A GRAMMAR OF BOUYEI

ATTASITH BOONSAWASD

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ABSTRACT

The purpose of this study was to describe the grammar of the Bouyei language including phonology, morphology, and syntax. This language is mainly spoken and written in the south, the southwest, and the central parts of Guizhou in China by approximately 2,500,000 speakers. It belongs to the Kam-Tai branch of the Tai-Kadai language family. All data collected from relevant documents and the native Bouyei informants living in China were analyzed with the computer software programs FieldWorks Language Explorer, PRAAT, and Phonology Assistant. The approach of the study is based on the tagmemic theory, initiated by Kenneth L. Pike in the 1950s.

The study revealed that the Bouyei language was influenced by Mandarin Chinese in all ranks of grammatical hierarchy, especially phonemes and morphemes, because of language contact. However, the syntactic structure of the Bouyei language is mostly still similar to other Tai-Kadai languages.

KEY WORDS: BOUYEI LANGUAGE / GRAMMAR / TAI LANGUAGES

238 pages

ไวยากรณ์ภาษาปูยี
A GRAMMAR OF BOUYEI

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บทคัดย่อ

วัตถุประสงค์ของการวิจัยในครั้งนี้เพื่อศึกษาไวยากรณ์ภาษาปูยีตั้งแต่ระบบเสียง ระบบคำ จนถึงระดับโครงสร้างประโยค ภาษาปูยีมีผู้พูดประมาณ 2,500,000 คน ส่วนใหญ่อาศัยอยู่บริเวณตอนใต้ ตะวันตกเฉียงใต้ และตอนกลางของมณฑลกุ้ยโจว ประเทศสาธารณรัฐประชาชนจีน ภาษานี้จัดอยู่ในตระกูลภาษาไท-กะได สาขากัม-ไท ข้อมูลทั้งหมดซึ่งเก็บรวบรวมจากเอกสารที่เกี่ยวข้องและผู้บอกภาษาชาวปูยีซึ่งอาศัยอยู่ในประเทศจีนได้นำมาวิเคราะห์ด้วยโปรแกรม FieldWorks Language Explorer, PRAAT และ Phonology Assistant โดยอาศัยทฤษฎีไวยากรณ์แทคมีมิคซึ่งริเริ่มโดย Kenneth L. Pike ในทศวรรษ 1950 เป็นแนวทางในการศึกษาวิเคราะห์

ผลการศึกษาพบว่า ภาษาปูยีได้รับอิทธิพลจากภาษาจีนกลางในทุกลำดับขั้นทางไวยากรณ์ โดยเฉพาะระดับหน่วยเสียงและหน่วยคำอันเนื่องมาจากการสัมผัสภาษา อย่างไรก็ตาม ในระดับโครงสร้างประโยค ภาษาปูยียังคงมีลักษณะคล้ายคลึงกับภาษาอื่น ๆ ในตระกูลภาษาไท-กะไดอยู่มาก

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LIST OF ABBREVIATIONS

1PL	First Plural Pronoun
1SG	First Singular Pronoun
2PL	Second Plural Pronoun
2SG	Second Singular Pronoun
3PL	Third Plural Pronoun
3SG	Third Singular Pronoun
Add	Additive
Adj	Adjective
Adv	Adverb
Adv P	Adverb Phrase
Alt	Alternative
Amb	Ambient
Approx	Approximate
Asp	Aspect
Card	Cardinal Number
Caus	Causative, Causation
Cl	Clause
Cls	Classifier
Co	Coordinative
Cog	Cognitive
Com-deg	Comparative degree
Com-equ	Comparison of equality
Com Item	Comparative Item
Com mk	Comparative marker
Comp	Completive
Compl	Complement

LIST OF ABBREVIATIONS (cont.)

Dem	Demonstrative
Dep	Dependent
Des	Descriptive
Dest	Destination
Di	Ditransitive
Dir	Directional
DO	Direct Object
El	Element
Equat	Equational
Equ Mk	Equality Marker
Exist	Existential
Gen	Genitive
H	Head
HN	Head Noun
Imp-neg	Negative imperative
Imp-pos	Positive imperative
Ind	Independent
Inten	Intensifier
Intr	Intransitive
IO	Indirect Object
Lit	Literature
Lk	Linker
Loc	Locative

LIST OF ABBREVIATIONS (cont.)

Mo	Motion
Mod	Modifier
MV	Main Verb
N	Noun
Neg	Negation, Negator
Neg Mk	Negative Marker
NP	Nominal Phrase
Num	Numeral
Num P	Numeral Phrase
O	Object
Ord	Ordinal Number
P	Predicate
Per	Peripheral
Phen	Phenomenon
Pol Q	Polar Question
Post Mod	Post-modifier
PP	Prepositional Phrase
Pre Mod	Pre-modifier
Prep	Preposition
Pron	Pronoun
Prop	Propulsion
Q Mk	Question Marker
Qt	Quantity
Qual	Quality
Quot	Quotative

LIST OF ABBREVIATIONS (cont.)

Rel	Relator
Rel Cl	Relative Clause
S	Subject
Sent	Sentence
Sim	Simple
Sub	Submissive
Subor	Subordinative
T	Time
TP	Temporal Phrase
Tr	Transitive
Unpl	Unpleasant Event
VP	Verb Phrase

CHAPTER I
INTRODUCTION

1.1 Background of the study

Tai-Kadai languages are spoken across a wide area of southern China and South East Asia. The Tai languages are the most important members of the Tai-Kadai family. They are divided into three branches, the southwestern, the central, and the northern. The southwestern branch includes Thai and Lao (the national languages of Thailand and Laos), Shan (spoken in some parts of northern Myanmar), and numerous other related languages spoken across a wide area, such as Phuan in the central part of Thailand, Phu Thai in the northeastern part of Thailand, Black Tai in the northern part of Laos. Languages from the central and northern branches are spoken in northern Vietnam and southern China. However, some linguists, such as Haudricourt (1956, 1968), Chamberlain (1975) and Gedney (1989), considered the southwestern and central branches to be one. Chamberlain (1975) claimed that the sub-branches of the central and southwestern branches can be classified with aspiration, but the northern branch cannot.

According to Ronnakiat (1998), the studies of the Tai language family by Thai linguists are mostly focused on the southwestern branch. The languages in the northern branch, such as Bouyei, Buza, Taiman, Budai and Yoy, have not been studied extensively.

Bouyei, one of the northern Tai languages, is mainly spoken over the south, the southwest, and the central parts of Guizhou Province, P.R. China by approximately 2,500,000 speakers. In the past, the Bouyei people had no written language of their own, and used Han characters to transcribe their language. After 1949, the government helped them to formulate a Bouyei writing system based on Romanization. Zhou et al (2001) divided the Bouyei language into three vernaculars, including Qiannan (southern part), Qianzhong (central part) and Qianxi (southwestern part). Although the Bouyei language is used in wide geographic areas, he claimed that

the vocabulary and grammatical structure of the language in each area are the same, except phonology. The sound correspondences can be found from area-to-area.

Grammatical studies on Bouyei are very few. Most of the previous research relates to phonology and sociolinguistics, such as *Variation in Bouyei* (Snyder, 1995), *the Survey of the Guizhou Bouyei Language* (Wu et al, 2007), *Killing a Buffalo for the Ancestors: A Zhuang Cosmological Text from Southwest China* (Holm, 2003), *Bouyei-Chinese-English-Thai Dictionary* (Zhou et al, 2001).

Snyder (1995) categorized the different types of variation within Bouyei with the goal of defining the overlapping patterns of Bouyei speech communities. She found that the Bouyei of Qiannan were among the more conservative of Northern Tai dialects. Diphthongs and triphthongs have been preserved in many areas, whereas preglottalized initials were preserved in all areas. Some irregular variations were caused by migrations, borrowings, interdialectal mixing or competing sound changes.

Wu et al (2007) conducted a language survey over the entire Bouyei area in 1995–1996. The data for this survey was collected from 24 different areas. A word list of 500 items of basic vocabulary, some tailored to the Kam-Tai culture, was used in this survey. His research includes 4 topics; 1) describing the phonology of each data area, 2) an analysis of historical variation of Bouyei initials and tones, 3) comparison of this survey data with the 1950s data, and 4) a comparison of the speech of older speakers versus younger speakers.

Holm (2003) studied the Donglan Bouyei. He found that the language has 26 initials, 6 finals, 22 vowels, and 8 tones.

Zhou et al (2001), a Chinese scholar and a Bouyei native speaker who has done long-term research in Bouyei, described the phonology, grammar, and lexicon of Nuichang Bouyei spoken in Zhenfeng county, Guizhou province. He stated that the language had 29 initial consonants, 6 finals, 32 vowels, 8 tones and 7 basic sentence structures. Even though Zhou described the grammar of Bouyei, he did not do it in detail. He just classified word classes and gave some example sentences for each basic structure. However, there is a Bouyei textbook called *Buyiyu Jichu Jiaocheng* (Wang and Zhou, 2005). It is used for teaching in Central University for Nationalities and written in Chinese. As the study is available only to speakers of the Chinese language and very limited in scope and depth, the researcher would like to fill a gap in the

linguistic study of the Bouyei language by making a pioneering study of Bouyei grammar, using the structuralist approach. Furthermore, the research on the language and culture of Tai-Kadai people in China studied by Thai linguists is very sparse. The findings of this study should give us a deeper understanding of the grammar of Bouyei.

1.2 Objective of the study

The objective of the study is to describe the phonology, morphology and syntax of the Bouyei language in order to investigate how this language is similar to other Tai languages and how it has been influenced by the Mandarin Chinese language.

1.3 Expected outcomes

1.3.1 A complete grammar of Bouyei will be described.

1.3.2 The results or information of this study may contribute to future research on Bouyei and other related Tai-Kadai languages.

1.3.3 The research results may be used as a guideline of Bouyei grammar textbooks for basic learners.

1.4 Hypotheses

1.4.1 Since the Bouyei language is classified as a part of the Tai language family, its grammar should be similar to others in the same family.

1.4.2 Besides vocabulary, the Mandarin Chinese grammar should have an influence on the Bouyei language, due to language contact.

1.5 Scope of the study

The scope of this study is to describe the grammar of the Bouyei language spoken in Wangmo, including the phonological system up to the level of sentences. The analysis is based on Tagmemics theory. Two sources of data are used in this study. They include vocabulary and basic sentence data collected by the researcher and text data collected in Guizhou Province, P.R. China by Wang and Zhou (2005). The latter are secondary sources which are translated into English by my informant, Mr. Huang Zhenbang.

Data are presented in the four-line format as follows:

Line1 Bouyei orthography

Line 2 Phonemic transcription

Line 3 Gloss

Line 4 Free English translation

Line 1 represents a phrase, clause, or sentence in the Bouyei orthography. Line 2 represents the same material as on line 1 in an IPA (2005) phonemic transcription. Line 3 gives glosses, or the literal meaning, of each word that appears on line 2. Line 4 gives a relatively free English translation of a Bouyei phrase, clause or sentence.

1.6 Terminology of the study

FLEx

FLEx stands for FieldWorks Language Explorer. It is a database program that facilitates the recording and analysis of linguistic data. Once a FieldWorks project is created for the language under study, Language Explorer provides a well-ordered set of fields to record lexical data. It also provides a means of recording a text corpus with the built-in capability to interlinearize text. Running the optional automated morphological parser makes interlinearizing text an efficient task. Grammar tools are also available which allow the user to capture grammatical information. This information is used by the morphological parser, providing a way to check grammatical rules recorded against real language data. The grammar information can

also be compiled in an automatically generated grammar sketch (Lockwood, 2007). In this study, FieldWorks Language Explorer version 5.0 has been selected to record and analyze the Bouyei data.

Grammar

The definitions of grammar vary. Some define it as a theory of a language (Chomsky, 1965). Some define it as the normative rules of a language (traditional grammar). Crystal (1991) defines it as a level of structural organization which can be studied independently of phonology and semantics, and generally divided into the branches of syntax and morphology. In this research, grammar is the set of structural rules that govern phonology, morphology and syntax.

Lect

In sociolinguistics, a lect, also called a variety, is a form of a language used by speakers of that language. This may include dialects, accents, registers, styles or other sociolinguistic variation, as well as the standard language variety itself (Surhone et al, 2010).

Linker

A linker, also known as a conjunction, is a class of words whose members syntactically link words or larger constituents, and expresses a semantic relationship between them (Iwasaki and Ingkaphirom, 2005).

Modifying words

Modifying words are classes of optional words that provide description in sentences. The removal of the modifier typically does not affect the grammaticality of the construction (Iwasaki and Ingkaphirom, 2005). They include adjectives, adverbs and intensifiers.

Negator

Negator refers to a negative marker. It functions as pre-modifier of a verb phrase of statement and imperative clauses (Iwasaki and Ingkaphirom, 2005).

Noun-related words

Noun-related words refer to nouns and word classes related to nouns that include pronouns, demonstratives, prepositions, classifiers, and numerals (Iwasaki and Ingkaphirom, 2005).

Phonology Assistant

Phonology Assistant is a phonological analysis program created by SIL that works interactively with the data stored in Toolbox, FieldWorks Language Explorer, and Speech Analyzer. It provides drawing up a phone inventory; computing relative frequencies of phones; computing syllable structures; generating phonotactic charts for every conceivable combination of positions, phones, or features; and finding minimal pairs along various dimensions (Dingemanse, 2008). In this study, Phonology Assistant version 3.0.1 is used.

PRAAT

PRAAT is a scientific software program for speech analysis and synthesis. Acoustic characteristics, such as waveform, intensity, formant, pitch, and duration, can be analyzed utilizing this program. It has been designed and continuously developed by Paul Boersma and David Weenink of the University of Amsterdam (Styler, 2012). In this study, PRAAT, version 5.3.06, is used to analyze tone shapes and tone values of the Bouyei language in order to confirm the researcher's auditory judgment.

Tagmeme

Tagmeme is a smallest unit of grammatical form which has meaning. It consists of one or more taxemes, "the smallest unit (of grammar) which distinguishes meanings, but which has no meaning itself" (Dinneen, 1967: 264).

Toneme

Toneme is a term used in phonology to refer to the distinctive pitch level of a syllable (Crystal, 1991). It is a type of phoneme that occurs in languages that use tone to convey differences in lexical meaning.

Verb-related words

Verb-related words are defined as verbs and classes of words related to verbs that consist of auxiliary verbs and negators (Iwasaki and Ingkaphirom, 2005).

1.7 Brief information of Bouyei

1.7.1 Bouyei people

Ramsey (1941) stated that most Bouyei speak Chinese, wear Chinese clothes, and think of themselves as close relatives of the Chinese. In some localities other non-Han ethnic groups consider them to be Chinese, especially those Bouyei working in towns as tradesmen. The 2,120,000 members of this minority, except for a few thousand in northern Yunnan, all live in southern Guizhou. They form the northern continuation of the Tai-speaking population of Guangxi.

According to Snyder (1995), the Bouyei people live in south central China, primarily in Guizhou Province. Some Bouyei are also found in Yunnan and Sichuan Provinces to the southwest of Guizhou. The population of Bouyei is around 2.5 million. The autonymes of the Bouyei are *pu*^{4}*jai*^{3}, *pu*^{4}*ʔjai*^{3}, *peu*^{4}*ji*^{4}, and *pu*^{4}*ʔjoi*^{4}. They were known as *Zhongjia* during the Yuan, Ming, and Qing dynasties. The phonology of Zhong (Bouyei), Zhuàng (Tai people of Guangxi), and Dong (Kam) are all the same or differed only by aspiration in early Middle Chinese.

