sup>33</sup>	hja <sup>33</sup>
come	la <sup>55</sup>	la <sup>55</sup>
bee	pja <sup>31</sup>	pja <sup>21</sup>
knife	mja <sup>33</sup>	hmja <sup>33</sup>
deep	na <sup>31</sup>	?aŋ <sup>33</sup> hna <sup>21</sup>
eat	tsa <sup>31</sup>	tsa <sup>21</sup>
arrow	mba <sup>31</sup>	bla <sup>21</sup>
ill	nda <sup>55</sup>	da <sup>55</sup>
knit	ŋga <sup>31</sup>	ga <sup>33</sup>
obtain	ŋga <sup>33</sup>	ga <sup>33</sup>
get out of bed	tha <sup>33</sup>	tha <sup>33</sup>
field	laŋ <sup>33</sup> ca <sup>55</sup>	hja <sup>55</sup>
tiger	tsha <sup>31</sup> la <sup>31</sup>	tsha <sup>21</sup> la <sup>21</sup>
leaf	aŋ <sup>33</sup> pha <sup>31</sup>	?aŋ <sup>33</sup> pha <sup>21</sup>
ash	qha <sup>55</sup> lo <sup>55</sup>	kha <sup>21</sup> la <sup>21</sup>
kill	se <sup>31</sup>	se <sup>21</sup>
hungry	mbɛ <sup>31</sup>	be <sup>21</sup>
fear (v.)	qhe <sup>33</sup>	khe <sup>33</sup>
earthworm	ŋe <sup>31</sup>	hŋe <sup>21</sup>
spit	phe <sup>31</sup> qha <sup>33</sup>	phe <sup>55</sup>

Word	Sangkong	Huaipa dialect
deer	ho <sup>33</sup> tshɛ <sup>33</sup>	tshɛ <sup>33</sup>
lock	qha <sup>33</sup> tce <sup>55</sup>	kaj <sup>21</sup> kje <sup>33</sup>
thunder	muŋ <sup>31</sup> tce <sup>31</sup>	muŋ <sup>21</sup> kje <sup>21</sup>
sleep	zu <sup>31</sup>	ju <sup>21</sup>
look	hu <sup>33</sup>	hu <sup>33</sup>
fetch	zu <sup>55</sup>	ju <sup>55</sup>
silver	phu <sup>55</sup>	phlu <sup>55</sup>
egg, spawn	aŋ <sup>33</sup> u <sup>33</sup>	?aŋ <sup>33</sup> ?u <sup>33</sup>
intestines	aŋ <sup>33</sup> u <sup>55</sup>	?aŋ <sup>33</sup> ?u <sup>55</sup>
head	aŋ <sup>33</sup> tu <sup>31</sup>	?aŋ <sup>33</sup> tu <sup>21</sup>
muscle	aŋ <sup>33</sup> ku <sup>31</sup>	?aŋ <sup>33</sup> ku <sup>21</sup>
raise, lift	qo <sup>33</sup>	ko <sup>33</sup>
stone	ho <sup>33</sup> mba <sup>33</sup>	lo <sup>33</sup> ba <sup>33</sup>
grass	mbɔ <sup>31</sup> qa <sup>31</sup>	mɔ <sup>21</sup> ka <sup>21</sup>
rice	qo <sup>33</sup>	ko <sup>33</sup> tshɛn <sup>55</sup>
tooth	aŋ <sup>33</sup> so <sup>31</sup>	so <sup>21</sup> phje <sup>21</sup>
brain	aŋ <sup>33</sup> ndo <sup>31</sup>	tu <sup>21</sup> dɔ <sup>21</sup>
smile	u <sup>55</sup>	?u <sup>55</sup>
toothbrush	xu <sup>31</sup>	hu <sup>21</sup>
star	a <sup>31</sup> ku <sup>55</sup>	?u <sup>21</sup> ku <sup>21</sup>
foot	aŋ <sup>33</sup> khui <sup>55</sup>	la <sup>21</sup> khui <sup>21</sup>
feather, hair	mja <sup>33</sup> mu <sup>31</sup>	?aŋ <sup>33</sup> hmu <sup>21</sup>
chaff	qha <sup>55</sup> phu <sup>31</sup>	ka <sup>33</sup> phu <sup>21</sup>
die	si <sup>55</sup>	ʃi <sup>33</sup>
borrow	tɕi <sup>31</sup>	khji <sup>21</sup>
give	pi <sup>31</sup>	pi <sup>21</sup>
near	ndi <sup>31</sup>	?aŋ <sup>33</sup> du <sup>21</sup>
medicine	tshi <sup>31</sup>	tsu <sup>21</sup> ka <sup>21</sup>
hang	tshɿ <sup>31</sup>	chui <sup>21</sup>
blood	si <sup>31</sup>	ʃi <sup>21</sup>
urine	i <sup>31</sup> si <sup>55</sup>	ji <sup>21</sup> ʃi <sup>21</sup>
this	ni <sup>55</sup>	hni <sup>33</sup>
yellow	sɿ <sup>55</sup>	?aŋ <sup>33</sup> ʃu <sup>55</sup>
new	aŋ <sup>33</sup> sɿ <sup>31</sup>	?aŋ <sup>33</sup> ʃu <sup>21</sup>
throat	luŋ <sup>55</sup> tshɿ <sup>31</sup>	luŋ <sup>55</sup> tshu <sup>55</sup>

Word	Sangkong	Huaipa dialect
shout	ho <sup>55</sup>	haw <sup>55</sup>
sweet	tcho <sup>55</sup>	tshaw <sup>55</sup>
steal	qho <sup>31</sup>	khaw <sup>21</sup>
horn	aŋ <sup>33</sup> tcho <sup>55</sup>	?aŋ <sup>33</sup> khjaw <sup>55</sup>
bones	aŋ <sup>33</sup> zo <sup>31</sup>	?aŋ <sup>33</sup> gaw <sup>21</sup>
smoke	mi <sup>31</sup> qho <sup>31</sup>	bi <sup>21</sup> khaw <sup>21</sup>

#### Rhymes with stop codas

Word	Sangkong	Huaipa dialect
nasal mucus	nap <sup>31</sup>	hnaw <sup>21</sup>
wash (clothes)	tsap <sup>33</sup>	caw <sup>33</sup>
stab	tshap <sup>33</sup>	tsaw <sup>33</sup>
yawn	a <sup>31</sup> qap <sup>31</sup>	?a <sup>33</sup> kaw <sup>21</sup>
duck	a <sup>31</sup> qap <sup>31</sup>	?a <sup>33</sup> kaw <sup>21</sup>
lungs	aŋ <sup>33</sup> phap <sup>31</sup>	?aŋ <sup>33</sup> hmaw <sup>33</sup>
headscarf	tu <sup>31</sup> pap <sup>33</sup>	tu <sup>21</sup> paw <sup>33</sup>
needle	ku <sup>31</sup> kap <sup>31</sup>	khui <sup>55</sup> kjaw <sup>33</sup>

#### Rhymes with nasal codas

Word	Sangkong	Huaipa dialect
fly (v.)	pjam <sup>55</sup>	pjam <sup>55</sup>
iron	sam <sup>55</sup>	ʃam <sup>55</sup>
smelly	nam <sup>55</sup>	hnam <sup>21</sup>
shallow	tam <sup>55</sup>	?aŋ <sup>33</sup> tam <sup>55</sup>
bear (animal)	qham <sup>35</sup>	?ɔ <sup>21</sup> wam <sup>55</sup>
wall	kham <sup>55</sup> tɕe <sup>33</sup>	kham <sup>55</sup> thu <sup>33</sup>
dance	zan <sup>33</sup>	jen <sup>55</sup>
louse	san <sup>55</sup>	ʃɛn <sup>21</sup>
eagle	tsan <sup>55</sup> mba <sup>33</sup>	tsan <sup>55</sup> ba <sup>33</sup>
sour	tchan <sup>55</sup>	khjen <sup>55</sup>
wet	aŋ <sup>33</sup> tɕan <sup>55</sup>	?aŋ <sup>33</sup> cen <sup>55</sup>
wind	ho <sup>55</sup> mban <sup>55</sup>	haj <sup>55</sup> man <sup>55</sup>
you	naŋ <sup>55</sup>	naŋ <sup>33</sup>
he	thaj <sup>55</sup>	jaŋ <sup>33</sup>
person	tshaj <sup>55</sup>	tshaj <sup>55</sup>
drink	taŋ <sup>55</sup>	taŋ <sup>55</sup>
see	hu <sup>33</sup> mjaŋ <sup>55</sup>	hmjaŋ <sup>55</sup>
water	laŋ <sup>55</sup> tɕe <sup>31</sup>	laŋ <sup>55</sup> ba <sup>33</sup>
deaf person	na <sup>31</sup> paŋ <sup>31</sup>	na <sup>21</sup> paŋ <sup>21</sup>
nose	na <sup>55</sup> qhan <sup>55</sup>	na <sup>55</sup> khaj <sup>55</sup>

Word	Sangkong	Huaipa dialect
enter	oŋ <sup>55</sup>	ʔoŋ <sup>55</sup>
open	phoŋ <sup>33</sup>	phoŋ <sup>33</sup>
sell	qoŋ <sup>31</sup>	koŋ <sup>21</sup>
husband	aŋ <sup>33</sup> mbon <sup>55</sup>	blon <sup>55</sup>
tall	moŋ <sup>33</sup>	ʔaŋ <sup>33</sup> hməŋ <sup>33</sup>
horse	a <sup>31</sup> mbon <sup>31</sup>	ʔaŋ <sup>33</sup> məŋ <sup>21</sup>
wing	aŋ <sup>33</sup> toŋ <sup>55</sup>	ʔaŋ <sup>33</sup> toŋ <sup>55</sup>
ring	la <sup>31</sup> tshoŋ <sup>31</sup>	la <sup>21</sup> tshoŋ <sup>21</sup>
full	puŋ <sup>33</sup>	pluŋ <sup>33</sup>
thread	khuŋ <sup>55</sup>	khuŋ <sup>55</sup>
heart	nuŋ <sup>33</sup> mba <sup>33</sup>	nuŋ <sup>33</sup> ba <sup>33</sup>
tree	si <sup>33</sup> tsuŋ <sup>55</sup>	tsuŋ <sup>33</sup> tsuŋ <sup>55</sup>
pillar	zim <sup>55</sup> ŋgəŋ <sup>55</sup>	jum <sup>55</sup> juŋ <sup>55</sup>
claw	la <sup>31</sup> suŋ <sup>31</sup>	pa <sup>33</sup> suŋ <sup>21</sup>
cry	uŋ <sup>55</sup>	ʔuŋ <sup>55</sup>
sky	muŋ <sup>31</sup>	muŋ <sup>21</sup>
finger	la <sup>31</sup> nuŋ <sup>55</sup>	la <sup>21</sup> hpuŋ <sup>55</sup>

## B. Cognate words in Bisu and Phunoi

Bisu also has a very close cognate relationship with the Phunoi language spoken in Laos. Some cognate words between the Huaipa dialect of Bisu and Phunoi are listed below:

### (i) Syllable onsets

Stops	Phunoi	Bisu
Word		
headscarf	tǎ páp	tu <sup>21</sup> paw <sup>33</sup>
deaf person	lě pǎ	na <sup>21</sup> paŋ <sup>21</sup>
spit	phət	phe <sup>55</sup>
tie, bind	phè	phu <sup>21</sup>
leaf	ʔǎ phà	ʔaŋ <sup>33</sup> pha <sup>21</sup>
hungry	bat	be <sup>21</sup>
dream (v.)	ba	buŋ <sup>55</sup>
drink	tǎ	taŋ <sup>55</sup>
head	ʔǎtù	ʔaŋ <sup>33</sup> tu <sup>21</sup>
ill	dá	da <sup>55</sup>
duck	kap	ʔa <sup>33</sup> kaw <sup>21</sup>
yawn	kap	ʔa <sup>33</sup> kaw <sup>21</sup>
steal	khàu	khaw <sup>21</sup>
ash	khě lǎ	kha <sup>21</sup> la <sup>21</sup>

Word	Phunoi	Bisu
fear (v.)	khət	khə <sup>33</sup>
smoke (n.)	bǎ khào	bi <sup>21</sup> khaw <sup>21</sup>
pillow	tě khú	tu <sup>21</sup> kho <sup>33</sup>
foot	lǎ khí	la <sup>21</sup> khu <sup>21</sup>
hair	sam khī	tam <sup>33</sup> khui <sup>55</sup>
bones	lǎ khó	ta <sup>21</sup> khaŋ <sup>55</sup>

### Fricatives

Word	Phunoi	Bisu
kill	sat	se <sup>21</sup>
louse	sǎn	šen <sup>21</sup>
meat	sà	ʔaŋ <sup>33</sup> sà <sup>21</sup>
claw	lǎ shíp	pa <sup>33</sup> suŋ <sup>21</sup>
liver	ʔǎ sin	ʔaŋ <sup>33</sup> tshin <sup>21</sup>
hat	tǎ sū	tu <sup>21</sup> tshoŋ <sup>21</sup>
drunk (on wine)	het	het <sup>21</sup> [Tako]
wind	há ban	haŋ <sup>55</sup> man <sup>55</sup>
chicken	hǎ ba	hja <sup>33</sup>
itchy	ʔǎ hǎ	hja <sup>21</sup>
bamboo	fiǎ	ha <sup>33</sup>
earthworm	fiət	hŋe <sup>21</sup>
eat	cà	tsa <sup>21</sup>
sweet	ʔǎcháu	tshaw <sup>55</sup>
needle	ci ke càp	khuŋ <sup>55</sup> kjaw <sup>33</sup>
sour	ʔǎ chín	khjen <sup>55</sup>
horn	ʔǎ chǎu	ʔaŋ <sup>33</sup> khjaw <sup>55</sup>
sell	hǎ	koŋ <sup>21</sup>
obtain	ja	ga <sup>33</sup>
bones	ʔǎ jǎŋ	ʔaŋ <sup>33</sup> gaw <sup>21</sup>
flower	hí wat	ve <sup>33</sup> ja <sup>21</sup>
pig	wǎ	wa <sup>33</sup>
hand	lǎ wǎ	la <sup>21</sup> wa <sup>21</sup>

### Laterals

Word	Phunoi	Bisu
water	lǎ	laŋ <sup>55</sup> ba <sup>33</sup>
moon	fǎ la	u <sup>21</sup> hla <sup>33</sup>
throat	ʔǎ lip	lmŋ <sup>55</sup> tshu <sup>55</sup>
hot	bě hlám	bi <sup>21</sup> hlam <sup>21</sup>

Nasals	Phunoi	Bisu
Word		
horse	mõ	ʔaŋ <sup>33</sup> mɔŋ <sup>21</sup>
tall	ʔã mú	ʔaŋ <sup>33</sup> hmɔŋ <sup>33</sup>
blow	hmut	hmit <sup>33</sup>
feather/ hair	hmut	ʔaŋ <sup>33</sup> hmut <sup>21</sup>
bamboo shoot	fiã hmit	ha <sup>33</sup> mit <sup>33</sup>
lungs	ʔã hmap	ʔaŋ <sup>33</sup> hmaw <sup>33</sup>
right (side)	là hmìn	la <sup>21</sup> hma <sup>33</sup>
name	ʔã hmín	ʔaŋ <sup>33</sup> hmeŋ <sup>55</sup>
knife	hmjà	hmja <sup>33</sup>
see	hmyã	hmjaŋ <sup>55</sup>
you	nã	naŋ <sup>33</sup>
nasal mucus	hnàp	hnaw <sup>21</sup>
smelly	ʔã hnàm	hnam <sup>21</sup>
deep	ʔã hnà	ʔaŋ <sup>33</sup> hna <sup>21</sup>
finger	lõ hnú	la <sup>55</sup> hnuŋ <sup>55</sup>

(ii) Syllable rhymes

Vowel rhymes	Phunoi	Bisu
Word		
obtain	ja	ga <sup>33</sup>
eat	cà	tɕa <sup>21</sup>
ill	dá	da <sup>55</sup>
knife	hmjà	hmja <sup>33</sup>
meat	sà	ʔaŋ <sup>33</sup> sa <sup>21</sup>
itchy	ʔã hjà	hja <sup>21</sup>
chicken	hja ba	hja <sup>33</sup>
moon	fõ la <sup>33</sup>	u <sup>21</sup> hla <sup>33</sup>
deep	ʔã hnà	ʔaŋ <sup>33</sup> hna <sup>21</sup>
leaf	ʔã phà	ʔaŋ <sup>33</sup> pha <sup>21</sup>
pig	wqà	wa <sup>33</sup>
palm (of hand)	lõ wqà	la <sup>21</sup> wa <sup>21</sup>
egg, spawn	həʔuʔ	ʔaŋ <sup>33</sup> ʔu <sup>33</sup>
intestines	ʔãʔú	ʔaŋ <sup>33</sup> ʔu <sup>55</sup>
head	ʔã tù	ʔaŋ <sup>33</sup> tu <sup>21</sup>
steal	khàu	khaw <sup>21</sup>
sweet	ʔã cháu	tshaw <sup>55</sup>
bones	ʔã jàŋ	ʔaŋ <sup>33</sup> gaw <sup>21</sup>
horn	ʔã cháu	ʔaŋ <sup>33</sup> khjaw <sup>55</sup>
smoke (n.)	khàu	bi <sup>21</sup> khaw <sup>21</sup>

Rhymes with nasal codas	Phunoi	Bisu
Word		
iron	hjá m	šam <sup>55</sup>
smelly	ʔã hnàm	hnam <sup>21</sup>
hot	bõ hlám	bi <sup>21</sup> hlam <sup>21</sup>
eagle	tsán ba	tsan <sup>55</sup> ba <sup>33</sup>
wind	há ban	haŋ <sup>55</sup> man <sup>55</sup>
louse	svn	šen <sup>21</sup>
liver	ʔã sìn	ʔaŋ <sup>33</sup> tshin <sup>21</sup>
sour	ʔã chín	tchin <sup>55*</sup>
you	nã	naŋ <sup>33</sup>
he	jã	jaŋ <sup>33</sup>
drink	tã sè	taŋ <sup>55</sup>
see	hmyã	hmjaŋ <sup>55</sup>
water	lã	laŋ <sup>55</sup> ba <sup>33</sup>
deaf person	lõ pã	na <sup>21</sup> paŋ <sup>21</sup>
nose	lõ kã	le <sup>33</sup> khaŋ <sup>55</sup>
horse	mõ	ʔaŋ <sup>33</sup> mɔŋ <sup>21</sup>
husband	ʔã mjõ	blɔŋ <sup>55</sup>
hat	tõ sũ	tu <sup>21</sup> tshɔŋ <sup>21</sup>
sell	hjä	kɔŋ <sup>21</sup>
hair	sam khĩ	tam <sup>33</sup> khunŋ <sup>55</sup>
full	ʔã piŋ	plunŋ <sup>33</sup>
claw	lõ shiŋ	pa <sup>33</sup> suŋ <sup>21</sup>

\*This word is in the Lanmeng dialect.

Rhymes with stop codas	Phunoi	Bisu
Word		
nasal mucus	hnàp	hnaw <sup>21</sup>
duck	kap	ʔa <sup>33</sup> kaw <sup>21</sup>
yawn	kap	ʔa <sup>33</sup> kaw <sup>21</sup>
headscarf	tõ páp	tu <sup>21</sup> paw <sup>33</sup>
lungs	ʔã hmap	ʔaŋ <sup>33</sup> hmaw <sup>33</sup>
needle	ci kə càp	khunŋ <sup>55</sup> kjaw <sup>33</sup>
spit	phát	phe <sup>55</sup>
hungry	bat	be <sup>21</sup>
fear (v.)	khát	khe <sup>33</sup>
kill	sat	se <sup>21</sup>
deer	shat	tshé <sup>33</sup>
earthworm	fiat	hje <sup>21</sup>
flower	hí wat	ve <sup>33</sup> ja <sup>21</sup>

Other languages with similar features to Bisu, Sangkong, and Phunoi include Pyen in Myanmar and Mpi in Thailand. These languages, which have close cognate relationships and similar developmental trends, together form the Bisoid branch within the Burmese-Yipho group.

#### 6.4.2 The Bisoid Branch

Languages in the Bisoid branch have cognate words with very precise phonological correspondences and similar features in their historical development.

##### A. Cognate words in languages of the Bisoid branch

###### (i) Syllable onsets

Word	Lanmeng	Huaipa	Phunoi	Mpi/Pyen*	Sangkong
deaf person	na <sup>31</sup> paŋ <sup>31</sup>	na <sup>21</sup> paŋ <sup>21</sup>	lǎ pǎ	—	na <sup>31</sup> paŋ <sup>31</sup>
untie	phu <sup>55</sup>	phu <sup>55</sup>	—	phu <sup>5</sup>	phu <sup>55</sup>
knot	phu <sup>33</sup>	phu <sup>21</sup>	phə	phu <sup>3</sup>	—
leaf	aŋ <sup>33</sup> pha <sup>31</sup>	?aŋ <sup>33</sup> pha <sup>21</sup>	?ǎ phà	—	aŋ <sup>33</sup> pha <sup>31</sup>
vomit	phe <sup>31</sup>	phe <sup>55</sup>	phət	—	phe <sup>31</sup> qha <sup>33</sup>
drink	taŋ <sup>55</sup>	taŋ <sup>55</sup>	tǎ sə	tāŋ*	taŋ <sup>55</sup>
head	aŋ <sup>33</sup> tu <sup>31</sup>	?aŋ <sup>33</sup> tu <sup>31</sup>	?ǎ tù	ang tu*	aŋ <sup>33</sup> tu <sup>31</sup>
hit	tu <sup>31</sup>	tu <sup>21</sup>	—	tü*	ti <sup>31</sup>
duck	a <sup>31</sup> kau <sup>31</sup>	ŋa <sup>33</sup> kaw <sup>21</sup>	kap	—	a <sup>31</sup> qap <sup>31</sup>
yawn (v.)	—	ŋa <sup>33</sup> kaw <sup>21</sup>	kap	—	a <sup>31</sup> qap <sup>31</sup>
steal	khau <sup>31</sup>	khaw <sup>21</sup>	khàu	kho <sup>2</sup>	qho <sup>31</sup>
smoke (n.)	mi <sup>31</sup> khau <sup>31</sup>	bi <sup>21</sup> khaw <sup>21</sup>	khàu	ŋ <sup>2</sup> khwi <sup>2</sup>	mi <sup>31</sup> qho <sup>31</sup>
hair	sam <sup>55</sup> khau <sup>55</sup>	tam <sup>33</sup> khau <sup>55</sup>	sam khī	ŋ <sup>4</sup> khui <sup>6</sup>	—
nose	na <sup>55</sup> khau <sup>55</sup>	na <sup>55</sup> khau <sup>55</sup>	lǎ kǎ	ŋ <sup>4</sup> khon <sup>6</sup>	na <sup>55</sup> qhan <sup>55</sup>
fear (v.)	khe <sup>33</sup>	khe <sup>33</sup>	khət	—	qhe <sup>33</sup>
back	nuŋ <sup>55</sup> kho <sup>55</sup>	ta <sup>21</sup> khau <sup>55</sup>	lǎ kho	—	ta <sup>31</sup> qha <sup>55</sup>
pillow	tu <sup>31</sup> khui <sup>33</sup>	tu <sup>21</sup> kho <sup>33</sup>	tě khú	—	tu <sup>31</sup> kum <sup>31</sup>
foot	la <sup>31</sup> khui <sup>31</sup>	la <sup>21</sup> khui <sup>21</sup>	lǎ khí	—	aŋ <sup>33</sup> khui <sup>55</sup>
kill	ce <sup>31</sup>	se <sup>21</sup>	sat	sət*	se <sup>31</sup>
die	ci <sup>55</sup>	ši <sup>33</sup>	—	shi*	si <sup>55</sup>
louse	cin <sup>55</sup>	šen <sup>21</sup>	sýn	—	san <sup>55</sup>
meat	sa <sup>31</sup> py <sup>31</sup>	?aŋ <sup>33</sup> sa <sup>21</sup>	sà	?a <sup>2</sup> so <sup>2</sup>	—
iron	sam <sup>55</sup>	šam <sup>55</sup>	hjáŋ	—	sam <sup>55</sup>
claw	la <sup>31</sup> suŋ <sup>31</sup>	pa <sup>33</sup> suŋ <sup>21</sup>	lǎ shìŋ	—	la <sup>31</sup> suŋ <sup>31</sup>
yellow	sɿ <sup>55</sup>	?aŋ <sup>33</sup> su <sup>55</sup>	—	hsö*	sɿ <sup>55</sup>
teeth	so <sup>31</sup> phi <sup>31</sup>	so <sup>21</sup> phje <sup>21</sup>	—	hsabye*	aŋ <sup>33</sup> so <sup>31</sup>
sleep	zu <sup>31</sup>	ju <sup>21</sup>	—	yu ngé*	zū <sup>31</sup>
house	zum <sup>55</sup>	jum <sup>55</sup>	—	yum*	zim <sup>55</sup>
pig	va <sup>31</sup>	wa <sup>33</sup>	wə̀à	wa <sup>2</sup>	wa <sup>31</sup>

Word	Lanmeng	Huaipa	Phunoi	Mpi/Pyen*	Sangkong
eat	tsa <sup>31</sup>	tsa <sup>21</sup>	cà	tco <sup>1</sup>	tsa <sup>31</sup>
eagle	tsam <sup>55</sup> ba <sup>33</sup>	tsan <sup>55</sup> ba <sup>33</sup>	tsán ba	—	tsan <sup>55</sup> mba <sup>33</sup>
sweet	aŋ <sup>33</sup> tshau <sup>55</sup>	tshaw <sup>55</sup>	?ǎ cháú	—	tcho <sup>55</sup>
deer	tche <sup>33</sup>	tshe <sup>33</sup>	shat	shat*	ho <sup>33</sup> tshé <sup>33</sup>
hand	la <sup>31</sup> pu <sup>31</sup>	la <sup>21</sup> pu <sup>21</sup>	lǎ wə̀a	la pu*	aŋ <sup>33</sup> la <sup>31</sup>
moon	u <sup>31</sup> la <sup>33</sup>	u <sup>21</sup> hla <sup>33</sup>	fě la	u la*	pe <sup>31</sup> la <sup>33</sup>
come	la <sup>55</sup>	la <sup>55</sup>	—	lo <sup>3</sup> /la	la <sup>55</sup>
water	laŋ <sup>55</sup> tsho <sup>31</sup>	laŋ <sup>55</sup> ba <sup>33</sup>	lǎ	—	laŋ <sup>55</sup> tcho <sup>31</sup>
throat	luŋ <sup>55</sup> tshɿ <sup>31</sup>	luŋ <sup>55</sup> tshui <sup>55</sup>	?ǎ liŋ	—	luŋ <sup>55</sup> tshɿ <sup>31</sup>

###### (ii) Syllable rhymes

Word	Lanmeng	Huaipa	Phunoi	Mpi/Pyen*	Sangkong
head	aŋ <sup>33</sup> tu <sup>31</sup>	?aŋ <sup>33</sup> tu <sup>21</sup>	?ǎ tù	ang tu*	aŋ <sup>33</sup> tu <sup>31</sup>
egg, spawn	aŋ <sup>33</sup> u <sup>33</sup>	?aŋ <sup>33</sup> u <sup>33</sup>	hə ?u?	?a <sup>2</sup> ?u <sup>4</sup>	aŋ <sup>33</sup> u <sup>33</sup>
intestines	aŋ <sup>33</sup> u <sup>55</sup>	?aŋ <sup>33</sup> ?u <sup>55</sup>	?ǎ ?ú	?a <sup>2</sup> u <sup>6</sup>	aŋ <sup>33</sup> u <sup>55</sup>
sleep	zu <sup>31</sup>	ju <sup>21</sup>	—	yu ngé*	zū <sup>31</sup>
chicken	za <sup>33</sup>	hja <sup>33</sup>	hja ba	wa <sup>4</sup>	xǎ <sup>33</sup>
moon	u <sup>31</sup> la <sup>33</sup>	u <sup>21</sup> hla <sup>33</sup>	fě la	u la	pe <sup>31</sup> la <sup>33</sup>
ill	da <sup>55</sup>	da <sup>55</sup>	dá ce	—	nda <sup>55</sup>
leaf	aŋ <sup>33</sup> pha <sup>31</sup>	?aŋ <sup>33</sup> pha <sup>21</sup>	?ǎ phà	—	aŋ <sup>33</sup> pha <sup>31</sup>
heart	luŋ <sup>33</sup> ba <sup>33</sup>	nuŋ <sup>33</sup> ba <sup>33</sup>	lǎ bà	—	nuŋ <sup>33</sup> mba <sup>33</sup>
pig	va <sup>31</sup>	wa <sup>33</sup>	wə̀a	wa <sup>2</sup>	wa <sup>31</sup>
hand	la <sup>31</sup> pu <sup>31</sup>	la <sup>21</sup> pu <sup>21</sup>	lǎ wə̀a	la pu*	aŋ <sup>33</sup> la <sup>31</sup>
knife	mja <sup>33</sup>	hmja <sup>33</sup>	hmjǎ	mjo <sup>4</sup>	mja <sup>33</sup>
eat	tsa <sup>31</sup>	tsa <sup>21</sup>	cà ce	tco <sup>1</sup>	tsa <sup>31</sup>
meat	sa <sup>31</sup> py <sup>31</sup>	?aŋ <sup>33</sup> sa <sup>21</sup>	sà	?a <sup>2</sup> so <sup>2</sup>	tsha <sup>31</sup> tshon <sup>55</sup>
come	la <sup>55</sup>	la <sup>55</sup>	—	lo <sup>3</sup>	la <sup>55</sup>
I	ga <sup>33</sup>	ga <sup>33</sup>	—	ŋo <sup>6</sup>	ŋa <sup>55</sup>
five	ŋa <sup>31</sup>	—	?ǎ	ŋo <sup>2</sup>	ŋa <sup>31</sup>
arrow	ba <sup>31</sup>	bla <sup>21</sup>	bǎ la	mjo <sup>2</sup>	mba <sup>31</sup>
bee	pja <sup>31</sup>	pja <sup>21</sup>	—	pjo <sup>2</sup>	pja <sup>31</sup>
frog	—	—	p'ǎ	pho <sup>2</sup> ?e <sup>6</sup>	pha <sup>31</sup> ŋga <sup>31</sup>
sweet	aŋ <sup>33</sup> tshau <sup>55</sup>	tshaw <sup>55</sup>	?ǎ cháú	—	tcho <sup>55</sup>
bones	sa <sup>31</sup> gau <sup>31</sup>	?aŋ <sup>33</sup> gau <sup>21</sup>	?ǎ jáú	āŋ kau*	aŋ <sup>33</sup> zə <sup>31</sup>
smoke (n.)	mi <sup>31</sup> khau <sup>31</sup>	bi <sup>21</sup> khaw <sup>21</sup>	khàu	ŋ <sup>2</sup> khwi <sup>2</sup>	mi <sup>31</sup> qho <sup>31</sup>
horn	aŋ <sup>33</sup> khjau <sup>55</sup>	?aŋ <sup>33</sup> khjaw <sup>55</sup>	?ǎ cháú	ŋ <sup>2</sup> khui <sup>6</sup>	aŋ <sup>33</sup> tcho <sup>55</sup>
steal	khau <sup>31</sup>	khaw <sup>21</sup>	khàu ce	kho <sup>2</sup>	qho <sup>31</sup>



Words marked with asterisks in the above two tables of correspondences among syllable onsets and rhymes are from the Pyen language.

### B. Phonological development in the Bisoid branch

Languages in the Bisoid branch have very similar characteristics to Bisu, including the retention, to varying extents, of features which differ from other Burmese-Yipho languages. These features include complex onsets, rhymes with nasal codas, and rhymes with stop codas. Their developmental progression is essentially identical to that of Bisu in many respects, such as: the change from nasal onsets towards voiced stops, the many levels of change in complex onsets, the decrease in the number of categories of rhymes with nasal codas, and the retention of rhymes with stop codas. Investigation of these languages can provide a more complete and detailed description of developmental trends in Bisu.

(1) Correspondences within languages of the Bisoid branch reflect the entire process of the change from nasals to voiced stops:

- Mpi is the only language in the Bisoid branch which does not exhibit this change. It has nasal onsets, which are also found in Lahu, a language in the Yipho branch.
- Sangkong has prenasalised voiced stops, which indicates a position midway in the transitional stage of development.
- in the remaining languages, the change is already complete. Nasals have either become syllable onsets with nasal characteristics or pure voiced stops, as in the examples below:

Word	Hani	Mpi	Sangkong	Phunoi	Lanmeng	Huaipa
hungry	me <sup>31</sup>	meʔ	mbe <sup>31</sup>	bat	be <sup>31</sup>	be <sup>21</sup>
arrow	ka <sup>33</sup> mja <sup>31</sup>	mjo <sup>2</sup>	mba <sup>31</sup>	bǎ la	ba <sup>31</sup>	bla <sup>21</sup>
dream (n.)	ju <sup>31</sup> ma <sup>33</sup>	maŋʔ <sup>2</sup>	zu <sup>31</sup> mba <sup>33</sup>	jup ba	me <sup>33</sup> btun <sup>55</sup>	me <sup>21</sup> btun <sup>55</sup>
heart	nur <sup>33</sup> ma <sup>33</sup>	—	nuŋ <sup>33</sup> mba <sup>33</sup>	lǎ bà	luŋ <sup>33</sup> ba <sup>33</sup>	nuŋ <sup>33</sup> ba <sup>33</sup>
many	mɔ <sup>31</sup>	mjo <sup>2</sup>	mbja <sup>31</sup>	—	bja <sup>31</sup>	ʔaŋ <sup>33</sup> bja <sup>21</sup>
ill	na <sup>55</sup>	—	nda <sup>55</sup>	dá	da <sup>55</sup>	da <sup>55</sup>
early	na <sup>31</sup>	naŋ <sup>1</sup>	nda <sup>31</sup>	—	da <sup>31</sup>	—
l	ŋa <sup>55</sup>	ŋo <sup>6</sup>	ŋa <sup>55</sup>	—	ga <sup>33</sup>	ga <sup>33</sup>

(2) In the languages of the Bisoid branch, voiceless nasals and laterals are retained not only in the Huaipa and Tako dialects of Bisu, but also in Phunoi. Therefore, the progression of voiceless nasals and laterals is clearly reflected in correspondences between these languages, as in the following examples:

Word	Huaipa	Phunoi	Sangkong	Lanmeng	Mpi
knife	hmja <sup>33</sup>	hmjà	mja <sup>33</sup>	mja <sup>33</sup>	mjo <sup>4</sup>
see	hmjaŋ <sup>55</sup>	hmyã	mjaŋ <sup>55</sup>	mjaŋ <sup>55</sup>	mjaŋ <sup>5</sup>
name	ʔaŋ <sup>33</sup> hmen <sup>55</sup>	ʔã hmín	aŋ <sup>33</sup> miŋ <sup>55</sup>	aŋ <sup>33</sup> miŋ <sup>55</sup>	m <sup>2</sup> mi <sup>6</sup>
tall	ʔaŋ <sup>33</sup> hmɔŋ <sup>33</sup>	ʔã mú	moŋ <sup>33</sup>	aŋ <sup>33</sup> moŋ <sup>33</sup>	mjuŋ <sup>5</sup>
good	hmen <sup>21</sup>	—	maŋ <sup>33*</sup>	men <sup>21</sup>	—
right (side)	la <sup>21</sup> hma <sup>33</sup>	là hmin	a <sup>55</sup> ma <sup>55</sup>	la <sup>31</sup> ma <sup>31</sup>	—

Word	Huaipa	Phunoi	Sangkong	Lanmeng	Mpi
feather	ʔaŋ <sup>33</sup> hmu <sup>21</sup>	hmut	mja <sup>33</sup> mu <sup>31</sup>	aŋ <sup>33</sup> my <sup>31</sup>	—
lungs	ʔaŋ <sup>33</sup> hmaw <sup>33</sup>	ʔã hmap	aŋ <sup>33</sup> phap <sup>31</sup>	aŋ <sup>33</sup> map <sup>33</sup>	—
deep	ʔaŋ <sup>33</sup> hna <sup>21</sup>	ʔã hnà	na <sup>31</sup>	na <sup>31</sup>	naŋ <sup>1</sup>
smelly	hnam <sup>21</sup>	ʔã hnàm	nam <sup>55</sup>	nam <sup>55</sup>	—
nasal mucus	hnaw <sup>21</sup>	hnàp	nap <sup>31</sup>	nau <sup>31</sup>	—
low	hñum <sup>33</sup>	—	nim <sup>33</sup>	num <sup>55</sup>	niŋ <sup>2</sup>
short	ʔaŋ <sup>33</sup> hjum <sup>55</sup>	—	y <sup>33</sup>	—	niŋ <sup>5</sup>
finger	la <sup>21</sup> hjuŋ <sup>55</sup>	lǎ hju	la <sup>31</sup> nuŋ <sup>55</sup>	la <sup>31</sup> nu <sup>31</sup>	—
very hot	bi <sup>21</sup> hlam <sup>21</sup>	bǎ hlám	hem <sup>55*</sup>	lum <sup>55</sup>	—

In the above table, the Sangkong words [maŋ<sup>33</sup>] and [hem<sup>55</sup>] mean “beautiful” and “roast” respectively.

(3) In the Bisoid branch, complex onsets have been retained not only in Bisu, but also in Pyen and Mpi. In particular, very typical forms are found in Pyen, and they show good correspondences with complex onsets in the Huaipa dialect of Bisu, as in the words below:

Word	true	silver	lightning	husband	drop	wide
Huaipa	ʔaŋ <sup>33</sup> plɔŋ <sup>33</sup>	phlu <sup>55</sup>	muŋ <sup>21</sup> blap <sup>21</sup>	blɔŋ <sup>55</sup>	kla <sup>33</sup>	ʔaŋ <sup>33</sup> klɔu <sup>55</sup>
Pyen	plawg	plu	bung blāp	ang plawg	kla ang	klō

Consonant clusters in Mpi are palatalised, with both [-j-] and [-r-] type complex onsets. In a few words, palatalisation has disappeared and the onsets have become single consonants. The words in the table below show these correspondences: Burmese [-r-]/[-j-] : Huaipa dialect of Bisu [-l-]/[-j-] : Mpi [-j-], indicating the merging of consonants in Mpi:

Word	Burmese	Huaipa (Bisu)	Mpi
bee	pja <sup>3</sup>	pja <sup>21</sup>	pjo <sup>2</sup>
many	mja <sup>3</sup>	ʔaŋ <sup>33</sup> bja <sup>21</sup>	mjo <sup>2</sup>
horn	khjo <sup>2</sup>	ʔaŋ <sup>33</sup> khjaw <sup>55</sup>	ŋ <sup>2</sup> khur <sup>6</sup>
full	pran <sup>1</sup>	pluŋ <sup>33</sup>	pju <sup>3</sup>
pus	pran <sup>2</sup>	ʔaŋ <sup>33</sup> ʔum <sup>55</sup>	pju <sup>6</sup>
arrow	hmra <sup>3</sup>	bla <sup>21</sup>	mjo <sup>2</sup>
see	mraŋ <sup>2</sup>	hmjaŋ <sup>55</sup>	mjaŋ <sup>5</sup>
horse	mraŋ <sup>3</sup>	ʔaŋ <sup>33</sup> mɔŋ <sup>21</sup>	mjuŋ <sup>2</sup>
tall	mraŋ <sup>1</sup>	ʔaŋ <sup>33</sup> hmɔŋ <sup>33</sup>	mjuŋ <sup>5</sup>
mosquito	khraŋ <sup>2</sup>	—	ŋ <sup>4</sup> kjuŋ <sup>5</sup>

(4) Although there are only a few types of rhymes with nasal codas in the languages of the Bisoid branch, their distribution is relatively widespread, and they have been retained in all the languages, as in the following examples:

Word	Lanmeng	Huaiipa	Sangkong	Phunoi
iron	sam <sup>55</sup>	šam <sup>55</sup>	sam <sup>55</sup>	hjá̃m
smelly	nam <sup>55</sup>	hnam <sup>21</sup>	nam <sup>55</sup>	ʔǎ hnàm
very hot	lum <sup>55</sup>	bi <sup>21</sup> hlam <sup>21</sup>	hem <sup>55</sup> (roast)	bǎ hlám
eagle	tsam <sup>55</sup> ba <sup>33</sup>	tsan <sup>55</sup> ba <sup>33</sup>	tsan <sup>55</sup> mba <sup>33</sup>	tsán ba
wind	xa <sup>55</sup> man <sup>55</sup>	haŋ <sup>55</sup> man <sup>55</sup>	ho <sup>55</sup> mban <sup>55</sup>	há ban
sour	aŋ <sup>33</sup> tchin <sup>55</sup>	khjen <sup>55</sup>	tchan <sup>55</sup>	ʔǎ chin
louse	çin <sup>55</sup>	šen <sup>21</sup>	san <sup>55</sup>	sýn
see	aŋ <sup>33</sup> mjaŋ <sup>55</sup>	hmjaŋ <sup>55</sup>	hu <sup>33</sup> mjaŋ <sup>55</sup>	hmyǎ
nose	na <sup>55</sup> khaŋ <sup>55</sup>	na <sup>55</sup> khaŋ <sup>55</sup>	na <sup>55</sup> qhaŋ <sup>55</sup>	lǎ kǎ
drink	taŋ <sup>55</sup>	taŋ <sup>55</sup>	taŋ <sup>55</sup>	tǎ sǎ
he	zaŋ <sup>33</sup>	jaŋ <sup>33</sup>	thaŋ <sup>55</sup>	jǎ
you	naŋ <sup>33</sup>	naŋ <sup>33</sup>	naŋ <sup>55</sup>	nǎ
deaf person	na <sup>31</sup> paŋ <sup>31</sup>	na <sup>21</sup> paŋ <sup>21</sup>	na <sup>31</sup> paŋ <sup>31</sup>	lǎ pǎ
water	laŋ <sup>55</sup> tsho <sup>31</sup>	laŋ <sup>55</sup> ba <sup>33</sup>	laŋ <sup>55</sup> tchq <sup>31</sup>	lǎ
horse	a <sup>31</sup> moŋ <sup>31</sup>	aŋ <sup>33</sup> mɔŋ <sup>21</sup>	a <sup>31</sup> mboŋ <sup>31</sup>	mǎ
husband	aŋ <sup>33</sup> boŋ <sup>55</sup>	blɔŋ <sup>55</sup>	aŋ <sup>33</sup> mboŋ <sup>55</sup>	ʔǎ miǒ

The development of rhymes with nasal codas in the languages of the Bisoid branch is essentially similar to that in Bisu. There are three types of nasal codas: [-m], [-n], and [-ŋ], with the [-ŋ] codas being more completely retained. There are very few words containing the other two types of codas, which are tending towards assimilation.

Assimilation is an important feature of the development of nasal codas in Burmese-Yipho languages, and the situation is rather complex. The following are two more typical examples:

The nasal codas [im], [em], [om], and [um] in Sangkong have combined to form a single category [um] in Bisu, as in the following examples:

Word	Sangkong	Bisu	Word	Sangkong	Bisu
low	nim <sup>33</sup>	hñum <sup>33</sup>	bury	phòm <sup>31</sup>	phum <sup>33</sup>
home	zim <sup>55</sup>	jum <sup>55</sup>	taro	pòm <sup>31</sup>	plum <sup>33</sup>
wear	tem <sup>33</sup>	tum <sup>55</sup>	first	lum <sup>55</sup>	ʔaŋ <sup>33</sup> lum <sup>21</sup>
ladle	tshem <sup>55</sup> si <sup>31</sup>	tɔŋ <sup>21</sup> tshum <sup>55</sup>			

Development of nasal codas in Mpi has been relatively fast, with the elimination of many nasal codas and the retention of only the [-ŋ] type, with the other types having been assimilated into this one type, as shown below.

Word	Bisu	Sangkong	Mpi
see	hmjaŋ <sup>51</sup>	hu <sup>33</sup> mjaŋ <sup>55</sup>	mjaŋ <sup>5</sup>
black	ʔaŋ <sup>33</sup> plaj <sup>55</sup>	—	haŋ <sup>23</sup>
horse	ʔaŋ <sup>33</sup> mɔŋ <sup>21</sup>	a <sup>31</sup> mboŋ <sup>31</sup>	mjuŋ <sup>5</sup>
tall	ʔaŋ <sup>33</sup> hmoŋ <sup>33</sup>	moŋ <sup>33</sup>	mjuŋ <sup>5</sup>
short	ʔaŋ <sup>33</sup> hɲum <sup>55</sup>	nim <sup>55</sup>	niŋ <sup>5</sup>
low	ñum <sup>33</sup>	nim <sup>33</sup>	niŋ <sup>2</sup>
thread	khuaŋ <sup>33</sup>	khuaŋ <sup>55</sup>	pi <sup>2</sup> khua <sup>4</sup>
full	pluaŋ <sup>33</sup>	puŋ <sup>33</sup>	pju <sup>3</sup>

Nasal codas in Phunoi, however, reveal features which differ from other languages in the Bisoid branch. The two types [-m] and [-n] have been retained, while the [-ŋ] coda, which has been retained in the majority of languages, has been eliminated. Instead, vowels have become nasalised. Thus, in comparing cognate words within this branch, rhymes with nasalised vowels in Phunoi form correspondences with rhymes with [-ŋ] codas in the other languages: [ǎ] : [aŋ] and [ǒ] : [oŋ]/[ɔŋ]. For specific examples, see the previous tables of corresponding cognate words.

(5) Stop codas have been retained in the Bisoid branch. Bisu has only two types of codas: [-p] and [-t]. The rhymes [ap] and [at], formed by the combination of these codas with the vowel [a], still appear in many words in languages such as Phunoi. The [ap] rhyme has been retained in Sangkong, but the [at] rhymes have all become the tense vowel rhyme [ɛ], reflecting one of the stages in the development of stop codas. The correspondences between some of the words in these languages [at] : [ɛ] : [e] illustrate the developmental pathway from stop codas to monophthong codas, as shown below.

Word	Burmese	Phunoi	Sangkong	Lanmeng	Huaiipa
lungs	a <sup>1</sup> hsup	ʔǎ hmap	aŋ <sup>33</sup> phap <sup>31</sup>	aŋ <sup>33</sup> map <sup>33</sup>	aŋ <sup>33</sup> hmaw <sup>33</sup>
nasal mucus	hnap	hnàp	nap <sup>31</sup>	nau <sup>31</sup>	hnaw <sup>21</sup>
needle	ap	ci ke càp	ku <sup>31</sup> kap <sup>31</sup>	khuaŋ <sup>31</sup> kjau <sup>31</sup>	khuaŋ <sup>55</sup> kjaw <sup>33</sup>
duck	—	kap	a <sup>31</sup> qap <sup>31</sup>	a <sup>31</sup> kau <sup>31</sup>	a <sup>33</sup> kaw <sup>21</sup>
headscarf	—	tǎ páp	tu <sup>31</sup> pap <sup>33</sup>	—	tu <sup>31</sup> paw <sup>33</sup>
yawn (v.)	—	kap	a <sup>31</sup> qap <sup>31</sup>	—	a <sup>33</sup> kaw <sup>21</sup>
deer	tshat <sup>55*</sup>	shat	ho <sup>33</sup> tshé <sup>33</sup>	tché <sup>33</sup>	tshé <sup>33</sup>
kill	that	sat	sé <sup>31</sup>	ce <sup>31</sup>	se <sup>21</sup>
fear (v.)f	krək	khàt	qhe <sup>33</sup>	khe <sup>33</sup>	khe <sup>33</sup>
hungry	tso <sup>21</sup> mut <sup>55*</sup>	bat	mbé <sup>31</sup>	be <sup>1</sup>	bé <sup>21</sup>
vomit	—	phàt	phé <sup>31</sup> qha <sup>33</sup>	phe <sup>31</sup>	phe <sup>55</sup>
earthworm	—	fiat	ŋe <sup>31</sup>	—	hŋe <sup>21</sup>
flower	—	hí wat	aŋ <sup>33</sup> zə <sup>33</sup>	aŋ <sup>33</sup> ve <sup>33</sup>	ve <sup>33</sup> ja <sup>21</sup>

The two words marked with asterisks in the above table are from Zaiwa.

The above discussion represents a comparative analysis of the cognate words and the phonological correspondences between some of the languages in the Bisoid branch. As many of the languages in this branch are spoken outside China, language data available for study are restricted, so that current knowledge of this branch is still fairly limited. Nonetheless, the very intimate cognate relationship between Bisu and these languages may be clearly seen, as well as their consistency with respect to phonological features and historical development. Therefore, Bisu may be considered to be an important language in the Bisoid branch of the Burmese-Yipho group, in that it possesses many of the characteristics seen in this branch.

## 6.5 Effects of Contact with Other Languages

Languages which are spoken by neighbours of the Bisu people, except for related languages such as Lahu and Hani, include mainly Thai/Dai languages spoken in the different countries. The Thai/Dai languages have large numbers of speakers and an extensive geographical distribution. The living conditions of speakers of these languages are also relatively advanced. Therefore, with their linguistic and social advantages, Thai/Dai languages have exerted a considerable influence on Bisu during the long history of contact. The results of this influence may be expressed in features which are multi-level, bi-dimensional, and bi-directional.

### 6.5.1 The Multi-Level Nature of the Effects of Contact

The first indication of the influence exerted by the Thai/Dai languages on Bisu is the assimilation of large numbers of Thai/Dai loan words. These loan words have merged with Bisu words, and have greatly substantiated the Bisu lexical system. This is the most direct and obvious result of contact with the Thai/Dai languages.

However, the influence of the Thai/Dai languages is not limited to the lexicon, but also involves many other aspects of Bisu. Along with the assimilation of loan words, new semantic concepts were added to Bisu. Rearrangements of some of the original distinctions in semantic categories and their ways of expression occurred, leading to more meticulous and accurate descriptions. The semantic range of Bisu has thereby been expanded and deepened, with added expressive power.

The addition of new vowel phonemes to the phonological system has led to reorganisation of contrastive relationships. For those phonological features which were in transition, these new elements have acted as stabilising factors. Therefore, Bisu has distinct characteristics which are seen in its stop codas, voiceless nasal and lateral syllable onsets, and complex onsets.

With regard to grammar, the cardinal numbers, which are usually more stable (including the numbers 1 to 10 and also words such as "hundred" and "thousand"), have been entirely replaced by Thai numerals. Word order has also been affected by contact with the Thai/Dai languages. The order in Bisu is OV, which is identical to other Tibeto-Burman languages, while it is VO in the Thai/Dai languages. However, due to the long period of contact, the traditional word order in the Bisu spoken in China has undergone changes. Under certain conditions, such as when the particle [na<sup>33</sup>] (representing the patient) is used, the object may follow the verb. Thus, the sentence, "[You] tell me quickly", may have the alternative word orders of:

Traditional word order	na <sup>33</sup>	ga <sup>33</sup>	na <sup>33</sup>	vai <sup>31</sup>	ne <sup>33</sup>	up <sup>31</sup> la <sup>31</sup> va <sup>31</sup> .
	you	I	(part.)	quickly	(part.)	tell
Changing word order	na <sup>33</sup>	vai <sup>31</sup>	ne <sup>33</sup>	up <sup>31</sup> la <sup>31</sup> va <sup>31</sup>	ga <sup>33</sup>	na <sup>33</sup> .
	you	quickly	(part.)	tell	I	(part.)

Although this change in word order is seldom encountered, its presence indicates that contact with other languages has already started to lead to changes in grammatical structures which are generally considered to be relatively stable.

The varying extents of change in the lexical, semantic, phonological, and grammatical systems indicate the multi-level nature of the influence of the Thai/Dai languages on all aspects of the Bisu language.

### 6.5.2 The Bi-Dimensional Nature of the Effects of Contact

The influence of the Thai/Dai languages on Bisu due to contact may be expressed in both vertical and horizontal dimensions.

Vertical influences involve both surface and more fundamental or deeper changes in Bisu. Contact between languages usually starts by the assimilation of loan words, so that initial changes are seen in the lexicon, then in the semantic system. With time, there is a deepening of the extent of influence, which gradually involves systems which are not usually easily influenced by external influences, such as phonology and grammar. The influence of the Thai/Dai languages, which has led to varying extents of change in all aspects of Bisu, indicates that these changes have already reached a certain depth.

Horizontal influences are those which have led to changes in the internal relationships within Bisu itself, leading to the formation of regional dialects and vernaculars, and the subsequent expansion of these differences. Although the Bisu people are geographically dispersed, with very loose associations between different regions, they have nonetheless not combined with other language families or other ethnic groups. The internal consistency of the language is relatively strong, with distinctive characteristics. Unlike Yi, Hani, and Lahu, Bisu has dialects which are very different owing to their scattered distribution. One of the major reasons for the formation of different regional dialects is contact with other languages, especially from Thai/Dai languages. As the influences from these languages are different, the dialects also differ in many ways.

Firstly, the languages which have influenced them are different. The Huaipa and Tako dialects in Thailand have mainly been influenced by Thai, including standard and northern Thai, while the Lanmeng dialect in China has mainly been influenced by Dai, especially Xishuangbanna Dai, and also by Chinese. Thus, the dialects in the two countries have assimilated elements of Thai or Dai and Chinese, leading to dialectal differences. A preliminary comparison of commonly used words reveals that, between the Huaipa and Tako dialects in Thailand, 24.3% of words are different. When these two dialects are compared with the Lanmeng dialect in China, the figures are 27.15% and 36.49%, with these differences being largely related to the source of the loan words.

Secondly, the languages have been influenced to varying degrees. Some dialects and vernaculars have been greatly affected, and the extent of the changes which have occurred is also great. In the two dialects which have both been influenced by Thai, the Tako dialect has been influenced more than the Huaipa dialect. In the two vernaculars of the Lanmeng dialect, which have both been influenced by Xishuangbanna Dai, the Laopin vernacular has been more greatly influenced than the Laomian vernacular. Comparison of these dialects and vernaculars reveals clearly the differences which may result from varying degrees of influence from the same foreign languages.

Difference in the specific content of the influence from other languages are also important in the formation of dialectal differences. Some dialects may be affected by certain

aspects of Thai/Dai, while other dialects may be affected by other aspects and therefore show different changes.

### 6.5.3 The Bi-Directional Nature of the Effects of Contact

Contact with other languages has bi-directional results on the development of the language being influenced, so that language change may be accelerated, or development may be restrained. The influence of the Thai/Dai languages on Bisu shows this bi-directional feature. On the one hand, the Thai/Dai languages have led to changes in some inherent characteristics of Bisu, leading to some new features which did not exist in the original language, thus leading to a certain degree of language change. On the other hand, features in Thai/Dai which are similar to those characteristics inherent in Bisu have had a consolidating and strengthening function, so that some features which were in transition have been stabilised and retained for a longer period of time, thus halting or retarding the development of certain linguistic phenomena.

Therefore, the bi-directional nature of the effects of contact has not only enabled contact with the Thai/Dai languages to be the primary reason for the formation of the Bisu dialects, but it is also an important factor in giving Bisu its particular position mid-way between the Burmese and Yipho branches in the Burmese-Yipho group.

## Appendix 1: Lexicon

### 1. Nature, Natural Phenomena

#### 1.1 Sky and Weather

muŋ <sup>31</sup> nuŋ <sup>31</sup>	sun
u <sup>31</sup> la <sup>33</sup>	moon
u <sup>31</sup> ku <sup>33</sup>	star
ky <sup>31</sup> lau <sup>33</sup> saŋ <sup>55</sup>	Venus
phu <sup>55</sup> ba <sup>33</sup>	meteor
aŋ <sup>33</sup> sa <sup>31</sup>	air
nuŋ <sup>55</sup> tsha <sup>55</sup>	sunshine, weather
nuŋ <sup>31</sup> saŋ <sup>31</sup> nuŋ <sup>55</sup> saŋ <sup>55</sup>	fine weather
muŋ <sup>31</sup> bvn <sup>31</sup>	cloud
ciŋ <sup>33</sup> thvŋ <sup>33</sup> laŋ <sup>55</sup> ba <sup>33</sup>	rainbow
tam <sup>31</sup> tham <sup>31</sup>	fog
me <sup>55</sup>	frost
tsho <sup>31</sup> ba <sup>33</sup> laŋ <sup>55</sup>	dew
xa <sup>55</sup> man <sup>55</sup>	wind
muŋ <sup>31</sup> tei <sup>31</sup> khuiŋ <sup>31</sup> , the <sup>55</sup> le <sup>55</sup>	thunder
muŋ <sup>31</sup> bap <sup>31</sup>	lightning
muŋ <sup>31</sup> xo <sup>31</sup> , bu <sup>31</sup> xau <sup>31</sup>	rain
xo <sup>55</sup> lo <sup>33</sup>	snow
u <sup>31</sup> la <sup>33</sup> ci <sup>55</sup>	be waning (of the moon) (v.)
la <sup>33</sup> tche <sup>33</sup>	be moonless (of night) (v.)
pu <sup>33</sup> pu <sup>33</sup> pen <sup>55</sup> pen <sup>55</sup>	the day breaks (just before dawn) (v.)
pen <sup>55</sup> saŋ <sup>55</sup> saŋ <sup>55</sup>	the sky first becomes bright (v.)
muŋ <sup>31</sup> nuŋ <sup>31</sup> ok <sup>31</sup>	the sun rises
muŋ <sup>31</sup> nuŋ <sup>31</sup> to <sup>33</sup>	the sun comes out
u <sup>31</sup> la <sup>33</sup> to <sup>33</sup>	the moon comes out
u <sup>31</sup> la <sup>33</sup> moŋ <sup>33</sup>	the moon rises
u <sup>31</sup> ku <sup>33</sup> ko <sup>33</sup>	the stars come out
phu <sup>55</sup> ba <sup>33</sup> ka <sup>33</sup>	(of a meteorite) fall from the sky or outer space
muŋ <sup>31</sup> bvn <sup>31</sup> aŋ <sup>33</sup> pa <sup>55</sup>	the moon is hidden by clouds
muŋ <sup>31</sup> nuŋ <sup>31</sup> tsha <sup>31</sup> la <sup>31</sup> tsha <sup>31</sup>	solar eclipse
u <sup>31</sup> la <sup>33</sup> pha <sup>31</sup> za <sup>31</sup> tsha <sup>31</sup>	lunar eclipse
my <sup>31</sup> tsho <sup>31</sup> me <sup>31</sup>	overcast day
muŋ <sup>31</sup> bvn <sup>31</sup> ba <sup>31</sup> saŋ <sup>31</sup>	cloudy day
muŋ <sup>31</sup> xo <sup>31</sup> lu <sup>33</sup>	rain
the <sup>55</sup> le <sup>55</sup> ka <sup>33</sup>	thunder (v.)
muŋ <sup>31</sup> bap <sup>31</sup> bap <sup>31</sup>	the lightning flashes (v.)

khi<sup>31</sup>  
 tsho<sup>31</sup>  
 muŋ<sup>31</sup>sap<sup>31</sup>  
 thaŋ<sup>31</sup>phe<sup>31</sup>  
 (xa<sup>55</sup>man<sup>55</sup>)to<sup>33</sup>  
 (xa<sup>55</sup>man<sup>55</sup>)cen<sup>31</sup>, tchit<sup>33</sup>  
 lau<sup>31</sup>ku<sup>33</sup>  
 xo<sup>55</sup>lo<sup>33</sup>ka<sup>33</sup>  
 tam<sup>31</sup>tham<sup>31</sup>ka<sup>33</sup>  
 me<sup>55</sup>ka<sup>33</sup>  
 tsho<sup>31</sup>mja<sup>31</sup>  
 me<sup>55</sup>phe<sup>33</sup>  
 me<sup>55</sup>lo<sup>33</sup>  
 thi<sup>31</sup>zam<sup>31</sup>thi<sup>31</sup>zam<sup>31</sup>lum<sup>55</sup>  
 ku<sup>55</sup>  
 aŋ<sup>33</sup>kon<sup>55</sup>

## 1.2 Earth and Fire

mi<sup>31</sup>tho<sup>31</sup>  
 kha<sup>55</sup>my<sup>31</sup>li<sup>55</sup>tei<sup>33</sup>  
 mi<sup>31</sup>lam<sup>31</sup>  
 mi<sup>31</sup>taŋ<sup>31</sup>  
 mi<sup>31</sup>tei<sup>33</sup>  
 mi<sup>31</sup>khau<sup>31</sup>  
 khaŋ<sup>33</sup>ku<sup>33</sup>  
 aŋ<sup>33</sup>mvŋ<sup>55</sup>  
 aŋ<sup>33</sup>xon<sup>55</sup>  
 aŋ<sup>33</sup>khon<sup>55</sup>  
 min<sup>55</sup>kvŋ<sup>31</sup>  
 laŋ<sup>55</sup>tsho<sup>31</sup>  
 laŋ<sup>55</sup>phup<sup>33</sup>  
 laŋ<sup>55</sup>ba<sup>33</sup>  
 laŋ<sup>55</sup>man<sup>55</sup>  
 laŋ<sup>55</sup>tsu<sup>31</sup>  
 laŋ<sup>55</sup>khon<sup>33</sup>  
 laŋ<sup>55</sup>khun<sup>31</sup>  
 loŋ<sup>33</sup>thum<sup>31</sup>  
 laŋ<sup>55</sup>phu<sup>31</sup>  
 laŋ<sup>55</sup>lo<sup>33</sup>  
 laŋ<sup>55</sup>vn<sup>33</sup>  
 sai<sup>31</sup>s<sup>31</sup>  
 aŋ<sup>33</sup>phik<sup>33</sup>

(sky) dark (adj.)  
 fine (of weather) (adj.)  
 cloudy (adj.)  
 get wet in the rain  
 blow (of wind)  
 die down (of wind)  
 dry in the sun  
 snow (v.)  
 fog descends (v.)  
 frost descends (v.)  
 turn, or become cold  
 turn to frost  
 freeze  
 become warm  
 thaw (of snow)  
 solidify

fire  
 charcoal  
 flame, spark  
 torch  
 tinder  
 smoke (n.)  
 dry in front of a fire (v.)  
 plain  
 pass (n.)  
 cave  
 hills  
 water  
 spring  
 river, sea  
 upper reaches (of a river)  
 middle reaches (of a river)  
 lower reaches (of a river)  
 flood  
 pond  
 waterfall  
 wave  
 whirlpool  
 sand  
 crevice

khon<sup>55</sup>kja<sup>55</sup>  
 tshon<sup>31</sup>kon<sup>31</sup>  
 khon<sup>55</sup>kja<sup>55</sup>min<sup>55</sup>ku<sup>31</sup>  
 tu<sup>31</sup>phu<sup>33</sup>  
 toŋ<sup>31</sup>ka<sup>31</sup>  
 aŋ<sup>33</sup>phjaŋ<sup>33</sup>  
 lo<sup>33</sup>ku<sup>55</sup>  
 lo<sup>33</sup>ba<sup>33</sup>  
 tson<sup>55</sup>tson<sup>55</sup>  
 khon<sup>55</sup>kja<sup>55</sup>kon<sup>55</sup>nuŋ<sup>55</sup>

ke<sup>55</sup>ta<sup>33</sup>  
 toŋ<sup>31</sup>po<sup>33</sup>  
 nuŋ<sup>55</sup>tsu<sup>31</sup>  
 khon<sup>55</sup>lat<sup>31</sup>  
 khon<sup>55</sup>sum<sup>55</sup>  
 khue<sup>31</sup>  
 nai<sup>31</sup>  
 kha<sup>55</sup>la<sup>55</sup>  
 loŋ<sup>33</sup>pyt<sup>31</sup>  
 kha<sup>55</sup>mv<sup>31</sup>  
 s<sup>55</sup>  
 phu<sup>55</sup>  
 toŋ<sup>55</sup>  
 sam<sup>55</sup>  
 sam<sup>55</sup>ba<sup>33</sup>  
 aŋ<sup>33</sup>çiŋ<sup>55</sup>  
 kha<sup>55</sup>mv<sup>31</sup>  
 xuaŋ<sup>31</sup>  
 min<sup>55</sup>cin<sup>55</sup>vn<sup>33</sup>  
 phik<sup>33</sup>  
 pja<sup>33</sup>  
 e<sup>55</sup>  
 lot<sup>31</sup>  
 pu<sup>55</sup>  
 ka<sup>33</sup>aŋ<sup>55</sup>  
 pit<sup>33</sup>, uŋ<sup>33</sup>su<sup>31</sup>  
 ka<sup>33</sup>ne<sup>33</sup>zaŋ<sup>55</sup>  
 tsak<sup>33</sup>  
 laŋ<sup>55</sup>ba<sup>33</sup>ba<sup>33</sup>uŋ<sup>31</sup>ka<sup>31</sup>  
 tshau<sup>55</sup>lak<sup>33</sup>  
 ŋvn<sup>33</sup>

mountain  
 remote highlands  
 mountain ridge  
 mountain peak  
 foot of a cliff  
 steep cliffs and precipices  
 cliff  
 stone  
 mountain top  
 halfway up a mountain (*lit.* "waist of a mountain")  
 slope  
 foot of a mountain  
 mountain valley  
 sunny side of a mountain  
 shaded side of a mountain  
 height  
 depth  
 dust  
 mud  
 carbon  
 gold  
 silver  
 copper  
 iron  
 tin  
 precious stone  
 coal  
 sulphur  
 the earth quakes  
 the ground cleaves  
 collapse (e.g. a dam)  
 flow  
 overflow  
 float  
 sink  
 ooze  
 seep into  
 drip  
 water flows over a dam or dyke  
 a breach or gap appears in a dam  
 sway

myt<sup>31</sup>  
 moŋ<sup>33</sup>  
 ŋeŋ<sup>31</sup>  
 lyŋ<sup>33</sup>put<sup>33</sup>  
 lyŋ<sup>33</sup>phja<sup>33</sup>  
 lyŋ<sup>33</sup>  
 van<sup>33</sup>  
 kaŋ<sup>55</sup>  
 ka<sup>33</sup>  
 (kha<sup>55</sup>la<sup>55</sup>)tshon<sup>31</sup>  
 (kha<sup>55</sup>la<sup>55</sup>)ka<sup>33</sup>