Zhou et al (2001) said that the Bouyei are a Tai ethnic group in South China with a population of more than 2,500,000. They are mainly distributed over the south, the southwest, and the central parts of Guizhou Province. A small number also live in scattered communities throughout Yunnan, Sichuan and the mountainous areas of northern Vietnam. Over centuries, the Han majority called them Tujia (the natives), Bendi (the natives), Shuijia (people of the river banks) and Zhongjia (Zhong people), whereas the Bouyei (Buyi) people call themselves *pu*^{4}*ʔjai*^{4} or *pu*^{4}*ʔji*^{4}. This name is pronounced differently from place to place, with other variants being *pu*^{4}*ʔjoi*^{4}, *peu*^{4}*ʔji*^{4}, *pu*^{4}*jai*^{4}, according to the local vernacular. In Thailand Bouyei are known by the name Tai Dioi (Tai Yoi) which refers to the Bouyei people residing in Vietnam.

It should be noted that what Ramsey (1941), Snyder (1995) and Zhou et al (2001) said about Bouyei are similar. They stated that most Bouyei live in Guizhou with a population of more than two million and are likely to increase over time. Besides, it is found that the Bouyei people contact the Chinese in their daily life. This may cause the language and culture of Bouyei to change.

1.7.2 Bouyei language

Based on three types of evidence, namely the distribution of vocabulary, the distribution of certain special phonological features and specific phonological developments, Li (1960) placed the Bouyei language as a sister in the Northern Tai branch. This classification has been widely accepted by Tai-Kadai linguists over the years since then. The closest related languages to Bouyei are the other Northern Tai languages, Northern Zhuang in neighboring Guangxi province, Saek in Thailand and Laos, and Yay in Vietnam.

The Bouyei language, according to Zhou et al (2001), is divided into three vernaculars as follows:

1) Qiannan vernacular (southern part) is spoken in Wangmo, Anlong, Luodian, Zhenfeng, Xingyi, Cheheng, Dushan, and Libo, and some parts of Huishui, Changshun, Xingren, Ziyun, Guanling, Pingtang, Duyun, and Zhenning;

2) Qianzhong vernacular (central part) is spoken in Guiyang, Guiding, Qingzhen, Longli, Pingba, Anshun, Zhijin, and Qianxi, and large parts of such counties as Huishui, Changshun, Duyun, and a small part of Dushan County; and

3) Qianxi vernacular (southwestern part) is spoken in Pu'an, Qinglong, Liuzhi, Puding, Shuicheng, and large parts of Zhenning, and Guanling counties and small parts of Ziyun, and Xingren counties.

The Wangmo lect of the first vernacular was considered to be the standard language because of a large percentage of speakers. The Bouyei speakers of other lects understand Wangmo, while the speakers of Wangmo lect do not understand the others.

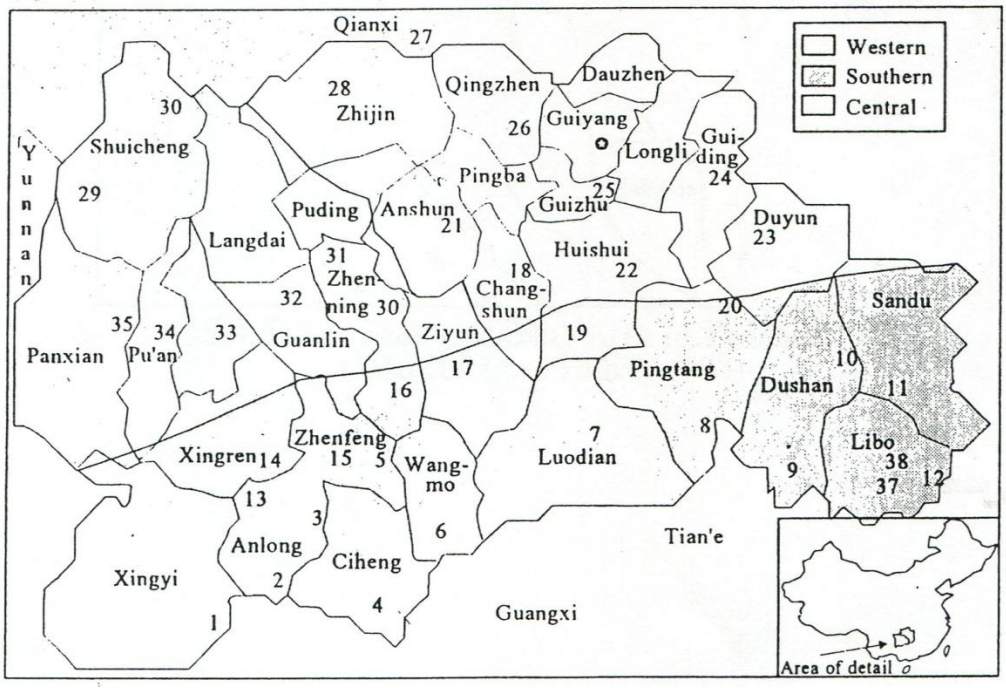


Figure 1.1: Bouyei areas

(Edmondson and Solnit 1998: 28)

1.7.3 Culture of Bouyei

As seen in Holm (2003), the culture of Bouyei is studied by many linguists, especially Chinese scholars. For example, *Ceremonial Songs and 'Buffalo Scriptures' of the Bouyei Central Guizhou* (Wei et al, 1984), *A Preliminary Investigation into Maonan Folksong* (Guo, 1987), *Selected Bouyei Folktales from Guizhou* (Wei, 1989), *An investigation into the Ritual Theatre of the Bouyei of Libo County, Guizhou* (Bai and Li, 1992), *A Preliminary Investigation into the Cultural Values of Language Use among the Bouyei* (Huang, 1992), *A Cultural Explanation for the Ritual of Killing an Ox among the Bouyei* (Zhou, 1996), and *The Bouyei Buffalo Sacrifice – A Case Study based on the Folklore of Funerals in Luolimu* (Xu, 1997).

Besides the studies referred to above, the information on the culture of Bouyei can be found on many websites, such as:

http://www.china.org.cn/e-groups/shaoshu/shao-2-bouyei.htm,

http://www. travelchinaguide.com/intro/nationality/bouyei,

http://www.everyculture.com/Russia-Eurasia-China/Bouyei.html,

http://www.paulnoll.com/China/Minorities/min-Bouyei.html,

http://www.joshuaproject.net/people-profile.php?peo3=18421&rog3=CH, http://www.chinatour360.com/culture/ethnicgroups/bouyei.htm, http://www.omf.org/omf/uk/asia/china/about_china/people_groups_of_china/bouyei.

The information of Bouyei from such websites is quite similar. Each website provides an overview, starting with the name of ethnic groups, language, population, and location. Then the tradition and culture of Bouyei are described in each topic, such as housing, clothing, work, food and beliefs. Such information may be shown as follows:

1.7.3.1 Housing

The Bouyei people usually live in either wooden houses built on stilts or stone houses, nearby rivers or streams. Some of the villages are built on mountainsides, where houses are arranged in rows, one higher than the next to accommodate the incline. Some Bouyei villages in the west of Guizhou also have distinctive features. Here, houses and many other kinds of edifices are constructed entirely of silvery-white slate (Zhou et al, 2001). Bouyei usually live in compact communities. There are many households in one village and members of those households usually use the same family name. However, for some of the large villages, where there are many households, there are different family names for each household group.

1.7.3.2 Clothing

The dress of Bouyei varies in style from place to place. As for color, the Bouyei people typically wear blue, black and white dresses. Before the 1950s, men used to wear short jackets with buttons down the front or unlined long gowns with large front pieces and buttons down right side and long trousers. Old men always wear long gowns (Zhou et al, 2001). Nowadays, most of the men wear modern Han clothing. The women continue to wear their traditional clothing of brocade and batik jackets, batik long trousers or batik long skirts. They often wear silver jewelry and headwear. The unmarried women braid their hair and wear an embroidered scarf,

while the married women wear headwear made of bamboo shells, called “gengkao” (Makayan, 2006).

Figure 1.2: Bouyei costumes

1.7.3.3 Livelihood

The Bouyei are primarily agricultural workers. Beyond growing most all their own food needs, they grow cotton, ramie, tobacco, sugarcane, tea, coffee, bananas, silk, hemp, and cocoa as cash crops. They produce batik (one of the best selling handicrafts in the region), embroidery, sleeping mats, and bamboo hats for sale. Too, in the dormant agriculture period of the year, they undertake a variety of migrant laborer jobs to further enhance their monetary earnings.

1.7.3.4 Food

The Bouyei usually consume glutinous rice, pickled sour vegetables, brawn, pork sausage and pork-blood curd. They welcome their guests with delicious wines and meat. If pork is served, it symbolizes that the guests will have a good harvest; the chicken's head symbolizes auspice, the wings represent success, and the drumstick represents freedom from anxiety. Furthermore, the Bouyei also have a tea culture. They make teas, including honeysuckle and other plants. Among those, there is a very good tea which is not for sale and only sent as gifts to friends and the

girl's boyfriend to indicate her chastity. It is called “Girl’s Tea” (Guniang Cha) because it is made by unmarried girls.

1.7.3.5 Beliefs

The Bouyei people believe in many gods, such as a god for each mountain and river, for each megalith, cave and paddy field, and for each old and unusual tree. They worship these gods at each festival. For example, on the third day of the third lunar month, it is the time to worship the gods of lands and mountains. On the eight day of the fourth lunar month, there is a festival for the god of farm cattle. The cattle are permitted to take a rest for one day, even though it is in the busy season. On the sixth day of the sixth lunar month, there is a grand festival of Bouyei, which is also called “celebrating an extra new year.” They worship the gods of the rice fields, lands and mountains. On the fourteenth and the fifteenth day of the seventh lunar month, they worship the ancestral spirits with chicken, pork and beef at altars in each home. In the evening, they burn paper money as offerings to their ancestors (Zhou et al, 2001).

To sum up, this chapter serves as an introductory chapter of the study. The research background section in this chapter briefly introduces the Bouyei language and its speakers, and outlines the reasons for choosing the grammar of this language to be studied. This chapter then deals with the objective of the study, expected outcome, hypotheses, scope of the study, and terminology of the study, followed by brief information of Bouyei. It contains the information about the people, the language and the culture of Bouyei. The next chapter is a review of extant literature.

CHAPTER II
LITERATURE REVIEW

In this chapter, the relevant literature will be reviewed. They are divided into three main parts. They include grammatical theories, research on the Bouyei language and the status of research on Tai-Kadai studies. The definitions and approaches of selected grammatical theories will be explicated first. The other two parts will follow.

2.1 Grammatical theories

Before initiating an analysis of the Bouyei language utilizing tagmemic theory, a review of other grammatical theories will first be presented. This is done to facilitate the readers' understanding of the author's decision to use the tagmemic approach.

There are many grammatical theories used to analyze languages. Their approaches are rather different. Some theories may be derived by modifying and/or enhancing an existing theory or by developing an alternative theory. To analyze the grammatical systems of any language, one must decide which theory is to be used and rationalize why it is being utilized. This enables one to collect the data accurately. For example, if one desires to analyze a language with Systemic Functional Grammar (SFG), one would collect the natural written or spoken data. Some grammatical theories can be summarized as follows:

2.1.1 Traditional grammar

Traditional grammars were written by Latin tradition scholars who felt that a grammar should provide a set of rules for correct language use, where "correct" meant according to the rules of the grammar of Latin. Such grammars are known as prescriptive or normative.

According to most traditional grammars, word classes are usually classified by their meaning. They are divided into eight parts of speech, namely noun, pronoun, adjective, verb, preposition, conjunction, adverb and interjection.

Nesfield (1898) defined the noun as "a word used for naming anything", where "anything" may be a person, quality, action, feeling, collection, etc. The pronoun is a word used instead of a noun: an adjective qualifies a noun; a verb is a word used for saying something about something else. The preposition is often said to be used to indicate directionality or place; and the adverb, to say something about the time, place and manner of that about which something is said by the verb. The conjunction links sentences or parts of them together, and the interjection is a word or group of words used as an exclamation.

Saleem (2008) proposed the limitations of this grammar as follows:

1. Traditional grammar is basically structured on Indo-European classical languages. So, it is a poor model for the grammars of languages that differ from Greek, Latin or Sanskrit.

2. It does not discern between all linguistic levels, such as phonetic, morphology, syntactic and semantic.

3. It is normative and prescriptive, rather than explicit and descriptive. Actually, grammars should be rules that state what we in fact say, not rules that state what we ought to say. What is correct and what is not correct is ultimately only a matter of what is accepted by society.

4. It rejects not only the contemporary usage, but also the functional and social varieties of language.

5. In its approach, it is diachronic (historical) rather than synchronic. It tries to incorporate a living language like a dead one. Fries (1940) challenges traditional grammar by calling it not insightful, pre-scientific, prescriptive and having a literary bias.

6. There may be about two hundred definitions of the sentence, yet they are not able to differentiate between "the girl is weeping" and "the weeping girl." According to rules of the traditional grammar, "noun" is the name of a person, place or thing. Yet it cannot include pink, blue, and purple in the list of nouns, although they are the names of color.

7. It is also noticed that traditional grammar gives importance to the written form of language. It rejects the fact that spoken form is prior to the written form.

2.1.2 Structural grammar

Structural grammar in the U.S.A. was initiated by the American linguist, Leonard Bloomfield (1933). From at least the early 1930s until the late 1950s, the influential structural linguists include Bloomfield, C.C. Fries, and Z. Harris. This grammar focuses on the form of spoken language and analyzes such form with scientific method. It is characterized by the procedure known as substitution, by which word class membership is established and by which smaller structures are expanded to larger ones. We can find out which words could occur in which positions by taking test sentences and trying to substitute other words in each of the positions. For example, we take the sentence “The girl is beautiful.” and find out which words could be substituted for “girl” without changing the structure of the sentence.

The process of substitution was employed by Fries (1940). It has been used by all modern investigators, and is still of considerable importance in any grammatical description. This grammar helped the development of the system Immediate Constituents or I.C. analysis. However, it also has some limitations because structuralism ignores explanatory adequacy, meaning, linguistic universals, native speakers' intuition and their competence in generating an infinite number of sentences from a finite set of items.

2.1.3 Tagmemics

The term tagmeme was used by Bloomfield (1933) to stand for the smallest unit of grammatical form which has meaning. A tagmeme could consist of one or more taxemes, “the smallest unit (of grammar) which distinguishes meanings, but which has no meaning itself” (Dinneen, 1967: 264). The notion of the tagmeme was developed largely by Pike (1967, 1982) into a grammatical theory, called Tagmemics. This theory is an offshoot of structuralism. Structuralism ignores functions of a linguistic form and concentrated only on form, but Tagmemics fuses together the form as well as the function of a linguistic entity.

Pike and Pike (1977) stated that Tagmemics is based on four major assumptions.

1) All purposive behavior, including language, is divided into units.

2) Units occur in context.

3) Units are hierarchically arranged.

4) Any item may be viewed from different perspectives.

The notion of the hierarchy is a cornerstone of tagmemic theory. By hierarchy is meant a part-whole relationship in which smaller units occur as parts of larger ones. The grammatical hierarchy can be shown in the following figure.