### 1.3 Fauna

tshoŋ<sup>31</sup>koŋ<sup>31</sup>kyŋ<sup>31</sup>  
 za<sup>33</sup>ba<sup>33</sup>ma<sup>31</sup>lu<sup>31</sup>  
 tsha<sup>31</sup>la<sup>31</sup>la<sup>31</sup>ba<sup>33</sup>  
 tsha<sup>31</sup>la<sup>31</sup>  
 o<sup>31</sup>am<sup>55</sup>  
 tshoŋ<sup>31</sup>koŋ<sup>31</sup>khur<sup>31</sup>  
 maŋ<sup>55</sup>tsyŋ<sup>55</sup>  
 xo<sup>33</sup>tam<sup>31</sup>  
 xo<sup>33</sup>tchin<sup>33</sup>  
 xo<sup>33</sup>phi<sup>31</sup>  
 xo<sup>33</sup>tyŋ<sup>55</sup>  
 xo<sup>33</sup>svŋ<sup>33</sup>  
 than<sup>31</sup>khur<sup>31</sup>  
 a<sup>31</sup>xi<sup>31</sup>a<sup>31</sup>xoŋ<sup>31</sup>, a<sup>31</sup>xi<sup>31</sup>za<sup>55</sup>xoŋ<sup>31</sup>  
 tche<sup>33</sup>  
 xaŋ<sup>33</sup>ku<sup>33</sup>  
 va<sup>31</sup>the<sup>31</sup>  
 xo<sup>33</sup>tshu<sup>31</sup>  
 laŋ<sup>55</sup>sam<sup>55</sup>  
 a<sup>55</sup>khon<sup>31</sup>  
 pe<sup>55</sup>va<sup>31</sup>  
 xa<sup>33</sup>za<sup>31</sup>  
 tsam<sup>55</sup>ba<sup>33</sup>  
 tsan<sup>33</sup>ko<sup>55</sup>du<sup>31</sup>luŋ<sup>33</sup>  
 pu<sup>55</sup>puŋ<sup>33</sup>  
 lo<sup>33</sup>tchin<sup>55</sup>  
 xa<sup>33</sup>tci<sup>55</sup>tsa<sup>33</sup>laŋ<sup>33</sup>  
 tsa<sup>55</sup>tchit<sup>31</sup>

move slightly from side to side  
 rise  
 crack open (e.g. a wall)  
 collapse (together with the roots)  
 collapse (of something which is broken)  
 roll (of a stone)  
 revolve  
 fall down (of growing objects)  
 fall down (of hanging objects)  
 flying (of dust)  
 settling (of dust)

wild animal  
 elephant  
 tiger  
 leopard  
 bear  
 jackal  
 wolf  
 rat, mouse  
 field mouse  
 bamboo rat  
 jerboa  
 squirrel  
 pangolin  
 yellow weasel  
 deer  
 wild cat  
 wild boar  
 porcupine  
 otter  
 monkey  
 bat  
 bird  
 eagle  
 owl  
 cuckoo  
 parrot  
 thrush  
 sparrow

o<sup>55</sup>va<sup>33</sup>  
 tsa<sup>55</sup>tsho<sup>33</sup>  
 tshoŋ<sup>31</sup>koŋ<sup>31</sup>a<sup>31</sup>kau<sup>31</sup>  
 tsa<sup>55</sup>ku<sup>33</sup>tsa<sup>55</sup>ke<sup>31</sup>  
 ke<sup>33</sup>le<sup>33</sup>  
 aŋ<sup>33</sup>pam<sup>31</sup>  
 te<sup>55</sup>sŋ<sup>31</sup>  
 pa<sup>31</sup>zin<sup>33</sup>  
 pja<sup>33</sup>xoŋ<sup>31</sup>  
 ŋa<sup>33</sup>phi<sup>31</sup>  
 u<sup>31</sup>khja<sup>33</sup>  
 aŋ<sup>33</sup>khau<sup>33</sup>  
 aŋ<sup>33</sup>tuy<sup>55</sup>  
 e<sup>31</sup>phu<sup>31</sup>  
 u<sup>31</sup>tsum<sup>31</sup>  
 khan<sup>31</sup>te<sup>33</sup>le<sup>33</sup>moŋ<sup>55</sup>  
 to<sup>55</sup>lo<sup>55</sup>  
 tu<sup>55</sup>luŋ<sup>33</sup>  
 tu<sup>55</sup>tsy<sup>31</sup>, pja<sup>33</sup>ga<sup>33</sup>  
 pja<sup>31</sup>  
 tsan<sup>31</sup>kjaŋ<sup>31</sup>  
 laŋ<sup>31</sup>tsha<sup>31</sup>  
 u<sup>31</sup>tcin<sup>31</sup>tuy<sup>31</sup>on<sup>31</sup>  
 maŋ<sup>55</sup>khjaŋ<sup>55</sup>luŋ<sup>33</sup>  
 maŋ<sup>55</sup>khjaŋ<sup>55</sup>za<sup>31</sup>  
 paŋ<sup>31</sup>na<sup>33</sup>cin<sup>55</sup>  
 py<sup>33</sup>tcau<sup>31</sup>  
 tshoŋ<sup>31</sup>pai<sup>31</sup>  
 pi<sup>55</sup>li<sup>55</sup>ba<sup>33</sup>  
 tshoŋ<sup>31</sup>khon<sup>31</sup>mi<sup>55</sup>laŋ<sup>55</sup>  
 sum<sup>31</sup>tche<sup>31</sup>khur<sup>55</sup>tsha<sup>31</sup>  
 tsu<sup>55</sup>ku<sup>31</sup>lu<sup>55</sup>ba<sup>33</sup>  
 xan<sup>31</sup>te<sup>33</sup>  
 tuy<sup>31</sup>u<sup>31</sup>  
 taŋ<sup>31</sup>xan<sup>31</sup>  
 cin<sup>55</sup>  
 aŋ<sup>33</sup>tu<sup>31</sup>cin<sup>55</sup>  
 e<sup>31</sup>ci<sup>31</sup>laŋ<sup>55</sup>tsha<sup>55</sup>  
 tsha<sup>31</sup>la<sup>31</sup>kuŋ<sup>33</sup>cin<sup>55</sup>  
 pe<sup>55</sup>no<sup>33</sup>  
 luŋ<sup>33</sup>ku<sup>55</sup>  
 pha<sup>31</sup>pi<sup>33</sup>

crow  
 magpie  
 wild goose  
 swallow  
 woodpecker  
 nest  
 fish  
 eel  
 dragon  
 shrimp  
 crab  
 scale  
 fin  
 swim bladder  
 insect (general term)  
 dragonfly  
 butterfly  
 hornet  
 wild bee  
 honeybee  
 wasp  
 ant  
 firefly  
 fly  
 mosquito  
 gadfly  
 cicada  
 grasshopper  
 cockroach  
 mantis  
 centipede  
 spider  
 earthworm  
 roundworm  
 flea  
 louse  
 head-louse  
 bedbug  
 snail  
 dung beetle  
 frog  
 toad

toŋ <sup>55</sup> nan <sup>33</sup>	tortoise
ui <sup>55</sup> laŋ <sup>55</sup>	snake
ui <sup>55</sup> to <sup>31</sup>	poisonous snake
kha <sup>31</sup> za <sup>31</sup> tuj <sup>33</sup> pjam <sup>33</sup>	lizard
ŋe <sup>31</sup> ba <sup>33</sup> , ŋe <sup>31</sup> za <sup>31</sup>	leech
aŋ <sup>33</sup> ba <sup>33</sup> tsa <sup>31</sup>	insect which eats books, clothes, or wood
le <sup>33</sup> thoŋ <sup>31</sup>	maggot
thuj <sup>31</sup> thuj <sup>31</sup>	pupa
to <sup>55</sup> lo <sup>55</sup>	moth
aŋ <sup>33</sup> u <sup>33</sup>	egg
aŋ <sup>33</sup> khau <sup>31</sup>	exuviae (shed skin of a snake)
cin <sup>55</sup> u <sup>33</sup>	nit
khan <sup>31</sup> pu <sup>33</sup> na <sup>55</sup> ve <sup>55</sup>	tadpole
te <sup>31</sup>	be living
pin <sup>55</sup>	change (v.)
vn <sup>33</sup> tu <sup>55</sup>	roar (of lions, tigers)
buj <sup>55</sup>	neigh, low (of horses and cows)
xuj <sup>55</sup>	bark (of dogs)
u <sup>55</sup> khaj <sup>31</sup>	chew the cud
tan <sup>55</sup>	crow (v.)
(za <sup>33</sup> u <sup>33</sup> )u <sup>33</sup>	lay eggs
xom <sup>33</sup>	hatch
aŋ <sup>33</sup> pam <sup>31</sup>	build a nest
pjam <sup>55</sup>	fly (of birds)
aŋ <sup>33</sup> phap <sup>33</sup>	swim (of fish)
to <sup>31</sup>	crawl (of insects)
tche <sup>31</sup>	bite (of insects)
aŋ <sup>33</sup> thuj <sup>31</sup>	metamorphose (of pupa)
tan <sup>31</sup>	sting (of bees)
khau <sup>33</sup> vak <sup>33</sup>	hibernate (winter)
(tu <sup>55</sup> laŋ <sup>55</sup> )do <sup>33</sup>	bite (of snakes)
thet <sup>33</sup>	kick (of horses)

#### 1.4 Flora

suŋ <sup>33</sup> tsuŋ <sup>33</sup>	tree
suŋ <sup>33</sup> tsuŋ <sup>55</sup> aŋ <sup>33</sup> fu <sup>55</sup>	“male” tree
suŋ <sup>33</sup> tsuŋ <sup>55</sup> aŋ <sup>33</sup> ba <sup>33</sup>	“female” tree
sak <sup>31</sup> kha <sup>33</sup>	forest
miŋ <sup>31</sup> taŋ <sup>31</sup>	pine
naŋ <sup>33</sup> pen <sup>33</sup> va <sup>31</sup>	fir
ke <sup>31</sup> bu <sup>31</sup>	palm

kha <sup>33</sup> mum <sup>31</sup>	willow
sɿ <sup>31</sup> za <sup>31</sup> , aŋ <sup>33</sup> sɿ <sup>31</sup>	fruit
su <sup>31</sup> gum <sup>31</sup>	peach
gum <sup>31</sup> tchin <sup>31</sup>	plum
sɿ <sup>31</sup> liu <sup>33</sup>	pomegranate
ma <sup>55</sup> ko <sup>33</sup>	pear
tui <sup>33</sup> mv <sup>31</sup>	pincapple
sɿ <sup>31</sup> phu <sup>33</sup> li <sup>55</sup> lu <sup>33</sup> , pha <sup>31</sup> ci <sup>31</sup> pho <sup>33</sup>	persimmon
ma <sup>55</sup> tsup <sup>31</sup>	tangerine
suŋ <sup>33</sup> kej <sup>33</sup>	a kind of orange-like fruit ( <i>lit.</i> “yellow fruit”)
pi <sup>55</sup> phum <sup>33</sup>	grapes
khui <sup>31</sup> xa <sup>33</sup> sɿ <sup>31</sup>	banana
maŋ <sup>55</sup> vau <sup>31</sup>	papaya
xa <sup>33</sup> sɿ <sup>31</sup>	banana (with thicker, rounder fruit)
maŋ <sup>55</sup> man <sup>31</sup>	walnut
tshan <sup>55</sup> kha <sup>33</sup> tshy <sup>31</sup> tai <sup>31</sup>	chestnut
li <sup>55</sup> laŋ <sup>55</sup>	tea tree
a <sup>31</sup> khon <sup>31</sup>	bamboo
xa <sup>55</sup> mit <sup>31</sup>	bamboo shoot
mit <sup>31</sup> tshau <sup>31</sup>	sweet bamboo shoot
mit <sup>31</sup> kha <sup>31</sup>	bitter bamboo shoot
mo <sup>31</sup> ka <sup>31</sup>	grass
maŋ <sup>31</sup> sa <sup>31</sup> kej <sup>33</sup> nam <sup>55</sup>	cordate houtuynia ( <i>Houtuynia cordata</i> )
la <sup>55</sup> ci <sup>55</sup>	cogongrass
a <sup>55</sup> phy <sup>31</sup> a <sup>55</sup> lan <sup>31</sup>	wormwood
u <sup>31</sup> sa <sup>33</sup> tuj <sup>33</sup> ne <sup>33</sup>	green bristlegrass
kha <sup>31</sup> ta <sup>33</sup>	brake (fern)
za <sup>55</sup> le <sup>33</sup>	reed
min <sup>55</sup> zu <sup>33</sup>	moss
aŋ <sup>33</sup> tchi <sup>55</sup>	root
suŋ <sup>33</sup> tsuŋ <sup>55</sup> aŋ <sup>33</sup> tchi <sup>55</sup>	fibrous root
paŋ <sup>55</sup> luŋ <sup>31</sup>	root tuber
aŋ <sup>33</sup> phum <sup>55</sup>	stem
la <sup>31</sup> ŋam <sup>33</sup>	tree trunk
aŋ <sup>33</sup> khjan <sup>31</sup>	branch
aŋ <sup>33</sup> pot <sup>31</sup>	tip of a tree
aŋ <sup>33</sup> pha <sup>31</sup>	leaf
aŋ <sup>33</sup> ve <sup>33</sup>	flower
aŋ <sup>33</sup> tshu <sup>31</sup>	thorn
aŋ <sup>33</sup> nam <sup>55</sup>	ear of grain
aŋ <sup>33</sup> sɿ <sup>31</sup>	fruit
aŋ <sup>33</sup> zau <sup>31</sup>	seed

la <sup>31</sup> lu <sup>33</sup>	bud (on a tree)
aj <sup>33</sup> bja <sup>33</sup>	shoot (from the ground)
aj <sup>33</sup> du <sup>33</sup>	flower bud
aj <sup>33</sup> zvj <sup>33</sup>	stamen or pistil (of a flower)
aj <sup>33</sup> s <sup>31</sup>	bamboo joint (or node)
aj <sup>33</sup> kho <sup>33</sup>	peel
aj <sup>33</sup> nur <sup>33</sup>	kernel
miŋ <sup>31</sup> taŋ <sup>31</sup> aj <sup>33</sup> pha <sup>31</sup>	pine needles
miŋ <sup>31</sup> taŋ <sup>31</sup> aj <sup>33</sup> s <sup>31</sup>	pine nut
aj <sup>33</sup> za <sup>31</sup>	seedling
le <sup>31</sup> tu <sup>31</sup>	vine
aj <sup>33</sup> bu <sup>31</sup> khi <sup>31</sup>	grow
(aj <sup>33</sup> tci <sup>33</sup> )tci <sup>33</sup>	sprout
aj <sup>33</sup> tchi <sup>55</sup> e <sup>55</sup>	put down roots
(aj <sup>33</sup> ve <sup>33</sup> )ve <sup>33</sup> , phu <sup>31</sup>	open (of flowers)
ko <sup>33</sup> nam <sup>55</sup> phuŋ <sup>33</sup>	produce (ears of grain)
(aj <sup>33</sup> s <sup>31</sup> )s <sup>31</sup> , khe <sup>31</sup>	bear fruit
miŋ <sup>33</sup>	ripen
aj <sup>33</sup> pu <sup>31</sup>	rot
phik <sup>33</sup>	crack open (a hard shell)
pha <sup>33</sup>	peel (fruit) (v.)
ku <sup>33</sup> xi <sup>31</sup> au <sup>31</sup>	become dry and shrunken (v.)
xe <sup>31</sup> au <sup>31</sup>	shrivel up
ku <sup>33</sup> phv <sup>31</sup>	wither (of leaves)
xa <sup>33</sup> pha <sup>31</sup> kaŋ <sup>55</sup>	fall (of leaves)
uŋ <sup>31</sup>	expand
aj <sup>33</sup> pu <sup>31</sup>	decay

## 2. The Human Body, Life Experiences, Relationships, and Occupations

### 2.1 Parts of the Body, Secretions

aj <sup>33</sup> maŋ <sup>55</sup>	body
aj <sup>33</sup> tu <sup>31</sup>	head
nu <sup>31</sup> khon <sup>31</sup>	forehead
pa <sup>31</sup> khjau <sup>31</sup> aj <sup>33</sup> mv <sup>31</sup>	temples, hair on the temples
na <sup>31</sup> khjau <sup>31</sup>	the temples
me <sup>33</sup> ka <sup>31</sup>	face
pa <sup>31</sup> pa <sup>33</sup>	cheeks, face
na <sup>31</sup> tsaj <sup>33</sup>	cheeks
man <sup>31</sup> khau <sup>31</sup>	dimple
aj <sup>33</sup> pin <sup>55</sup>	wrinkles
tu <sup>31</sup> zyn <sup>33</sup>	top of the head

tu <sup>31</sup> tsh <sup>31</sup>	brain
sam <sup>55</sup> khuŋ <sup>55</sup>	hair
tu <sup>31</sup> khot <sup>33</sup>	crown of the head
man <sup>31</sup> tvŋ <sup>31</sup>	chin
man <sup>31</sup> kaŋ <sup>31</sup>	tip of the chin
man <sup>31</sup> mv <sup>31</sup>	beard
me <sup>33</sup> nur <sup>33</sup>	eyes
me <sup>33</sup> nur <sup>33</sup> s <sup>31</sup>	eyeball
me <sup>33</sup> nur <sup>33</sup> o <sup>55</sup> za <sup>31</sup>	pupil
me <sup>33</sup> thaŋ <sup>31</sup>	canthus (corner of the eye)
me <sup>33</sup> kho <sup>33</sup>	eyelid
me <sup>33</sup> mv <sup>31</sup>	eyelashes
me <sup>33</sup> mv <sup>31</sup>	eyebrow
na <sup>55</sup> kaŋ <sup>55</sup>	nose
na <sup>55</sup> kaŋ <sup>55</sup> min <sup>55</sup> ku <sup>31</sup>	bridge of the nose
na <sup>55</sup> kaŋ <sup>55</sup> aj <sup>33</sup> lim <sup>55</sup>	tip of the nose
na <sup>55</sup> kaŋ <sup>55</sup> aj <sup>33</sup> khon <sup>55</sup>	nostril
na <sup>55</sup> kaŋ <sup>55</sup> aj <sup>33</sup> mv <sup>31</sup>	nasal hair
na <sup>55</sup> tsu <sup>33</sup>	philtrum
man <sup>31</sup> tu <sup>33</sup>	mouth
man <sup>31</sup> kho <sup>33</sup>	lips
man <sup>31</sup> bo <sup>33</sup>	upper lip
man <sup>31</sup> lu <sup>33</sup>	lower lip
so <sup>31</sup> phi <sup>31</sup>	teeth
so <sup>31</sup> phi <sup>31</sup> kon <sup>55</sup> nuŋ <sup>55</sup>	front teeth
so <sup>31</sup> ts <sup>31</sup>	canine teeth
so <sup>31</sup> ba <sup>33</sup> ton <sup>31</sup> phum <sup>31</sup>	molar teeth
so <sup>31</sup> khon <sup>31</sup>	gum
man <sup>31</sup> la <sup>31</sup>	tongue
man <sup>31</sup> la <sup>31</sup> tu <sup>31</sup> tin <sup>33</sup>	tip of the tongue
man <sup>31</sup> la <sup>31</sup> ton <sup>31</sup> phum <sup>31</sup>	root of the tongue
nu <sup>55</sup> khun <sup>31</sup> to <sup>33</sup> nan <sup>33</sup>	uvula
na <sup>31</sup> suŋ <sup>31</sup>	ear
na <sup>31</sup> kyn <sup>31</sup> , na <sup>31</sup> lit <sup>33</sup>	pierced earring holes
lmŋ <sup>55</sup> tsh <sup>31</sup>	neck
nuŋ <sup>55</sup> phum <sup>55</sup>	nape of the neck
luŋ <sup>55</sup> khun <sup>31</sup> xa <sup>33</sup> te <sup>31</sup>	Adam's apple
luŋ <sup>55</sup> khun <sup>31</sup>	throat
la <sup>31</sup> phum <sup>31</sup>	shoulder
la <sup>31</sup> ko <sup>31</sup> ton <sup>31</sup>	armpit
luŋ <sup>33</sup> ba <sup>33</sup> , luŋ <sup>33</sup> tan <sup>33</sup>	chest
luŋ <sup>33</sup> ba <sup>33</sup> man <sup>31</sup> ts <sup>31</sup>	heart (area on the chest overlying the heart)



luŋ <sup>33</sup> peɿ <sup>33</sup>	breast
luŋ <sup>33</sup> ci <sup>31</sup>	nipple
tshu <sup>31</sup> ku <sup>31</sup>	waist
nuŋ <sup>55</sup> gau <sup>31</sup>	spine
nuŋ <sup>55</sup> kho <sup>55</sup>	back
poŋ <sup>31</sup> poŋ <sup>33</sup>	belly
en <sup>31</sup> poŋ <sup>33</sup>	abdomen
sa <sup>31</sup> toŋ <sup>31</sup>	navel
toŋ <sup>31</sup> khun <sup>31</sup>	buttocks
la <sup>31</sup> pu <sup>31</sup>	hand
la <sup>31</sup> va <sup>31</sup>	palm
la <sup>31</sup> gan <sup>31</sup>	back of the hand
la <sup>31</sup> kja <sup>31</sup>	lines of the palm
la <sup>31</sup> thu <sup>33</sup>	fist
la <sup>31</sup> nu <sup>31</sup>	finger
la <sup>31</sup> ba <sup>33</sup>	thumb
la <sup>31</sup> num <sup>31</sup>	index finger
la <sup>31</sup> num <sup>31</sup> koŋ <sup>55</sup> nuŋ <sup>55</sup>	middle finger
la <sup>31</sup> than <sup>55</sup> num <sup>55</sup>	little finger
la <sup>31</sup> tshy <sup>31</sup> , la <sup>31</sup> bja <sup>33</sup>	wrist
la <sup>31</sup> tshu <sup>31</sup>	elbow
la <sup>31</sup> luŋ <sup>31</sup>	arm
la <sup>31</sup> suŋ <sup>31</sup>	finger nail
khur <sup>55</sup> poŋ <sup>55</sup>	thigh
pu <sup>31</sup> tu <sup>33</sup>	knee
maŋ <sup>31</sup> kaŋ <sup>33</sup>	lower leg
maŋ <sup>31</sup> kaŋ <sup>33</sup>	calf
la <sup>31</sup> khur <sup>31</sup>	foot
pha <sup>31</sup> gan <sup>31</sup>	instep
khur <sup>55</sup> tshy <sup>31</sup>	ankle
pha <sup>31</sup> va <sup>31</sup>	sole of the foot
pha <sup>31</sup> taŋ <sup>31</sup>	heel
khur <sup>55</sup> num <sup>55</sup>	toe
khur <sup>55</sup> num <sup>55</sup> la <sup>31</sup> suŋ <sup>31</sup>	toe nail
to <sup>31</sup> pe <sup>55</sup>	female reproductive organ
le <sup>33</sup> the <sup>31</sup>	male reproductive organ
le <sup>31</sup> u <sup>33</sup>	testis
to <sup>33</sup> nan <sup>33</sup>	uterus
sa <sup>31</sup> taŋ <sup>31</sup>	umbilical cord
toŋ <sup>31</sup> ne <sup>31</sup>	anus
luŋ <sup>33</sup> ba <sup>33</sup>	heart (the organ)
ci <sup>31</sup> ku <sup>31</sup>	blood vessel

aŋ <sup>33</sup> ku <sup>31</sup>	blood vessels and tendons
ku <sup>31</sup> ba <sup>33</sup>	artery
my <sup>31</sup>	vein
aŋ <sup>33</sup> map <sup>33</sup>	lungs
khun <sup>31</sup> za <sup>31</sup>	trachea
aŋ <sup>33</sup> tchin <sup>31</sup>	liver
laŋ <sup>33</sup> lum <sup>55</sup>	spleen
pi <sup>31</sup> kha <sup>31</sup>	gall bladder
khun <sup>31</sup> ba <sup>33</sup>	oesophagus
aŋ <sup>33</sup> u <sup>55</sup>	stomach
aŋ <sup>33</sup> u <sup>55</sup>	intestines
u <sup>55</sup> za <sup>31</sup>	small intestine
u <sup>55</sup> ba <sup>33</sup>	large intestine
lan <sup>31</sup> sɿ <sup>31</sup>	kidney
e <sup>31</sup> phu <sup>31</sup>	bladder
ci <sup>31</sup>	blood
pi <sup>31</sup> kha <sup>31</sup> aŋ <sup>33</sup> tsha <sup>55</sup>	bile
aŋ <sup>33</sup> tshaŋ <sup>31</sup>	placenta
muŋ <sup>31</sup> ni <sup>31</sup>	sweat
nau <sup>31</sup>	nasal mucus
me <sup>33</sup> pu <sup>55</sup>	tears
me <sup>31</sup> khan <sup>31</sup>	gum (in the eyes)
na <sup>31</sup> khan <sup>31</sup>	wax in the ears
tshau <sup>31</sup> khan <sup>31</sup>	phlegm
khan <sup>31</sup>	saliva
le <sup>33</sup> tsha <sup>55</sup> laŋ <sup>55</sup>	semen
to <sup>33</sup> ne <sup>55</sup>	menstrual period
luŋ <sup>33</sup> peɿ <sup>33</sup> lmŋ <sup>33</sup> tsha <sup>55</sup>	(breast) milk
eŋ <sup>31</sup>	faeces
i <sup>31</sup> ci <sup>31</sup>	urine
en <sup>31</sup> kha <sup>31</sup>	flatus
aŋ <sup>33</sup> kho <sup>33</sup>	skin
nam <sup>55</sup> ba <sup>33</sup> e <sup>31</sup> sɿ <sup>31</sup>	mole
nam <sup>55</sup> ba <sup>33</sup> e <sup>31</sup>	freckle
aŋ <sup>33</sup> my <sup>31</sup>	fine hair on the human body
aŋ <sup>33</sup> ga <sup>55</sup>	pore (on the skin)
tu <sup>31</sup> khau <sup>31</sup>	dandruff
za <sup>33</sup> sa <sup>31</sup>	muscle
sa <sup>31</sup> gau <sup>31</sup> , aŋ <sup>33</sup> gau <sup>31</sup>	bones
la <sup>31</sup> aŋ <sup>31</sup>	joints
xaŋ <sup>31</sup> tshɿ <sup>31</sup> ka <sup>31</sup> laŋ <sup>55</sup>	marrow
tu <sup>31</sup> khau <sup>33</sup>	skull

pa<sup>31</sup>khjau<sup>31</sup>  
aŋ<sup>33</sup>nam<sup>55</sup>  
aŋ<sup>33</sup>khuj<sup>31</sup>  
la<sup>31</sup>pa<sup>31</sup>  
khuu<sup>55</sup>bja<sup>33</sup>