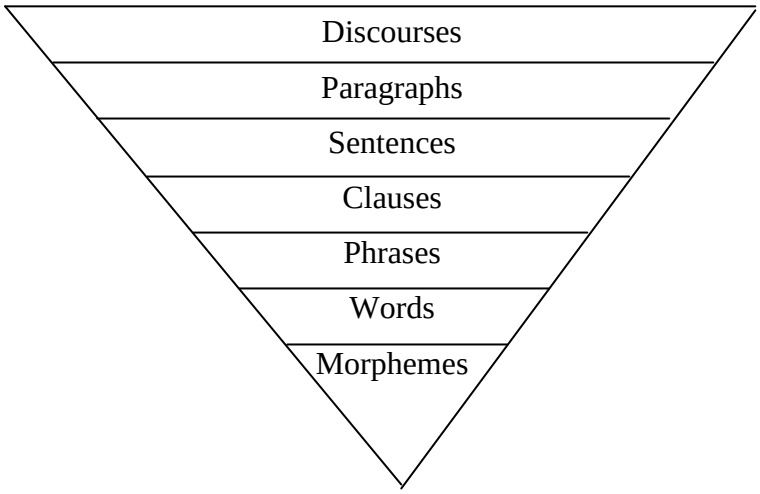


Figure 2.1: Grammatical hierarchy

Tagmemics differs from alternative systems of grammatical analysis in that it defines the basic units of language (tagmemes) as composite elements, one part being the “slot,” or “function,” and the other the “filler,” or “class.” For example, one such tagmeme, at the syntactic level of analysis, might be the noun-as-subject (in which the noun is a class that “fills” the subject “slot” in a construction). Thus, Tagmemics is sometimes called slot and filler grammar; a slot being a position in construction frame. The filler class is the co-relation between a grammatical function like subject and class of fillers like nouns that can fill that function. But neither the slot nor the filler itself is important, it is the tagmeme which is significant. The slot is the

function and filler being the category. A tagmeme, therefore, is the co-relation of a slot and the class of items that can occur in that slot.

Thomas (1993) used Tagmemics as a tool for analyzing grammatical structure of languages in his book called *An Invitation to Grammar*. According to Thomas's scope, the basic grammatical unit consists of a functional slot within a construction frame, and a class of substitutable items that can fill this slot (fillers). His method has been used as a guideline for analyzing ethnic minority languages by many linguists.

Burusphat (1988) proposed the advantages of this theory as follows:

1. It enables us to understand the nature of languages.

2. Non-written languages can be analyzed with Tagmemics. So this theory is utilized for translation, language learning and literacy.

3. It can be applied in other fields such as anthropology and psychology.

4. The concept of referential hierarchy in Tagmemics can explain the complexity of languages such as linguistic diversity and linguistic variation in sociolinguistics.

Furthermore, she said that Tagmemics also has disadvantages as well as structural linguistics. That is, Tagmemics only describes the language structure but cannot explain the language phenomenon.

Nevertheless, she expressed that if one aims to describe a language, Tagmemics will practically work, especially in minority languages. The analyzing methods of tagmemic model are not complicated and easy to understand. In short, this model is particularly convenient in describing languages that have not been studied before. It would be enough to use such theory if the research objective is only to describe a language.

2.1.4 Transformational grammar

Transformational grammar, also called generative transformational grammar, is a theory of language structure initiated by the American linguist, Noam Chomsky (1965). He claimed that each sentence in a language has two levels of representation - a deep structure and a surface structure. The deep structure was a direct representation of the semantics of a sentence, and was mapped onto the surface

structure (which followed the phonological form of the sentence very closely) via "transformations" as shown in the following figure.

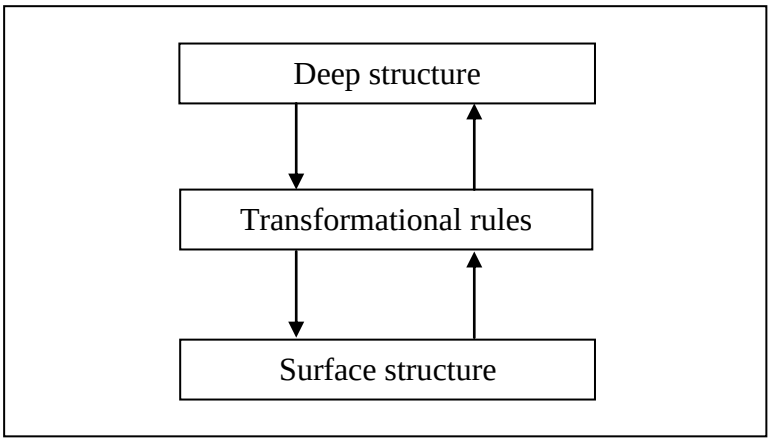


Figure 2.2: Transformational process

In this grammar, Chomsky introduced the distinction between "competence" and "performance." He noted the obvious fact that people, when speaking in the real world, often make linguistic errors (e.g. starting a sentence and then abandoning it midway through). He argued that these errors in linguistic performance were irrelevant to the study of linguistic competence (the knowledge which allows people to construct and understand grammatical sentences). According to this argument, the linguist can study an idealized version of the language, greatly simplifying linguistic analysis.

According to the Encyclopedia Britannica Online (2011), Transformational grammar is a system of language analysis that recognizes the relationship among the various elements of a sentence and among the possible sentences of a language and uses processes or rules to express these relationships. For example, transformational grammar relates the active sentence "John read the book" with its corresponding passive, "The book was read by John." The statement "George saw Mary" is related to the corresponding questions, "Whom (or who) did George see?" and "Who saw Mary?"

Transformational grammar consists of three rules. They are phrase structure rules, transformational rules, and morphophonemic rules.

1) Phrase structure rules

Phrase structure rules, also called rewriting rules, are used to break down a natural language sentence into its constituent parts (also known as syntactic categories), namely phrasal categories and lexical categories. Phrasal categories include the noun phrase, the verb phrase, and the prepositional phrase. Lexical categories include noun, verb, adjective, adverb, and many others. Phrase structure rules are usually of the form $X \rightarrow Y + Z$, meaning that the constituent X is separated into the two subconstituents Y and Z. For example, the rules of English phrase structure:

S	$\rightarrow$	NP + VP
NP	$\rightarrow$	Det + N
VP	$\rightarrow$	V + NP

The first row means a sentence consists of a noun phrase followed by a verb phrase. The next one means a noun phrase consists of a determiner followed by a noun. Finally, a verb phrase consists of a verb followed by a noun phrase.

2) Transformational rules

The transformational rule is a rule that converts deep structures into surface structures. Deletion, insertion, and movement are instances of transformational rules. For example, passive transformation in English (Chomsky, 1957: 112), “John was hit by the thief.” can be explained with the following rule.

Basic structure	NP – Aux – V – NP
	The thief – past – hit – John
Transformational structure	$X_1 – X_2 – X_3 – X_4 \rightarrow$
	$X_4 – X_2$ + be + en – X_3 – by – X_1
	The thief – past – hit – John $\rightarrow$
	John – past – be – en – hit – by – the thief

The rule that derives the passive sentence from the active one has three steps:

1. The direct object of the active sentence becomes the grammatical subject of the passive sentence.

2. The verb is replaced by a form of be that corresponds in tense and aspect to the form in the original sentence, and the verb stem becomes the past participle.

hit (= past + hit) becomes **was hit** (= past + be +en + hit)

3. The subject of the active sentence becomes the object of the preposition **'by'** in an adverbial agent phrase.

3) Morphophonemic rules

A morphophonemic rule has the form of a phonological rule, but is restricted to a particular morphological environment. When a morpheme is attached to a word, it can alter the phonetic environments of other morphemes in that word. Morphophonemics attempts to describe this process with a series of rules.

An example would be the different pronunciations for the past tense marker "-ed." After a voiceless sound, "-ed" is generally realized as [t], as in *walked*, *hoped*, *wished* and *stopped*. Inflected and agglutinating languages may have extremely complicated systems of morphophonemics. Examples of complex morphophonological systems may include consonant gradation, vowel harmony, sandhi and ablaut.

2.1.5 Case grammar

Case grammar was created by Fillmore (1966, 1968) in reaction to the neglect of the *functions* of linguistic items within transformational grammars as represented by, for instance, Chomsky (1965). These were unable to account for the functions of clause items as well as for their categories; they did not show, for instance, that expressions like *in the room, towards the moon, on the next day, in a careless way, with a sharp knife,* and *by my brother*, which are of the category prepositional phrase, simultaneously indicate the functions, location, direction, time, manner, instrument and agent respectively (Fillmore, 1968). Fillmore suggested that this problem would be solved if the underlying syntactic structure of prepositional phrases were analyzed as a sequence of a noun phrase and an associated prepositional

case-marker, both dominated by a case symbol indicating the thematic role of that prepositional phrase (Newmeyer, 1980).

Case grammar analyzes the surface syntactic structure of sentences by studying the combination of deep cases (i.e. semantic roles) – Agent, Object, Benefactor, Location or Instrument – which is required by a specific verb. Fillmore (1968) stated that each sentence has deep structure comprising modality and proposition as shown below:

S $\rightarrow$ M + P (M = modality, P = proposition)

Modality: negation, tense, mood, aspect

Proposition: V + C (V = verb, C = case)

He also proposed six cases for this theory as follows:

1) Agentive (A), the case of typically animate perceived instigator of the action identified by the verb [***John*** *opened the door; the door was open by* ***John***];

2) Instrumental (I), the case of the inanimate force or object casually involved in the action or state identified by the verb [***The key*** *opened the door; John opened the door with* ***the key****; John used* ***the key*** *to open the door*];

3) Dative (D), the case of the animate being affected by the state or action identified by the verb [***John*** *believed that he would win; We persuaded* ***John*** *that he would win; It was apparent to* ***John*** *that he would win*];

4) Factitive (F), the case of the object or being resulting from the action or state identified by the verb, or understood as a part of the meaning of the verb [*John made a* ***cake***];

5) Locative (L), the case which identifies the location or spatial orientation of the state or action identified by the verb [***Chicago*** *is windy; It is windy in* ***Chicago***]; and

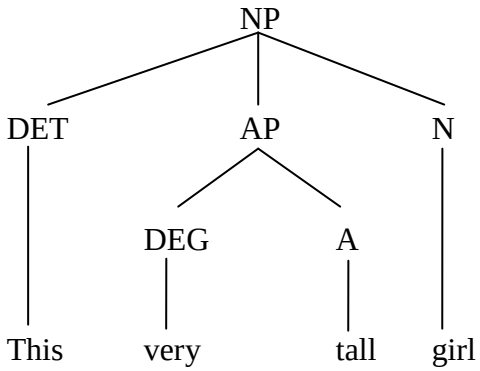
6) Objective (O), the case of anything representable by a noun whose role in the action or state identified by the verb [*They elected* ***John****;* ***John*** *was elected*].

2.1.6 X-Bar theory

X-Bar theory, also called X-Bar syntax, is a generative theory of language proposed by Chomsky (1970) and further developed by Jackendoff (1977). This theory was created to solve the problems with the lexical and phrasal categories. The

problem was that the model of Transformational grammar that linguists were using did not have intermediate categories which are larger than a word but smaller than a phrase. Consider the example of “very tall” (Clair, 2010) in the following phrase marker:

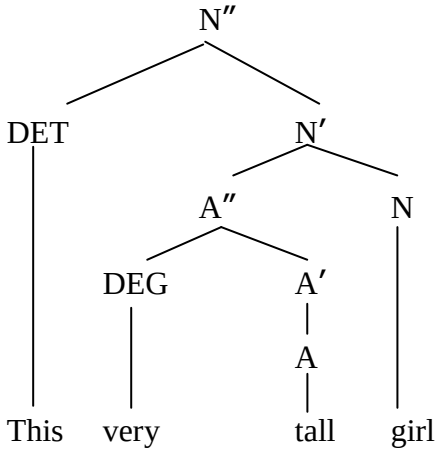
This very tall girl



This phrase marker demonstrates that NP and AP are phrasal categories and DET, DEG, A, and N are lexical categories. It shows that “very tall girl” is not constituent. This analysis is not correct because “very tall girl” can be pronominalized into “one” in the following sentences.

1) This very tall girl will be on the team and not that *very tall girl*.
2) This very tall girl will be on the team and not that *one*.

Therefore, “very tall girl” has to be treated as a unit. A phrasal category, namely X-Bar, can describe this process as shown below.



Another advantage of X-bar theory is that it enables us to distinguish syntactically between complements and adjuncts. For example, in Phrase Structure Grammar there is no satisfactory way of capturing the ambiguity in the following: *A teacher of high moral principles*. X-bar syntax enables us to capture the ambiguity very clearly. In the first tree structure, the meaning of the sentence is *the teacher teaches high moral principles*. In the second one, *the teacher is a person who has high moral principles*. Thus, the complement is closest to the head noun, i.e., sister of the N, and the adjunct is sister of the N′.

2.1.7 Systemic Functional Grammar (SFG)

Systemic Functional Grammar was developed in the 1960s by British linguist, M.A.K. Halliday, who had been influenced by the work of the Prague School and British linguist J.R. Firth (1890-1960). This theory views language as a resource people use to accomplish their purposes by expressing meanings in context.

According to SFG, functional bases of grammatical phenomena are divided into three broad areas, called metafunctions. They are the *ideational*, the *interpersonal* and the *textual*. Written and spoken texts can be examined with respect to each of these metafunctions in register analyses. Patpong (2006) summarized the characteristics of these three metafunctions as follows:

1) <u>The ideational metafunction</u>

The ideational metafunction is concerned with "ideation", and with construing our experience of the world around us and inside us, including the world of the imagination as in folk tale narratives. It provides the potential for creating, maintaining, and revising knowledge in the form of meaning (the semantic system); for classifying, reasoning about, and modeling our experience, both in "common sense" - folk-ways, and in "uncommon sense" - scientific ways (Matthiessen, 1995a; Halliday & Matthiessen, 1999). The ideational metafunction can be divided into two subtypes that embody different modes of construing experience - experiential and logical. The experiential mode construes experience in terms of configurations, such as the configuration of a process, participants involved in it and attendant circumstances, and its grammatical system is TRANSITIVITY. The logical mode

construes experience as chains, developed out of highly generalized relations such as elaboration, exemplification and modification, and its grammatical systems include the systems for forming clause complexes, TAXIS and LOGICO-SEMANTIC TYPE.

2) The interpersonal metafunction

The interpersonal metafunction is concerned with the interaction between speaker and listener. It involves the grammatical resources for enacting social roles in general, and speech roles in particular, in dialogic interaction: for example, resources for establishing, changing, and maintaining interpersonal relations. The major grammatical system of the interpersonal metafunction is the system of MOOD.

3) The textual metafunction

The textual metafunction involves the creation of text. It is a resource for presenting interpersonal and ideational meanings as information organized into text unfolding in context. It enables the speaker or writer to construct "texts", or connected passages of discourse, that are situationally relevant. The major grammatical systems of the textual metafunction include THEME, INFORMATION, and REFERENCE.

The metafunctional diversification applies not only to the lexicogrammatical level, but also to the semantic stratum. At the context stratum, the spectrum is manifested into three contextual variables - field, tenor and mode, which correspond to ideational, interpersonal and textual metafunction, respectively.

After reviewing the grammatical theories, it is seen that Tagmemics is most suitable to the researcher's objective because the aim of the study is to present the description of grammar rules that are necessary to understand and formulate sentences. In my opinion, this is a simple but efficient model for use in describing any language, especially minority languages.

2.2 Research on the Bouyei language

2.2.1 Language affiliation

Ramsey (1941), Zhou et al (2001) and Zhang and Fang (2005) placed the Bouyei language in the Zhuang-Dai branch of Zhuang-Dong family. Ramsey stated that in the P.R. China, the Tai family of languages is known as the Zhuang-Dong family, which is a part of Sino-Tibetan language family. Zhuang is the Chinese name for their largest Tai minority, and Dong is the Chinese name for the people who call themselves the Kam. Eight minority languages are classified as members of this family: Zhuang, Buyi, Dai, Kam (or Dong), Sui, Mulam, Maonan, and Li. He divided the Tai family into three distinct branches, Zhuang-Dai (Zhuang, Buyi, Dai), Kam-Sui (Kam, Sui, Mulam, Maonan), and Li (Li dialects). See figure 2.3.

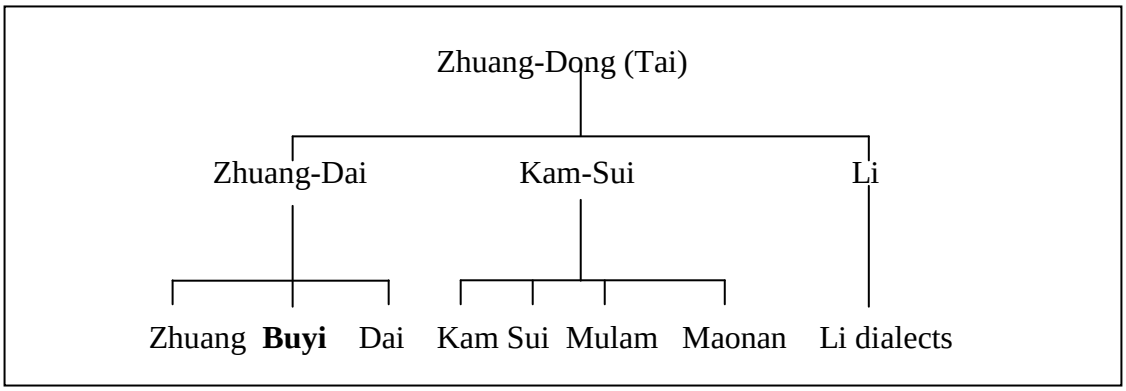


Figure 2.3: Classification of Zhuang-Dong family
(Adapted from Ramsey, 1941: 232)

Ramsey claimed that the Bouyei were not clearly distinguishable from the Northern Zhuang either linguistically or culturally because linguistic differences between the Bouyei and the Zhuang are slight. By Chinese standards, the Bouyei language could be called a dialect of Northern Zhuang. Zhou et al (2001) and Zhang and Fang (2005), following Ramsey (1941), considered the Bouyei language to be part of Sino-Tibetan, Zhuang-Dong family, Zhuang-Dai branch.

According to Li (1960), the Bouyei language is placed in the Northern Tai branch of Tai languages, which are classified into three groups as follows:

1) Southwestern branch, including Siamese, Lao, Shan, Ahom, etc.

2) Central branch, comprising of the languages in North Vietnam and Western Guangxi, Lungchow, Nung, Tho, T'ienpao, etc.

3) Northern branch, including Wuming, Lingyun, Po-ai, T'ienchow, Bouyei, Saek, etc.

Snyder (1995), following Li (1960), placed the Bouyei language in the Northern Tai branch of Tai-Kadai as well as Edmondson and Solnit (1997), Thurgood (1988), and Weera (2000). See figure 2.4.

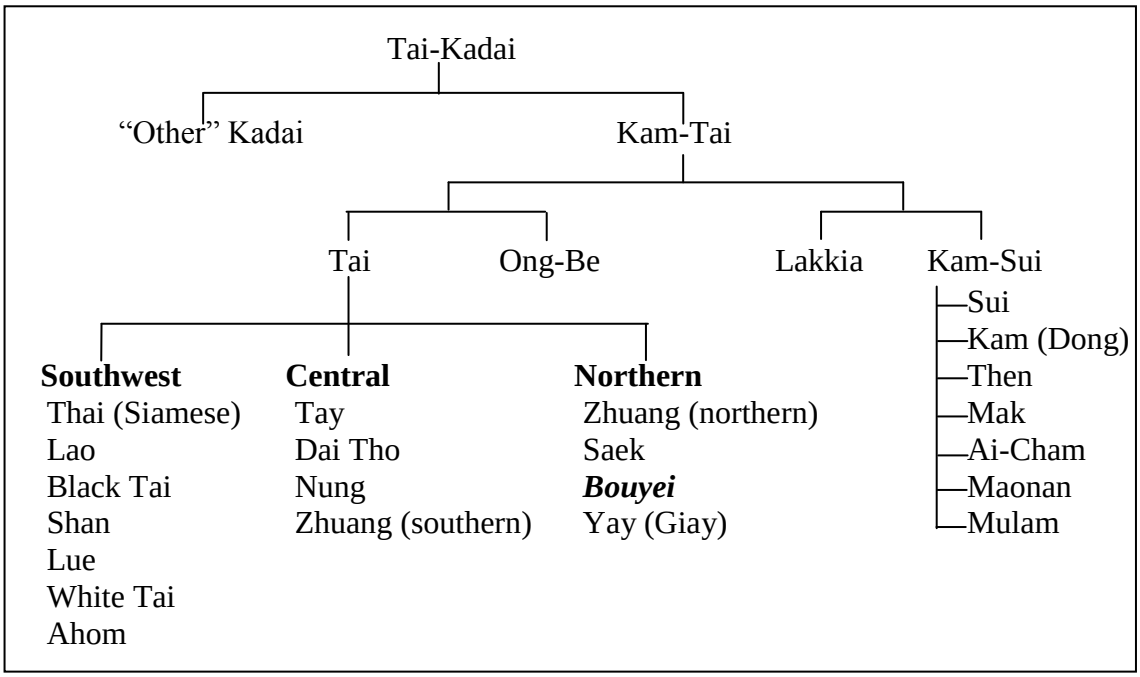


Figure 2.4: Relationship of Bouyei to other Tai languages (adapted from Snyder 1995: 13)

2.2.2 Bouyei orthography

In the past, the Bouyei had no written language of their own, and used Han characters instead. After 1949, the government helped them to formulate a Bouyei writing system based on Romanization. The standard orthography for all of the varieties of Bouyei is based on the Wangmo lect (Snyder, 2000). Table 2.1 shows the IPA symbols for the phonemicized consonants with the representative orthographic symbols in the brackets.

Table 2.1: Consonants and their Bouyei orthographic symbols (adapted from Snyder, 2000)

Manner of articulation \ Point of articulation		Lab	Alv	AlPal	Pal	Vel	Glo
Stop	Unasp	p (b), p^{y} (by)	t (d)			k (g), k^{w}(gv)	ʔ (q)
	Preglot	ʔb (mb)	ʔd (nd)				
Aff	Unasp			c (j)			
Fric	Voiceless	f (f)	s (s)	ɕ (x)		x (h)	
	Voiced	v (w)	z (r)				
Nas	Voiced	m (m), m^{y} (my)	n (n)		ɲ (ny)	ŋ (ng), $ŋ^{w}$ (ngv)	
Lat	Voiced		l (l)				
App	Preglot	ʔw (qv)			ʔy (qy)		
	Voiced				y (y)		

Vowels are represented as shown in Table 2.2. It should be noted that those symbols representing more than one sound are due to regional variations.

Table 2.2: Vowels and their Bouyei orthographic symbols (adapted from Snyder, 2000)

IPA	Bouyei orthography
aː	a (syllable final), aa (syllable dial)
ɐ, ɐ	a (syllable medial)
i	i
ɛ, e	ee
u	u
ɔ	o
o	oo
i, ɯ, ə	e
iː, ɯː, əː, ɯə	ea

Each tone is represented by one of the seven consonant symbols: l, z, s, h, c, x, t, and no marking. They are placed at the end of each syllable as seen in Table 2.3.

Table 2.3: Tones and their Bouyei orthographic symbols (adapted from Zhou, 2005)

Syllable	Tone category	Bouyei tone value	Representation with example
Smooth	1	24	(l) mal ‘dog’
	2	11	(z) maz ‘what’
	3	35	(s) mas ‘fruit’
	4	33	(h) meeh ‘mother’
	5	53	(c) mac ‘to grow’
	6	31	(x) max ‘horse’
Checked	7	35	(t) madt ‘to bury’
	8	33	(no symbol) mid ‘knife’

Nevertheless, there are additional four symbols: q, y, j and f, used to represent tone 1, 4, 5 and 6 respectively in Chinese loanwords. Examples are:

danqsiq [$tan^{24}.si^{24}$] ‘but’

feiyjiy [$fɯi^{33}.t\widehat{ɕ}i^{33}$] ‘airplane’

sojyij [$so^{53}.ji^{53}$] ‘therefore’

xiofxif [$ɕiəu^{31}.ɕi^{31}$] ‘to study’

2.2.3 Bouyei phonology and syntax

Phonological studies have been done on the Bouyei language by many Tai-Kadai linguists, Snyder (1995), Wang (1997), Zhou et al (2001), Holm (2003), and Wu et al (2007) as shown in the table below.

Table 2.4: Research sites of phonological studies on the Bouyei language

Linguists	Research Sites
Snyder (1995)	Changshun, Dushan, Guiding, Huishui, Luodian Bamao, Libo, Luodian Luokun, Pingtang, Sandu
Wang (1997)	Wangmo
Zhou et al (2001)	Zhenfeng
Holm (2003)	Donglan
Wu et al (2007)	24 data points in Guizhou province

The phonology of Niuchang Bouyei was described by Zhou et al (2001). This lect is classified as Qiannan vernacular and spoken in Zhenfeng county, the southern part of Guizhou province. It has 29 initial consonants, nine of which are for modern Chinese loanwords and the other twenty are for native words, and six final consonants:

1) Initial consonants

b(p)	p(ph)	mb(ʔb)	m(m)	f(f)	w(w,v)
sr(θ)	Rr(ð)	z(ts)	c(tsh)	s(s)	r(z)
d(t)	t(th)	nd(ʔd)	n(n)	l(l)	
j(tɕ)	q(tɕh)	ny(ɲ)	x(ɕ)	y(j)	
g(k)	k(kh)	ng(ŋ)	h(h)	hr(ɣ)	
qy(ʔj)	qv(ʔw)				

2) Final consonants

p	t	k
m	n	ŋ

It is noted that the consonants outside the brackets represent orthographic symbols. The underlined consonants are used for modern Chinese loanwords.

There are 32 vowels in Niuchang Bouyei. Six of them are single vowels, twenty are diphthongs and six (two single vowels and four diphthongs) are used for modern Chinese loanwords.

i	iɯ		iu
	ia	iai	iau
	iɛ	iaːi	iaːu
ɛ			ɛu
a		ai	au
		aːi	aːu
o			
u	uɛ	ui	
	ua	uai	
	uə	uaːi	uaːu
ɯ			

---

iou	ɛi	io	iɛ	ɚ	ɿ	(following z, c, s, r)

The symbol [ɿ] is normally found in the Chinese language. It refers to an apical dental unrounded vowel. In Mandarin Chinese, the apical retroflex unrounded vowel [ʅ] occurs word-finally after [tʂ], [tʂ^{h}], [ʂ] and [ʐ], while the apical dental vowel [ɿ] occurs word-finally after [ts], [ts^{h}] and [s]. Yip (2007: 22) treated both [ʅ] and [ɿ] as allophones of the vowel phoneme /i/.

Niuchang Bouyei has eight tones altogether, six in open syllables, and two in checked syllables.

1) Tones in Opened Syllables

Tone 1	middle level (33)
Tone 2	low level (31)
Tone 3	high level (55)
Tone 4	middle falling (42)
Tone 5	middle rising (24)
Tone 6	low level (11)

2) Tones in Checked Syllables

Tone 7	high level (55)
Tone 8	low level (11)

However, if tone 7 and tone 8 are considered to be the allotones of tone 3 and tone 6 respectively, there will be six tones in this language.

Holm (2003) studied the phonology of Donglan Bouyei. He claimed that in the Bouyei language, there are 26 initial consonants, six final consonants, 11 single vowels, 11 diphthongs and eight tones, of which six are in smooth syllables and two are in checked syllables.

1) Initial consonants

p		t		k	ʔ
ʔb		ʔd			
		ts	tɕ		
f	θ		ɕ		h
m		n		ŋ	
v	ʔv	l		ɣ	
pj	mj	ɳ	j y	kj	ʔj

2) Final consonants

p	t	k
m	n	ŋ

3) Single vowels

	Front		Back	
	Unrounded	**Rounded**	**Unrounded**	**Rounded**
High	i iː		ɯ/ə ɯː	uː
Mid	e/ɛ eː		ɵ	oː
Low	ɐ/ɔ aː			

4) Diphthongs

iːa	iɐ	ie	iɯ	iu	uːa
uɐ	ue	uːi	ui	oe	

5) Tones in smooth syllables

Tone 1	high falling (53)	(A1)
Tone 2	low falling (21)	(A2)
Tone 3	medium high level (44)	(C1)
Tone 4	falling, from mid-low to low (211)	(C2)
Tone 5	mid level (33)	(B1)
Tone 6	mid-low level (22)	(B2)

6) Tones in checked syllables

Tone 7	short	high level (55)
Tone 7	long	high rising (45)
Tone 8	short	mid-low level (22)
Tone 8	long	low rising (23)

Wu et al (2007) conducted a survey of the Bouyei language in 24 data areas in Guizhou, in order to determine the current state of phonological and lexical similarity among Bouyei lects, and to compare the data collected with that collected during the 1950s and published in *Buyi Diaocha Baogao (BYDCBG*). This survey began in early 1996 and was completed in 1997. Five hundred lexical items were originally selected for his survey, with later revision to 503 words.

The comparison of 1950s data with 1990s data shows that there is some change of phonological features as follows:

Table 2.5: Phonological change between 1950s data and 1990s data

1950s data	1990s data
v	w
s	θ, ɕ, ð
h	ɦ, ɣ, x
ɯ	ɨ, ə, ɨə
e	ɛ
final k	final ʔ

As seen in Table 2.5, some words transcribed with [v], [s] and [h] initials in the 1950s were recorded with [w], [θ, ɕ, ð] and [ɦ, ɣ, x] initials respectively in the 1990s. The nucleus [ɯ] of the words transcribed in the 1950s was recorded as various different vowels including [ɨ, ə, ɨə] in the 1990s whereas the nucleus [e] has changed to [ɛ]. Furthermore, some words in the 1950s data transcribed with final [k] were recorded as final [ʔ] in 1990s data.

Wu et al (2007) stated that there was also considerable difference in the complex vowels between his data and the *BYDCBG*, the nuclei found in his data sometimes being more complex than those recorded in the 1950s. For most of the data collection sites, there is some difference in pitch values. Of all the phonological

features of a language, pitch varies the most. He assumed that it could vary slightly even from village to village.

The reasons given by Wu why the Bouyei language changes are as follows:

1) Lack of local implementation of a writing system. Although the government created the orthography for the Bouyei people in the 1950s, except for a few selected points, the orthography is not being used.

2) The Bouyei people largely live in areas that have Han Chinese as well and, therefore, have a high level of contact with the Han. This has a definite impact on the Bouyei language.

3) Although Bouyei does not have dialects, it does have regional lects, and each lect has subvariations. The Bouyei do not live isolated lives, but are often in contact with people outside the village. Therefore, the interaction of different Bouyei varieties can and does cause language change.

For grammatical studies, Burusphat (2002) studied the word order variation of Niuchang Bouyei spoken in Zhenfeng county (Xingbei) in comparison with Thai and Chinese. She stated that Bouyei is basically an SVO language like its cousin language, Thai. Some SOV characteristics, such as the SOV order in the pa^4 and $teŋ^1$ construction, have been found due to the influence of Chinese. The pa^4 construction which triggers the SOV clauses appears in the story when an entity is brought into focal attention. The $teŋ^1$ construction, the passive-like construction, is used both to focus and topicalize the salient character encoded by a topical NP who is the patient of some target event. She concluded that these features emerge because of language contact, not internal development.

Zhou et al (2001) described the grammar of Bouyei which can be summarized as follows.

1) The syllable in Bouyei consists of an initial consonant, a vowel (simple or together with final), and tones.

2) Words in Bouyei can be divided structurally into monosyllabic words and polysyllabic words. They can be divided semantically and by organization into simple words and compound words.

3) The loanwords in the Bouyei language are mainly from Chinese, which obviously makes up a large part of the Bouyei vocabulary. The Chinese loanwords can be divided into two types, ancient loanwords and modern loanwords.

4) The Bouyei vocabulary can be divided into twelve kinds according to meaning, the coordinate relationship between words, and the function of words in the sentence, (e.g. noun, verb, adjective, numeral, classifier, pronoun, preposition, adverb, conjunction, auxiliary word, interjection and onomatopoeic.)

5) In a sentence, the basic word order in the Bouyei language is Subject + Predicate + Object (SVO).