## 2.2 Body Movements

(aŋ<sup>33</sup>tu<sup>31</sup>)tchi<sup>31</sup>  
(aŋ<sup>33</sup>tu<sup>31</sup>)bo<sup>33</sup>  
(aŋ<sup>33</sup>tu<sup>31</sup>)mot<sup>33</sup>/bot<sup>33</sup>  
(aŋ<sup>33</sup>tu<sup>31</sup>)yn<sup>33</sup>  
pha<sup>55</sup>s  
tchi<sup>31</sup>  
tshvŋ<sup>55</sup>  
tchi<sup>55</sup>  
to<sup>31</sup>  
phja<sup>31</sup>  
iŋ<sup>55</sup>  
sat<sup>33</sup>  
(aŋ<sup>33</sup>maŋ<sup>55</sup>)pho<sup>33</sup>  
cen<sup>31</sup>  
dtuŋ<sup>55</sup>  
zu<sup>31</sup>  
duŋ<sup>31</sup>  
kvt<sup>33</sup>  
ciŋ<sup>33</sup>  
aŋ<sup>33</sup>kin<sup>55</sup>pham<sup>33</sup>  
tsuŋ<sup>31</sup>kvn<sup>33</sup>  
aŋ<sup>33</sup>sa<sup>31</sup>aŋ<sup>33</sup>maŋ<sup>55</sup>tshaj<sup>31</sup>  
tha<sup>33</sup>la<sup>33</sup>  
a<sup>31</sup>tchi<sup>55</sup>  
lut<sup>33</sup>ne<sup>55</sup>lit<sup>33</sup>ne<sup>55</sup>  
va<sup>31</sup>, bu<sup>55</sup>  
xa<sup>33</sup>  
ten<sup>33</sup>  
bi<sup>31</sup>va<sup>31</sup>  
za<sup>55</sup>bu<sup>55</sup>  
teŋ<sup>33</sup>  
tsha<sup>31</sup>  
fu<sup>33</sup>  
aŋ<sup>33</sup>mjaŋ<sup>55</sup>  
mit<sup>33</sup>

cheekbone  
ribcage  
rib  
shoulder blade  
ankle-bone

raise (head)  
lower (head)  
nod (head)  
shake (head)  
support with the hand  
lift  
lead along (an animal, child, blind person)  
move, place  
crawl  
climb (upwards)  
lean against  
move, shift  
turn (around)  
rest (v.)  
live  
sleep  
wake up  
lie down, recline  
snuggle up to, lean close to  
turn (one's body) over  
stretch (waist and legs)  
stretch (as when yawning)  
get out of bed  
be still  
move, stir  
do (work)  
work, handle affairs, manage  
work (for a living)  
do physical labour  
produce  
repair  
join (a rope or string)  
look  
see  
shut (eyes)

phoŋ<sup>33</sup>  
me<sup>33</sup>bup<sup>33</sup>  
na<sup>55</sup>  
kja<sup>31</sup>  
(aŋ<sup>33</sup>sa<sup>31</sup>)kaŋ<sup>55</sup>  
(aŋ<sup>33</sup>sa<sup>31</sup>)syt<sup>33</sup>  
(za<sup>33</sup>khon<sup>31</sup>)tsj<sup>33</sup>  
kaŋ<sup>55</sup>ba<sup>33</sup>  
tan<sup>33</sup>  
phit<sup>31</sup>  
phe<sup>31</sup>  
mi<sup>33</sup>  
up<sup>31</sup>  
na<sup>55</sup>  
kho<sup>31</sup>  
tsha<sup>31</sup>  
lin<sup>31</sup>  
xau<sup>55</sup>  
tsy<sup>31</sup>  
a<sup>31</sup>  
tsup<sup>31</sup>  
nam<sup>31</sup>  
thak<sup>33</sup>  
thu<sup>33</sup>  
(tshu<sup>31</sup>ku<sup>31</sup>)bo<sup>33</sup>  
vaŋ<sup>33</sup>  
tchi<sup>31</sup>  
vet<sup>33</sup>  
(la<sup>31</sup>nu<sup>31</sup>)kue<sup>31</sup>  
la<sup>31</sup>thu<sup>33</sup>  
kep<sup>33</sup>  
tshu<sup>33</sup>  
cit<sup>33</sup>  
vi<sup>33</sup>/vi<sup>33</sup>a<sup>33</sup>  
pek<sup>33</sup>  
lan<sup>33</sup>  
zik<sup>55</sup>  
van<sup>33</sup>  
pa<sup>31</sup>  
pa<sup>31</sup>  
ŋak<sup>33</sup>  
zu<sup>55</sup>/zu<sup>55</sup>

open (eyes)  
blink  
listen  
hear  
breathe (out)  
breathe (in)  
smoke (a cigarette)  
pant  
hold one's breath  
spit  
vomit  
blow (a fire)  
say  
ask  
answer  
agree  
read  
shout  
sing  
open (mouth)  
shut (mouth)  
smell  
pat  
grasp  
bend (at the waist)  
stretch out (hand)  
raise (hand)  
wave (head)  
bend (finger)  
clench one's fist  
press, pinch  
catch, pick  
wipe  
throw (away, out)  
throw  
knead, rub  
tear  
twist  
carry on the shoulder  
lift with both hands  
prize, pry open  
fetch

xan <sup>33</sup> lau <sup>55</sup>	bring (here)
xan <sup>33</sup> u <sup>31</sup>	take (there)
tham <sup>31</sup>	hold (a bowl)
pi <sup>31</sup>	pass (hand over)
tan <sup>31</sup>	push
pi <sup>31</sup> lau <sup>55</sup>	give
py <sup>31</sup>	push lightly (e.g. flick earth off seedlings)
kyn <sup>31</sup>	pull, take out
kaŋ <sup>55</sup>	pull out
taŋ <sup>33</sup>	prop up (an umbrella)
kyn <sup>31</sup>	stretch (noodles)
kjaŋ <sup>31</sup>	brush lightly (whisk)
va <sup>31</sup>	touch
(la <sup>31</sup> poŋ <sup>31</sup> ) kan <sup>33</sup>	tuck each hand in the opposite sleeve
san <sup>31</sup>	scatter
la <sup>31</sup> pu <sup>31</sup> ta <sup>55</sup>	put both hands on the hips
am <sup>33</sup>	carry (a child)
am <sup>33</sup>	support somebody by the arm; go arm-in-arm
pho <sup>33</sup>	turn (inside out, over)
lyt <sup>31</sup>	take apart, separate
zo <sup>33</sup>	roll up
tup <sup>33</sup>	fold
kjaŋ <sup>33</sup>	encircle with both hands
tshŋ <sup>31</sup>	pinch (a louse)
thuŋ <sup>33</sup>	tie, bind
ku <sup>33</sup>	stir
kui <sup>33</sup>	mix
tshok <sup>33</sup>	insert
ly <sup>55</sup>	open (a lid, cover of a book)
la <sup>31</sup> pu <sup>31</sup> tshu <sup>33</sup> laŋ <sup>33</sup> ga <sup>33</sup>	shake hands
phuu <sup>55</sup>	untie (a knot)
phuu <sup>33</sup>	tie, knot
thau <sup>33</sup>	wrap
tsuŋ <sup>31</sup>	bind, bundle up
khja <sup>31</sup>	fasten
tshŋ <sup>31</sup>	hang
pyŋ <sup>31</sup>	hang, suspend
kan <sup>33</sup>	put in a container
phja <sup>33</sup>	lay down a burden
oŋ <sup>55</sup>	enter
oŋ <sup>55</sup> la <sup>55</sup>	come in here
oŋ <sup>55</sup> le <sup>33</sup>	go in there

duŋ <sup>55</sup>	sit, squat
pai <sup>55</sup>	kneel
zo <sup>31</sup>	walk, go
xvŋ <sup>31</sup>	run
thek <sup>33</sup>	kick
pyk <sup>33</sup>	jump
tshaŋ <sup>31</sup>	dance
pyk <sup>33</sup> moŋ <sup>33</sup>	perform a high jump
naŋ <sup>31</sup>	tread, step on
tshaŋ <sup>31</sup>	stamp (one's feet)
naŋ <sup>31</sup> tsan <sup>31</sup>	slip, slide
la <sup>55</sup>	come (up)
lu <sup>33</sup>	come (down)
lyŋ <sup>33</sup>	fall over
le <sup>33</sup>	go (up)
e <sup>55</sup>	go (down)
luŋ <sup>33</sup> ta <sup>33</sup>	trip, stumble
tsuŋ <sup>33</sup>	stand
ok <sup>31</sup>	go out
ok <sup>31</sup> e <sup>55</sup>	go out there (away from speaker)
ok <sup>31</sup> lu <sup>33</sup>	come out here (towards speaker)
ta <sup>33</sup> la <sup>55</sup>	come up (here)
ta <sup>33</sup> le <sup>33</sup>	go up (there)
ka <sup>33</sup> lu <sup>33</sup>	come down (here)
ka <sup>33</sup> e <sup>55</sup>	go down (there)
le <sup>31</sup>	come back
la <sup>55</sup> le <sup>31</sup>	come back here
la <sup>55</sup> au <sup>55</sup>	come over here
le <sup>33</sup> au <sup>55</sup>	go over there
le <sup>33</sup> le <sup>31</sup>	go back there
ko <sup>55</sup>	pass, cross
thvŋ <sup>33</sup>	stride
khv <sup>33</sup>	reach (a destination)

### 2.3 Life Experiences, Sickness and Death

te <sup>31</sup> ne <sup>31</sup> aŋ <sup>33</sup> nu <sup>33</sup>	life
kyt <sup>55</sup>	birthday
ciŋ <sup>31</sup>	surname
aŋ <sup>33</sup> miŋ <sup>55</sup>	name
my <sup>33</sup> tsai <sup>55</sup>	born in the year of the rat
my <sup>33</sup> pau <sup>33</sup>	born in the year of the ox
my <sup>33</sup> ni <sup>31</sup>	born in the year of the tiger

my <sup>33</sup> mau <sup>55</sup>	born in the year of the hare
my <sup>33</sup> ci <sup>33</sup>	born in the year of the dragon
my <sup>33</sup> sai <sup>55</sup>	born in the year of the snake
my <sup>33</sup> xa <sup>55</sup>	born in the year of the horse
my <sup>33</sup> mut <sup>33</sup>	born in the year of the sheep
my <sup>33</sup> san <sup>33</sup>	born in the year of the monkey
my <sup>33</sup> lau <sup>55</sup>	born in the year of the cockerel
my <sup>33</sup> ci <sup>55</sup>	born in the year of the dog
my <sup>33</sup> khau <sup>55</sup>	born in the year of the hog
tshaj <sup>55</sup>	person
aj <sup>33</sup> kho <sup>31</sup>	any one of the names of twelve symbolic animals associated with a 12-year cycle, often used to denote the year of a person's birth
ŋ <sup>31</sup> po <sup>33</sup>	coffin
lo <sup>31</sup> pum <sup>31</sup>	grave
lo <sup>33</sup> ba <sup>33</sup> ko <sup>55</sup>	gravestone
aj <sup>33</sup> um <sup>33</sup>	shadow
me <sup>33</sup> bvn <sup>55</sup>	dream
pha <sup>31</sup> ga <sup>31</sup>	footprints
ze <sup>31</sup> svŋ <sup>31</sup> , xa <sup>33</sup> svŋ <sup>31</sup>	affairs
aj <sup>33</sup> kvŋ <sup>31</sup>	things
kho <sup>31</sup>	grow up
kha <sup>31</sup> ba <sup>33</sup> zu <sup>55</sup> lan <sup>33</sup> ga <sup>33</sup>	marry
zu <sup>55</sup>	marry (a man)
zau <sup>55</sup>	marry (a woman)
aj <sup>33</sup> za <sup>31</sup> xan <sup>55</sup>	be pregnant
kv <sup>55</sup>	give birth
aj <sup>33</sup> mij <sup>55</sup> mij <sup>55</sup>	name a child
xa <sup>33</sup> pvn <sup>55</sup>	succeed
xa <sup>33</sup> lu <sup>33</sup> xa <sup>33</sup> ci <sup>33</sup>	fail
za <sup>31</sup> maj <sup>31</sup> maj <sup>31</sup>	become old
ci <sup>55</sup>	die
tshaj <sup>55</sup> ci <sup>55</sup> phum <sup>33</sup> ne <sup>55</sup>	bury
ko <sup>55</sup> zi <sup>31</sup>	celebrate New Year's Festival
puj <sup>33</sup> khe <sup>33</sup>	be on holiday
mi <sup>33</sup> xi <sup>31</sup> tsho <sup>31</sup>	malaria
aj <sup>33</sup> maj <sup>33</sup> maj <sup>33</sup>	smallpox
pej <sup>33</sup>	sore (skin ulcer)
aj <sup>33</sup> um <sup>55</sup>	pus
tsh <sup>31</sup> ka <sup>31</sup>	medicine
aj <sup>33</sup> to <sup>31</sup>	poison
la <sup>31</sup> dit <sup>33</sup>	pulse

teŋ <sup>33</sup>	treat (an illness)
da <sup>55</sup>	be ill
v <sup>55</sup> thi <sup>31</sup>	sneeze
kuŋ <sup>31</sup>	groan
phap <sup>33</sup>	limp (because of injury)
tsh <sup>31</sup> ka <sup>31</sup> thoŋ <sup>55</sup>	decoct medicinal herbs (simmer in water)
tsh <sup>31</sup> ka <sup>31</sup> thvŋ <sup>33</sup>	give an injection
tsh <sup>31</sup> ka <sup>31</sup> pau <sup>33</sup>	dress a wound with ointment
tsh <sup>31</sup> ka <sup>31</sup> lan <sup>31</sup> tchi <sup>31</sup> , tsh <sup>31</sup> ka <sup>31</sup> lan <sup>31</sup> khau <sup>31</sup>	apply ointment to the skin
aj <sup>33</sup> tu <sup>31</sup> da <sup>55</sup>	have a headache
aj <sup>33</sup> tu <sup>31</sup> khun <sup>31</sup>	be dizzy, giddy
aj <sup>33</sup> man <sup>55</sup> zyk <sup>33</sup> , dvt <sup>33</sup>	shiver
aj <sup>33</sup> man <sup>55</sup> lon <sup>55</sup>	have a fever
ba <sup>31</sup> bat <sup>33</sup>	be unconscious
peŋ <sup>55</sup> tan <sup>55</sup>	develop a sore or skin ulcer
uŋ <sup>31</sup>	be swollen
phək <sup>31</sup>	fester, ulcerate
pju <sup>33</sup> aj <sup>55</sup>	recover
aj <sup>33</sup> sa <sup>31</sup> tsa <sup>55</sup> bu <sup>31</sup>	regain full health

#### 2.4 Kinship Terms and Other Human Relationships

aj <sup>33</sup> fu <sup>31</sup> v <sup>33</sup> san <sup>55</sup>	the eldest in the family
ni <sup>31</sup> fu <sup>33</sup> san <sup>55</sup>	the second eldest in the family
tshaj <sup>55</sup> sum <sup>55</sup> san <sup>55</sup>	the third eldest in the family
tshaj <sup>55</sup> xan <sup>55</sup> san <sup>55</sup>	the fourth eldest in the family
aj <sup>33</sup> i <sup>55</sup> za <sup>31</sup> noŋ <sup>31</sup>	youngest sister
aj <sup>33</sup> boŋ <sup>55</sup>	husband
thi <sup>31</sup> aj <sup>33</sup> ni <sup>55</sup>	couple (husband and wife)
kha <sup>31</sup> ba <sup>33</sup>	wife
za <sup>31</sup> poŋ <sup>31</sup> , kha <sup>31</sup> pha <sup>31</sup> za <sup>31</sup>	son
za <sup>31</sup> bi <sup>31</sup> , kha <sup>31</sup> ba <sup>33</sup> za <sup>31</sup>	daughter
a <sup>55</sup> boŋ <sup>55</sup>	father
a <sup>31</sup> ba <sup>33</sup>	mother
aj <sup>33</sup> ai <sup>55</sup>	elder brother
aj <sup>33</sup> phe <sup>55</sup>	younger brother
aj <sup>33</sup> tchi <sup>33</sup>	elder sister
aj <sup>33</sup> po <sup>31</sup>	younger sister
a <sup>55</sup> pu <sup>55</sup>	grandfather
a <sup>31</sup> phi <sup>31</sup>	grandmother
a <sup>31</sup> tu <sup>31</sup>	father's elder brother or his wife
a <sup>55</sup> vaj <sup>55</sup>	father's younger brother

a <sup>31</sup> suŋ <sup>31</sup>	husband of paternal aunt
a <sup>31</sup> kho <sup>31</sup>	paternal aunt
a <sup>55</sup> buŋ <sup>33</sup>	maternal uncle
a <sup>33</sup> kho <sup>31</sup>	wife of maternal uncle
a <sup>33</sup> kho <sup>31</sup>	maternal aunt
maŋ <sup>31</sup> tchi <sup>31</sup>	husband of maternal aunt
aŋ <sup>33</sup> mvŋ <sup>31</sup>	female cousins
a <sup>31</sup> tshu <sup>33</sup>	wife of elder brother
zaŋ <sup>33</sup> buŋ <sup>33</sup>	wife of younger brother
a <sup>31</sup> zi <sup>31</sup>	husband of younger sister
a <sup>31</sup> zu <sup>33</sup>	daughter-in-law
aŋ <sup>33</sup> khe <sup>33</sup>	son-in-law
aŋ <sup>33</sup> an <sup>31</sup>	grandson
a <sup>31</sup> le <sup>33</sup>	granddaughter
sa <sup>55</sup> pa <sup>33</sup>	sister's son
sa <sup>55</sup> mu <sup>33</sup>	sister's daughter
aŋ <sup>33</sup> za <sup>31</sup>	brother's son or daughter
zo <sup>31</sup> pha <sup>31</sup>	father-in-law (wife's father)
zo <sup>31</sup> ba <sup>33</sup>	mother-in-law (wife's mother)
a <sup>55</sup> vi <sup>55</sup> a <sup>55</sup> ni <sup>55</sup>	relatives
zum <sup>55</sup> tun <sup>31</sup>	household
tshaŋ <sup>55</sup> tshaŋ <sup>31</sup> , aŋ <sup>33</sup> tshaŋ <sup>31</sup>	friend
poŋ <sup>31</sup> fu <sup>33</sup>	partner, companion
tshaŋ <sup>55</sup> du <sup>31</sup> laŋ <sup>55</sup> du <sup>31</sup>	neighbour
tshaŋ <sup>55</sup> tsaŋ <sup>55</sup>	guest
zum <sup>55</sup> suŋ <sup>55</sup>	host
tshaŋ <sup>55</sup> lu <sup>33</sup> tshaŋ <sup>55</sup> ci <sup>33</sup>	enemy

## 2.5 Occupations and Types of People

tshaŋ <sup>55</sup> da <sup>55</sup> fu <sup>33</sup> ba <sup>31</sup> ,	doctor
tchi <sup>31</sup> ka <sup>31</sup> xa <sup>33</sup> ba <sup>31</sup> , ma <sup>55</sup> zo <sup>33</sup>	teacher
aŋ <sup>33</sup> lai <sup>31</sup> ma <sup>31</sup> ba <sup>31</sup>	student
aŋ <sup>33</sup> lai <sup>31</sup> lin <sup>31</sup> ba <sup>31</sup>	cook (n.)
a <sup>31</sup> tsa <sup>31</sup>	scribe, copy clerk
sɿ <sup>33</sup> ze <sup>31</sup>	hunter
sa <sup>31</sup> ka <sup>31</sup> ka <sup>31</sup> ba <sup>31</sup>	hunter
mi <sup>31</sup> tho <sup>31</sup> ty <sup>33</sup> ba <sup>31</sup>	woodcutter
paŋ <sup>31</sup> na <sup>33</sup> po <sup>33</sup> ba <sup>31</sup>	herdsman
za <sup>33</sup> bu <sup>55</sup> za <sup>31</sup> ba <sup>31</sup>	farmer
zun <sup>55</sup> tsho <sup>33</sup> ba <sup>31</sup>	tiler
aŋ <sup>33</sup> khvŋ <sup>33</sup> , aŋ <sup>33</sup> khvŋ <sup>33</sup> ten <sup>33</sup> ba <sup>31</sup> ,	
suŋ <sup>33</sup> tsuŋ <sup>55</sup> ze <sup>31</sup> ba <sup>31</sup>	carpenter

lo <sup>33</sup> ba <sup>33</sup> tha <sup>31</sup> ba <sup>31</sup>	stonemason
sam <sup>55</sup> the <sup>33</sup> ba <sup>31</sup>	blacksmith
suŋ <sup>31</sup> no <sup>33</sup> ku <sup>31</sup> ba <sup>31</sup>	cobbler
phu <sup>55</sup> te <sup>33</sup> ba <sup>31</sup>	silversmith
paŋ <sup>31</sup> na <sup>33</sup> ce <sup>31</sup> ba <sup>31</sup>	butcher
me <sup>33</sup> tsu <sup>55</sup>	blind person
na <sup>31</sup> paŋ <sup>31</sup>	deaf person
tsa <sup>31</sup> ka <sup>31</sup>	dumb person (male)
na <sup>55</sup> ka <sup>31</sup>	dumb person (female)
khui <sup>55</sup> lu <sup>33</sup>	cripple
to <sup>33</sup> tshɿ <sup>31</sup>	a person who stammers or stutters
tu <sup>31</sup> ten <sup>31</sup>	bald person (because of old age)
ta <sup>33</sup> ten <sup>31</sup>	bald person (because of illness)
aŋ <sup>33</sup> tuŋ <sup>31</sup>	fat person
aŋ <sup>33</sup> zau <sup>33</sup>	thin person
nmŋ <sup>55</sup> khun <sup>55</sup>	hunchback
aŋ <sup>33</sup> vyn <sup>31</sup>	madman
tshaŋ <sup>55</sup> lai <sup>55</sup>	evil person
kvɿ <sup>55</sup> to <sup>33</sup>	foetus
za <sup>31</sup> tsum <sup>55</sup>	twins
za <sup>31</sup> ne <sup>31</sup>	baby
za <sup>31</sup> ki <sup>33</sup>	child
za <sup>31</sup> kha <sup>31</sup>	young man
za <sup>31</sup> bi <sup>31</sup>	young woman
koŋ <sup>55</sup> nur <sup>33</sup> tshaŋ <sup>55</sup>	middle-aged person
kha <sup>31</sup> pha <sup>31</sup> za <sup>31</sup>	man
kha <sup>31</sup> ba <sup>33</sup> za <sup>31</sup>	woman
za <sup>31</sup> maŋ <sup>31</sup> nuŋ <sup>55</sup>	elderly person

## 3. Production Activities

### 3.1 Fishing and Hunting

xa <sup>33</sup> tsyn <sup>55</sup>	fishing net
kha <sup>31</sup> tyŋ <sup>55</sup>	fish cage
aŋ <sup>33</sup> tam <sup>55</sup>	fishing rod
aŋ <sup>33</sup> khun <sup>55</sup>	fishing line
khui <sup>31</sup> kja <sup>31</sup> , aŋ <sup>33</sup> ken <sup>31</sup>	fish-hook
khan <sup>33</sup> te <sup>55</sup> son <sup>55</sup>	bait
le <sup>31</sup> vaj <sup>31</sup>	lasso, noose (for catching animals)
xa <sup>31</sup> kam <sup>31</sup> , kap <sup>33</sup> dum <sup>31</sup>	trap
khan <sup>31</sup> tu <sup>31</sup>	pit
mja <sup>33</sup> tu <sup>55</sup>	short hunting knife

mja<sup>33</sup>moŋ<sup>55</sup>  
 pv<sup>33</sup>thi<sup>55</sup>  
 thvn<sup>55</sup>aŋ<sup>33</sup>maŋ<sup>55</sup>  
 aŋ<sup>33</sup>ne<sup>31</sup>, aŋ<sup>33</sup>phi<sup>55</sup>  
 ba<sup>31</sup>  
 tu<sup>31</sup>tin<sup>33</sup>  
 ba<sup>31</sup>thau<sup>33</sup>  
 thvn<sup>55</sup>thvn<sup>55</sup>  
 aŋ<sup>33</sup>phi<sup>55</sup>  
 te<sup>55</sup>tchi<sup>33</sup>tchi<sup>33</sup>  
 khi<sup>31</sup>  
 lun<sup>55</sup>  
 lun<sup>55</sup>tsot<sup>31</sup>  
 le<sup>31</sup>vaj<sup>31</sup>ci<sup>33</sup>  
 xa<sup>31</sup>kap<sup>33</sup>gaŋ<sup>55</sup>  
 luŋ<sup>31</sup>khun<sup>31</sup>tu<sup>31</sup>  
 ka<sup>31</sup>ko<sup>33</sup>liu<sup>55</sup>  
 pv<sup>33</sup>  
 gaŋ<sup>33</sup>  
 khi<sup>31</sup>  
 ka<sup>31</sup>  
 khi<sup>31</sup>ba<sup>31</sup>  
 khi<sup>31</sup>ta<sup>33</sup>  
 zaŋ<sup>33</sup>noŋ<sup>31</sup>u<sup>33</sup>khi<sup>31</sup>  
 xvn<sup>31</sup>  
 luŋ<sup>33</sup>pha<sup>31</sup>

long hunting knife  
 bow  
 back of a bow  
 bowstring  
 arrow  
 arrowhead  
 arrow shaft  
 crossbow  
 bow and crossbow  
 fish (v.)  
 go hunting  
 surround (in hunting)  
 round up and hunt  
 put down a net  
 set a trap  
 dig a pit  
 chase away  
 shoot (arrows)  
 hit the target  
 chase  
 drive or herd cattle  
 drive out to the mountains  
 catch up with someone  
 follow, pursue  
 escape, flee  
 cause to stumble or trip

### 3.2 Animal Husbandry

phaŋ<sup>31</sup>tin<sup>31</sup>  
 ko<sup>33</sup>lo<sup>33</sup>  
 kjap<sup>33</sup>thu<sup>33</sup>  
 son<sup>33</sup>tsɿ<sup>33</sup>  
 va<sup>31</sup>eŋ<sup>31</sup>  
 pe<sup>33</sup>le<sup>33</sup>eŋ<sup>31</sup>  
 paŋ<sup>31</sup>na<sup>33</sup>eŋ<sup>31</sup>  
 ni<sup>33</sup>am<sup>33</sup>on<sup>55</sup>  
 mo<sup>31</sup>ka<sup>31</sup>aj<sup>33</sup>ku<sup>33</sup>  
 mo<sup>31</sup>ka<sup>31</sup>aj<sup>33</sup>koŋ<sup>33</sup>  
 aŋ<sup>33</sup>tsa<sup>55</sup>  
 va<sup>31</sup>tsa<sup>31</sup>  
 paŋ<sup>31</sup>na<sup>33</sup>aŋ<sup>33</sup>tsa<sup>55</sup>  
 tɕin<sup>31</sup>maŋ<sup>31</sup>

tent, thatched shed  
 pen (for cattle)  
 railings, paling, bars  
 wooden stake  
 pig excrement  
 sheep's droppings  
 cow dung  
 green grass  
 dry grass  
 pile of grass  
 fodder  
 pig swill  
 cattle feed  
 domestic animals

a<sup>31</sup>moŋ<sup>31</sup>  
 a<sup>31</sup>moŋ<sup>31</sup>aŋ<sup>33</sup>la<sup>31</sup>  
 a<sup>31</sup>moŋ<sup>31</sup>aŋ<sup>33</sup>ba<sup>33</sup>  
 a<sup>31</sup>mjaŋ<sup>31</sup>paŋ<sup>31</sup>na<sup>33</sup>  
 a<sup>31</sup>mjaŋ<sup>31</sup>  
 paŋ<sup>31</sup>na<sup>33</sup>  
 paŋ<sup>31</sup>na<sup>33</sup>aŋ<sup>33</sup>la<sup>31</sup>  
 paŋ<sup>31</sup>na<sup>33</sup>aŋ<sup>33</sup>ba<sup>33</sup>  
 paŋ<sup>31</sup>na<sup>33</sup>aŋ<sup>33</sup>za<sup>31</sup>  
 tchin<sup>55</sup>pu<sup>33</sup>pe<sup>33</sup>le<sup>33</sup>  
 pe<sup>33</sup>le<sup>33</sup>aŋ<sup>33</sup>la<sup>31</sup>  
 pe<sup>33</sup>le<sup>33</sup>aŋ<sup>33</sup>ba<sup>33</sup>  
 pe<sup>33</sup>le<sup>33</sup>  
 va<sup>31</sup>  
 va<sup>31</sup>dum<sup>31</sup>  
 va<sup>31</sup>ba<sup>33</sup>  
 khu<sup>31</sup>  
 khu<sup>31</sup>khi<sup>31</sup>maŋ<sup>31</sup>  
 khu<sup>31</sup>fu<sup>31</sup>  
 khu<sup>31</sup>ba<sup>33</sup>  
 khtu<sup>31</sup>luŋ<sup>33</sup>  
 khu<sup>31</sup>za<sup>31</sup>  
 a<sup>55</sup>mi<sup>55</sup>  
 pan<sup>33</sup>tai<sup>31</sup>  
 za<sup>33</sup>ni<sup>31</sup>  
 za<sup>33</sup>  
 a<sup>31</sup>kau<sup>31</sup>  
 a<sup>31</sup>ki<sup>33</sup>  
 toŋ<sup>55</sup>ka<sup>31</sup>ki<sup>33</sup>  
 za<sup>33</sup>pha<sup>31</sup>  
 za<sup>33</sup>ba<sup>33</sup>  
 aŋ<sup>33</sup>khjau<sup>55</sup>  
 pha<sup>31</sup>va<sup>31</sup>  
 a<sup>31</sup>moŋ<sup>31</sup>la<sup>31</sup>suŋ<sup>31</sup>  
 pe<sup>33</sup>le<sup>33</sup>aŋ<sup>33</sup>my<sup>31</sup>  
 va<sup>31</sup>my<sup>31</sup>  
 toŋ<sup>31</sup>mi<sup>31</sup>  
 la<sup>31</sup>suŋ<sup>31</sup>  
 pha<sup>31</sup>ce<sup>31</sup>  
 aŋ<sup>33</sup>toŋ<sup>55</sup>  
 aŋ<sup>33</sup>my<sup>31</sup>  
 tu<sup>31</sup>bo<sup>33</sup>

horse  
 stallion  
 mare  
 cattle (generic term)  
 ox, cattle  
 water buffalo  
 bull  
 cow  
 calf  
 sheep  
 ram  
 ewe  
 goat  
 pig  
 hog  
 sow  
 dog  
 hunting dog  
 male dog  
 bitch  
 full-grown dog  
 puppy  
 cat  
 rabbit  
 pheasant  
 chicken  
 duck  
 goose  
 dove  
 cockerel  
 hen  
 horn (bovine)  
 mammal with even-numbered toes  
 mammal with odd-numbered toes  
 wool  
 bristles (of a hog)  
 tail  
 claw  
 hind hoof  
 wing  
 body hair, fur, feathers  
 cockscomb

toŋ<sup>31</sup>tsuŋ<sup>33</sup>  
(za<sup>33</sup>)pi<sup>55</sup>lit<sup>55</sup>, lun<sup>31</sup>lit<sup>55</sup>  
a<sup>31</sup>moŋ<sup>31</sup>man<sup>31</sup>tshu<sup>31</sup>  
le<sup>31</sup>tu<sup>31</sup>  
a<sup>31</sup>moŋ<sup>31</sup>man<sup>31</sup>kaŋ<sup>31</sup>  
khi<sup>55</sup>aŋ<sup>33</sup>  
aŋ<sup>33</sup>laŋ<sup>33</sup>

ma<sup>33</sup>kan<sup>33</sup>, tam<sup>55</sup>phi<sup>31</sup>  
poŋ<sup>31</sup>poŋ<sup>33</sup>phu<sup>33</sup>  
moŋ<sup>31</sup>naŋ<sup>31</sup>  
ok<sup>55</sup>kue<sup>31</sup>  
na<sup>55</sup>toŋ<sup>31</sup>  
aŋ<sup>33</sup>phi<sup>55</sup>sa<sup>55</sup>  
aŋ<sup>33</sup>phi<sup>55</sup>khi<sup>31</sup>  
aŋ<sup>33</sup>tuj<sup>31</sup>  
aŋ<sup>33</sup>zou<sup>55</sup>  
po<sup>33</sup>  
sui<sup>31</sup>  
san<sup>31</sup>  
tun<sup>33</sup>/o<sup>31</sup>tun<sup>33</sup>  
lv<sup>31</sup>  
pjo<sup>31</sup>  
ta<sup>33</sup>  
moŋ<sup>31</sup>tsaŋ<sup>31</sup>tha<sup>31</sup>

### 3.3 Farming

na<sup>31</sup>za<sup>55</sup>  
ntuŋ<sup>55</sup>tsha<sup>31</sup>  
za<sup>55</sup>aŋ<sup>33</sup>tan<sup>33</sup>  
za<sup>55</sup>  
na<sup>31</sup>  
na<sup>31</sup>khuj<sup>31</sup>  
za<sup>55</sup>khja<sup>31</sup>  
aŋ<sup>33</sup>kja<sup>55</sup>  
  
za<sup>55</sup>aŋ<sup>33</sup>phjaŋ<sup>33</sup>  
na<sup>31</sup>lot<sup>31</sup>za<sup>55</sup>  
laŋ<sup>55</sup>luŋ<sup>31</sup>  
za<sup>55</sup>laŋ<sup>31</sup>kho<sup>31</sup>  
thi<sup>31</sup>nu<sup>33</sup>tchi<sup>55</sup>thi<sup>31</sup>nu<sup>33</sup>ten<sup>33</sup>  
the<sup>55</sup>bo<sup>31</sup>za<sup>55</sup>

tail (of a bird)  
crop (of a chicken)  
bridle  
reins  
bit (of a bridle)  
saddle  
frame for a load which is carried by a pack  
animal  
whip  
girth  
stirrup  
yoke  
nose-ring  
be in heat or oestrus  
mate (v.)  
(of a domestic animal) put on flesh, get fat  
(of a domestic animal) lose flesh  
put out to pasture, graze  
cut up with a hay cutter (chop fodder)  
feed (chickens)  
castrate (geld or spay)  
peel (v.)  
peel completely  
ride (a horse)  
nail on horseshoes

field  
soil  
flat farmland  
dry land, non-irrigated farmland  
paddy field  
low bank of earth between fields (ridge)  
field ditch, furrow  
rectangular pieces of land in a field separated  
by ridges, usually for growing vegetables  
sloping farmland  
terraced fields  
land in the valleys  
low-lying land  
land for rotational farming  
fallow land

ba<sup>31</sup>ten<sup>33</sup>la<sup>55</sup>aŋ<sup>31</sup>  
za<sup>55</sup>phum<sup>31</sup>  
ko<sup>33</sup>tat<sup>33</sup>  
laŋ<sup>55</sup>byŋ<sup>33</sup>  
laŋ<sup>55</sup>kja<sup>55</sup>  
luŋ<sup>31</sup>khuj<sup>31</sup>  
za<sup>55</sup>  
ko<sup>33</sup>  
kau<sup>33</sup>liaŋ<sup>35</sup>  
maŋ<sup>55</sup>pum<sup>31</sup>  
khau<sup>55</sup>son<sup>31</sup>  
khau<sup>55</sup>my<sup>31</sup>  
tchau<sup>31</sup>  
la<sup>31</sup>so<sup>33</sup>  
tsho<sup>55</sup>lin<sup>33</sup>  
u<sup>31</sup>tai<sup>31</sup>  
khon<sup>31</sup>tei<sup>31</sup>  
za<sup>55</sup>ba<sup>55</sup>ma<sup>31</sup>lu<sup>31</sup>  
a<sup>55</sup>ta<sup>33</sup>lo<sup>55</sup>phij<sup>31</sup>  
poŋ<sup>31</sup>tshau<sup>31</sup>  
no<sup>33</sup>pe<sup>33</sup>  
no<sup>33</sup>pvk<sup>33</sup>  
pe<sup>33</sup>nuŋ<sup>31</sup>, py<sup>33</sup>lum<sup>55</sup>  
an<sup>31</sup>thu<sup>31</sup>no<sup>33</sup>pe<sup>33</sup>  
tsho<sup>33</sup>tv<sup>31</sup>  
tsho<sup>33</sup>nu<sup>33</sup>  
kha<sup>55</sup>phu<sup>31</sup>  
phu<sup>31</sup>do<sup>31</sup>  
phu<sup>31</sup>kha<sup>55</sup>  
khau<sup>55</sup>son<sup>31</sup>aŋ<sup>33</sup>phy<sup>31</sup>  
kho<sup>33</sup>mja<sup>33</sup>  
lan<sup>55</sup>  
mja<sup>33</sup>pja<sup>33</sup>  
thaŋ<sup>33</sup>za<sup>31</sup>  
kmj<sup>31</sup>  
mja<sup>33</sup>ŋ<sup>31</sup>lo<sup>33</sup>ba<sup>33</sup>  
mja<sup>33</sup>kue<sup>31</sup>  
kho<sup>33</sup>  
kju<sup>31</sup>  
tshan<sup>33</sup>tshan<sup>33</sup>  
mi<sup>31</sup>tho<sup>31</sup>tv<sup>33</sup>ne<sup>33</sup>mja<sup>33</sup>  
mja<sup>33</sup>

farmland left to go to waste (uncultivated)  
land with change of crops  
threshing floor  
wide ditch or channel  
ditch, canal  
beehive  
crops  
rice, paddy  
sorghum  
maize  
wheat  
barley  
buckwheat  
bitter buckwheat  
peanut  
cotton flower  
hemp  
flax  
sunflower  
sugar cane  
beans (general term)  
soya bean  
mung bean  
cowpea  
broad bean  
pea  
chaff  
fine chaff  
husk  
bran (of wheat, barley and other grain)  
tool  
axe  
sheath  
knife or sword carried at the waist  
long spear, lance  
whetstone, grindstone (for sharpening knives)  
flail  
hoe  
sickle  
shovel, spade  
knife for chopping firewood  
knife

mja <sup>33</sup> so <sup>31</sup>	blade of a knife
mja <sup>33</sup> phu <sup>31</sup>	handle of a knife
thai <sup>55</sup>	ploughshare, plough
thai <sup>55</sup> ba <sup>55</sup>	handle of a plough
thai <sup>55</sup> tu <sup>55</sup>	handgrip on the handle of a plough
thai <sup>55</sup> kue <sup>31</sup>	ploughshare
tu <sup>31</sup> ci <sup>31</sup>	tip of the plough
ke <sup>33</sup> sy <sup>31</sup>	wooden harrow
la <sup>31</sup> pu <sup>31</sup> tshu <sup>33</sup> ne <sup>33</sup> kak <sup>33</sup>	harrow for using in paddy fields
pa <sup>31</sup> tam <sup>31</sup> , thiau <sup>33</sup> tam <sup>31</sup>	shoulder pole
thau <sup>31</sup> laŋ <sup>31</sup>	mallet
tam <sup>55</sup> tshyn <sup>55</sup>	rod, stick
ko <sup>33</sup> tci <sup>55</sup>	granary
tshy <sup>31</sup> xvŋ <sup>31</sup>	sieve (n.)
ko <sup>33</sup> ga <sup>55</sup>	winnowing fan
tchi <sup>31</sup> lo <sup>31</sup>	basket
ko <sup>33</sup> kha <sup>33</sup>	large bamboo basket
ko <sup>33</sup> khja <sup>55</sup>	back basket
ko <sup>33</sup> xum <sup>33</sup>	shallow basket made from thin bamboo strips
le <sup>31</sup> tu <sup>31</sup>	rope, string
mo <sup>55</sup> tu <sup>31</sup>	watermill
phuŋ <sup>31</sup> tsu <sup>31</sup>	(stone) mortar
ko <sup>33</sup> ko <sup>33</sup> zum <sup>55</sup>	mill
toŋ <sup>33</sup> tshum <sup>55</sup>	treadle-operated tilt hammer for hulling rice
tshum <sup>55</sup> khaj <sup>55</sup>	container for the above
toŋ <sup>33</sup> kan <sup>55</sup>	rod of the above
nuŋ <sup>55</sup> tsha <sup>31</sup> aj <sup>33</sup> sŋ <sup>55</sup>	yellow soil
nuŋ <sup>55</sup> tsha <sup>31</sup> aj <sup>33</sup> tsha <sup>31</sup>	sandy soil
nuŋ <sup>55</sup> tsha <sup>31</sup> aj <sup>33</sup> ne <sup>55</sup>	red soil
nuŋ <sup>55</sup> tsha <sup>31</sup> aj <sup>33</sup> ket <sup>31</sup>	clay
ko <sup>33</sup> lu <sup>33</sup>	disaster, calamity
nuŋ <sup>55</sup> tsha <sup>55</sup> ku <sup>33</sup> , ko <sup>33</sup> ba <sup>31</sup> men <sup>31</sup>	drought
muŋ <sup>31</sup> xo <sup>31</sup> bja <sup>31</sup> ko <sup>33</sup> , ba <sup>31</sup> maŋ <sup>31</sup>	damage or crop failure caused by waterlogging
u <sup>31</sup> tsum <sup>31</sup> tša <sup>31</sup> ko <sup>33</sup> , ba <sup>31</sup> men <sup>31</sup>	a plague of insects
(o <sup>31</sup> khui <sup>31</sup> )kan <sup>33</sup>	collect (farmyard) manure
(o <sup>31</sup> khui <sup>31</sup> )ko <sup>33</sup>	select (manure)
(o <sup>31</sup> khui <sup>31</sup> )phum <sup>55</sup>	soak, steep (manure)
khau <sup>55</sup> ka <sup>55</sup> kaŋ <sup>55</sup>	pull up seedlings
na <sup>31</sup> kha <sup>33</sup>	(transplant) seedlings
thai <sup>55</sup>	plough (field)
kak <sup>33</sup>	harrow (field)
kun <sup>55</sup>	hoe (ground)

xau <sup>33</sup> , bu <sup>55</sup>	weed (v.)
kha <sup>33</sup>	plant
(aj <sup>33</sup> zau <sup>31</sup> )tche <sup>55</sup>	select seeds
(aj <sup>33</sup> zau <sup>31</sup> )tu <sup>33</sup>	soak seeds (in water)
(aj <sup>33</sup> zau <sup>31</sup> )san <sup>31</sup>	sow seeds
kaŋ <sup>55</sup>	pull out (grass, weeds)
(ko <sup>33</sup> )khu <sup>31</sup>	harvest (rice)
ty <sup>33</sup>	fell (tree)
tci <sup>33</sup>	cleave open
khot <sup>55</sup>	break open (with both hands)
ko <sup>33</sup> kau <sup>31</sup> lap <sup>31</sup>	separate (a bundle of grain)
kun <sup>31</sup>	irrigate, fill with (water)
cin <sup>31</sup>	sprinkle, splash (water)
tshy <sup>31</sup>	draw off (water)
tyŋ <sup>33</sup>	block up (water)
kan <sup>33</sup>	channel (water)
san <sup>31</sup>	sprinkle (water)
(tam <sup>55</sup> phi <sup>31</sup> )tshyt <sup>33</sup>	flourish (a whip)
(ko <sup>33</sup> )tciŋ <sup>31</sup>	transport (grain)

#### 3.4 Cottage Industries

tan <sup>33</sup> pan <sup>33</sup>	bamboo strip
tu <sup>55</sup> la <sup>31</sup>	hammer
ze <sup>31</sup> ma <sup>33</sup>	saw
sam <sup>55</sup> sa <sup>33</sup>	file
thui <sup>55</sup> pau <sup>55</sup>	plane
cu <sup>31</sup>	chisel
kun <sup>55</sup> kun <sup>55</sup> kho <sup>33</sup>	adze
te <sup>55</sup> li <sup>55</sup>	pliers
li <sup>55</sup> van <sup>33</sup>	awl
thau <sup>31</sup> laŋ <sup>31</sup>	drill
pi <sup>31</sup> te <sup>31</sup>	anvil
mo <sup>31</sup> tou <sup>33</sup>	carpenter's ink marker
sam <sup>55</sup> ce <sup>31</sup>	nail
aj <sup>33</sup> ce <sup>31</sup>	wedge
pjaŋ <sup>33</sup> poŋ <sup>31</sup>	bellows
xak <sup>33</sup>	paint
buŋ <sup>55</sup> kho <sup>33</sup> luŋ <sup>31</sup> khui <sup>31</sup>	tile kiln
luŋ <sup>31</sup> khui <sup>31</sup>	charcoal kiln
aj <sup>33</sup> du <sup>33</sup>	sawdust
lo <sup>31</sup>	refine (steel)
myk <sup>33</sup> , mek <sup>33</sup> , the <sup>33</sup>	hammer (iron)



tsho<sup>33</sup>  
ko<sup>55</sup>  
(ko<sup>55</sup>piŋ<sup>31</sup>)ko<sup>55</sup>  
le<sup>31</sup>  
phap<sup>31</sup>  
thuj<sup>31</sup>ne<sup>31</sup>  
tu<sup>31</sup>  
ga<sup>31</sup>  
nen<sup>31</sup>  
mek<sup>33</sup>  
(aŋ<sup>33</sup>xon<sup>55</sup>)thun<sup>55</sup>  
thoŋ<sup>55</sup>  
bui<sup>55</sup>

#### 4. Daily Living

##### 4.1 Dwellings

laŋ<sup>55</sup>kja<sup>55</sup>  
zum<sup>55</sup>khum<sup>31</sup>  
kham<sup>55</sup>pja<sup>55</sup>  
cen<sup>31</sup>ko<sup>55</sup>tsot<sup>33</sup>  
aŋ<sup>33</sup>khum<sup>31</sup>  
kaŋ<sup>31</sup>ba<sup>33</sup>za<sup>55</sup>  
laŋ<sup>55</sup>tu<sup>31</sup>  
tsuan<sup>33</sup>  
buŋ<sup>55</sup>kho<sup>33</sup>  
zum<sup>55</sup>khyn<sup>33</sup>  
aŋ<sup>33</sup>dum<sup>31</sup>  
taŋ<sup>31</sup>pen<sup>31</sup>  
pum<sup>55</sup>  
tu<sup>31</sup>kin<sup>33</sup>  
la<sup>55</sup>tei<sup>55</sup>zum<sup>55</sup>  
cen<sup>31</sup>zum<sup>55</sup>  
zum<sup>55</sup>  
ko<sup>31</sup>luŋ<sup>31</sup>  
zum<sup>55</sup>ba<sup>33</sup>  
  
zum<sup>55</sup>za<sup>31</sup>  
zum<sup>55</sup>za<sup>31</sup>  
mi<sup>31</sup>pum<sup>31</sup>  
mi<sup>31</sup>khau<sup>31</sup>o<sup>31</sup>za<sup>31</sup>  
tsam<sup>55</sup>poŋ<sup>55</sup>

build (a house)  
lay (bricks)  
plaster (a wall)  
apply, smear; brush, scrub  
batten down a roof with bamboo or wood  
ram, pound (foundation)  
dig (a hole)  
weave (basket)  
press (with a stone)  
nail (v.)  
chisel, cut a hole  
drill, bore (a hole)  
support (with head or hands)

foundation  
courtyard  
fence (made from bamboo or twigs)  
walls surrounding a house  
courtyard, yard  
vegetable garden  
well  
brick  
tile  
timber, lumber  
wood, log  
board, plank  
lime  
sun-dried mud brick, adobe  
thatched cottage (grass house)  
house made with sun-dried mud bricks, adobe  
house  
room  
principal room (in a courtyard, usually facing south)  
side-room (usually facing southeast)  
kitchen  
fireplace  
chimney  
stairs

aŋ<sup>33</sup>thai<sup>31</sup>  
laŋ<sup>55</sup>ko<sup>33</sup>khan<sup>31</sup>  
aŋ<sup>33</sup>khutŋ<sup>31</sup>  
zum<sup>55</sup>ti<sup>31</sup>  
aŋ<sup>33</sup>zuŋ<sup>55</sup>  
khoy<sup>55</sup>tshaj<sup>33</sup>  
khoy<sup>55</sup>tshaj<sup>33</sup>  
zum<sup>55</sup>num<sup>55</sup>  
zum<sup>55</sup>khjau<sup>55</sup>  
zum<sup>55</sup>nyn<sup>55</sup>  
aŋ<sup>33</sup>boŋ<sup>31</sup>  
cen<sup>31</sup>  
le<sup>31</sup>  
laŋ<sup>55</sup>ko<sup>33</sup>  
laŋ<sup>55</sup>ko<sup>33</sup>pin<sup>31</sup>  
laŋ<sup>55</sup>ko<sup>33</sup>aŋ<sup>33</sup>dum<sup>31</sup>  
laŋ<sup>55</sup>ko<sup>33</sup>khat<sup>33</sup>  
zuŋ<sup>55</sup>nu<sup>55</sup>  
laŋ<sup>55</sup>ko<sup>33</sup>le<sup>31</sup>du<sup>31</sup>  
zu<sup>31</sup>pam<sup>31</sup>  
te<sup>55</sup>phu<sup>33</sup>  
o<sup>31</sup>phin<sup>31</sup>  
o<sup>31</sup>phin<sup>31</sup>aŋ<sup>33</sup>ne<sup>55</sup>  
khai<sup>31</sup>ne<sup>31</sup>o<sup>31</sup>phin<sup>31</sup>  
tu<sup>31</sup>kh<sup>33</sup>  
pha<sup>55</sup>kaŋ<sup>55</sup>

steps leading up to a house  
eaves of a verandah  
railing  
floorboards  
post, pillar  
roof beam  
purlin  
rafter  
ceiling  
ridge of a house  
roof  
wall  
crack in a wall  
door  
door frame  
threshold  
door bolt, bar  
window  
door curtain  
bed  
mat  
quilt  
blanket  
mattress, mat  
pillow  
mosquito net

##### 4.2 Furniture, Tools, and Activities of Daily Living

xaj<sup>31</sup>phvn<sup>31</sup>  
toŋ<sup>31</sup>kun<sup>31</sup>  
ka<sup>55</sup>lat<sup>55</sup>khuj<sup>31</sup>luŋ<sup>31</sup>  
kui<sup>33</sup>ka<sup>55</sup>  
tyŋ<sup>33</sup>  
soŋ<sup>31</sup>sŋ<sup>31</sup>  
laŋ<sup>55</sup>tsho<sup>31</sup>zyŋ<sup>33</sup>  
laŋ<sup>55</sup>poŋ<sup>31</sup>  
koŋ<sup>55</sup>  
zyŋ<sup>33</sup>aŋ<sup>33</sup>za<sup>31</sup>  
zyŋ<sup>33</sup>aŋ<sup>33</sup>xui<sup>31</sup>  
pha<sup>33</sup>ku<sup>33</sup>  
le<sup>31</sup>pok<sup>31</sup>  
tsam<sup>55</sup>poŋ<sup>55</sup>

table  
stool  
box  
cupboard, wardrobe; chest  
lamp  
candle  
vat, crock  
thick bamboo tube used for carrying water  
bottle, jar  
pot, pitcher, jug  
earthen jar  
sack (for storing grain)  
hoop  
ladder

kaŋ <sup>33</sup> xum <sup>33</sup>	umbrella
so <sup>55</sup>	lock
zo <sup>31</sup> tshŋ <sup>55</sup>	key
kha <sup>55</sup> la <sup>55</sup>	ash
eŋ <sup>31</sup>	excrement
aŋ <sup>33</sup> tcit <sup>31</sup>	rubbish
aŋ <sup>33</sup> sot <sup>31</sup>	dregs
o <sup>31</sup> khui <sup>31</sup>	manure
zu <sup>55</sup>	feed (animals)
phjak <sup>31</sup>	chop (firewood)
tsvn <sup>33</sup>	burn (firewood)
lum <sup>55</sup>	warm (oneself by the fire)
lau <sup>31</sup>	dry (clothes by the fire)
khaŋ <sup>31</sup>	make the bed
kham <sup>55</sup>	fetch (water)
tsap <sup>33</sup>	light a fire
mi <sup>31</sup> tho <sup>31</sup> mi <sup>33</sup>	blow a fire
ki <sup>33</sup>	grind (rice), husk (rice)
sŋ <sup>31</sup>	sharpen (knife)
cen <sup>31</sup> thoŋ <sup>31</sup>	pound (grain)
xvŋ <sup>31</sup>	sieve (food)
ga <sup>55</sup>	winnow (rice)
phoŋ <sup>33</sup>	open (the door)
phi <sup>31</sup>	shut (the door)
kue <sup>31</sup>	sweep (the floor)
tsap <sup>33</sup>	light (a lamp)
dvn <sup>55</sup>	drill (a hole)
tan <sup>33</sup>	fill in (a hole)
tshau <sup>31</sup>	block up (the opening to a hole)
koŋ <sup>33</sup>	pile (earth)
phum <sup>33</sup>	bury (objects)
tshoŋ <sup>33</sup>	hide (objects)
tche <sup>33</sup>	break, snap (string, rope)
ton <sup>31</sup>	break (rod, stick)
khvk <sup>33</sup>	break (partially, not completely broken)
pha <sup>33</sup>	break (bowl)
zik <sup>31</sup>	tear (of clothes)
poŋ <sup>31</sup>	create (a hole)
khe <sup>31</sup>	create a breach or gap
kaŋ <sup>33</sup> xum <sup>33</sup> kho <sup>33</sup>	open an umbrella
ze <sup>31</sup> , zau <sup>55</sup>	use
zau <sup>55</sup>	want

ga <sup>33</sup>	obtain
zu <sup>55</sup>	gather in (as of harvest)
pju <sup>33</sup>	lose
sa <sup>55</sup>	find, look for
tu <sup>31</sup>	hit (with the hand)
mek <sup>33</sup>	hit (with a rod or stick)
pe <sup>33</sup>	pound
po <sup>31</sup>	leak (water)
poŋ <sup>31</sup>	be open at the bottom (v.)
bok <sup>33</sup>	hide

### 4.3 Food and Drink

ko <sup>33</sup>	grain, food (general term)
ko <sup>33</sup> tcin <sup>55</sup>	rice (uncooked)
aŋ <sup>33</sup> du <sup>33</sup>	flour
tchau <sup>31</sup> aŋ <sup>33</sup> du <sup>33</sup>	buckwheat flour
aŋ <sup>33</sup> tshŋ <sup>55</sup>	oil
aŋ <sup>33</sup> tshŋ <sup>55</sup>	edible vegetable oil
kaŋ <sup>31</sup> ba <sup>33</sup> aŋ <sup>33</sup> tshŋ <sup>55</sup>	vegetable oil
tsho <sup>55</sup> lin <sup>33</sup> aŋ <sup>33</sup> tshŋ <sup>55</sup>	peanut oil
no <sup>33</sup> pe <sup>33</sup> aŋ <sup>33</sup> tshŋ <sup>55</sup>	soya bean oil
aŋ <sup>33</sup> tshŋ <sup>55</sup> aŋ <sup>33</sup> khvn <sup>33</sup>	leaf fat
e <sup>55</sup> khi <sup>31</sup> la <sup>31</sup> khi <sup>33</sup> aŋ <sup>33</sup> tshŋ <sup>55</sup>	butter
kaŋ <sup>31</sup> ba <sup>33</sup>	vegetables
pau <sup>33</sup> tsh <sup>55</sup>	cabbage
ba <sup>33</sup> tcin <sup>31</sup>	Chinese cabbage
kaŋ <sup>31</sup> ba <sup>33</sup> ba <sup>33</sup> kha <sup>31</sup>	bitter vegetable
po <sup>33</sup> tsh <sup>55</sup>	spinach
kaŋ <sup>31</sup> paŋ <sup>33</sup> tshŋ <sup>55</sup>	rape
nam <sup>33</sup> to <sup>33</sup> khui <sup>31</sup> tsa <sup>31</sup>	Chinese chives
kaŋ <sup>31</sup> pu <sup>33</sup>	carrot
thuŋ <sup>31</sup> ku <sup>31</sup>	Chinese onion ( <i>Allium chinense</i> )
pum <sup>31</sup> u <sup>33</sup>	taro
mjaŋ <sup>55</sup> tshŋ <sup>31</sup>	ginger
kjau <sup>33</sup>	<i>Amorphophallus rivieri</i>
zaŋ <sup>31</sup> i <sup>33</sup>	potato
my <sup>31</sup> kui <sup>33</sup>	sweet potato
tuŋ <sup>31</sup> kho <sup>31</sup>	wax gourd, white gourd
tyŋ <sup>33</sup> kue <sup>33</sup>	pumpkin
laŋ <sup>55</sup> tyŋ <sup>55</sup>	bottle gourd, calabash
sŋ <sup>31</sup> kho <sup>31</sup>	cucumber
ma <sup>55</sup> khv <sup>55</sup>	aubergine

la<sup>31</sup>phi<sup>31</sup>  
 e<sup>55</sup>ap<sup>31</sup>  
 a<sup>55</sup>phi<sup>31</sup>zok<sup>33</sup>  
 laŋ<sup>55</sup>tsho<sup>31</sup>pu<sup>31</sup>u<sup>33</sup>  
 ce<sup>55</sup>puŋ<sup>31</sup>  
 la<sup>31</sup>son<sup>31</sup>  
 moŋ<sup>55</sup>  
 moŋ<sup>55</sup>kha<sup>31</sup>  
 moŋ<sup>55</sup>sɿ<sup>55</sup>  
 moŋ<sup>55</sup>tchi<sup>55</sup>  
 moŋ<sup>55</sup>nan<sup>31</sup>  
 sa<sup>31</sup>phu<sup>33</sup>moŋ<sup>55</sup>  
 moŋ<sup>55</sup>tshau<sup>55</sup>  
 za<sup>55</sup>tshɿ<sup>55</sup>moŋ<sup>55</sup>  
 taŋ<sup>31</sup>khaŋ<sup>33</sup>moŋ<sup>55</sup>nu<sup>55</sup>  
 e<sup>31</sup>kha<sup>31</sup>tun<sup>33</sup>soi<sup>55</sup>  
 mu<sup>31</sup>su<sup>31</sup>ka<sup>33</sup>ma<sup>33</sup>  
 tsa<sup>33</sup>le<sup>33</sup>moŋ<sup>55</sup>  
 nu<sup>33</sup>khau<sup>33</sup>moŋ<sup>55</sup>  
  
 moŋ<sup>55</sup>phum<sup>55</sup>  
 a<sup>31</sup>kha<sup>31</sup>te<sup>31</sup>li<sup>31</sup>au<sup>31</sup>  
  
 tchiŋ<sup>55</sup>tcaŋ<sup>55</sup>  
 aŋ<sup>33</sup>tchin<sup>55</sup>aŋ<sup>33</sup>tsha<sup>55</sup>  
 tsau<sup>31</sup>zam<sup>31</sup>  
 tsau<sup>31</sup>sɿ<sup>31</sup>  
 me<sup>31</sup>pit<sup>55</sup>  
 sa<sup>31</sup>me<sup>31</sup>  
 kaŋ<sup>31</sup>ba<sup>33</sup>aŋ<sup>33</sup>sɿ<sup>31</sup>  
 kaŋ<sup>31</sup>ba<sup>33</sup>aŋ<sup>33</sup>ku<sup>33</sup>  
 mi<sup>31</sup>khu<sup>31</sup>  
 kaŋ<sup>31</sup>tchin<sup>31</sup>  
 sa<sup>31</sup>py<sup>31</sup>  
 sa<sup>31</sup>py<sup>31</sup>aŋ<sup>33</sup>tshɿ<sup>55</sup>  
 sa<sup>31</sup>py<sup>31</sup>aŋ<sup>33</sup>ma<sup>55</sup>  
 a<sup>31</sup>mjaŋ<sup>31</sup>luŋ<sup>33</sup>tsha<sup>55</sup>  
 aŋ<sup>33</sup>tchin<sup>55</sup>aŋ<sup>33</sup>tsha<sup>55</sup>  
 aŋ<sup>33</sup>u<sup>33</sup>  
 u<sup>33</sup>pon<sup>31</sup>  
 u<sup>33</sup>sɿ<sup>55</sup>  
 so<sup>33</sup>xaŋ<sup>31</sup>

chilli  
 towel gourd, dishcloth gourd  
 bitter gourd  
 lotus root  
 spring onion  
 garlic  
 mushroom  
 white mushroom  
 yellow mushroom  
 tree mushroom  
 white tree-mushroom  
 mountain mushroom  
 a species of mushroom  
 a red mushroom of the above species  
 a green mushroom of the above species  
 a yellow mushroom of the above species  
 a large mushroom of the above species  
 a thick mushroom of the above species  
 “bamboo hat” mushroom  
 (a large mushroom)  
*Xianggu* mushroom  
 an edible fungus (*Auricularia auriculajudae* or Jew’s ear)  
 soy sauce  
 vinegar  
 Chinese prickly ash  
 Chinese prickly ash (individual grain)  
 pepper  
 salt  
 fresh vegetables  
 dried vegetables  
 dried bamboo shoots  
 pickled vegetables  
 meat  
 fatty meat  
 lean meat  
 milk  
 yoghurt  
 egg  
 egg white  
 egg yolk  
 breakfast

nmŋ<sup>33</sup>xaŋ<sup>31</sup>  
 khi<sup>31</sup>xaŋ<sup>31</sup>  
 kaŋ<sup>31</sup>pha<sup>31</sup>  
 xaŋ<sup>31</sup>  
 xaŋ<sup>31</sup>tshɿ<sup>31</sup>  
 xaŋ<sup>31</sup>thun<sup>31</sup>  
 man<sup>31</sup>thou<sup>33</sup>  
 khau<sup>55</sup>son<sup>31</sup>aŋ<sup>33</sup>len<sup>33</sup>  
 aŋ<sup>33</sup>du<sup>33</sup>aŋ<sup>33</sup>len<sup>33</sup>  
 poŋ<sup>31</sup>(tshau<sup>31</sup>tshau<sup>55</sup>pin<sup>31</sup>)  
 py<sup>31</sup>thaŋ<sup>31</sup>  
 piŋ<sup>33</sup>thaŋ<sup>31</sup>  
 pja<sup>31</sup>tɿ<sup>31</sup>  
 xaŋ<sup>31</sup>pot<sup>31</sup>  
 aŋ<sup>33</sup>tsha<sup>55</sup>  
 sa<sup>31</sup>py<sup>31</sup>aŋ<sup>33</sup>tsha<sup>55</sup>  
 kaŋ<sup>31</sup>pha<sup>31</sup>aŋ<sup>33</sup>tsha<sup>55</sup>  
 laŋ<sup>55</sup>lum<sup>33</sup>  
 sa<sup>31</sup>py<sup>31</sup>aŋ<sup>33</sup>ci<sup>33</sup>  
 sa<sup>31</sup>py<sup>31</sup>aŋ<sup>33</sup>kja<sup>55</sup>  
 tha<sup>33</sup>pen<sup>31</sup>  
 xaŋ<sup>31</sup>tsu<sup>33</sup>  
 tsa<sup>31</sup>tsy<sup>31</sup>  
 li<sup>55</sup>laŋ<sup>55</sup>  
 li<sup>55</sup>laŋ<sup>55</sup>aŋ<sup>33</sup>pha<sup>31</sup>  
 te<sup>31</sup>kha<sup>31</sup>  
 aŋ<sup>33</sup>phi<sup>55</sup>te<sup>31</sup>kha<sup>31</sup>  
 man<sup>55</sup>mvn<sup>31</sup>te<sup>31</sup>kha<sup>31</sup>  
 te<sup>31</sup>kha<sup>31</sup>pa<sup>33</sup>tsa<sup>31</sup>  
 aŋ<sup>33</sup>to<sup>31</sup>te<sup>31</sup>kha<sup>31</sup>  
 aŋ<sup>33</sup>kvŋ<sup>55</sup>te<sup>31</sup>kha<sup>31</sup>  
 za<sup>33</sup>khon<sup>31</sup>  
 ko<sup>55</sup>za<sup>33</sup>ke<sup>33</sup>mja<sup>33</sup>  
 za<sup>33</sup>khon<sup>31</sup>poŋ<sup>31</sup>laŋ<sup>33</sup>

lunch  
 evening meal  
 dishes (accompanying rice)  
 rice (cooked)  
 crust of cooked rice, rice crust  
*zanba*, roasted *qingke* barley flour  
 steamed bun  
 steamed stuffed bun  
 bread  
 brown sugar  
 white sugar  
 crystal sugar  
 honey  
 porridge  
 soup  
 meat broth  
 vegetable soup  
 boiled water  
 minced meat  
 sliced meat  
 bean curd  
 noodles made from bean or sweet potato starch  
 food (general term)  
 tea  
 tea leaves  
 alcohol  
 spirit, usually distilled from sorghum or maize  
 wine  
 distillers’ grains  
 low-proof alcohol  
 sweet wine  
 cigarettes  
 pipe  
 long smoking tube