All previous research about Bouyei mentioned above provides the basic understanding of the Bouyei language. Zhou et al (2001)'s dictionary provides the history of Bouyei and an overview of the Bouyei grammar. Burusphat (2002)'s article provides useful explanation on word ordering in Bouyei. Snyder (1995) and Wu et al (2007)'s research provide the phonological and lexical data of Bouyei in many areas. These studies are very useful to the researcher's work and that of other linguists.

2.3 The status of research on Tai-Kadai studies

The status of research on Tai-Kadai languages can be investigated from the research reports written by many scholars. They not only compile the bibliography concerning Tai-Kadai studies, but also propose an overview of that research and analyze them thoroughly. These reports assist one in developing a deeper understanding of the trends of Tai studies. There are four recent reports that give us the detailed information, including *The Status of Tai Linguistic Research* (Burusphat et al, 1997), *Evaluation of the Status of Knowledge on Tai Studies, Project 6: Language and Linguistics 1* (Wittayasakphan, 1998), *Evaluation of the Status of Knowledge on Tai Studies, Project 7: Language and Linguistics 2* (Ronnakiat, 1998), and *Regional Dialect Study: Tai Language Family* (Liamprawat, 2008).

Burusphat et al (1997) compiled a list of documents, books, textbooks and articles that are related to Tai linguistic research. This report is divided into seven topics as follows:

1) Historical linguistics
2) Comparative synchronic linguistics
3) Language structure
4) Linguistics theories
5) Applied linguistics in multi-disciplines
6) Educational linguistics
7) Applied linguistics in other viewpoints

From the report, we can see that most research on Tai languages are conducted by American linguists and presented in articles. Dissertations or theses on Tai languages are quite rare.

Wittayasakphan (1998) evaluated the status of Tai studies focusing the Tai languages spoken overseas. He conducted the surveys of Tai-Kadai research in order to analyze, interpret, evaluate, and synthesize the status of Tai studies. In his report, Tai studies are divided into 7 topics as shown below:

1) Distribution of Tai-Kadai languages
2) Dictionary and glossary
3) Textbooks for language learning
4) Language and literature
5) Etymology
6) Historical linguistics
7) History and development of Tai orthography

The research is linked to the history of politics, economics and society that influence the study of Tai-Kadai languages. The results show that such languages have been studied in certain areas. The dictionaries, textbooks, literature and etymology related to Tai-Kadai are little studied.

According to Ronnakiat (1998), objectives of Ronnakiat's study are similar to Wittayasakphan's. However, they are different in the scopes of the study. Ronnakiat studied Tai linguistic research on the following topics.

1) Phonetics and phonology
2) Morphology and syntax
3) Semantics
4) Language in social and cultural context

Results revealed that Tai languages spoken in Thailand, Laos, Myanmar, and India are frequently studied. Research conducted in Southern China and Vietnam is very rare. The research on Tai-Kadai languages on each topic can be shown in the table below.

Table 2.6: The research on Tai-Kadai languages (by number of publications consisting of books, articles, theses and dissertations)

Tai-Kadai languages	Phonetics and phonology	Morphology and syntax	Semantics	Language in social and cultural context
1. Tai 1.1 Southwestern	22	11	-	8
1.2 Central	6	4	3	1
1.3 Northern	5	1	2	2
2. Kam-Sui	7	-	-	-
3. Kadai	4	6	-	4
4. Others	3	1	-	-
Total	**47**	**23**	**11**	**15**

It can be noted that Southwestern Tai languages are studied more than others in Tai-Kadai language family. Most of the research is on phonetics and phonology. For Northern Tai languages the research on each topic are as follows:

Table 2.7: The research on Northern Tai languages

Language	Phonetics and phonology	Morphology and syntax	Semantics	Language in social and cultural context
Northern Zhuang	✓	✓	✓	✓
Bouyei	✓		✓	
Buza				
Taiman	✓			
Budai				
Yoy	✓			
Saek	✓	✓		✓
Total	**5**	**2**	**2**	**2**

Following the table above, it is seen that the research on phonetics and phonology was conducted in five languages, whereas the other topics including morphology and syntax, semantics, and language in social and cultural context were studied in two languages. For the Bouyei language, it is studied on two topics, phonetics and phonology and semantics. Therefore, more research on morphology and syntax should be conducted in order to fill a gap in the linguistic study of the Bouyei language.

Liamprawat (2008) studied the status of Tai linguistic research on five topics including; 1) Descriptive linguistics, 2) Comparative and historical linguistics, 3) Dialect geography, 4) Sociolinguistics, and 5) Ethnolinguistics

Liamprawat found that descriptive linguistics is studied most frequently. Most of the previous research is on phonology. She suggested that further research should be conducted more in neighboring countries. Ethnosemantics is interesting and should be studied because the research on this topic is minimal.

Besides, the status of research on Kam-Tai studies was also thoroughly reviewed by Zhang (1998). He claimed that the research conducted in the 1930s and 1940s was considered as pioneering work under the very poor conditions at that time. Some examples are:

1) Investigations of the languages of Zhuang in Guangxi, Kam, Sui, Yanghuang and Mak in Guizhou, Zhuang and Dai in Yunnan by Li fanggui;

2) Research on the history and culture of Dai in Yunnan by Tao Yunkui, Fang Guoyu, Li Fuyi, Jiang Yingliang, Yao Hesheng, Yan Deyi, Zhang Jingqiu;

3) Research on the language and writings of Dai, and the language of the Kam by Luo Changpei and Xing Gongwan;

4) Studies on the Li in Hainan by Liu Xian and Wang Xingrui; and

5) Studies on the Sui and Bouyei in Guizhou by Cen Jiawu.

After the 1980s, the research on this domain has been studied profoundly. The theses and works released during this period were more thorough, and covered a much wider scope than before. They are concerning society and history, customs, literature and art, science and technology, astronomy and calendar, religion, law, education and the development of economy. Examples are:

1) Studies on Han-Sui relative words by Zeng Xiaoyu;

2) Comparative studies on Kam-Han grammar by Shi Lin;

3) Studies on Zhuang grammar by Wei Qingwen;

4) Research on Bouyei grammar by Yu Shichang; and

5) Dictionaries of Kam-Han, Li-Han, Bouyei-Han, Han-Dai and ancient Zhuang character.

It is seen that all research were conducted by Chinese linguists and written in Chinese. Therefore, the studies are available only to speakers of the Chinese language and have some limitation for non-Chinese speakers to reach such information.

In conclusion, grammatical theories, research on the Bouyei language and the status of research on Tai-Kadai studies are reviewed in this chapter. First, the researcher considers Tagmemics as the model for analyzing the Bouyei syntax because it is suitable to the objective of the study. The analyzing methods of tagmemic model are not complicated. This model is convenient in describing languages that have not been studied before. Second, research on the Bouyei language manifests the relationship and position of the Bouyei language within the Kam-Tai branch of languages. Moreover, the studies on the Bouyei orthography, phonology and syntax are also explicated in this part. It is found that the research on Bouyei grammar written

in English is minimal. Finally, the status of research on Tai-Kadai shows that Tai languages are much studied by American and Chinese scholars and most of them are written in Chinese. The research on the Bouyei language by Thai linguists is focused on two topics, phonetics and phonology and semantics. Therefore, more research on morphology and syntax should be conducted in order to fill a gap in the linguistic study of the Bouyei language.

CHAPTER III
METHODOLOGY

3.1 Theoretical framework

The theoretical framework of the study is based on Tagmemics, a structuralist approach of linguistic analysis, developed by Kenneth L. Pike (1967). Since there are various versions of Tagmemics developed from Pike by many scholars, the methodology used in this study is divided into two parts – (1) the phonemic procedures (Pike, 1976) are used for describing and classifying the phonemes of the Bouyei language including consonants, vowels and tones, and (2) Thomas's version of the tagmemic model (1993) is used for syntactical analysis including morphology and syntax. For classifying word classes, Iwasaki and Ingkaphirom (2005)'s specific terms are also used.

3.1.1 Phonemic procedures

The procedures of phonemic analysis, according to Pike (1976), are built around four basic premises and constitute techniques which can be utilized in the field. Such premises are as follows:

1) Sounds tend to be modified by their environments. The followings are four types of environments.

1.1) Sounds tend to slur into one another and the non-significant varieties of a sound so produced must not be symbolized in a practical alphabet. For example, the alveolar nasal consonant becomes velar nasal when it is followed by the velar stop consonant: [n] → [ŋ] / __[k].

1.2) Sounds tend to slur into silence. For example, certain phonemes might occur voiced at the beginning of sentences or in the middle of sentences, but become voiceless at the end of sentences.

1.3) The borders of various types of larger phonological or grammatical units may also modify sounds. For example, the sound units which are

voiced at the beginning of words become unvoiced at the end of words, even when these words are in the middle of a sentence.

1.4) Sounds can be affected nonsignificantly by their relation to syllables which are stressed or unstressed, long or short, high or low. For example, in Thai, the low central vowel becomes middle [a] → [ə], in unstressed syllables: [pra ˈlàːt] → [pə ˈlàːt] 'extraordinary.'

2) Sound systems have a tendency toward phonetic symmetry. For example, one finds [p], [t], [b], and [g], and he can prove by unequivocable evidence that [p] is phonemically different from [b] and that [k] is phonemically different from [g] , the probability is that [t] is phonemically different from [d] , even though strong evidence is not found to confirm the fact.

3) Sounds tend to fluctuate. If the fluctuation is between noncontrastive segments, it is structurally nonsignificant and should not be symbolized in a phonemic alphabet. For example, in Bouyei, [ɹ] and [z] are not contrastive. So, the word [ɹam^{31}] which means 'water' can be pronounced as [zam^{31}] with the same meaning.

4) Characteristic sequences of sounds exert structural pressure on the phonemic interpretation of suspicious sequences of segments. For example, in a language, the predominant pattern of the syllable structure is that of one consonant followed by one vowel. The initial [i] of [ia] 'moon' would then have to be interpreted as a consonant, since no nonsuspicious vocoids occur at the beginning of the syllables. The phonemic writing of this word would be /ya/.

3.1.2 Syntactical approach

The syntactical approach adopted in this study mainly follows the basically tagmemic point of view claimed by Thomas (1993). That is, (1) structural emphasis is placed on both slots (functions) and filler (classes), (2) language is conceived of as hierarchical in its organization and perception, (3) units are considered real, insofar as we can find them, not just imposed creations of the analyst, (4) language is seen as a basically human (not mathematical) activity, with its attendant redundancies, shortcuts, and fuzzy borders (Thomas, 1993: ix).

The Bouyei syntax is described following the ranks, or levels, of the grammatical hierarchy. The description starts from the lowest level, morpheme, to the higher ones, including word, phrase, clause, and sentence respectively. Structural formulas throughout this description take the form of ±slot: filler as follows:

1) +A +B means that both tagmeme A and B are obligatory.

2) +A ±B means that tagmeme A is obligatory but tagmeme B is optional.

3) ±A ∓ B means that both tagmeme A and B are obligatory in complementary distribution.

4) + (+A ±B) means that tagmeme A is obligatory and the obligation of tagmeme B depends on the obligation of tagmeme A.

5) +A $\pm\overleftrightarrow{B}$ means that tagmeme A is obligatory and the optional tagmeme B can move to the front of tagmeme A.

Slot names (subject, predicate, head, modifier, etc.) are generally capitalized, while filler names (noun, noun phrase, verb, verb phrase, adjective, etc.) are not capitalized. For example:

Yeeuc	deel	biansbanz	ndaaulndis.
/yew^{5}	te^{1}	pian^{3}.pan^{2}	ʔdaw^{1}.ʔdi^{3}/
teeth	his	to become	star

“His teeth become the stars.” (Bouyei)

This sentence can be described with the formula as follows:

Cl_{equat} = +S: np +P: vp_{equat} +Compl: np

NP = +H: n ±Gen: np_{pron}

That is, an equational clause consists of an obligatory Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with an equational main verb, and an obligatory Complement position filled by a nominal phrase.

A nominal phrase consists of an obligatory Head position filled by a noun, and an optional Genitive position filled by a nominal pronoun phrase.

3.2 Data collection

3.2.1 Data

The data of the study consist of primary and secondary data. The primary data includes grammatical theories, prior studies on the Bouyei language and prior studies on the Tai-Kadai language family. All of them were surveyed from both published and unpublished documents during 2008 - 2009. The secondary data including basic wordlist, expressions, isolated sentences, and twenty Bouyei various texts (Wang and Zhou, 2005), e.g., folktales, mythology and ancient rituals, were collected in China in March - April 2009.

Since the variation within the Bouyei language from area-to-area is minimal and the vocabulary and grammatical structure are quite similar everywhere (Zhou et al, 2001), it is not necessary to collect the data in every area where the Bouyei people live. The researcher decided to analyze the data collected from Zhenfeng and Wangmo counties in Guizhou province, in both isolated sentences and sentences in context. The former was drawn from the *Bouyei-Chinese-English-Thai dictionary* (Zhou et al, 2001) and the latter was collected from the Bouyei speakers living in Guizhou province by Zhou Guoyan (2005), a professor from the Kam-Tai institute, Central University for Nationalities, Beijing, P.R. China.

In addition, a list of 300 words adapted from the Southeast Asia word list of Mahidol University, revised in 1990, kinship terms, color terms, expressions in daily life, and basic phrases and sentences in Bouyei and Chinese were also elicited from my principal informant, Huang Zhenbang. The data was collected through the medium of English, which was known to the informant. His knowledge of the English language facilitated my work. The twenty Bouyei texts were transcribed with International Phonetic Alphabet and translated into English both in literal and free meaning. The text titles are as follows:

1) Buxqyaix Rauz
   /pu^{6}.^{ʔ}yay^{6} zaw^{2}/
   Bouyei 1PL
   “The Bouyei People”

2) Bux Xeeuhgoons Guehmeeuz
/pu^{6} ɕew^{4}.kon^{3} kua^{4}.mew^{2}/
people ancient time to cultivate
“Ancient People’s Cultivation”

3) Legjax Xeengs Mbenl
/lɯk^{4}.ca^{6} ɕeŋ^{3} ˀbɯn^{1}/
orphan to push sky
“The Orphan Pushes Up the Sky”

4) Xiofxif Aul Ganxhams
/ɕiw^{6}.ɕi^{6} ʔaw^{1} kan^{6}.xam^{3}/
to study must to ask
“You Must Ask When You Study”

5) Boh Soonl Leg
/po^{4} son^{1} lɯk^{4}/
father to teach child
“Father Instructs His Children”

6) Yahwaaiz
/ya^{4}.waːy^{2}/
monster’s name
“Yawai”

7) “Rogt Nguad Rogt” Buxqyaix
/zok^{3} ŋuat^{4} zok^{3} pu^{6}.ˀyay^{6}/
six month six Bouyei
“The Sixth Day of the Sixth Lunar Month of the Bouyei People”

8) Soongl Duez Yuangzmbeex Nis
/soŋ^{1} tua^{2} yuaŋ^{2}.ʔbɛ^{6} ni^{3}/
two cls. goat small
“Two Little Goats”

9) Soongl Bux Weihjic
/soŋ^{1} pu^{6} wɯy^{4}.ci^{5}/
two cls. friend
“Two Friends”

10) Soongl Bixnuangx
/soŋ^{1} pi^{6}.nuaŋ^{6}/
two brother
“Two Brothers”

11) Saaml Bux Leggeiz
/saːm^{1} pu^{6} lɯk^{4}.kɯy^{2}/
three cls. son-in-law
“Three Sons-in-law”

12) Roggveeus Riangz Buxweangz
/zok^{4}.k^{w}ew^{3} ziaŋ^{2} pu^{6}.wɯaŋ^{2}/
a kind of bird and emperor
“Zokgweu and the Emperor”

13) Buxqyaix Fanzwaaiz
/pu^{6}.ʔyay^{6} fan^{2}.waːy^{2}/
Bouyei ritual of killing buffalos
“The Ritual of Killing a Buffalo in Worship of the Bouyei Ancestors”

14) Degt Dooms
/tɯk^{3} tom^{3}/
to play a kind of bamboo basket
“Finding a Spouse with the Use of a Basket Ritual”

15) Ndanlnyianz Buxqyaix
/ˀdan^{1}.ɲian^{2} pu^{6}.ˀyay^{6}/
bronze drum Bouyei
“Bouyei Bronze Drum”

16) Baussaaml bah Mbos Guehmeeuz
/paw^{3}.saːm^{1} pa^{4} ˀbo^{3} kua^{4}.mew^{2}/
third brother to dig well to cultivate
“The Third Brother Digs a Well and Cultivates Farmland”

17) Duezmal Weiqmaz Ranl Miz Ndaix Duezmyaus
/tua^{2}.ma^{1} wɯy^{1}.ma^{2} zan^{1} mi^{2} ˀday^{6} tua^{2}.m^{y}aw^{3}/
dog why to see neg. able cat
“Why Can’t Dogs Meet Cats?”