#### 4.4 Food Preparation, Cooking, and Eating

tshe<sup>35</sup>tau<sup>33</sup>  
 te<sup>33</sup>phan<sup>33</sup>  
 mi<sup>31</sup>kuŋ<sup>33</sup>  
 mi<sup>31</sup>tho<sup>31</sup>aŋ<sup>33</sup>pau<sup>33</sup>  
 sam<sup>55</sup>khui<sup>55</sup>  
 mi<sup>31</sup>tv<sup>33</sup>, mi<sup>31</sup>tho<sup>31</sup>mi<sup>31</sup>tv<sup>33</sup>

chopper  
 chopping board  
 chopping block  
 match  
 tripod  
 firewood

sam <sup>55</sup> than <sup>31</sup>	fire tongs
ponj <sup>31</sup> lanj <sup>33</sup>	tube for blowing a fire
mi <sup>31</sup> ci <sup>33</sup> xu <sup>33</sup> ne <sup>33</sup> an <sup>55</sup> phi <sup>31</sup>	poker
mi <sup>31</sup> da <sup>33</sup>	soot on the bottom of a pan
mo <sup>55</sup> thaj <sup>55</sup>	pot, pan
tu <sup>31</sup> kap <sup>33</sup> , tu <sup>31</sup> puj <sup>31</sup>	lid
kon <sup>31</sup>	ladle
thvn <sup>33</sup> xu <sup>33</sup> kon <sup>31</sup>	slice (a kitchen utensil)
than <sup>31</sup> thu <sup>31</sup>	chopsticks
tsum <sup>33</sup> mja <sup>31</sup>	bowl
phan <sup>31</sup> phan <sup>31</sup>	plate
lo <sup>33</sup> kho <sup>31</sup>	small plate
tsum <sup>33</sup> pe <sup>33</sup>	cup
kon <sup>31</sup> aj <sup>33</sup> za <sup>31</sup>	spoon (small spoon for drinking soup)
xaj <sup>31</sup> kon <sup>31</sup>	spoon (large serving spoon)
lanj <sup>55</sup> tvj <sup>55</sup>	kettle
la <sup>31</sup> tche <sup>33</sup>	teapot
lo <sup>55</sup> kho <sup>31</sup>	earthen bowl
la <sup>31</sup> na <sup>31</sup>	handle
thuj <sup>31</sup>	bucket
pha <sup>31</sup> tshau <sup>31</sup>	spigot
zum <sup>55</sup> ti <sup>31</sup> za <sup>33</sup> tu <sup>55</sup>	broom
ce <sup>31</sup>	kill (chickens)
pak <sup>31</sup>	cut open (belly of a fish)
khu <sup>31</sup>	ladle (water)
zu <sup>33</sup>	scoop up
xvt <sup>33</sup> to <sup>33</sup> lau <sup>55</sup>	scoop out
tshu <sup>55</sup>	boil
(mi <sup>31</sup> khau <sup>31</sup> )tshum <sup>31</sup>	rise (of smoke)
ci <sup>33</sup>	pour (into a bowl)
khja <sup>55</sup>	pour away
tchi <sup>31</sup>	wash (rice)
kep <sup>33</sup>	knead (dough)
sa <sup>31</sup>	steam
tsuj <sup>31</sup>	stew
phok <sup>33</sup>	bake in a pan
khu <sup>55</sup>	stir-fry
khu <sup>55</sup>	shallow fry
phu <sup>31</sup>	deep-fry
tvj <sup>33</sup> kju <sup>33</sup>	simmer
ci <sup>33</sup>	put scalding water into a wok
tvj <sup>33</sup>	cook (rice)

kaj <sup>31</sup> tchin <sup>31</sup>	pickle vegetables
thoj <sup>31</sup>	pound with a pestle (garlic)
xet <sup>33</sup>	cut, chop, slice
tho <sup>33</sup>	chop, cut (meat)
suj <sup>55</sup>	smoke (cooking method)
(xaj <sup>31</sup> )khv <sup>31</sup>	put (rice) in a bowl
t <sup>31</sup>	eat
t <sup>31</sup> bu <sup>31</sup> ba <sup>31</sup> t <sup>31</sup> bu <sup>31</sup>	taste
be <sup>31</sup> za <sup>31</sup>	sip, suck
tanj <sup>55</sup>	drink
tshok <sup>33</sup>	suck
ko <sup>31</sup> za <sup>31</sup> /ko <sup>31</sup>	chew
naj <sup>33</sup>	swallow
be <sup>31</sup>	lick, lap
bum <sup>55</sup>	hold in the mouth
tche <sup>31</sup>	bite
tsha <sup>31</sup>	crack something between the teeth
kv <sup>31</sup> , khv <sup>31</sup>	gnaw, nibble
tshom <sup>31</sup>	choke (food stuck in the throat)
than <sup>31</sup>	pick up (vegetables or meat from a dish)
li <sup>55</sup> lanj <sup>55</sup> tu <sup>33</sup>	infuse (with boiling water), make tea
tau <sup>55</sup>	filter (tea)
xet <sup>31</sup>	drunk (on wine)
tshau <sup>31</sup>	choke (leading to a coughing fit)
o <sup>31</sup> phe <sup>31</sup>	vomit
pvj <sup>33</sup> /o <sup>31</sup> pvj <sup>33</sup>	full (of food)
be <sup>31</sup> , bjan <sup>31</sup>	hungry
ku <sup>33</sup>	thirsty
aj <sup>33</sup> xom <sup>55</sup>	fragrant
aj <sup>33</sup> nam <sup>55</sup>	smelly
pu <sup>31</sup> nam <sup>55</sup>	smelly, as of rotten fish
aj <sup>33</sup> xetj <sup>31</sup>	salty
ba <sup>31</sup> am <sup>55</sup>	bland (lacking salt)
t <sup>31</sup> bu <sup>31</sup> , aj <sup>33</sup> xom <sup>55</sup> aj <sup>33</sup> tsh <sup>55</sup>	delicious
aj <sup>33</sup> gap <sup>33</sup>	crisp
nan <sup>31</sup>	tough
aj <sup>33</sup> tshau <sup>55</sup>	sweet
aj <sup>33</sup> tchin <sup>55</sup>	sour
aj <sup>33</sup> kha <sup>31</sup>	bitter
aj <sup>33</sup> kha <sup>31</sup>	hot (spicy)
aj <sup>33</sup> pin <sup>31</sup>	numb (hot taste burns the tongue)
aj <sup>33</sup> phan <sup>55</sup>	astringent

#### 4.5 Clothes, Clothes-making, Grooming, and Sleeping

nam <sup>55</sup>	cloth
aj <sup>33</sup> my <sup>31</sup> nam <sup>31</sup>	woollen cloth (for heavy clothing)
u <sup>31</sup> te <sup>31</sup> nam <sup>31</sup>	cotton
pha <sup>55</sup> gy <sup>55</sup> nam <sup>55</sup>	sackcloth, hessian
phu <sup>55</sup> kje <sup>33</sup> nam <sup>55</sup>	silk fabric
xo <sup>33</sup> zot <sup>33</sup> nam <sup>55</sup>	satin
kha <sup>31</sup> lau <sup>33</sup>	clothes, garment
kha <sup>31</sup> lau <sup>33</sup>	coat (upper outer garment)
thi <sup>31</sup> phyn <sup>31</sup>	unlined garment
tui <sup>31</sup>	trousers
khi <sup>33</sup> du <sup>55</sup>	dress
luŋ <sup>55</sup> kja <sup>55</sup> kha <sup>31</sup> lau <sup>33</sup>	vest
tun <sup>31</sup> xvŋ <sup>31</sup> tui <sup>31</sup>	a piece of cloth worn by children to protect the chest and abdomen and which is tied at the back
kaŋ <sup>55</sup> thup <sup>31</sup>	cloth used for carrying children on the back
pe <sup>31</sup> tsa <sup>55</sup>	pocket
kha <sup>31</sup> lau <sup>33</sup> ni <sup>31</sup> lap <sup>33</sup>	the outer side of a garment
kha <sup>31</sup> lau <sup>33</sup> aj <sup>33</sup> khau <sup>55</sup>	the lining of a garment
luŋ <sup>55</sup> khan <sup>31</sup>	collar
la <sup>31</sup> poŋ <sup>31</sup>	sleeve
la <sup>31</sup> poŋ <sup>31</sup> man <sup>31</sup> khan <sup>31</sup>	cuff (of a sleeve)
kha <sup>31</sup> lau <sup>33</sup> luŋ <sup>55</sup> ga <sup>31</sup>	the one or two pieces which make up the front of a Chinese jacket
tui <sup>31</sup> le <sup>33</sup> cin <sup>55</sup>	waistband of trousers
to <sup>31</sup> to <sup>31</sup> le <sup>31</sup> cit <sup>33</sup>	belt (of trousers)
tui <sup>31</sup> poŋ <sup>31</sup>	trouser-legs
maŋ <sup>31</sup> kaŋ <sup>33</sup> khur <sup>55</sup> poŋ <sup>31</sup>	puttees
tui <sup>31</sup> phuŋ <sup>33</sup> ka <sup>33</sup>	crotch (of trousers)
tun <sup>31</sup> ka <sup>31</sup>	open-seat trousers for children
pi <sup>55</sup> sŋ <sup>31</sup>	button (sewn on by machine)
pi <sup>55</sup> khup <sup>31</sup> tu <sup>31</sup> lu <sup>33</sup>	button (sewn on by hand)
ke <sup>31</sup> bu <sup>31</sup>	rain cape
aj <sup>33</sup> poŋ <sup>31</sup>	hole
kha <sup>31</sup> lau <sup>33</sup> to <sup>31</sup>	patch
kha <sup>31</sup> lau <sup>33</sup> thau <sup>33</sup>	bundle wrapped in cloth
tu <sup>31</sup> tshoŋ <sup>31</sup>	hat
pha <sup>55</sup> cei <sup>33</sup>	headscarf
tu <sup>31</sup> pau <sup>33</sup>	headkerchief
ko <sup>33</sup> gau <sup>31</sup> suŋ <sup>31</sup> kho <sup>33</sup>	straw hat

suŋ <sup>31</sup> kho <sup>33</sup>	bamboo hat
la <sup>31</sup> tshoŋ <sup>31</sup>	gloves
suŋ <sup>31</sup> no <sup>33</sup>	shoes
suŋ <sup>31</sup> no <sup>33</sup> aj <sup>33</sup> moŋ <sup>55</sup>	boots
sa <sup>31</sup> lu <sup>31</sup> suŋ <sup>31</sup> no <sup>33</sup>	leather shoes
nam <sup>55</sup> pu <sup>55</sup> suŋ <sup>31</sup> no <sup>33</sup>	cloth shoes
ko <sup>33</sup> gau <sup>31</sup> suŋ <sup>31</sup> no <sup>33</sup>	straw sandals
khur <sup>55</sup> khjet <sup>33</sup>	socks
suŋ <sup>31</sup> no <sup>33</sup> le <sup>31</sup> tu <sup>31</sup>	shoelaces
nai <sup>31</sup>	spinning wheel
nam <sup>55</sup> khvŋ <sup>33</sup>	loom
nam <sup>55</sup> tso <sup>33</sup>	weaver's shuttle
vi <sup>31</sup> li <sup>31</sup> va <sup>33</sup> laŋ <sup>33</sup>	frame on to which thread is wound
khur <sup>55</sup> tha <sup>31</sup>	thread
nam <sup>55</sup> khun <sup>55</sup>	warp
kan <sup>33</sup> pho <sup>31</sup>	weft
khur <sup>31</sup> kjau <sup>31</sup>	needle
ti <sup>55</sup> lik <sup>55</sup>	scissors
nam <sup>55</sup> tek <sup>31</sup>	ruler
phyn <sup>31</sup>	washbasin
me <sup>33</sup> ta <sup>31</sup>	mirror
tshau <sup>55</sup> pjau <sup>33</sup> , fe <sup>35</sup> tsau <sup>31</sup>	soap
tshau <sup>55</sup> pjau <sup>33</sup> aj <sup>33</sup> xom <sup>55</sup>	toilet soap
aj <sup>33</sup> du <sup>33</sup>	powder
aj <sup>33</sup> xom <sup>55</sup> tshŋ <sup>31</sup> ka <sup>31</sup>	vanishing cream
tu <sup>31</sup> khja <sup>33</sup>	comb
cin <sup>55</sup> ko <sup>33</sup>	a double-edged fine-toothed comb (for delousing)
tu <sup>31</sup> tsho <sup>33</sup> thaŋ <sup>33</sup> za <sup>31</sup>	barber's knife
man <sup>31</sup> my <sup>31</sup> tsho <sup>33</sup> le <sup>31</sup> , ne <sup>31</sup> thaŋ <sup>33</sup> za <sup>31</sup>	razor
la <sup>31</sup> pan <sup>31</sup>	ring, thimble
la <sup>31</sup> kuŋ <sup>31</sup>	bracelet
ci <sup>55</sup> lin <sup>55</sup> , phu <sup>55</sup>	necklace
na <sup>31</sup> kho <sup>33</sup>	earrings
na <sup>31</sup> xvŋ <sup>31</sup>	ear pendant
pjaj <sup>33</sup> vet <sup>33</sup>	fan
səu <sup>33</sup> pjau <sup>33</sup>	wristwatch
me <sup>31</sup> gu <sup>33</sup>	spectacles (glasses)
la <sup>31</sup> ce <sup>33</sup> ta <sup>31</sup>	handkerchief
sam <sup>55</sup> phe <sup>31</sup>	plait
(khur <sup>55</sup> tha <sup>31</sup> )pan <sup>55</sup>	wind (thread)
ku <sup>31</sup>	sew, embroider

tsy<sup>31</sup>  
 than<sup>31</sup>  
 kvn<sup>31</sup>  
 (aŋ<sup>33</sup>kja<sup>55</sup>)svŋ<sup>33</sup>  
 toŋ<sup>31</sup>tsau<sup>31</sup>ku<sup>33</sup>  
 phu<sup>55</sup>  
 (pi<sup>55</sup>sɿ<sup>31</sup>)tsho<sup>31</sup>  
 ny<sup>31</sup>  
 to<sup>31</sup>  
 te<sup>31</sup>len<sup>31</sup>  
 tum<sup>33</sup>  
 (tu<sup>31</sup>tshoŋ<sup>31</sup>)tshoŋ<sup>31</sup>  
 (tu<sup>31</sup>pau<sup>33</sup>)pau<sup>33</sup>  
 (suŋ<sup>31</sup>no<sup>33</sup>)no<sup>33</sup>  
 cit<sup>33</sup>  
 pan<sup>55</sup>  
 khoŋ<sup>55</sup>  
 tsau<sup>33</sup>  
 khja<sup>33</sup>  
 (cin<sup>55</sup>ko<sup>33</sup>)ko<sup>33</sup>  
  
 phe<sup>31</sup>  
 tsho<sup>33</sup>  
 aŋ<sup>33</sup>maŋ<sup>55</sup>tchi<sup>31</sup>, laŋ<sup>55</sup>khau<sup>31</sup>khau<sup>31</sup>  
 tchi<sup>31</sup>  
 man<sup>31</sup>my<sup>31</sup>tsho<sup>33</sup>  
 (me<sup>33</sup>ta<sup>31</sup>)fu<sup>33</sup>  
 le<sup>33</sup>  
 zu<sup>31</sup>noŋ<sup>31</sup>oŋ<sup>55</sup>  
 zu<sup>31</sup>noŋ<sup>31</sup>kho<sup>31</sup>  
 me<sup>33</sup>byn<sup>55</sup>byn<sup>55</sup>  
 za<sup>31</sup>  
 zu<sup>31</sup>noŋ<sup>31</sup>bot<sup>33</sup>  
 zu<sup>31</sup>ma<sup>31</sup>xai<sup>31</sup>  
 aŋ<sup>33</sup>du<sup>31</sup>  
 do<sup>31</sup>ne<sup>31</sup>

#### 4.6 Travel and Hospitality

ke<sup>55</sup>ba<sup>33</sup>  
 kat<sup>55</sup>ka<sup>33</sup>tan<sup>33</sup>  
 sam<sup>55</sup>ke<sup>55</sup>ba<sup>33</sup>  
 tshy<sup>33</sup>ke<sup>55</sup>ba<sup>33</sup>

knit  
 cut out (a garment)  
 spin (thread)  
 make a tailor's chalk line  
 thread a needle  
 take apart (a garment)  
 sew on (button)  
 dye (a garment)  
 mend  
 go barefoot (v.)  
 put on (clothes)  
 wear (a hat)  
 wrap round (headscarf)  
 wear (shoes)  
 tie (belt)  
 wrap round (scarf)  
 put on (a coat)  
 wash (clothes)  
 comb (hair)  
 comb one's hair with a double-edged fine-toothed comb  
 plait (hair)  
 cut one's hair  
 have a bath  
 wash (hands)  
 shave  
 look in (a mirror)  
 take off (clothes)  
 fall asleep  
 snore  
 dream  
 itchy  
 have a nap  
 yawn  
 tired  
 exhausted

road  
 street  
 railway  
 highway

tshoŋ<sup>31</sup>koŋ<sup>31</sup>ke<sup>55</sup>ba<sup>33</sup>  
 ke<sup>55</sup>ba<sup>33</sup>thaŋ<sup>31</sup>lu<sup>33</sup>  
 ke<sup>55</sup>ba<sup>33</sup>aŋ<sup>33</sup>za<sup>31</sup>  
 ke<sup>55</sup>ŋam<sup>33</sup>  
 ke<sup>55</sup>ko<sup>33</sup>  
 kai<sup>55</sup>khu<sup>33</sup>  
 tshv<sup>33</sup>tsɿ<sup>33</sup>  
 loŋ<sup>31</sup>lin<sup>31</sup>  
 tchi<sup>55</sup>tshy<sup>33</sup>  
 a<sup>31</sup>moŋ<sup>31</sup>tshy<sup>33</sup>  
 luŋ<sup>55</sup>  
 luŋ<sup>55</sup>aŋ<sup>33</sup>tam<sup>55</sup>  
 luŋ<sup>55</sup>py<sup>31</sup>ne<sup>31</sup>  
 pho<sup>31</sup>ne<sup>31</sup>  
 sam<sup>55</sup>kho<sup>31</sup>li<sup>55</sup>  
 thsv<sup>33</sup>tu<sup>31</sup>cin<sup>33</sup>  
 suŋ<sup>33</sup>tsuŋ<sup>55</sup>luŋ<sup>55</sup>  
 a<sup>31</sup>moŋ<sup>31</sup>le<sup>31</sup>luŋ<sup>33</sup>  
 tsha<sup>55</sup>pa<sup>31</sup>tam<sup>31</sup>  
 fei<sup>33</sup>tci<sup>33</sup>  
 tshun<sup>33</sup>kun<sup>31</sup>  
 nen<sup>31</sup>laŋ<sup>33</sup>ga<sup>33</sup>  
 (zum<sup>55</sup>)phan<sup>55</sup>  
 ku<sup>31</sup>  
 pak<sup>31</sup>  
 pho<sup>33</sup>  
 xan<sup>55</sup>  
 men<sup>55</sup>  
 bo<sup>31</sup>  
 naŋ<sup>55</sup>my<sup>55</sup>ta<sup>33</sup>ta<sup>33</sup>  
 aŋ<sup>33</sup>tshɿ<sup>31</sup>ten<sup>33</sup>  
 phu<sup>31</sup>  
 khop<sup>33</sup>  
 taŋ<sup>31</sup>  
 khom<sup>31</sup>  
 mjaŋ<sup>55</sup>laŋ<sup>33</sup>ga<sup>33</sup>  
 tchi<sup>33</sup>a<sup>33</sup>, bo<sup>31</sup>a<sup>55</sup>sa<sup>31</sup>bo<sup>33</sup>lu<sup>55</sup>  
 zɿ<sup>31</sup>aŋ<sup>55</sup>  
 ke<sup>55</sup>ba<sup>33</sup>ma<sup>31</sup>  
 thi<sup>31</sup>the<sup>31</sup>up<sup>31</sup>laŋ<sup>33</sup>ga<sup>33</sup>  
 pyŋ<sup>31</sup>laŋ<sup>33</sup>ga<sup>33</sup>  
 tham<sup>55</sup>

mountain path  
 main road  
 footpath  
 byroad  
 crossing, mountain pass  
 bridge  
 cart (small vehicle)  
 train  
 automobile  
 horse-drawn cart  
 boat  
 punt pole  
 oar  
 rudder  
 anchor  
 wheel  
 raft  
 packhorse train  
 sedan chair  
 aeroplane  
 walking stick  
 be crowded or packed  
 move (house)  
 cross a river, wade or ford  
 hoist onto shoulders with a pole  
 drive (a cart)  
 carry on the back (firewood, grain)  
 carry on the back (child)  
 call at someone's home  
 attend (wedding, funeral)  
 celebrate a festival  
 meet, come across  
 knock (at a door)  
 wait  
 welcome  
 meet, see  
 ask a guest to remain  
 remain  
 lead the way, act as a guide  
 say farewell  
 part (v.)  
 invite someone to one's home

te<sup>31</sup>kha<sup>31</sup>khan<sup>55</sup>  
khan<sup>31</sup>pon<sup>31</sup>pon<sup>31</sup>  
te<sup>31</sup>kha<sup>31</sup>taŋ<sup>55</sup>lum<sup>31</sup>  
phaŋ<sup>55</sup>bj<sup>33</sup>

sɿ<sup>31</sup>  
paŋ<sup>55</sup>  
ta<sup>33</sup>  
ka<sup>33</sup>

## 5. Society and Culture

### 5.1 The Nation, Government, and Law

khuj<sup>31</sup>suŋ<sup>31</sup>  
saŋ<sup>55</sup>tsaŋ<sup>31</sup>  
khu<sup>55</sup>tsaŋ<sup>31</sup>  
kuan<sup>31</sup>sɿ<sup>31</sup>  
kuan<sup>31</sup>fu<sup>33</sup>  
muŋ<sup>31</sup>bin<sup>31</sup>  
zo<sup>33</sup>kha<sup>33</sup>  
bi<sup>55</sup>tsy<sup>33</sup>tshaŋ<sup>55</sup>  
tchi<sup>31</sup>tsaŋ<sup>33</sup>  
aŋ<sup>33</sup>mvŋ<sup>55</sup>  
khonj<sup>31</sup>  
zaŋ<sup>33</sup>xu<sup>33</sup>  
zaŋ<sup>33</sup>kuan<sup>31</sup>ne<sup>31</sup>  
khuj<sup>33</sup>  
thu<sup>55</sup>sɿ<sup>33</sup>

zo<sup>33</sup>kha<sup>33</sup>  
tshaŋ<sup>55</sup>tsy<sup>55</sup>zo<sup>31</sup>tsy<sup>31</sup>  
xo<sup>55</sup>tshaŋ<sup>55</sup>  
za<sup>31</sup>tu<sup>31</sup>  
tehe<sup>31</sup>li<sup>31</sup>  
ba<sup>31</sup>xau<sup>33</sup>mu<sup>55</sup>naŋ<sup>33</sup>xv<sup>33</sup>  
thi<sup>31</sup>ga<sup>31</sup>  
kha<sup>31</sup>toŋ<sup>33</sup>kha<sup>33</sup>pu<sup>55</sup>  
thi<sup>31</sup>ga<sup>31</sup>mo<sup>55</sup>me<sup>33</sup>  
xau<sup>55</sup>pi<sup>31</sup>  
up<sup>31</sup>kja<sup>31</sup>  
khai<sup>33</sup>xui<sup>55</sup>  
teŋ<sup>33</sup>

propose a toast  
drink a toast  
clink glasses  
invite a guest to be seated (includes offering one's seat)  
look after (a child)  
play with (a child)  
go up (a mountain or on to a cart)  
go down (a mountain or get off a cart)

headman  
vice-headman  
steward  
manager  
group leader  
world  
country, nation  
foreign country  
village in the countryside  
city, town  
village, hamlet  
manor  
ruler  
government official  
*tusi* (hereditary headman appointed by the government in the Yuan, Ming, and Qing dynasties for national minorities)  
headman (chief)  
ethnic group  
the Han people  
common people  
right (n.)  
assignment, task  
concentrate, centralise, focus (v.)  
be free (v.)  
be equal  
announce  
notify  
hold a meeting  
join (the Communist Party, a trade union)

phi<sup>33</sup>phin<sup>31</sup>  
tcin<sup>31</sup>za<sup>31</sup>  
ma<sup>31</sup>la<sup>31</sup>va<sup>31</sup>  
poŋ<sup>31</sup>  
xa<sup>33</sup>to<sup>33</sup>lai<sup>31</sup>  
aŋ<sup>33</sup>kja<sup>33</sup>  
tci<sup>55</sup>laŋ<sup>33</sup>ga<sup>33</sup>ne<sup>55</sup>  
poŋ<sup>31</sup>la<sup>31</sup>  
tsa<sup>33</sup>bo<sup>33</sup>lu<sup>31</sup>  
zo<sup>33</sup>kha<sup>33</sup>kje<sup>55</sup>ba<sup>33</sup>fa<sup>31</sup>li<sup>31</sup>  
aŋ<sup>33</sup>bat<sup>33</sup>  
ven<sup>31</sup>tsui<sup>31</sup>  
tshaŋ<sup>55</sup>luŋ<sup>55</sup>ne<sup>55</sup>zum<sup>55</sup>  
ci<sup>31</sup>ne<sup>33</sup>tshaŋ<sup>55</sup>  
aŋ<sup>33</sup>the<sup>55</sup>up<sup>31</sup>laŋ<sup>33</sup>ga<sup>33</sup>  
na<sup>55</sup>bat<sup>33</sup>  
za<sup>55</sup>fu<sup>33</sup>  
to<sup>33</sup>khe<sup>33</sup>  
phvŋ<sup>31</sup>  
luŋ<sup>55</sup>  
pat<sup>33</sup>  
kha<sup>31</sup>  
te<sup>31</sup>kai<sup>31</sup>, phen<sup>55</sup>  
tu<sup>31</sup>laŋ<sup>33</sup>ga<sup>33</sup>  
zat<sup>31</sup>  
poŋ<sup>31</sup>ve<sup>31</sup>

### 5.2 Economics and Commerce

phu<sup>55</sup>ko<sup>33</sup>tc<sup>55</sup>  
taŋ<sup>31</sup>kak<sup>33</sup>  
kon<sup>31</sup>ne<sup>31</sup>vu<sup>55</sup>ne<sup>55</sup>  
kat<sup>55</sup>  
ka<sup>31</sup>fu<sup>31</sup>  
phu<sup>55</sup>  
pvn<sup>31</sup>tsj<sup>33</sup>aŋ<sup>33</sup>tsa<sup>33</sup>  
li<sup>35</sup>ci<sup>31</sup>  
in<sup>31</sup>xaj<sup>31</sup>  
saŋ<sup>33</sup>tie<sup>33</sup>  
phu<sup>55</sup>aŋ<sup>33</sup>khan<sup>55</sup>  
aŋ<sup>33</sup>tsha<sup>31</sup>  
tsaŋ<sup>33</sup>kin<sup>55</sup>  
tsaŋ<sup>33</sup>kin<sup>55</sup>le<sup>31</sup>u<sup>33</sup>

criticise  
praise, commend  
support  
help  
save (a life)  
live in harmony  
modestly decline  
forgive  
bear a grudge, take revenge  
law  
evidence  
crime  
prison  
prisoner  
accuse  
interrogate  
mediate  
release  
be treated unjustly  
put in prison  
rape  
steal (objects)  
deceive (someone)  
fight  
snatch, grab, rob  
conceal

place for storing money  
doing business (n.)  
buying and selling (n.)  
market  
wages  
money  
capital  
interest  
bank  
shop  
price  
mark  
steelyard  
the sliding weight of a steelyard

lij <sup>55</sup> toŋ <sup>31</sup>	small steelyard for weighing precious metals, medicine, <i>etc.</i>
vur <sup>55</sup>	buy
koŋ <sup>31</sup>	sell
kat <sup>55</sup> tv <sup>33</sup>	gather in one place to exchange goods, buy, or sell
tchi <sup>31</sup>	borrow or lend (money)
tsyk <sup>55</sup>	borrow or lend (items)
tsha <sup>33</sup>	owe
pi <sup>31</sup> le <sup>31</sup>	return
aŋ <sup>33</sup> e <sup>31</sup>	give
khai <sup>31</sup>	exchange
pvyŋ <sup>31</sup>	distribute
phu <sup>55</sup> oŋ <sup>55</sup> la <sup>55</sup> ne <sup>55</sup>	earn money
pi <sup>31</sup>	compensate
phu <sup>55</sup> sau <sup>31</sup>	repay money
phu <sup>55</sup> cu <sup>33</sup> za <sup>31</sup> fu <sup>33</sup>	collect taxes
bu <sup>55</sup>	employ
pi <sup>31</sup> tche <sup>33</sup> la <sup>31</sup>	possess
bu <sup>55</sup> ga <sup>33</sup> ne <sup>55</sup>	waste (money, resources)
ti <sup>31</sup>	pawn (goods, objects)
la <sup>31</sup> xa <sup>31</sup>	exchange, convert (money)
(aŋ <sup>33</sup> kyŋ <sup>31</sup> )pui <sup>31</sup>	display (goods)
tek <sup>31</sup>	measure
la <sup>31</sup> khur <sup>31</sup> tek <sup>31</sup>	measure by footsteps
aŋ <sup>33</sup> tho <sup>55</sup> tek <sup>31</sup>	measure by handspans
aŋ <sup>33</sup> lam <sup>55</sup> tek <sup>31</sup>	measure by armspans
tsaŋ <sup>31</sup>	weigh (objects)
phon <sup>55</sup>	measure by <i>dou</i> 's
aŋ <sup>33</sup> fu <sup>31</sup> aŋ <sup>33</sup> pen <sup>55</sup>	raise the price
aŋ <sup>33</sup> fu <sup>31</sup> aŋ <sup>33</sup> ka <sup>33</sup>	lower the price
poŋ <sup>33</sup> khe <sup>33</sup>	disperse

### 5.3 Sociocultural Activities: Sports, Recreation, and Education

o <sup>31</sup> li <sup>31</sup>	customs
xa <sup>33</sup> lvŋ <sup>55</sup> /lvŋ <sup>55</sup>	habits
aŋ <sup>33</sup> nuŋ <sup>33</sup> ko <sup>55</sup>	festivals
aŋ <sup>33</sup> pju <sup>31</sup>	writing (n.)
tsv <sup>31</sup> taŋ <sup>31</sup>	song, folk song
taŋ <sup>31</sup> an <sup>31</sup>	story
thai <sup>31</sup> aŋ <sup>33</sup> men <sup>55</sup>	riddle
aŋ <sup>33</sup> xaj <sup>31</sup> ten <sup>33</sup>	picture

e <sup>31</sup> phu <sup>31</sup>	ball
sa <sup>31</sup> gau <sup>31</sup> du <sup>31</sup> laŋ <sup>33</sup> ga <sup>33</sup> ne <sup>55</sup>	<i>mahjong</i>
pi <sup>55</sup> poŋ <sup>31</sup> pi <sup>31</sup> la <sup>55</sup>	musical instrument
tin <sup>55</sup> cin <sup>33</sup>	<i>huqin</i>
li <sup>55</sup> to <sup>33</sup>	bamboo flute
pi <sup>55</sup> ci <sup>55</sup> lit <sup>55</sup> to <sup>33</sup>	<i>xiao</i> , a bamboo recorder
toŋ <sup>55</sup> poŋ <sup>31</sup> toŋ <sup>33</sup> pi <sup>55</sup>	horn
tin <sup>55</sup> xan <sup>31</sup>	an instrument in the violin family
sum <sup>55</sup> ne <sup>31</sup> tin <sup>55</sup> cin <sup>33</sup>	<i>saxian</i> , a three-stringed plucked instrument
ni <sup>31</sup> ne <sup>31</sup> tin <sup>55</sup> cin <sup>33</sup>	<i>erhu</i>
taŋ <sup>55</sup> poŋ <sup>31</sup> ve <sup>31</sup> le <sup>55</sup>	trumpet
phi <sup>55</sup> phi <sup>55</sup>	whistle
phoŋ <sup>31</sup> kyn <sup>31</sup>	musical instrument made of bamboo, which is put in the mouth and blown
tsuŋ <sup>55</sup> buŋ <sup>55</sup> , tshan <sup>33</sup> buŋ <sup>55</sup>	gong
tuŋ <sup>31</sup> tuŋ <sup>31</sup>	drum
pen <sup>31</sup> suŋ <sup>31</sup>	resin
(aŋ <sup>33</sup> pju <sup>31</sup> )tsɿ <sup>31</sup>	recognise (characters)
khe <sup>31</sup>	carve
khv <sup>33</sup>	play (the flute)
laŋ <sup>55</sup> ve <sup>55</sup> ve <sup>55</sup>	swim
laŋ <sup>55</sup> oŋ <sup>55</sup> oŋ <sup>55</sup>	dive (go under water)
to <sup>31</sup> o <sup>31</sup> laŋ <sup>55</sup> tcim <sup>55</sup>	swim under water
pha <sup>55</sup> laŋ <sup>33</sup> ga <sup>33</sup> , ka <sup>31</sup> tek <sup>31</sup> laŋ <sup>33</sup> ga <sup>33</sup>	wrestling
ka <sup>31</sup> ku <sup>31</sup> laŋ <sup>33</sup> ga <sup>33</sup>	trial of strength
co <sup>31</sup> thaŋ <sup>31</sup>	school
tsoŋ <sup>33</sup>	bell (which is struck)
pin <sup>55</sup> lin <sup>55</sup> mek <sup>33</sup>	small bell ( <i>e.g.</i> hung round the neck of an animal)
aŋ <sup>33</sup> lai <sup>31</sup>	book
aŋ <sup>33</sup> pu <sup>55</sup>	notebook
ka <sup>55</sup> lat <sup>55</sup>	paper
aŋ <sup>33</sup> lai <sup>31</sup> , aŋ <sup>33</sup> pju <sup>31</sup>	letter
my <sup>31</sup> tsɿ <sup>31</sup>	prepared Chinese ink
my <sup>31</sup> sui <sup>33</sup>	ink
ko <sup>55</sup> tap <sup>55</sup>	pen
kan <sup>55</sup> pi <sup>31</sup>	fountain pen
tehan <sup>55</sup> pi <sup>31</sup>	pencil
my <sup>31</sup> lo <sup>55</sup> kho <sup>31</sup>	inkstone
xaj <sup>31</sup> pvn <sup>31</sup>	paste (for sticking paper together)
thsaj <sup>55</sup> miŋ <sup>55</sup> kun <sup>55</sup> , ne <sup>55</sup> sa <sup>31</sup> gau <sup>31</sup>	seal
lin <sup>31</sup>	learn



lin<sup>31</sup>zam<sup>31</sup>  
 ma<sup>31</sup>  
 kot<sup>55</sup>  
 sun<sup>55</sup>  
 dap<sup>33</sup>  
 ik<sup>31</sup>  
 vi<sup>33</sup>  
 tanj<sup>31</sup>an<sup>31</sup>up<sup>31</sup>  
 zaj<sup>31</sup>  
 ze<sup>31</sup>lanj<sup>33</sup>ga<sup>33</sup>  
 u<sup>31</sup>lanj<sup>33</sup>ga<sup>33</sup>  
 ktu<sup>55</sup>du<sup>31</sup>  
 kuan<sup>31</sup>  
 aj<sup>33</sup>the<sup>55</sup>ze<sup>31</sup>lanj<sup>33</sup>ga<sup>33</sup>

have lessons  
 teach  
 write, record  
 calculate  
 count  
 add  
 subtract  
 tell stories  
 put up (posters, slogans)  
 discuss  
 solve (a problem)  
 notice  
 protect  
 converse, talk

#### 5.4 The Army, Weapons, and War

py<sup>33</sup>lanj<sup>33</sup>ga<sup>33</sup>  
 thi<sup>31</sup>lum<sup>31</sup>luj<sup>33</sup>ba<sup>33</sup>  
 tcin<sup>55</sup>  
 stuj<sup>33</sup>nat<sup>33</sup>  
 pau<sup>35</sup>  
 mv<sup>55</sup>sɿ<sup>31</sup>  
 mv<sup>55</sup>  
 sam<sup>33</sup>tu<sup>31</sup>tshonj<sup>31</sup>  
 sam<sup>55</sup>tsanj<sup>31</sup>  
 len<sup>55</sup>  
 ij<sup>33</sup>pij<sup>33</sup>  
 py<sup>33</sup>lanj<sup>33</sup>ga<sup>33</sup>  
 oŋ<sup>55</sup>ne<sup>33</sup>le<sup>33</sup>  
 lo<sup>31</sup>lanj<sup>33</sup>  
 kyn<sup>31</sup>thvj<sup>33</sup>  
 bok<sup>33</sup>lanj<sup>33</sup>  
 aj<sup>33</sup>tvj<sup>33</sup>  
 danj<sup>33</sup>tca<sup>31</sup>  
 kap<sup>33</sup>ba<sup>33</sup>bi<sup>31</sup>  
 ka<sup>31</sup>za<sup>31</sup>  
 ba<sup>31</sup>ka<sup>31</sup>  
 (anj<sup>33</sup>tu<sup>31</sup>)pe<sup>55</sup>

war  
 peace  
 troops  
 gun, weapon  
 cannon  
 bullet  
 gunpowder, explosives (dynamite)  
 helmet  
 armour  
 army unit  
 flag  
 go to war  
 attack  
 defend  
 assassinate  
 conceal, hide  
 enrol in the army  
 be injured  
 capture, take prisoner  
 win  
 lose, be defeated  
 surrender

#### 5.5 Religion

lam<sup>55</sup>aj<sup>33</sup>sɿ<sup>55</sup>  
 aj<sup>33</sup>de<sup>31</sup>  
 aj<sup>33</sup>cvj<sup>55</sup>  
 kan<sup>31</sup>tap<sup>33</sup>  
 ur<sup>31</sup>za<sup>31</sup>tshot<sup>33</sup>za<sup>55</sup>  
 se<sup>33</sup>xup<sup>33</sup>  
 aj<sup>33</sup>the<sup>31</sup>aj<sup>33</sup>tvj<sup>55</sup>  
 o<sup>31</sup>li<sup>31</sup>teŋ<sup>55</sup>  
 saj<sup>55</sup>  
 mi<sup>31</sup>tsham<sup>31</sup>pha<sup>33</sup>  
 aj<sup>33</sup>sa<sup>31</sup>sɿ<sup>55</sup>  
 de<sup>31</sup>za<sup>31</sup>  
 kanj<sup>31</sup>thap<sup>33</sup>  
 pha<sup>33</sup>  
 mo<sup>33</sup>pak<sup>31</sup>  
 ma<sup>31</sup>fu<sup>33</sup>  
 aj<sup>33</sup>tu<sup>31</sup>bot<sup>33</sup>  
 khan<sup>31</sup>pon<sup>31</sup>pon<sup>31</sup>  
 aj<sup>33</sup>la<sup>55</sup>ku<sup>55</sup>  
 tche<sup>55</sup>

*kasaya*, outer garment worn by a Buddhist monk  
 god  
 Buddha  
 temple  
 church  
 objects used in worship or religious obeisance  
 pagoda  
 religion  
 incense  
 rosary  
 spirit  
 ghost  
 Bodhisattva  
 Buddhist monk  
 witchdoctor  
 missionary  
 worship Buddha  
 recite scripture, pray  
 call back the spirit of the dead  
 avoid as taboo (v.)

#### 6. Mental Activities, Sensations, Time and Space

##### 6.1 Thoughts and Emotions, Language and Speech, Sensations and Behaviour

aj<sup>33</sup>sam<sup>31</sup>  
 aj<sup>33</sup>the<sup>55</sup>  
 aj<sup>33</sup>pe<sup>31</sup>  
 tsho<sup>31</sup>pe<sup>31</sup>  
 bu<sup>31</sup>lu<sup>31</sup>ba<sup>31</sup>la<sup>31</sup>  
 kha<sup>31</sup>tanj<sup>33</sup>kyt<sup>55</sup>  
 kha<sup>31</sup>tanj<sup>33</sup>bu<sup>55</sup>o<sup>31</sup>  
 luŋ<sup>33</sup>ba<sup>33</sup>xu<sup>31</sup>  
 luŋ<sup>33</sup>ba<sup>33</sup>i<sup>55</sup>  
 kvt<sup>55</sup>ga<sup>55</sup>, va<sup>31</sup>ga<sup>33</sup>bu<sup>55</sup>ga<sup>33</sup>  
 fu<sup>33</sup>tcin<sup>55</sup>  
 za<sup>33</sup>ten<sup>33</sup>xo<sup>31</sup>ne<sup>33</sup>  
 aj<sup>33</sup>ka<sup>31</sup>  
 ka<sup>31</sup>  
 aj<sup>33</sup>maj<sup>55</sup>la<sup>33</sup>za<sup>55</sup>

voice  
 language, speech  
 smell (n.)  
 feeling  
 sense  
 thought  
 mind  
 courage  
 timidity  
 behaviour  
 viewpoint  
 skill, capability  
 ability  
 strength  
 problem

pan<sup>35</sup>fa<sup>31</sup>  
 pho<sup>33</sup>, ba<sup>31</sup>e<sup>55</sup>taŋ<sup>31</sup>  
 fu<sup>33</sup>byn<sup>55</sup>  
 luŋ<sup>33</sup>ba<sup>33</sup>kha<sup>31</sup>  
 san<sup>33</sup>  
 ur<sup>55</sup>  
 gen<sup>31</sup>  
 uŋ<sup>55</sup>  
 me<sup>33</sup>pu<sup>55</sup>to<sup>33</sup>  
 kvt<sup>55</sup>  
 thai<sup>31</sup>  
 aŋ<sup>33</sup>tsɿ<sup>31</sup>ga<sup>33</sup>, pu<sup>31</sup>  
 lum<sup>55</sup>  
 sau<sup>33</sup>  
 zi<sup>31</sup>  
 zi<sup>31</sup>laŋ<sup>33</sup>ga<sup>33</sup>  
 luŋ<sup>33</sup>ba<sup>33</sup>pvk<sup>55</sup>  
 aŋ<sup>33</sup>ga<sup>33</sup>laŋ<sup>33</sup>ga<sup>33</sup>ci<sup>55</sup>  
 xa<sup>33</sup>ka<sup>33</sup>li<sup>31</sup>pi<sup>31</sup>  
 aŋ<sup>33</sup>be<sup>33</sup>  
 be<sup>33</sup>  
 sv<sup>31</sup>  
 na<sup>55</sup>laŋ<sup>33</sup>ga<sup>33</sup>  
 aŋ<sup>33</sup>na<sup>55</sup>ci<sup>55</sup>  
 men<sup>31</sup>laŋ<sup>31</sup>ni<sup>55</sup>a<sup>55</sup>  
 ba<sup>31</sup>ma<sup>31</sup>na<sup>31</sup>ga<sup>33</sup>  
 khe<sup>33</sup>  
 xa<sup>33</sup>khe<sup>33</sup>  
 tsu<sup>31</sup>  
 tciŋ<sup>31</sup>za<sup>31</sup>

## 6.2 Descriptions of Human Character

i<sup>55</sup>za<sup>31</sup>  
 ba<sup>31</sup>a<sup>31</sup>  
 thi<sup>31</sup>luŋ<sup>33</sup>ba<sup>33</sup>  
 aŋ<sup>33</sup>men<sup>31</sup>  
 lai<sup>55</sup>  
 kaŋ<sup>31</sup>aŋ<sup>33</sup>xu<sup>31</sup>, kaŋ<sup>31</sup>aŋ<sup>33</sup>kha<sup>55</sup>  
 luŋ<sup>33</sup>ba<sup>33</sup>xu<sup>31</sup>  
 luŋ<sup>33</sup>ba<sup>33</sup>i<sup>55</sup>  
 ba<sup>31</sup>xa<sup>33</sup>khi<sup>31</sup>

solution  
 disagree with  
 hate  
 be angry  
 like, welcome  
 laugh  
 smile  
 cry  
 shed tears  
 think  
 guess  
 remember  
 forget  
 like (singing)  
 scold (someone)  
 quarrel  
 be frightened, scared  
 be in love  
 careful  
 know  
 understand  
 suspect  
 comprehend  
 believe  
 be at ease, rest assured, feel relieved  
 dislike, loathe  
 be afraid of  
 frighten  
 depend on  
 admire

true  
 false  
 honest, trustworthy  
 good  
 bad, evil, wicked (of a person)  
 brave, courageous  
 brave  
 timid  
 clumsy, awkward

kvt<sup>55</sup>khi<sup>31</sup>xa<sup>33</sup>khi<sup>31</sup>, ba<sup>31</sup>khe<sup>33</sup>ba<sup>31</sup>ko<sup>33</sup> fierce  
 aŋ<sup>33</sup>vai<sup>31</sup> fast  
 aŋ<sup>33</sup>kam<sup>31</sup> slow  
 aŋ<sup>33</sup>xa<sup>33</sup>men<sup>31</sup>ga<sup>33</sup> patient  
 ten<sup>55</sup>men<sup>31</sup> polite, courteous, modest  
 aŋ<sup>33</sup>vau<sup>55</sup> busy  
 duŋ<sup>55</sup> not busy, with time on one's hands  
 da<sup>55</sup> painful  
 aŋ<sup>33</sup>sa<sup>31</sup>bek<sup>31</sup> poor  
 aŋ<sup>33</sup>tsa<sup>33</sup>aŋ<sup>33</sup>paŋ<sup>33</sup> rich  
 xo<sup>31</sup> correct  
 a<sup>55</sup>ma<sup>55</sup>maŋ<sup>55</sup> reliable  
 ga<sup>31</sup> right  
 ci<sup>33</sup> wrong  
 kha<sup>55</sup>py<sup>55</sup> individual  
 kha<sup>55</sup>khu<sup>33</sup> collective, as a group, all  
 mon<sup>31</sup> lively, bustling with noise and excitement  
 thi<sup>31</sup>ga<sup>31</sup>lo<sup>55</sup>me<sup>33</sup> of the same kind or type  
 thi<sup>31</sup>ga<sup>31</sup>lo<sup>55</sup>mek<sup>33</sup> fair, just  
 am<sup>55</sup> suitable  
 aŋ<sup>33</sup>en<sup>55</sup> clever, intelligent  
 bu<sup>55</sup>khi<sup>31</sup>, tshaŋ<sup>55</sup>be<sup>31</sup>tshaŋ<sup>55</sup>bu<sup>55</sup> capable  
 za<sup>31</sup>tsaŋ<sup>31</sup> stupid  
 sa<sup>31</sup>tso<sup>33</sup> shy  
 vai<sup>31</sup>khjaŋ<sup>55</sup>, aŋ<sup>33</sup>khjaŋ<sup>55</sup> hardworking and intelligent  
 on<sup>31</sup> lazy  
 luŋ<sup>33</sup>ba<sup>33</sup>bu<sup>31</sup> happy  
 aŋ<sup>33</sup>tsa<sup>33</sup>bu<sup>31</sup> comfortable  
 kha<sup>31</sup>kha<sup>31</sup>phi<sup>31</sup>phi<sup>31</sup> not happy, not satisfied  
 aŋ<sup>33</sup>tu<sup>31</sup>aŋ<sup>33</sup>lon<sup>55</sup> suffering, feeling emotional pain  
 luŋ<sup>33</sup>ba<sup>33</sup>ba<sup>31</sup>tsa<sup>55</sup>bu<sup>31</sup> sad, sorrowful  
 aŋ<sup>33</sup>khe<sup>33</sup> frightened  
 luŋ<sup>33</sup>ba<sup>33</sup>ba<sup>31</sup>bu<sup>31</sup> angry  
 kja<sup>31</sup>ga<sup>33</sup>ci<sup>55</sup> pitiful, pitiable  
 tshaŋ<sup>55</sup>kja<sup>33</sup> isolated, lonely  
 ki<sup>31</sup> irritable, impetuous  
 kvt<sup>55</sup>ne<sup>33</sup>aŋ<sup>33</sup>pja<sup>31</sup> worried, anxious  
 aŋ<sup>33</sup>svŋ<sup>55</sup>khi<sup>31</sup> frugal  
 aŋ<sup>33</sup>byn<sup>55</sup> miserly, mean

### 6.3 Attributes of Objects: Colour, Shape, Quality and Quantity

pam <sup>55</sup>	colour (n.)
aj <sup>33</sup> ne <sup>55</sup>	red
aj <sup>33</sup> sɿ <sup>55</sup>	yellow
aj <sup>33</sup> phu <sup>55</sup>	blue
phu <sup>55</sup> pam <sup>55</sup>	grey
aj <sup>33</sup> paŋ <sup>55</sup>	black
aj <sup>33</sup> o <sup>31</sup> aj <sup>33</sup> tsɿ <sup>55</sup>	variegated
aj <sup>33</sup> nu <sup>55</sup>	green
aj <sup>33</sup> pon <sup>31</sup>	white
aj <sup>33</sup> tu <sup>55</sup>	same
i <sup>55</sup> za <sup>31</sup> ba <sup>31</sup> tu <sup>31</sup>	similar
ba <sup>31</sup> tu <sup>55</sup>	different
aj <sup>33</sup> tsho <sup>31</sup>	cold
aj <sup>33</sup> lum <sup>55</sup>	hot (water)
loŋ <sup>55</sup>	hot (weather)
tsɿ <sup>33</sup> lum <sup>55</sup>	warm, mild
aj <sup>33</sup> ku <sup>33</sup>	dry
lum <sup>55</sup> ba <sup>31</sup> lu <sup>31</sup>	warm
aj <sup>33</sup> tcin <sup>55</sup>	wet, humid
tsɿ <sup>33</sup> vai <sup>31</sup> , aj <sup>33</sup> tsɿ <sup>33</sup>	cool
aj <sup>33</sup> vy <sup>31</sup>	far
aj <sup>33</sup> du <sup>31</sup>	near
aj <sup>33</sup> moŋ <sup>55</sup>	long
aj <sup>33</sup> tu <sup>55</sup>	short
aj <sup>33</sup> xu <sup>31</sup>	large
aj <sup>33</sup> i <sup>55</sup> , aj <sup>33</sup> za <sup>31</sup>	small
aj <sup>33</sup> thu <sup>55</sup>	thick
aj <sup>33</sup> pa <sup>31</sup>	thin
aj <sup>33</sup> na <sup>31</sup>	deep
ba <sup>31</sup> na <sup>31</sup>	shallow
aj <sup>33</sup> moŋ <sup>33</sup>	high (location)
aj <sup>33</sup> kho <sup>31</sup>	tall (person)
me <sup>31</sup>	low
aj <sup>33</sup> num <sup>33</sup>	short
tan <sup>33</sup>	flat
aj <sup>33</sup> phjaŋ <sup>33</sup>	steep
ke <sup>55</sup> thau <sup>31</sup> ke <sup>31</sup> ta <sup>33</sup>	rugged, uneven (terrain)
aj <sup>33</sup> khok <sup>31</sup>	sunken
tshaŋ <sup>31</sup> um <sup>31</sup>	raised
pi <sup>55</sup> cin <sup>33</sup>	askew, crooked, inclined, slanting

aj <sup>33</sup> kyŋ <sup>33</sup>	straight
aj <sup>33</sup> xu <sup>31</sup>	thick (e.g. thread)
aj <sup>33</sup> i <sup>55</sup>	fine (e.g. thread)
aj <sup>33</sup> vaŋ <sup>31</sup>	wide
aj <sup>33</sup> khep <sup>31</sup>	narrow
aj <sup>33</sup> len <sup>31</sup>	circular
vi <sup>31</sup> loŋ <sup>55</sup> , vin <sup>31</sup> loŋ <sup>55</sup>	elliptical
aj <sup>33</sup> tcɿ <sup>33</sup>	straight (of an edge)
pen <sup>33</sup>	square (two-dimensional)
xaj <sup>31</sup> tcɿ <sup>33</sup>	cuboid (three-dimensional)
aj <sup>33</sup> xin <sup>55</sup>	rhomboidal
aj <sup>33</sup> lim <sup>55</sup>	triangular
aj <sup>33</sup> kue <sup>31</sup>	bent
aj <sup>33</sup> kyŋ <sup>33</sup> , kan <sup>31</sup>	straight
pi <sup>55</sup> pan <sup>55</sup> , kat <sup>33</sup>	horizontal
pok <sup>33</sup>	vertical, upright
aj <sup>33</sup> sɿ <sup>31</sup>	new
aj <sup>33</sup> an <sup>55</sup>	old
aj <sup>33</sup> saj <sup>55</sup>	clean
lu <sup>33</sup> /aj <sup>33</sup> lu <sup>33</sup>	bad
aj <sup>33</sup> pe <sup>33</sup>	dirty (clothes)
tsha <sup>31</sup>	dirty (objects)
aj <sup>33</sup> lim <sup>55</sup>	sharp, pointed
aj <sup>33</sup> zaŋ <sup>55</sup>	light
aj <sup>33</sup> xan <sup>31</sup>	heavy
aj <sup>33</sup> ken <sup>31</sup>	hard
aj <sup>33</sup> do <sup>31</sup>	soft
xu <sup>31</sup> khi <sup>31</sup>	strong
ba <sup>31</sup> xu <sup>31</sup> khi <sup>31</sup> , ka <sup>31</sup> aj <sup>33</sup> do <sup>31</sup>	weak
aj <sup>33</sup> pen <sup>55</sup> , aj <sup>33</sup> pa <sup>33</sup>	bright
aj <sup>33</sup> vuŋ <sup>55</sup>	dim
bat <sup>33</sup>	clear
aj <sup>33</sup> pju <sup>31</sup>	patterned
py <sup>31</sup> lyn <sup>31</sup> , zo <sup>31</sup> tcɿ <sup>33</sup>	thick (of a liquid)
aj <sup>33</sup> du <sup>33</sup>	thin (of a liquid)
aj <sup>33</sup> tcɿ <sup>33</sup>	dense
aj <sup>33</sup> khja <sup>55</sup>	sparse
aj <sup>33</sup> puŋ <sup>33</sup>	full
aj <sup>33</sup> fu <sup>33</sup> bu <sup>31</sup>	beautiful
ba <sup>31</sup> fu <sup>33</sup> bu <sup>31</sup>	ugly
aj <sup>33</sup> tuj <sup>31</sup>	fat (of a person)
aj <sup>33</sup> tshɿ <sup>55</sup>	fatty (of meat)

aj <sup>33</sup> khui <sup>31</sup>	fertile (of land)
aj <sup>33</sup> sa <sup>31</sup>	lean (of meat)
aj <sup>33</sup> zau <sup>33</sup>	thin (of a person)
pjan <sup>33</sup>	(make) dirty
kuŋ <sup>55</sup>	clear (water)
khun <sup>31</sup>	turbid (water)
maŋ <sup>31</sup>	old (of a person)
kha <sup>31</sup> la <sup>33</sup> ka <sup>31</sup>	young
ken <sup>31</sup>	overgrown, tough (of vegetables)
do <sup>31</sup> lo <sup>31</sup> , aj <sup>33</sup> do <sup>31</sup>	tender (of vegetables)
aj <sup>33</sup> tsum <sup>31</sup>	unripe (of fruits)
tchan <sup>55</sup>	torn, broken (clothes, baskets)
lat <sup>31</sup>	completely broken (useless, to be thrown away)
koŋ <sup>33</sup> piŋ <sup>55</sup>	neat, tidy
aj <sup>33</sup> tsum <sup>31</sup>	raw
sy <sup>55</sup>	cooked
aj <sup>33</sup> da <sup>31</sup>	early
aj <sup>33</sup> noŋ <sup>31</sup>	late
aj <sup>33</sup> peŋ <sup>55</sup>	expensive
aj <sup>33</sup> ga <sup>31</sup> , za <sup>55</sup>	cheap
aj <sup>33</sup> zan <sup>31</sup>	difficult (to walk)
tsan <sup>31</sup>	slippery
tsa <sup>31</sup> lan <sup>55</sup>	smooth, glossy, sleek
lum <sup>55</sup>	boiling hot
aj <sup>33</sup> kha <sup>31</sup>	thick, strong (of tea <i>etc.</i> )
aj <sup>33</sup> kvŋ <sup>55</sup>	weak (tea)
aj <sup>33</sup> ma <sup>55</sup>	full (of grain, fruit)
aj <sup>33</sup> khau <sup>31</sup>	shrivelled, shrunken
aj <sup>33</sup> thak <sup>33</sup>	sharp
aj <sup>33</sup> tum <sup>31</sup>	blunt
ko <sup>31</sup> lo <sup>31</sup>	loose
aj <sup>33</sup> nen <sup>55</sup>	tight
aj <sup>33</sup> sa <sup>31</sup>	difficult
aj <sup>33</sup> ŋai <sup>31</sup>	easy
aj <sup>33</sup> bja <sup>31</sup>	many
aj <sup>33</sup> i <sup>55</sup> , sau <sup>31</sup>	few

#### 6.4 Time

aj <sup>33</sup> nu <sup>33</sup>	year, also of age
cen <sup>31</sup> zam <sup>31</sup>	one of two 12 two-hour periods into which the day was formerly divided before introduction of Western chronology, "double-hour"
mi <sup>55</sup> so <sup>33</sup>	this morning
miŋ <sup>55</sup> koŋ <sup>55</sup> so <sup>33</sup>	yesterday morning
nau <sup>33</sup> sy <sup>55</sup> tha <sup>33</sup>	tomorrow morning
xu <sup>31</sup> nuŋ <sup>33</sup> koŋ <sup>55</sup> so <sup>33</sup>	the morning of the day before yesterday
phai <sup>31</sup> sy <sup>55</sup> tha <sup>33</sup>	the morning of the day after tomorrow
noŋ <sup>31</sup> sy <sup>55</sup> tha <sup>33</sup>	the morning of the second day after tomorrow
aj <sup>33</sup> zam <sup>31</sup>	seasons
ky <sup>55</sup> li <sup>55</sup> kaŋ <sup>55</sup>	rainy season
kaŋ <sup>55</sup> zam <sup>31</sup>	dry season
laŋ <sup>55</sup> mja <sup>55</sup>	spring
loŋ <sup>55</sup> mja <sup>55</sup>	summer
tsho <sup>31</sup> mja <sup>31</sup>	autumn
me <sup>55</sup> ka <sup>33</sup> zam <sup>31</sup>	winter
aj <sup>33</sup> la <sup>33</sup>	month
nuŋ <sup>33</sup>	day (as in three days)
nuŋ <sup>33</sup> koŋ <sup>55</sup>	daytime
muŋ <sup>31</sup> tsho <sup>31</sup> tsho <sup>31</sup>	before daybreak or dawn
so <sup>33</sup> tha <sup>33</sup>	(early) morning
so <sup>33</sup> xan <sup>31</sup>	morning, forenoon
nuŋ <sup>33</sup> xan <sup>31</sup>	noon
khi <sup>31</sup> thaŋ <sup>33</sup>	evening
khi <sup>31</sup> taŋ <sup>55</sup> , muŋ <sup>31</sup> khi <sup>31</sup>	night
teŋ <sup>33</sup> khyn <sup>31</sup>	the middle of the night
aj <sup>33</sup> su <sup>31</sup> la <sup>33</sup>	a "big" month (lunar month with 30 days)
aj <sup>33</sup> i <sup>55</sup> la <sup>33</sup>	a "small" month (lunar month with 29 days)
aj <sup>33</sup> nu <sup>33</sup>	time
a <sup>55</sup> maŋ <sup>55</sup> ten <sup>33</sup> kha <sup>55</sup> phu <sup>33</sup> ten <sup>33</sup>	process
phan <sup>31</sup>	at the beginning
so <sup>33</sup> tha <sup>33</sup>	at the outset
koŋ <sup>55</sup> nuŋ <sup>55</sup>	halfway
khi <sup>31</sup> thaŋ <sup>33</sup>	at the end
xi <sup>55</sup> my <sup>33</sup> , kha <sup>55</sup> te <sup>55</sup>	in the past
la <sup>33</sup> so <sup>33</sup> , mi <sup>55</sup> tsaŋ <sup>55</sup> noŋ <sup>31</sup> y <sup>33</sup>	after this time
kha <sup>55</sup> te <sup>55</sup>	ancient times
aj <sup>33</sup> mu <sup>55</sup>	modern times
a <sup>55</sup> mu <sup>55</sup>	now, at present

noŋ <sup>31</sup> v <sup>33</sup>	in the future
fu <sup>31</sup> nu <sup>33</sup> sv <sup>55</sup>	the year before last
mi <sup>55</sup> nu <sup>33</sup> sv <sup>55</sup>	last year
mi <sup>55</sup> nu <sup>33</sup>	this year
na <sup>33</sup> za <sup>31</sup> sv <sup>31</sup>	next year
noŋ <sup>31</sup> nu <sup>33</sup> sv <sup>55</sup>	the year after next
fu <sup>31</sup> la <sup>33</sup>	last month
aŋ <sup>33</sup> fu <sup>31</sup> fu <sup>31</sup> la <sup>33</sup> , aŋ <sup>33</sup> fu <sup>31</sup> xi <sup>55</sup> la <sup>33</sup>	the month before last
a <sup>55</sup> lo <sup>31</sup> la <sup>33</sup>	this month
noŋ <sup>31</sup> la <sup>33</sup>	next month
noŋ <sup>31</sup> li <sup>55</sup> noŋ <sup>31</sup> la <sup>33</sup>	the month after next
tsvŋ <sup>33</sup> ze <sup>33</sup>	the first month of the lunar year
la <sup>31</sup> ze <sup>33</sup>	the last month (twelfth) of the lunar year
li <sup>55</sup> nuŋ <sup>33</sup> koŋ <sup>55</sup>	two days before yesterday
xu <sup>31</sup> nuŋ <sup>33</sup> koŋ <sup>55</sup>	the day before yesterday
miŋ <sup>55</sup> koŋ <sup>55</sup>	yesterday
mi <sup>55</sup> nuŋ <sup>33</sup>	today
nau <sup>33</sup> sv <sup>55</sup>	tomorrow
phai <sup>31</sup> sv <sup>55</sup> nuŋ <sup>33</sup>	the day after tomorrow
li <sup>55</sup> sv <sup>55</sup> nuŋ <sup>33</sup>	two days after tomorrow
noŋ <sup>31</sup> nuŋ <sup>33</sup>	the next day
thi <sup>31</sup> tchit <sup>31</sup>	a little while
vai <sup>31</sup>	in the twinkling of an eye

### 6.5 Directional and Positional Terms

aŋ <sup>33</sup> zvŋ <sup>33</sup>	in the centre
aŋ <sup>33</sup> ni <sup>55</sup>	outside
aŋ <sup>33</sup> khau <sup>55</sup>	inside
aŋ <sup>33</sup> thaj <sup>33</sup>	to the sides, beside
koŋ <sup>55</sup> nuŋ <sup>55</sup>	in the middle
aŋ <sup>33</sup> thaj <sup>33</sup>	nearby
aŋ <sup>33</sup> fu <sup>31</sup>	front
aŋ <sup>33</sup> noŋ <sup>31</sup>	back
aŋ <sup>33</sup> tha <sup>31</sup>	on top
aŋ <sup>33</sup> o <sup>31</sup> , toŋ <sup>31</sup> ka <sup>31</sup>	below
a <sup>55</sup> tsha <sup>55</sup>	left side
la <sup>31</sup> ma <sup>31</sup>	right side
aŋ <sup>33</sup> kuŋ <sup>33</sup>	vertical direction
aŋ <sup>33</sup> pho <sup>33</sup> , aŋ <sup>33</sup> vue <sup>33</sup>	inclined, slanting direction
aŋ <sup>33</sup> toŋ <sup>31</sup> aŋ <sup>33</sup> thaj <sup>33</sup>	surrounding area
zuŋ <sup>55</sup> tei <sup>33</sup> khan <sup>55</sup> , zuŋ <sup>55</sup> tei <sup>33</sup> ky <sup>31</sup>	limits, boundary
khja <sup>31</sup>	boundary line

aŋ <sup>33</sup> kja <sup>55</sup>	location
mi <sup>55</sup> khja <sup>31</sup>	place, place boundary
ni <sup>55</sup> pat <sup>31</sup>	obverse side
bi <sup>55</sup> pat <sup>31</sup>	reverse side
noŋ <sup>31</sup> kho <sup>31</sup>	behind

## 7. Auxiliary and Modal Verbs and Other Closed Classes

### 7.1 Auxiliary and Modal Verbs

a <sup>31</sup>	be
ba <sup>31</sup> a <sup>31</sup>	not be
tsa <sup>33</sup> /aŋ <sup>33</sup> tsa <sup>33</sup>	have
ba <sup>31</sup> tsa <sup>33</sup>	not have
tso <sup>33</sup> /tso <sup>33</sup>	should, ought to, dare
kha <sup>31</sup> kha <sup>33</sup>	be willing to
khi <sup>31</sup>	will, be likely to
phy <sup>31</sup> /aŋ <sup>33</sup> phy <sup>31</sup>	can, have the ability to
ci <sup>55</sup>	want, be willing to
xo <sup>31</sup>	should, ought to