18) Xibngih Ndanl Danglngonz
/ɕip^{4}.ŋi^{4} ˀdan^{1} taŋ^{1}.ŋon^{2}/
twelve cls. sun
“Twelve Suns”

19) Huangfgojsuq Pufbuq
/xuaŋ^{6}.ko^{5}.su^{1} p^{h}u^{6}.pu^{1}/
Huangguoshu waterfall
“The Waterfall Called Huangguoshu”

20)	Soongl	Bixnuangx	Xaaux	Wenzbeangz
	/soŋ^{1}	pi^{6}.nuaŋ^{6}	ɕa:w^{6}	wɯn^{2}.pɯaŋ^{2}/
	two	brother and sister	to create	human

"Brother and Sister Create Humans"

3.2.2 Fieldwork

As the research required my presence in China and an understanding of Chinese, I completed three Chinese language courses in Thailand, beginning with the elementary level at Mandarin Education (MA-ED) School in 2008, followed by two further courses to enhance my understanding. Fortunately, My Chinese instructor, Ms. Hu Han, had been studying for a master degree in Education at Assumption University. Her highly developed teaching skills enabled me to gain a basic understanding. Having knowledge of the language was essential, as most Chinese people prefer to communicate in Chinese.

In March, 2009, the author began to conduct the fieldwork and spent two months at the Central University for Nationalities (CUN) in Beijing, P.R. China. For the first few weeks, the author was allowed to attend a Bouyei course, instructed by Professor Zhou Guoyan. At this time, the researcher began collecting a basic wordlist and expressions from the principal informant, Huang Zhenbang, a native Bouyei speaker. He was an M.A. student at the CUN. Though he spent much of his time on his own research, he worked with the author two days a week. This time included the researcher asking the informant to translate the twenty Bouyei texts word by word. The researcher and the informant primarily communicated in English. Sometimes the informant could not adequately convey his intended meaning in English, so alternative methods of communication included the use of an explanatory drawing or translating them into Chinese, which the author then translated into English.

All data were recorded into a computer program called FieldWorks Language Explorer (FLEx), version 5.0. Only the basic wordlist was recorded with a Sony IC recorder, version ICD-P620, in order to analyze tones. The FLEx program proved very useful and convenient for arranging the data and reducing the time required for arrangement. Figure 3.1 shows the display panes of this program which

include navigation pane, center pane (entries), details pane, and dictionary preview pane.

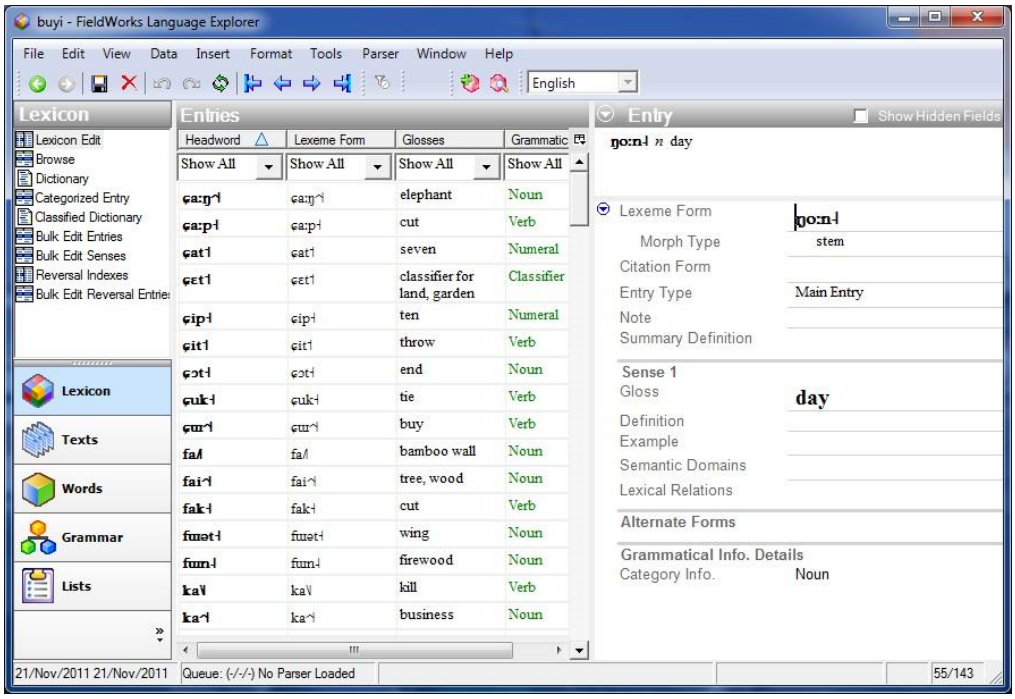


Figure 3.1: FieldWorks Language Explorer program

3.2.3 Informants

Before leaving for China, the criteria for selecting informants were established as follows:

1) The informants must have been born and raised in Guizhou Province.

2) Their mother tongue is the Bouyei language.

2) They are more than 30 years of age.

3) They must have perfect articulators and a clear voice.

However, it proved difficult to access the necessary Bouyei informants, because there were few Bouyei speakers at the Central University for Nationalities. At first, Professor Zhou introduced an informant, who was one of his Bouyei students, to the researcher. That girl was in her early twenties. She is Bouyei, but cannot speak the language well enough as a primary informant. Then Professor Zhou found a more adequate informant that matched the researcher's criteria and put me in contact with Huang to be my informant. He was 34 years old, was born in Guizhou, and speaks Bouyei as his mother tongue quite adequately.

3.3 Data analysis

Upon completion of the necessary fieldwork, the data analysis was carried out at the University of California, Los Angeles (UCLA) under the supervision of Professor Shoichi Iwazaki, the Director of the Asian Language Department. The data analysis is divided into two parts - phonemic analysis and syntactical analysis.

To analyze phonemes, the analytical procedures developed from the premises claimed by Pike (1976) are used. Preliminary and analytical procedures used in this study can be summarized as follows:

1) Record the data into a computer program called FieldWorks Language Explorer (FLEx), version 5.0.

2) Phonology Assistant version 3.0.1, a computer program, is used to create a phonetic chart and to list both suspicious and non-suspicious pairs of sounds. All data from FLEx can be transferred to this program easily. Figure 3.2 shows the Bouyei consonant chart analyzed by the Phonology Assistant program.

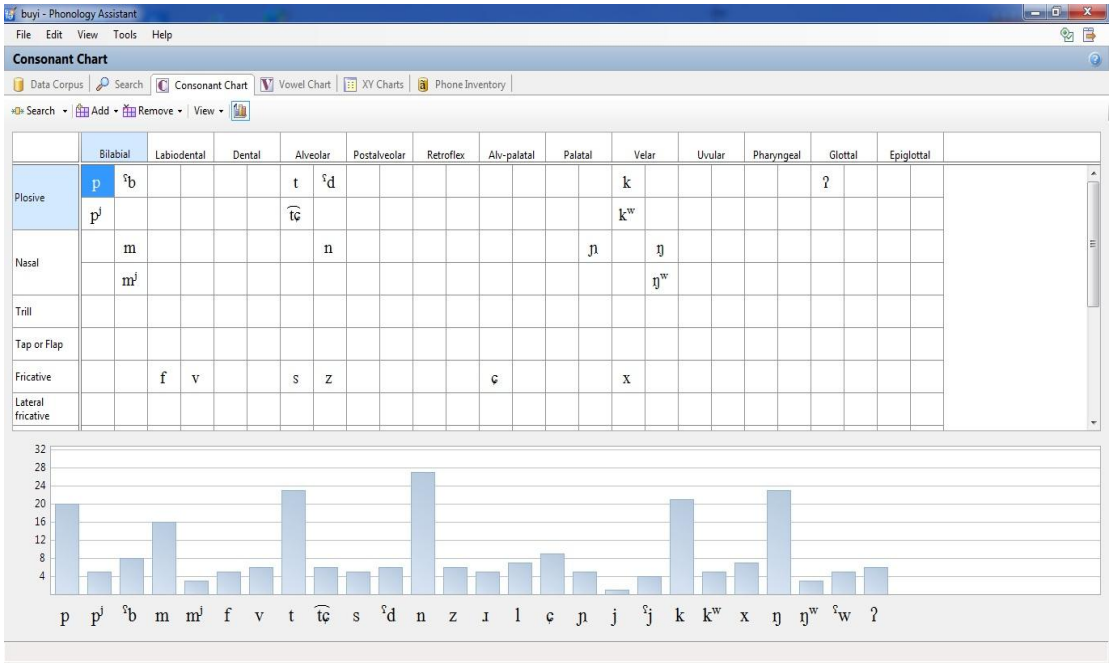


Figure 3.2: Phonology Assistant program

3) For any suspicious pairs, state whether they are separate phonemes or sub-members of a single phoneme.

4) If they are to be separated by contrast in identical environment, (1) state the nature of the environments, (2) give the evidence, and (3) draw a phonemic conclusion.

5) If they are to be separated by contrast in analogous environment, (1) state the general nature of the environments, (2) give the evidence, and (3) draw a phonemic conclusion.

6) If they are to be united into single phonemes because they are mutually exclusive or freely fluctuating, (1) state the nature of the environments, (2) give the evidence, and (3) draw a phonemic conclusion.

7) Rewrite the data presented for the language, using just one symbol for each phoneme.

Moreover, the PRAAT program, version 5.3.06, is used to analyze tone shapes and tone values of the Bouyei language in order to confirm the researcher's auditory judgment. The wordlist selected for tones analysis is adapted from Gedney's checklist for determining tones (Gedney, 1972). Microsoft Excel is then used to plot a tone graph to present all tones in comparison. Figure 3.3 shows the analysis of the sound /ka[1]/ 'leg' in Bouyei using the PRAAT program.

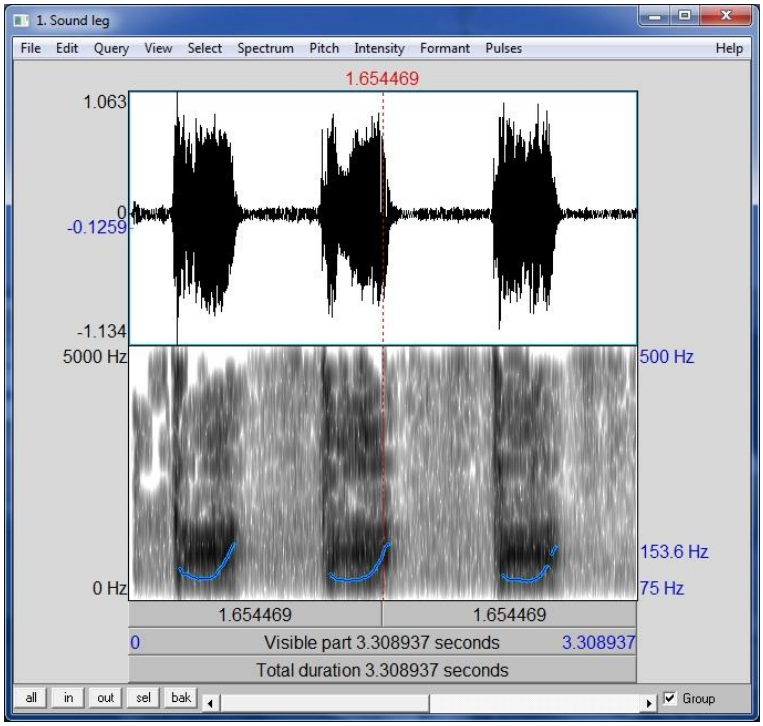


Figure 3.3: PRAAT program

In numbering of tones, there are two different ways, including; 1) to list every tone in both smooth and checked syllables. According to the wordlist in the tone test diagram, the tone in smooth and checked syllables are tonemes; 2) to list only the tones in smooth syllables which are tonemes. The tones in checked syllables will be allotones of tonemes because they are in complementary distribution depending on vowel length and final consonants. In this study, the second way of analysis was chosen for the reason of economy.

For syntactical analysis, the results are arranged into chapters according to the grammatical hierarchy, starting with the morpheme rank and ascending to the sentence rank. They include morphology, word, phrase, clause and sentence.

In conclusion, the research method of the study is described before going into the details of phonology and syntax of the Bouyei language in the next chapters. It includes the theoretical framework, data collection, and data analysis. Tagmemic model, a method of linguistic analysis, is used as the methodological framework. The data collected in this study are both wordlist and texts. They were gathered from different sources. The basic wordlist was collected from the informant directly, while the twenty text data were obtained from Wang and Zhou (2005), and then were translated into English and analyzed with various computer programs, including FLEx, Phonology Assistant and PRAAT, by the researcher.

CHAPTER IV
PHONOLOGY

Having discussed the introduction of this study, relevant literature, and research methodology in the previous chapters, this chapter turns to the phonological description of the Bouyei language. The organization of this chapter is as follows. The syllable structure is first discussed in Section 4.1, followed by the description of tones in Section 4.2. Section 4.3 deals with the vowels, while Section 4.4 describes the consonants. Co-occurrence of consonants and vowels is shown in Section 4.5. Finally, Chinese loan consonants and vowels in Bouyei will be discussed in Section 4.6.

4.1 Syllable

4.1.1 The basis of description

A syllable can be defined in both phonetic and phonological viewpoints. Crystal (1991) stated that the phonological views of the syllable focus on the ways in which sound combine in individual languages to produce typical sequences. Two classes of sounds are usually established: sounds which can occur on their own, or at the center of a sequence of sounds, and sounds which cannot occur on their own, or which occur at the edges of a sequence of sounds. The former are generally referred to as vowels; the latter are generally referred to as consonants.

Basically, a syllable is a unit of speech production. It is the smallest sequence of phonemes normally uttered in slowed down speech. One of the characteristics of a syllable is that it contains one peak sound.

Furthermore, depending on the different groups of final consonants, syllables can be categorized as smooth or checked. A checked syllable ends in the stops p, t, k, ʔ; a smooth syllable ends in a vowel or the sonorants m, n, ŋ, w, y (Diller et al, 2008).

4.1.2 Structure

Bouyei words consist of one or more syllables that have the structure:

C V (V) (C) ^{T}

where C represents any consonant, V is any short or long vowel, and T is Tone. This formula means that a syllable consists of an obligatory initial consonant, an obligatory single vowel (monophthong), or the optional vowel sequences (diphthong), plus tone, and an optional final consonant. The vowel is called the syllable nucleus. When a syllable nucleus is followed by a consonant, the syllable is called a closed syllable. When a syllable nucleus is not followed by a consonant, the syllable is called an open syllable. The four possibilities for monosyllabic words allowed by this formula are illustrated in the following examples:

1) C V^{T}

- /ta^{1}/ ‘eye’
- /zo^{6}/ ‘know’
- /ku^{5}/ ‘nine’

2) C V V^{T}

- /zia^{2}/ ‘ear’
- /wɯa^{3}/ ‘dust’
- /ŋɯa^{2}/ ‘snake’

3) C V C^{T}

- /pan^{1}/ ‘divide’
- /fɯn^{2}/ ‘firewood’
- /zip^{4}/ ‘claw’

4) C V V C^{T}

- /fɯat^{4}/ ‘wing’
- /ŋuat^{4}/ ‘month’
- /ziaŋ^{1}/ ‘tail’

4.2 Tones

4.2.1 Tone system and tone features

In a tonal language, pitch is used to distinguish words, and must appear in the lexical entries of morphemes, just like phonemic segmental information (Hayes, 2009). The Bouyei language is considered to be tonal because the lexical meaning in this language can be distinguished by pitch, such as [po^{214}] 'mountain', [po^{21}] 'these', [po^{35}] 'to blow', and [po^{33}] 'father'. The tone system in Bouyei may be regarded as having six tones as shown in Gedney (1972)'s tone test diagram below.

Table 4.1: Tone system in Bouyei

<table>
<tr><td rowspan="2">Proto-Tai
initial consonants
at time of tonal split</td><td colspan="3">Smooth syllables</td><td colspan="2">Checked syllables</td></tr>
<tr><td>A</td><td>B</td><td>C</td><td>DL</td><td>DS</td></tr>
<tr><td>Voiceless friction</td><td rowspan="3">Tone 1</td><td rowspan="3">Tone 3</td><td rowspan="2">Tone 5</td><td colspan="2">Tone 4</td></tr>
<tr><td>Voiceless unaspirated</td><td colspan="2" rowspan="2">Tone 3</td></tr>
<tr><td>Glottal and pre-glottal</td><td rowspan="2">Tone 6</td></tr>
<tr><td>Voiced</td><td>Tone 2</td><td>Tone 4</td><td colspan="2">Tone 4</td></tr>
</table>

In Table 4.1, tones on smooth syllables is designated as A, B, C, and those on checked syllables as D-long and D-short. In each of these categories, the tones undergo phonemic splits, conditioned by the phonetic nature of the initial consonants: voiceless and voiced. The voiceless group consists of 1) groups of friction sounds such as voiceless fricatives (*s, *f, *x, *h), voiceless aspirated stops (*p^h, *t^h, *k^h), and preaspirated sonorants (*hm, *hn, *hl); 2) voiceless unaspirated sounds (*p, *t, *k); and 3) glottal and pre-glottal sounds (*ʔ,*^{ʔ}b,*^{ʔ}d). The voiced sounds include *b, *m, *l, *z, etc.

Seen from the above table, Tones A and B reflect the voiced and voiceless split, whereas Tone C reflects the glottalization split. For the D category, the splits are

conditioned not only by the voiced-voiceless split but also by aspirated and unaspirated. Each tone and its realization can be described as follows:

1) Tone 1 is realized as low falling rising pitch - [^{214}] and is restricted to smooth syllables. This pitch begins roughly at 121.9 Hz, and glides down to about 110.9 Hz, then rises quickly to about 180.3 Hz (see figure 4.1).

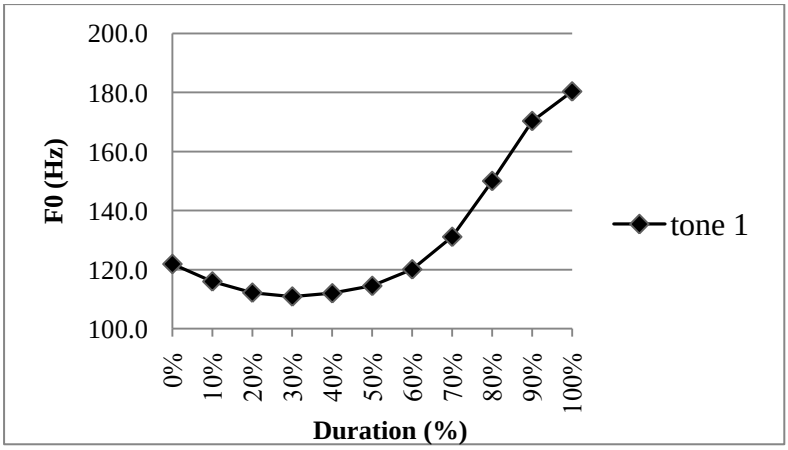


Figure 4.1: Tone 1 on smooth syllables

Examples:

/xaːw^{1}/	‘white’
/saːm^{1}/	‘three’
/pi^{1}/	‘year’
/kin^{1}/	‘to eat’
/ʔbin^{1}/	‘to fly’

2) Tone 2 is realized as low falling pitch – [^{21}]. It only occurs on smooth syllables. The pitch pattern of this tone starts at 128.2 Hz, and glides down to about 101.2 Hz (see figure 4.2).

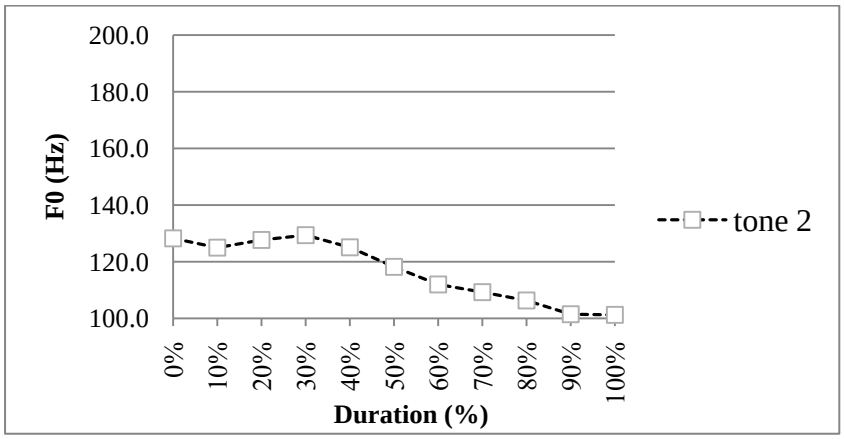


Figure 4.2: Tone 2 on smooth syllables

Examples:

/liŋ^{2}/	‘monkey’
/waːy^{2}/	‘water buffalo’
/na^{2}/	‘rice field’
/zom^{2}/	‘wind’
/nin^{2}/	‘to sleep’

3) Tone 3 is realized as mid rising pitch – [^{35}] on smooth syllables and checked syllables with long and short vowels. This pitch begins roughly at 141.4 Hz on smooth syllables and 142.6 Hz on checked syllables, then rises to about 192.0 Hz on smooth syllables and 180.1 Hz on checked syllables (see figure 4.3).

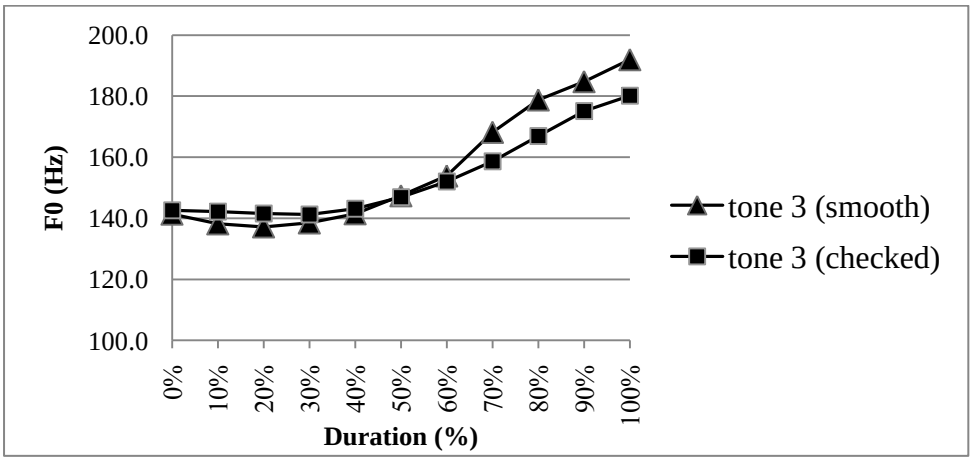


Figure 4.3: Tone 3 on smooth and checked syllables

Examples:

Smooth syllables

/soŋ^{3}/	‘to send’
/tam^{3}/	‘low’
/kay^{3}/	‘chicken’
/ʔba^{3}/	‘shoulder’
/ʔda^{3}/	‘to scold’

Checked syllables

/pet^{3}/	‘eight’
/ʔdot^{3}/	‘to suck, to drink’
/tok^{3}/	‘to fall’
/ʔdip^{3}/	‘raw, uncooked’
/ʔak^{3}/	‘chest’

4) Tone 4 is realized as mid level pitch – [^{33}]. This tone appears on both smooth and checked syllables with long and short vowels. This pitch starts at 146.1 Hz on smooth syllables and 144.1 Hz on checked syllables, and finishes at about 145.6 Hz on smooth syllables and 144.0 Hz on checked syllables (see figure 4.4).

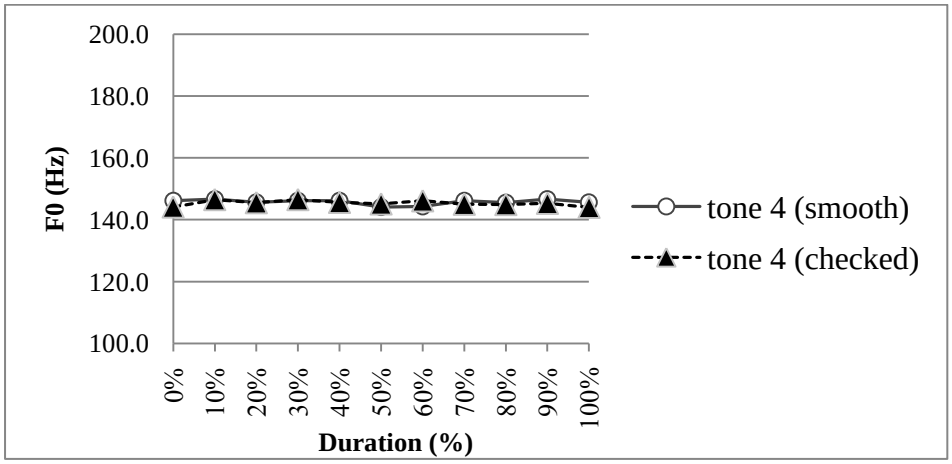


Figure 4.4: Tone 4 on smooth and checked syllables

Examples:

Smooth syllables

/po^{4}/	‘father’
/xam^{4}/	‘evening’
/zi^{4}/	‘dry field’
/ŋaːy^{4}/	‘easy’
/naŋ^{4}/	‘to sit’

Checked syllables

/xɯat^{4}/	‘to tie’
/liat^{4}/	‘blood’
/ŋuat^{4}/	‘month’
/ɕuk^{4}/	‘cooked, ripe’
/lak^{4}/	‘deep’

5) Tone 5 is realized as high falling pitch – [^{51}]. It is restricted to smooth syllables. This pitch begins roughly at 176.6 Hz, and falls to about 106.1 Hz (see figure 4.5).

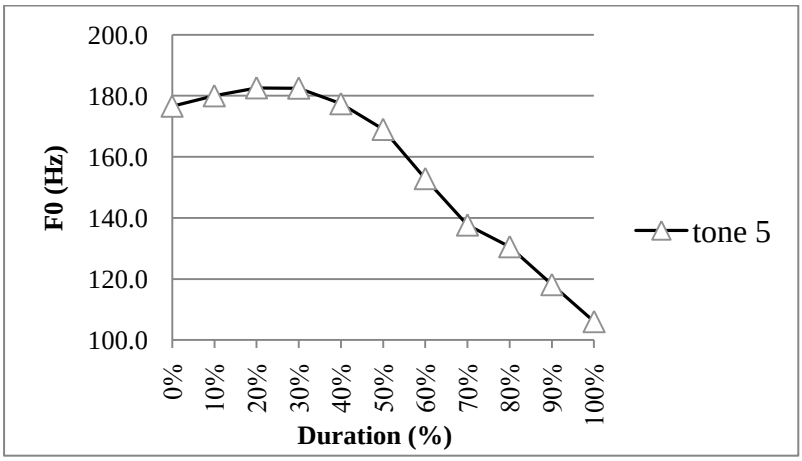


Figure 4.5: Tone 5 on smooth syllables

Examples:

/say^{5}/	‘intestine’
/law^{5}/	‘wine, liquor’
/ku^{5}/	‘nine’
/taŋ^{5}/	‘to set upright’
/pa^{5}/	‘mother’s elder sister’

6) Tone 6 is realized as mid falling pitch – [^{31}]. This tone only occurs on smooth syllables. This pitch starts at 145.6 Hz, and glides down to about 110.7 Hz (see figure 4.6).

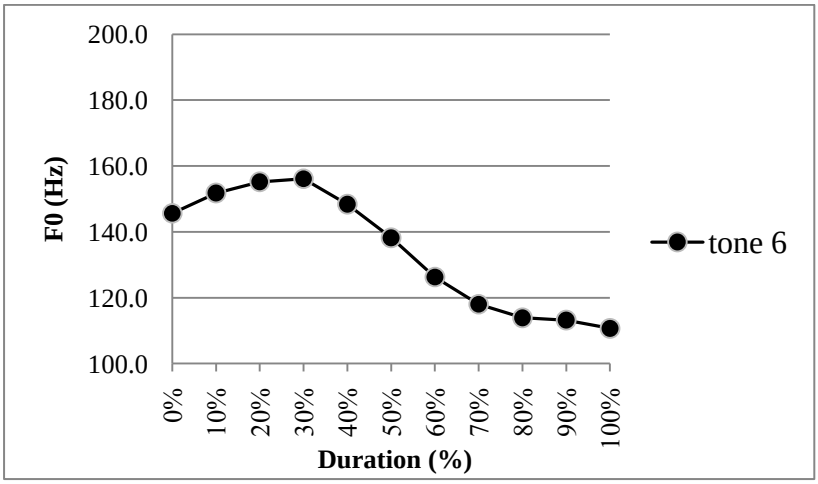


Figure 4.6: Tone 6 on smooth syllables

Examples:

/ʔoy^{6}/	‘sugarcane’
/ʔbaːn^{6}/	‘village’
/ka^{6}/	‘to trade’
/zam^{6}/	‘water’
/ɕaːŋ^{6}/	‘elephant’

All six tones, on smooth and checked syllables, are compared and illustrated in the following graph.