### 7.2 Numerals

thi <sup>31</sup>	one
ni <sup>31</sup>	two
sum <sup>55</sup>	three
xan <sup>55</sup>	four
ŋa <sup>31</sup>	five
khu <sup>31</sup>	six
ci <sup>31</sup>	seven
xet <sup>31</sup>	eight
kau <sup>31</sup>	nine
tche <sup>55</sup>	ten
tche <sup>55</sup> thi <sup>31</sup>	eleven
tche <sup>55</sup> ni <sup>31</sup>	twelve
tche <sup>55</sup> sum <sup>55</sup>	thirteen
tche <sup>55</sup> xan <sup>55</sup>	fourteen
tche <sup>55</sup> ŋa <sup>31</sup>	fifteen
tche <sup>55</sup> khu <sup>31</sup>	sixteen
tche <sup>55</sup> ci <sup>31</sup>	seventeen
tche <sup>55</sup> xet <sup>31</sup>	eighteen
tche <sup>55</sup> kau <sup>31</sup>	nineteen
ni <sup>31</sup> tche <sup>55</sup>	twenty
ni <sup>31</sup> tche <sup>55</sup> thi <sup>31</sup>	twenty-one

sum<sup>31</sup>tche<sup>55</sup>  
 xan<sup>31</sup>tche<sup>55</sup>  
 ŋa<sup>31</sup>tche<sup>55</sup>  
 khu<sup>31</sup>tche<sup>55</sup>  
 cit<sup>31</sup>tche<sup>55</sup>  
 xet<sup>31</sup>tche<sup>55</sup>  
 kau<sup>31</sup>tche<sup>55</sup>  
 aŋ<sup>33</sup>pa<sup>31</sup>  
 thi<sup>31</sup>pa<sup>31</sup>  
 thi<sup>31</sup>pa<sup>31</sup>thi<sup>33</sup>  
 ni<sup>31</sup>pa<sup>31</sup>  
 sum<sup>31</sup>pa<sup>31</sup>  
 xan<sup>31</sup>pa<sup>31</sup>  
 ŋa<sup>31</sup>pa<sup>31</sup>  
 khu<sup>31</sup>pa<sup>31</sup>  
 cit<sup>31</sup>pa<sup>31</sup>  
 xet<sup>31</sup>pa<sup>31</sup>  
 kau<sup>31</sup>pa<sup>31</sup>  
 aŋ<sup>33</sup>xij<sup>55</sup>  
 thi<sup>31</sup>xij<sup>31</sup>  
 aŋ<sup>33</sup>vaŋ<sup>55</sup>  
 thi<sup>31</sup>vaŋ<sup>31</sup>  
 aŋ<sup>33</sup>zi<sup>33</sup>  
 thi<sup>31</sup>zi<sup>31</sup>  
 liŋ<sup>31</sup>  
 ki<sup>33</sup>fu<sup>31</sup>  
 ki<sup>33</sup>noŋ<sup>31</sup>  
 thi<sup>31</sup>kho<sup>31</sup>  
 thi<sup>31</sup>pha<sup>33</sup>  
 thi<sup>31</sup>pa<sup>31</sup>  
 thi<sup>31</sup>paŋ<sup>31</sup>  
 thi<sup>31</sup>la<sup>33</sup>  
 ni<sup>31</sup>la<sup>33</sup>  
 sum<sup>31</sup>la<sup>33</sup>  
 xan<sup>31</sup>la<sup>33</sup>  
 ŋa<sup>31</sup>la<sup>33</sup>  
 khu<sup>31</sup>la<sup>33</sup>  
 cit<sup>31</sup>la<sup>33</sup>  
 xet<sup>31</sup>la<sup>33</sup>  
 kau<sup>31</sup>la<sup>33</sup>  
 tche<sup>55</sup>la<sup>33</sup>  
 tche<sup>55</sup>thi<sup>31</sup>la<sup>33</sup>

thirty  
 forty  
 fifty  
 sixty  
 seventy  
 eighty  
 ninety  
 hundred  
 one hundred  
 one hundred and one  
 two hundred  
 three hundred  
 four hundred  
 five hundred  
 six hundred  
 seven hundred  
 eight hundred  
 nine hundred  
 thousand  
 one thousand  
 ten thousand (as a unit)  
 ten thousand (one-ten thousand)  
 hundred million (as a unit)  
 one hundred million  
 zero  
 first  
 last  
 half (for abstract, uncountable objects)  
 half (for divisible, countable objects)  
 half (of an object which has been cut open)  
 half (for liquids)  
 the first month  
 the second month  
 the third month  
 the fourth month  
 the fifth month  
 the sixth month  
 the seventh month  
 the eighth month  
 the ninth month  
 the tenth month  
 the eleventh month

tche<sup>55</sup>ni<sup>31</sup>la<sup>33</sup>  
 tshu<sup>33</sup>i<sup>33</sup>  
 tshu<sup>33</sup>saŋ<sup>33</sup>  
 tshu<sup>33</sup>u<sup>55</sup>  
 tche<sup>55</sup>thi<sup>31</sup>nuŋ<sup>33</sup>  
 tche<sup>55</sup>ŋa<sup>31</sup>nuŋ<sup>33</sup>  
 tche<sup>55</sup>khu<sup>31</sup>nuŋ<sup>33</sup>  
 ni<sup>31</sup>tche<sup>31</sup>nuŋ<sup>33</sup>  
 sum<sup>31</sup>tche<sup>31</sup>nuŋ<sup>33</sup>

### 7.3 Classifiers

fu<sup>33</sup>, saŋ<sup>55</sup>  
 lum<sup>31</sup>  
  
 maŋ<sup>55</sup>  
  
 tsy<sup>55</sup>  
 tsum<sup>55</sup>  
 tsum<sup>55</sup>  
 phoŋ<sup>33</sup>  
 khan<sup>31</sup>  
 lo<sup>31</sup>  
 tuŋ<sup>31</sup>  
 bja<sup>31</sup>  
 bo<sup>31</sup>  
 thoŋ<sup>31</sup>  
 tsuŋ<sup>55</sup>  
 mja<sup>33</sup>  
 ne<sup>31</sup>

sŋ<sup>31</sup>  
 sŋ<sup>31</sup>  
 tsak<sup>33</sup>  
 phvn<sup>31</sup>  
 za<sup>55</sup>  
 pen<sup>31</sup>  
 lo<sup>33</sup>  
 ka<sup>31</sup>  
 pha<sup>31</sup>  
 koŋ<sup>33</sup>  
 poŋ<sup>31</sup>  
 khja<sup>55</sup>

the twelfth month  
 the first day of a lunar month  
 the third day of a lunar month  
 the fifth day of a lunar month  
 the eleventh day of a lunar month  
 the fifteenth day of a lunar month  
 the sixteenth day of a lunar month  
 the twentieth day of a lunar month  
 the thirtieth day of a lunar month

classifier (for person)  
 classifier (for objects without special classifiers of their own)  
 classifier (for boats, birds, certain animals or containers, etc.)  
 type, kind  
 a pair  
 a flock, a herd  
 a string (of beads)  
 a bunch (of bananas)  
 a plot (of paddy field)  
 classifier (for places)  
 classifier (for a cloud)  
 a bundle (of grass)  
 a pile  
 classifier (for a tree)  
 classifier (for a knife)  
 classifier (for string, and similar long, slender objects)  
 classifier (a rod or stick)  
 grain  
 drop  
 piece (of garment)  
 piece (of land)  
 piece (of board)  
 classifier (for a stone)  
 an ear (of grain)  
 classifier (for a leaf)  
 a pile (of earth)  
 a bucket (of water)  
 a basket (of vegetables)

tsum <sup>33</sup>	a bowl (of rice)
zvn <sup>33</sup>	jar
kon <sup>31</sup>	spoon
taj <sup>31</sup>	classifier (for a song)
the <sup>55</sup>	sentence
tap <sup>55</sup>	classifier (for a cigarette)
phu <sup>55</sup>	classifier (for mountains, buildings and other immovable objects)
kja <sup>31</sup>	classifier (for a road)
kon <sup>31</sup>	bottle, jar
khi <sup>31</sup>	a night
la <sup>33</sup>	a month
nu <sup>33</sup>	a year (also of age)
la <sup>31</sup> thu <sup>33</sup>	a double handful of rice
pom <sup>31</sup>	a fall (of rain, snow)
tsaj <sup>55</sup>	occurrence, time
la <sup>31</sup>	a short period of time
khau <sup>31</sup>	the twinkling of an eye
thi <sup>31</sup> ba <sup>31</sup>	some, a few
lam <sup>55</sup>	an armspan
tho <sup>55</sup>	a handspan
khem <sup>31</sup>	<i>cun</i>
tshy <sup>31</sup>	<i>chi</i>
mu <sup>31</sup>	<i>mu</i> (unit of area = 0.67 hectares)
bo <sup>55</sup> , tu <sup>31</sup> t	<i>dou</i>
aj <sup>33</sup> loj <sup>31</sup>	<i>liang</i> (tael)
aj <sup>33</sup> kin <sup>55</sup>	<i>jin</i> (catty)

#### 7.4 Pronouns

ga <sup>33</sup>	I
naj <sup>33</sup>	you
zaj <sup>33</sup>	he
ga <sup>33</sup> it <sup>31</sup>	we (dual)
na <sup>55</sup> it <sup>31</sup>	you (dual)
za <sup>33</sup> it <sup>31</sup>	they (dual)
gu <sup>33</sup>	we (exclusive)
zaj <sup>33</sup> xv <sup>33</sup>	we (inclusive)
noj <sup>33</sup> , naj <sup>33</sup> xv <sup>33</sup>	you (plural)
zøj <sup>33</sup> , zøj <sup>33</sup> xv <sup>33</sup>	they
kha <sup>31</sup> toj <sup>33</sup>	myself
xau <sup>33</sup>	other people
xau <sup>33</sup> xv <sup>33</sup>	others

zvn <sup>33</sup>	pluraliser
ni <sup>55</sup> , nij <sup>55</sup>	this
ni <sup>55</sup> lo <sup>31</sup> pvn <sup>33</sup>	these
ni <sup>55</sup> ne <sup>33</sup>	this way
ni <sup>55</sup> tu <sup>55</sup>	this kind, type
ni <sup>55</sup> ky <sup>55</sup> , ni <sup>55</sup> tsy <sup>33</sup> , ni <sup>55</sup> kja <sup>55</sup> , ni <sup>55</sup> sy <sup>33</sup>	here
thi <sup>55</sup>	that (contrasting with "this", [ni <sup>55</sup> ])
bi <sup>55</sup>	that (far)
xi <sup>55</sup>	that (further)
i <sup>55</sup>	that (furthest)
xi <sup>55</sup> zam <sup>31</sup> mv <sup>33</sup>	at that time
xi <sup>55</sup> mv <sup>33</sup>	at that moment
a <sup>31</sup> saj <sup>31</sup>	who
a <sup>55</sup> maj <sup>55</sup>	what
a <sup>55</sup> lo <sup>55</sup>	which
a <sup>31</sup> phe <sup>55</sup> sy <sup>55</sup> , a <sup>31</sup> sy <sup>55</sup> , a <sup>31</sup> xy <sup>55</sup>	where
a <sup>55</sup> me <sup>33</sup>	how
a <sup>55</sup> lo <sup>31</sup> mv <sup>33</sup>	what time
a <sup>55</sup> lo <sup>31</sup> pvn <sup>33</sup>	how many (classifier)
a <sup>55</sup> lo <sup>31</sup>	how many

#### 7.5 Adverbs

a <sup>31</sup> ci <sup>33</sup>	just now
aj <sup>33</sup> fu <sup>31</sup>	first
aj <sup>33</sup> noj <sup>31</sup>	later
vai <sup>31</sup>	at once
a <sup>55</sup> lo <sup>31</sup> mv <sup>33</sup> mu <sup>55</sup>	always
kha <sup>55</sup> mv <sup>33</sup> kha <sup>55</sup> mv <sup>33</sup>	usually
laj <sup>33</sup> ga <sup>33</sup>	each other, one another
kam <sup>31</sup> kam <sup>31</sup>	slowly
vai <sup>31</sup> vai <sup>31</sup>	quickly
aj <sup>33</sup> zi <sup>55</sup> za <sup>31</sup>	a little bit
khu <sup>33</sup>	completely
kha <sup>55</sup> khu <sup>33</sup>	all, also
thi <sup>31</sup> ga <sup>31</sup>	together
ga <sup>33</sup> le <sup>55</sup>	again
mu <sup>55</sup>	also, too
sɿ <sup>31</sup>	also, and
te <sup>33</sup> , maj <sup>55</sup>	very
a <sup>55</sup> ma <sup>55</sup> , ma <sup>55</sup> maj <sup>55</sup>	truly, very
za <sup>55</sup> tce <sup>55</sup>	even more
fu <sup>33</sup> va <sup>31</sup>	about, around

kha<sup>55</sup>ga<sup>33</sup>  
 mi<sup>55</sup>tsaŋ<sup>55</sup>a<sup>31</sup>  
 thi<sup>31</sup>tso<sup>31</sup>xa<sup>31</sup>  
 thi<sup>31</sup>zam<sup>31</sup>

certainly  
 already  
 after that  
 right until (right up to a certain point)

## 7.6 Conjunctions

ne<sup>33</sup>  
 ze<sup>31</sup>...ze<sup>31</sup>..., za<sup>55</sup>tce<sup>55</sup>...za<sup>55</sup>tce<sup>55</sup>...  
 a<sup>55</sup>a<sup>31</sup>...va<sup>31</sup>  
 (zau<sup>33</sup>)va<sup>31</sup>  
 thi<sup>55</sup>ne<sup>33</sup>va<sup>31</sup>  
 ...o<sup>33</sup>mu<sup>55</sup>  
 ...zau<sup>33</sup>y<sup>33</sup>...  
 thu<sup>55</sup>mu<sup>55</sup>...  
 u<sup>55</sup>a<sup>31</sup>...  
 ni<sup>55</sup>ne<sup>33</sup>mu<sup>55</sup>...

and  
 more ... more ...  
 if ... then ...  
 ...then  
 if ...  
 even if ... still ...  
 only if ... then ...  
 because ...  
 therefore ...  
 because of this (thus/ hence) ...

## Appendix 2: Texts

### Congratulatory Ode on New Year's Day

ni <sup>31</sup> two	tche <sup>31</sup> ten	xan <sup>31</sup> four	nuŋ <sup>33</sup> day	noŋ <sup>31</sup> y <sup>33</sup> , after	ŋa <sup>31</sup> five	nuŋ <sup>33</sup> day	khu <sup>31</sup> six	nuŋ <sup>33</sup> day	
mi <sup>31</sup> tho <sup>31</sup> firewood	xan <sup>55</sup> carry on the back	sa <sup>55</sup> sɿ <sup>31</sup> thirty	va <sup>33</sup> saŋ <sup>55</sup> night	xan <sup>31</sup> thun <sup>31</sup> cakes	thoŋ <sup>31</sup> , pound				
kha <sup>55</sup> ba <sup>55</sup> altar	kan <sup>33</sup> put	saŋ <sup>55</sup> joss-sticks	tsap <sup>33</sup> light	soŋ <sup>31</sup> sɿ <sup>31</sup> candles	tsap <sup>33</sup> light	sum <sup>31</sup> three	pak <sup>31</sup> hundred		
khu <sup>31</sup> six	tche <sup>31</sup> ten	nuŋ <sup>33</sup> days	muŋ <sup>31</sup> xo <sup>31</sup> rain	thaŋ <sup>31</sup> sufficient	nuŋ <sup>55</sup> tsha <sup>55</sup> sunshine	thaŋ <sup>31</sup> , abundant			
mi <sup>55</sup> nuŋ <sup>33</sup> today	la <sup>31</sup> ze <sup>33</sup> twelfth month	sa <sup>55</sup> sɿ <sup>31</sup> va <sup>55</sup> ce <sup>55</sup> night of the thirtieth	tca <sup>33</sup> svŋ <sup>31</sup> tca <sup>33</sup> naŋ <sup>31</sup> (name of a household god)						
tci <sup>55</sup> svŋ <sup>31</sup> tci <sup>55</sup> naŋ <sup>31</sup> (name of a household god)	kan <sup>33</sup> na <sup>33</sup> place (objects)	kuŋ <sup>55</sup> ŋa <sup>33</sup> offer	le <sup>33</sup> to	zau <sup>33</sup> va <sup>31</sup> , (part.)					
phe <sup>31</sup> ba <sup>33</sup> disasters	mi <sup>55</sup> nuŋ <sup>33</sup> today	aŋ <sup>33</sup> sa <sup>31</sup> , throw down	da <sup>55</sup> ba <sup>31</sup> sickness	mi <sup>55</sup> nuŋ <sup>33</sup> today					
aŋ <sup>33</sup> sa <sup>31</sup> , throw down	de <sup>31</sup> le <sup>31</sup> ghosts	ba <sup>31</sup> not	phu <sup>31</sup> , meet	kha <sup>55</sup> le <sup>55</sup> ba <sup>31</sup> bad things not	pha <sup>33</sup> , encounter				
tsa <sup>31</sup> bu <sup>31</sup> delicious food	du <sup>31</sup> sa <sup>55</sup> , keep	tum <sup>33</sup> bu <sup>31</sup> nice clothes	za <sup>31</sup> sa <sup>55</sup> , keep	tsa <sup>31</sup> a <sup>33</sup> (things which) can be eaten					
te <sup>31</sup> a <sup>33</sup> daily necessities	lau <sup>55</sup> , come here	za <sup>55</sup> bu <sup>55</sup> fields	ba <sup>31</sup> not	svŋ <sup>31</sup> grow (weeds)	ga <sup>33</sup> I	na <sup>33</sup> (part.)			
gai <sup>31</sup> obtain	pi <sup>31</sup> let	lau <sup>55</sup> , come	bo <sup>31</sup> bu <sup>31</sup> fertile	za <sup>55</sup> land	gu <sup>33</sup> we	na <sup>33</sup> (part.)	gai <sup>31</sup> obtain	pi <sup>31</sup> let	lau <sup>55</sup> , come here
kha <sup>55</sup> bu <sup>55</sup> kha <sup>55</sup> ten <sup>33</sup> toil and weeding	khy <sup>33</sup> reach	za <sup>55</sup> y <sup>33</sup> in the ground	khu <sup>31</sup> fertile	za <sup>55</sup> land	nu <sup>55</sup> more fertile				
za <sup>55</sup> y <sup>33</sup> in the ground	gai <sup>31</sup> obtain	pi <sup>31</sup> let	sv <sup>31</sup> , (part.)	thi <sup>31</sup> sɿ <sup>31</sup> one grain	gai <sup>31</sup> obtain	za <sup>55</sup> crops	bjā <sup>33</sup> , many		
ni <sup>31</sup> two	sɿ <sup>31</sup> grains	gai <sup>31</sup> obtain	toŋ <sup>55</sup> add	bjā <sup>33</sup> , more	lo <sup>33</sup> ba <sup>33</sup> stones	tha <sup>31</sup> y <sup>33</sup> on top of	mu <sup>55</sup> also	ko <sup>33</sup> grain	



tso<sup>33</sup>, lo<sup>33</sup>phjaj<sup>33</sup> tha<sup>31</sup>v<sup>33</sup> mu<sup>55</sup> ko<sup>33</sup>za<sup>31</sup> aŋ<sup>33</sup>paŋ<sup>31</sup>  
cover cliffs on top of also grains the covering of grain

tci<sup>55</sup>tsau<sup>33</sup> paŋ<sup>31</sup>, aŋ<sup>33</sup>paŋ<sup>31</sup> xa<sup>55</sup>ba<sup>33</sup> paŋ<sup>31</sup>,  
(a kind of grass) like the covering of grain (a kind of grass) like

aŋ<sup>33</sup>tsuŋ<sup>55</sup> no<sup>31</sup> pja<sup>33</sup>poŋ<sup>31</sup> aŋ<sup>33</sup>pha<sup>31</sup> no<sup>31</sup> ko<sup>33</sup>ga<sup>55</sup>,  
stalk, stem of the grain (part.) bamboo tube leaves (part.) winnowing fan

aŋ<sup>33</sup>nam<sup>55</sup> no<sup>31</sup> za<sup>31</sup>bja<sup>33</sup> ne<sup>55</sup> la<sup>55</sup> pi<sup>31</sup> y<sup>33</sup> pja<sup>33</sup>xoŋ<sup>31</sup>  
ears of grain (part.) horse tails (part.) come let (part.) dragon

thum<sup>31</sup> tshaŋ<sup>55</sup> laŋ<sup>55</sup>thum<sup>31</sup>, tci<sup>31</sup>the<sup>31</sup> zu<sup>55</sup> mu<sup>55</sup> khoŋ<sup>55</sup>  
pool person pond livestock breed also mountain

puŋ<sup>33</sup>, tshaŋ<sup>55</sup>the<sup>31</sup> zu<sup>55</sup> mu<sup>55</sup> khoŋ<sup>31</sup> laŋ<sup>31</sup> phu<sup>55</sup> sa<sup>55</sup>  
full people raise also village full money find

phu<sup>55</sup> ga<sup>33</sup>, phu<sup>55</sup> la<sup>55</sup> tsha<sup>31</sup>kho<sup>31</sup> ba<sup>31</sup> lap<sup>33</sup> za<sup>31</sup>maŋ<sup>31</sup>  
money get money come continuously not stop the elderly

thi<sup>31</sup>ga<sup>31</sup> maŋ<sup>31</sup> tu<sup>31</sup>phu<sup>31</sup> thi<sup>31</sup>ga<sup>31</sup> phu<sup>55</sup>, taŋ<sup>31</sup> ba<sup>31</sup> lum<sup>55</sup>  
together old white-haired together white song not forget

the<sup>55</sup> ba<sup>55</sup> ci<sup>33</sup>, e<sup>55</sup> khu<sup>55</sup>thaŋ<sup>31</sup> ba<sup>31</sup> thaŋ<sup>31</sup>, e<sup>55</sup> khu<sup>55</sup>taŋ<sup>33</sup>  
word not wrong go legs and feet not fall go instep

ba<sup>31</sup> taŋ<sup>33</sup>, up<sup>31</sup> poŋ<sup>31</sup> tha<sup>55</sup> poŋ<sup>31</sup>, bu<sup>55</sup> ti<sup>31</sup> sa<sup>55</sup> ti<sup>31</sup>.  
not block say freely word freely do smoothly find smoothly

From the turning of the year's end  
For five days, or for six days  
We bear firewood on our backs.

On New Year's Eve, we pound cakes  
And on the altar light candles and joss sticks.  
Today, for plentiful rain and abundant sunshine  
We bring gifts to the gods of our family.

We throw behind us sickness and troubles;  
We will avoid ghosts and disaster;  
We will store choice food and soft clothes.  
This New Year, we will receive each day's need.

Our crops will grow in fertile land.  
After toil and weeding  
May our crops rise from healthy soil.

Let one seed yield two; may our grain  
Be like grass over rocks and cliffs.  
The stalks will be thick as bamboo,  
The leaves large as winnowing fans,  
Ears of grain fat as horses' tails.

Our ponds will be deep as dragons' pools;  
Our cattle will cover the hills;  
Our villages will be full.

Money will come easily, like streams.  
The white-haired together will sing,  
Remembering the lyrics of youth.  
They will not falter or fall.

We will talk freely, talk smoothly together.  
All we touch will do well.

### Love Song

za<sup>31</sup>maŋ<sup>31</sup> zo<sup>33</sup>kha<sup>33</sup> xau<sup>55</sup>y<sup>33</sup>, mtuŋ<sup>31</sup>pa<sup>33</sup> mtuŋ<sup>31</sup> ga<sup>33</sup>,  
elderly headman call good fortune blessing get

cin<sup>31</sup>pa<sup>33</sup> cin<sup>33</sup> ga<sup>33</sup>, ni<sup>31</sup>laŋ<sup>55</sup> toŋ<sup>55</sup>kha<sup>55</sup>, kha<sup>55</sup>my<sup>31</sup>zu<sup>33</sup>laŋ<sup>33</sup>  
good fortune blessing get two streams join play

thi<sup>31</sup>ga<sup>31</sup>, svŋ<sup>31</sup>maŋ<sup>31</sup> pha<sup>31</sup>thoŋ<sup>33</sup> kha<sup>55</sup>la<sup>55</sup> thau<sup>33</sup> phe<sup>55</sup>lau<sup>55</sup>  
together salty sour fruits leaves ashes wrap come here

mu<sup>55</sup> thi<sup>31</sup>ga<sup>31</sup>, te<sup>31</sup>la<sup>31</sup> thi<sup>31</sup>ko<sup>33</sup> mu<sup>55</sup> thi<sup>31</sup>ga<sup>31</sup>, zu<sup>55</sup>la<sup>31</sup>  
also together live all the way also together grow, raise

thi<sup>31</sup>ko<sup>33</sup> mu<sup>55</sup> thi<sup>31</sup>ga<sup>31</sup>, ci<sup>55</sup>la<sup>31</sup> thi<sup>31</sup>ko<sup>33</sup> mu<sup>55</sup> thi<sup>31</sup>ga<sup>31</sup>,  
all the way also together die all the way also together

de<sup>31</sup>bu<sup>31</sup> phy<sup>33</sup> mu<sup>55</sup> thi<sup>31</sup>ga<sup>31</sup>, khoŋ<sup>31</sup>paŋ<sup>31</sup> phy<sup>33</sup> mu<sup>55</sup> nthi<sup>31</sup>ga<sup>31</sup>.  
ghost change also together (type of fish) change also together

The headman calls good fortune on us,  
We who are like two converging steams.

Since childhood, we have played,  
Eating salt-sour fruits.  
We wrapped ashes in leaves to bring home.

We will live together;  
We will die together.  
Even if we become ghosts or fish  
We will never part.

### Tree-felling festival

ko <sup>33</sup> tchin <sup>55</sup> rice	ty <sup>33</sup> , prepare	no <sup>33</sup> pyk <sup>33</sup> soya beans	ty <sup>33</sup> , prepare	mi <sup>31</sup> tho <sup>31</sup> firewood	ty <sup>33</sup> , prepare				
kaŋ <sup>31</sup> ba <sup>33</sup> vegetables	ty <sup>33</sup> , prepare	sa <sup>31</sup> me <sup>31</sup> salt	la <sup>31</sup> phi <sup>31</sup> chilli	ty <sup>33</sup> , prepare	tyŋ <sup>33</sup> cook rice	e <sup>55</sup> go			
miŋ <sup>33</sup> cooked	la <sup>55</sup> come	tša <sup>31</sup> eat	poŋ <sup>31</sup> poŋ <sup>55</sup> assemble	thi <sup>31</sup> one	zum <sup>55</sup> family	thi <sup>31</sup> one	fu <sup>33</sup> person	va <sup>31</sup> pig	ce <sup>31</sup> kill
xa <sup>33</sup> do	pyn <sup>55</sup> finish	ten <sup>33</sup> work	pyn <sup>55</sup> finish	zau <sup>33</sup> (conj.)	va <sup>31</sup> sa <sup>31</sup> pork	tho <sup>33</sup> tho <sup>33</sup> chop chop	sa <sup>31</sup> tho <sup>33</sup> chopped pork		
sa <sup>33</sup> , accompany (the meal)		te <sup>31</sup> kha <sup>31</sup> wine	sa <sup>33</sup> accompany			mi <sup>31</sup> tho <sup>31</sup> ntuŋ <sup>33</sup> tree-felling day	thi <sup>31</sup> ga <sup>31</sup> together		
ty <sup>33</sup> , fell [trees]	la <sup>55</sup> tci <sup>55</sup> cogongrass	kju <sup>31</sup> , cut	za <sup>55</sup> ground	kun <sup>55</sup> , dig	a <sup>55</sup> maŋ <sup>55</sup> whatever	a <sup>55</sup> maŋ <sup>55</sup> whatever	xa <sup>33</sup> do		
ne <sup>31</sup> (part.)	e <sup>55</sup> go	aŋ <sup>55</sup> (part.)	ni <sup>55</sup> a <sup>31</sup> , (part.)	mi <sup>55</sup> tsaŋ <sup>55</sup> a <sup>31</sup> already	ba <sup>31</sup> no	tche <sup>55</sup> taboo	la <sup>55</sup> a <sup>31</sup> , (part.)		

We cook rice and soya beans,  
Carry firewood and scrub vegetables.  
We will feast together, on food  
Seasoned with chilli and salt.

Each family sends one to kill the pig:  
Today we will eat pork with wine.  
On tree-felling day, we cut cogongrass  
And dig the earth together.

Whatever we want, we do.  
Today there are no taboos.

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## Epilogue

This book is mainly based on data obtained from investigations conducted on the form of the Bisu language which is spoken in Zutang Village in Lancang County in China. Chapters 2, 3 and 4 essentially describe the linguistic features of the Laomian vernacular, which belongs to the Lanmeng dialect of Bisu. The other dialects are described in Chapter 5. Language data for the Laopin vernacular of the Lanmeng dialect have been taken from *Preliminary studies of Bisu*, by Li Yongsui; data for the Huaipa and Tako dialects have been taken from *Bisu dialects* (David Bradley, 1977) and *Dictionary of Linguistics: Volume 2* (Tatsuo Nishida, 1988-1989).

Data from other languages have been used in this book, including: Burmese (represented by modified forms of the International Phonetic Alphabet); Achang (Husalajie vernacular of the Longchuan dialect); Zaiwa (Xishan vernacular in Luxi County); Hani (Caiyuan vernacular in Mojiang County, which belongs to the Bika dialect); Lahu (Menglongkan vernacular in Lancang County, which belongs to the Nafang dialect); Jino (Manya vernacular in Jihong County); Nu (the vernacular spoken in Bijiang); Yi (Jingxing vernacular in Mojiang County, which belongs to the Southern dialect group); and Lisu (Chada vernacular spoken in Fugong County). Whenever other dialects of the above languages are used, this is indicated in the text. The above language data have been taken from the following publications: *Phonology and Lexicon of Tibeto-Burman languages* (editorial group of *Phonology and Lexicon of Tibeto-Burman languages*, 1991); *Preliminary Studies of the Sangkong language* (Li Yongsui, 1992) for Sangkong; *Dictionary of linguistics* (Tatsuo Nishida, 1988-1989) for Phunoi, Mpi, and Pyen.; and *Description of the Languages in the Zhuang-Dong Language Family* (Wang Jun *et al.*, 1984) for the Yungjinghong vernacular of the Xishuangbanna dialect of Dai.

From October to November 1993, we undertook systematic, in-depth field investigations of the Bisu language spoken in China. Our work was warmly and greatly supported by the Steering Committee for Research into Minority Languages in Yunnan Province, the Steering Committees in Simao Prefecture, the Xishuangbanna Dai Autonomous Prefecture, and Lancang County. Mr. Xu Yong'an, Director of the Steering Committee in Simao Prefecture, and Mr. Li Bingnan, Director of the Steering Committee in Lancang County, also gave us very practical assistance. As the organisers and major participants of social history investigations from 1985 to 1989, they gave us detailed introductions to the social history of the Bisu-speaking Laomian people in Simao Prefecture. They also provided other relevant information to enable us to gain a more complete picture of the background and situation of the Bisu people and their culture.

Our field investigations also received wholehearted assistance from the village council of the hamlet of Dongzhu Laomian in Zutang Village of Lancang County. Although our study coincided with the busy autumn harvest season, our language assistants, including Mr. Li Xuewen, Mr. She Fuwen, and Mr. Li Zhabi, were willing to help us by taking precious time off their farming activities. We are very grateful for their kindness and consideration.

The writing of this book could not have been accomplished without the extremely helpful comments I received from Professor Li Yongsui. As the first Chinese linguist to investigate and study the Bisu language, he not only provided me with language data which he had collected himself, but also gave me invaluable suggestions regarding difficult linguistic questions. The editor of this series and the proofreader of this book, Professor Sun Hongkai, also gave of his precious time in order to perform meticulous proofreading of the manuscript. In addition, Professor Luo Meizhen, a Dai specialist, proofread the Dai words in the

manuscript with characteristic thoroughness. Their generous instruction fully reveals the broad-mindedness of experienced senior linguists and their collective feeling of responsibility towards the investigation of minority languages in China.

The completion of this book has also relied on the results of previous investigations into the Bisu language. Research into Bisu and the culture of its people is still in its infancy, but all the available works and research on the subject have been of great value. Relevant material published outside China, provided by Professors Sun Hongkai, Li Yongsui, and Tatsuo Nishida, has been very important in the development of an integral picture of the Bisu language.

The editing and formatting of this book have presented some difficulties, and Mr. Sung Jun and his colleagues in the typesetting department of the Institute of Nationality Studies of the Chinese Academy of Social Sciences, as well as colleagues at the Shanghai Far East Publishers have carried out much painstaking work. I would like to offer them my grateful thanks.

Many friends and colleagues have directly and indirectly assisted in the writing and publication of this book. Unfortunately, they have not been listed individually here. For this, I offer my sincerest apologies. A thorough investigation of a transnational and dispersed language such as Bisu cannot be completed by only a few people. Finally, I believe that any work which is undertaken to preserve the body of linguistic knowledge is a worthwhile contribution to the preservation and development of human culture.

The author

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A transnational language, Bisu is spoken in the border areas of China, Thailand, Myanmar, and Laos. It was first described in Thailand in the 1960s, and is an important member of the Bisoid branch of the Burmese-Yipho group within the Tibeto-Burman language family. Other members of this branch include Phunoi, Sangkong, Mpi, and Pyen. This is an English translation of a linguistic description of the Bisu spoken in Yunnan Province in southwestern China. The original Chinese text was written by Xu Shixuan of the Institute of Nationality Studies of the Chinese Academy of Social Sciences, as part of the series *Newly-Discovered Languages in China*.

The volume analyses and describes Bisu in terms of its structure, its relationship to other languages in the same family, and its socio-cultural background, presenting a comprehensive and systematic overview of the language. There are extensive discussions of the origins and forms of loan words in Bisu, a detailed description of its dialects, as well as numerous charts of Burmese-Yipho cognates. The two appendices include a lexicon of over 2,000 words and three Bisu odes. This thorough description of one of the lesser-known minority languages of China provides an excellent record of a language whose speaker numbers are declining. In addition, the distinctive features of Bisu and the effects of contact with other languages such as Thai and Dai can offer new perspectives in the investigation of Tibeto-Burman languages.

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