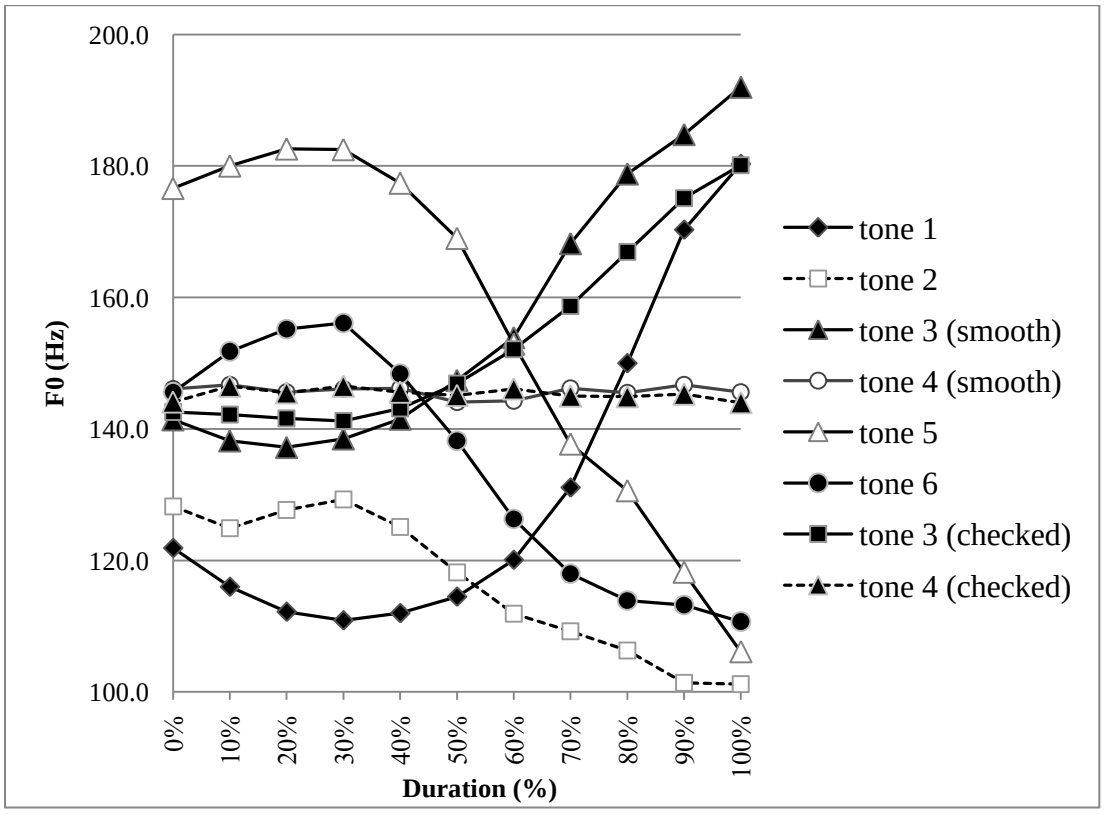


Figure 4.7: Tones and their realizations

4.2.2 Phonemic contrasts

There are six phonologically contrasting tones in Bouyei. Examples are shown below.

Tone 1	/ka^1/	'leg'	/ma^1/	'dog'	-	-
Tone 2	-	-	/ma^2/	'what'	-	-
Tone 3	-	-	/ma^3/	'fruit'	/ce^3/	'to count'
Tone 4	/ka^4/	'alone'	/ma^4/*	'mother'	/ce^4/	'hole'
Tone 5	/ka^5/	'to kill'	/ma^5/	'to grow up'	/ce^5/	'to solve'
Tone 6	/ka^6/	'to trade'	/ma^6/	'horse'	/ce^6/	'market'

**the word /ma^4/ 'mother' is sometimes pronounced as /mɛ^4/.*

To sum up, Bouyei is a tonal language because the words are differentiated by the tones associated with them. Six tones in Bouyei include a low rising tone, a low falling tone, a mid rising tone, a mid level tone, a high falling tone, and a mid falling tone.

4.3. Vowels

4.3.1 Phonemic inventory and description

Vowels are normally described with reference to the position of the tongue in relation to its neutral position. A vowel articulated with the tongue raised toward the roof of the mouth is called a high vowel; one articulated with the tongue lowered is a low vowel. Other positions between these two extremes can be labeled mid, higher mid, lower mid, and so forth, depending on the distinctions it is found necessary to make.

A vowel articulated with the tongue pushed forward in the mouth is called a front vowel; one with the tongue drawn back in the mouth, a back vowel. Positions between the two can be described as central, front central, back central, and so forth.

In Bouyei, there are eleven vowels: seven single vowels and four vowel sequences as shown in the following table.

Table 4.2: Inventory of vowels

Single vowels	i	ɯ	u
	e	a , aː	o
Vowel sequences	ia	ɯa	ua
		aɯ	

It is noted that, except for the low central vowel - /a, aː/, vowel length is not significant and cannot change the meaning of a word.

4.3.1.1 Single vowels

Single vowels will be described following the tongue position starting from front to back.

1) Front vowels

There are two front vowels in Bouyei. These are /i/ and /e/.

The high vowel /i/ is realized as [i]. It is pronounced with the tongue high and front in the mouth. Examples of /i/ are:

/ʔit^{3}/ ‘one’

/pit^{3}/ ‘duck’

/li^{6}/ ‘to have’

/ˀ̍di^{1}/ ‘good’

/cim^{1}/ ‘gold, needle’

/ˀ̍bin^{1}/ ‘to fly’

The low vowel /e/ has two allophones. It is realized as [e] and [ɛ]. The former is pronounced with the tongue at a height approximately mid-way between a high and a low vowel, the latter is pronounced with the tongue a bit lower in the mouth than [e]. The complementary distribution of such allophones can be summarized as follows:

/e/ - [e] / occurs in smooth syllables

- [ɛ] / occurs in checked syllables

Examples of /e/ are:

/ʔe^{6}/ [ʔe^{31}] ‘excrement’

/ɕen^{2}/ [ɕen^{21}] ‘narrow’

/xen^{5}/ [xen^{51}] ‘yellow’

/k^{w}et^{3}/ [k^{w}ɛt^{35}] ‘to carve’

/ɕet^{3}/ [ɕɛt^{35}] ‘classifier for land, garden’

/pet^{3}/ [pɛt^{35}] ‘eight’

2) Central vowels

There are three central vowels in Bouyei consisting of /ɯ/, /a/ and /aː/.

The high vowel /ɯ/ is realized as [ɯ]. It is pronounced with the tongue high and fairly back with no lip rounding. Examples of /ɯ/ are:

/ʔɯ^{1}/ ‘to carry’

/tɯk^{3}/ ‘to play’

/fɯn^{2}/ ‘firewood’

/mɯŋ^{2}/ ‘you’

/nɯ^{5}/ ‘to suck’

/sɯ^{1}/ ‘book’

The low vowel /a/ is realized as a low central unrounded short vowel - [a] which occurs in words as shown below. This sound does not occur in open syllables.

/ʔak^{3}/ ‘chest’

/ʔan^{1}/ ‘kindness’

/sak^{4}/ ‘launder’

/ʔ̍dap^{3}/ ‘to put out the fire, to quench’

/ʔ̍dam^{1}/ ‘to transplant’

The low vowel /aː/ is realized as a low central unrounded long vowel - [aː]. The following words have this vowel.

/ʔ̍baːn^{6}/ ‘village’

/naːn^{2}/ ‘long time’

/ʔ̍daːŋ^{1}/ ‘body’

/ʔ̍daːt^{3}/ ‘hot’

/ɲaːp^{4}/ ‘to scratch’

/zaːm^{1}/ ‘to carry’

3) Back vowels

Back vowels in Bouyei consist of /u/ and /o/.

The high vowel /u/ is realized as [u]. It is produced with the tongue retracted and raised towards the velum. [u] is thus called a high back rounded vowel. It occurs in words such as:

/ʔun^{3}/ ‘soft’

/kuk^{3}/ ‘tiger’

/ɕut^{3}/ ‘to burn’

/mum^{4}/ ‘moustache’

/tu^{1}/ ‘door’

/fu^{2}/ ‘to float’

The low vowel /o/ has two allophones. It is realized as [o] and [ɔ]. The vowel [o] is an upper-mid vowel made with the tongue at a mid height in the back part of the mouth. The vowel [ɔ] is a lower-mid back vowel pronounced with the tongue retracted towards the back of the mouth and held lower than it is for [o]. The complementary distribution of such allophones can be summarized as follows:

/o/ - [o] / occurs in smooth syllables

- [ɔ] / occurs in checked syllables

Examples are:

/ʔom^{3}/ [om^{35}] ‘to soak’

/soŋ^{1}/ [soŋ^{214}] ‘two’

/po^{1}/ [po^{214}] ‘mountain’

/ʔok^{4}/ [ɔk^{33}] ‘to vomit’

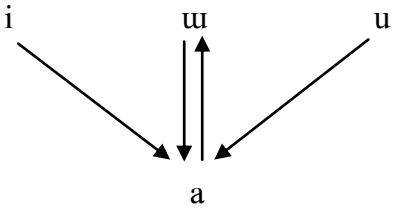
/ʔ̍dot^{3}/ [ʔ̍dɔt^{35}] ‘to drink’

/tok^{3}/ [tɔk^{35}] ‘to fall’

4.3.1.2 Vowel sequences

As the CV pattern in Bouyei is CV(V)(C)^{T}, the vowels /i/ and /u/ are not allowed to appear in the final position of the syllable that has vowel sequences. Otherwise, the word, such as /nuai^{4}/ 'little bit', will be opposed to the syllable structure. Consequently, they are interpreted as the finals /y/ and /w/ respectively to conform to the syllable pattern.

With this interpretation, vowel sequences consist of two single vowel sounds merged together. They are as follows:



/ia/ is realized as [iə] as in /cia^{2}/ - [t͡ɕiə^{21}] 'place'

/ɯa/ is realized as [ɯə] as in /wɯan^{1}/ - [vɯən^{214}] 'song'

/ua/ is realized as [uə] as in /luaŋ^{3}/ - [luəŋ^{35}] 'village'

/aɯ/ is realized as [aɯ] as in /xaɯ^{5}/ - [xaɯ^{53}] 'to give'

4.3.2 Phonemic contrasts

The following minimal pairs illustrate the distinctions between vowels:

4.3.2.1 Tongue position contrast

/i/ : /ɯ/ : /u/

/si^{3}/	'four'
/sɯ^{1}/	'book'
/su^{1}/	'2SG'

/e/ : /a/ : /o/

/te^{1}/	'3SG'
/ta^{1}/	'eye'
/to^{1}/	'more'

4.3.2.2 Tongue height contrast

/i/ : /e/

/pit^{3}/ ‘duck’

/pet^{3}/ ‘eight’

/i/ : /a/

/ɕit^{3}/ ‘to throw’

/ɕat^{3}/ ‘to rub’

/i/ : /o/

/zin^{1}/ ‘stone’

/zon^{1}/ ‘road’

/ɯ/ : /e/

/xɯn^{5}/ ‘to go up’

/xen^{5}/ ‘yellow’

/ɯ/ : /a/

/nɯ^{5}/ ‘to suck’

/na^{5}/ ‘face, before, in front of’

/ɯ/ : /o/

/tɯk^{3}/ ‘to play’

/tok^{3}/ ‘to fall’

/u/ : /e/

/tu^{1}/ ‘door’

/te^{1}/ ‘3SG’

/u/ : /a/

/xun^{1}/ ‘rain’

/xan^{1}/ ‘fast’

/u/ : /o/

/ku^{1}/	‘1SG’
/ko^{1}/	‘tree’

4.3.2.3 Length contrast

All simple vowels are long vowels when occurring without codas. The only single vowel for which a short-long minimal pair was found is low central unrounded vowel. Examples are:

/a/ : /aː/

/sam^{1}/	‘mind’	/saːm^{1}/	‘three’
/tam^{1}/	‘to beat something’	/taːm^{1}/	‘to follow’
/xan^{1}/	‘fast’	/xaːn^{1}/	‘to answer’
/nan^{2}/	‘louse (on clothes)’	/naːn^{2}/	‘long time’
/naŋ^{4}/	‘to sit’	/naːŋ^{4}/	‘mountain’
/caŋ^{1}/	‘to hold’	/caːŋ^{1}/	‘middle’
/kay^{3}/	‘chicken’	/kaːy^{3}/	‘thing’
/pay^{2}/	‘time’	/paːy^{2}/	‘row’
/taw^{2}/	‘waterweed’	/taːw^{2}/	‘fruit’
/kaw^{1}/	‘buffalo’s horn’	/kaːw^{1}/	‘to row’

It should be noted that the contrast between /a/ and /aː/ are not found in open syllables.

4.4 Consonants

4.4.1 Phonemic inventory and description

There are twenty five consonant phonemes in Bouyei, /p, p^{y}, ʔb, t, ʔd, k, k^{w}, ʔ, c, f, s, z, ɕ, x, m, m^{y}, n, ɲ, ŋ, ŋ^{w}, l, ʔw, w, ʔy, y/, as shown in Table 4.3.

Table 4.3: Inventory of consonants

Point of articulation / Manner of articulation		Labial	Alveolar	Alveo-palatal	Palatal	Velar	Glottal
Stop	Unaspirated	p, p^y	t			k, k^w	ʔ
	Preglottalized	^ʔb	^ʔd				
Affricate	Unaspirated			c			
Fricative	Voiceless	f	s	ɕ		x	
	Voiced		z				
Nasal	Voiced	m, m^y	n		ɲ	ŋ, $ŋ^w$	
Lateral	Voiced		l				
Approximant	Preglottalized	^ʔw			^ʔy		
	Voiced	w			y		

All these consonants can appear as an initial consonant. Only eight of them can occur finally. They consist of /p/, /t/, /k/, /m/, /n/, /ŋ/, /w/ and /y/.

Table 4.4: Inventory of final consonants

Point of articulation / Mode of articulation	Labial	Alveolar	Palatal	Velar
Stop	p	t		k
Nasal	m	n		ŋ
Approximant	w		y	

The consonants and their distribution can be described and indicated with examples as follows:

4.4.1.1 Stops

A stop consonant is one in which there is complete closure of the speech tract at some point. There are eight stops in Bouyei including /p/, /p^{y}/, /^{ʔ}b/, /t/, /^{ʔ}d/, /k/, /k^{w}/ and /ʔ/. Three of them, /p, t, k/, can appear in both initial and final position of the syllable.

/p/ is realized as [p] – a voiceless unaspirated bilabial stop that occurs in the initial position of the syllable.

Examples:

/paɯ^{6}/ ‘daughter-in-law’

/paw^{3}.ya^{4}/ ‘ancestor’

/pɯn^{1}/ ‘feather’

/pin^{1}/ ‘to climb’

/pian^{3}/ ‘to change’

Also, /p/ is realized as [p˺] – a voiceless unaspirated and unreleased bilabial stop that occurs in the final position.

Examples:

/lap^{3}/ ‘dark’

/ɲip^{4}/ ‘to sew’

/ɕip^{4}/ ‘ten’

/xap^{4}/ ‘to bite’

/lup^{3}/ ‘wet’

/p^{y}/ is realized as [p^{j}] – a voiceless palatalized bilabial stop. It only occurs in the initial position of the syllable.

Examples:

/p^{y}aːy^{5}/ ‘to walk’

/p^{y}aːy^{1}/ ‘end’

/p^{y}a^{5}/ ‘thunder’

/pʸa^{1}/ ‘fish’

/pʸoŋ^{4}/ ‘half’

/ʔb/ is realized as [ˀb] – a preglottalized bilabial stop. It only occurs in the initial position of the syllable.

Examples:

/ʔbaːŋ^{6}/ ‘maybe’

/ʔbaɯ^{1}/ ‘leaf’

/ʔba^{3}/ ‘shoulder’

/ʔbɯn^{1}/ ‘sky’

/ʔbin^{1}/ ‘to fly’

/t/ is realized as [t] – a voiceless unaspirated alveolar stop that occurs in the initial position of the syllable.

Examples:

/taːy^{1}/ ‘to die’

/taːm^{1}/ ‘to follow’

/tap^{3}/ ‘liver’

/ta^{1}/ ‘eye’

/tok^{3}/ ‘to fall’

Also, /t/ is realized as [tˀ] – a voiceless unaspirated and unreleased alveolar stop that occurs in the final position.

Examples:

/ŋuat^{4}/ ‘month’

/pɛt^{3}/ ‘eight’

/ɕat^{3}/ ‘seven’

/ɕot^{4}/ ‘end’

/wit^{4}/ ‘to throw’

/ˀd/ is realized as [ˀd] – a preglottalized alveolar stop. It only occurs in the initial position of the syllable.

Examples:

/ˀdaːt^{3}/	‘hot’
/ˀdaːŋ^{1}/	‘body’
/ˀda^{3}/	‘to curse’
/ˀdoŋ^{1}/	‘forest’
/ˀdi^{1}/	‘good’

/k/ is realized as [k] – a voiceless unaspirated velar stop that occurs in the initial position of the syllable.

Examples:

/ka^{5}/	‘to kill’
/kay^{3}/	‘chicken’
/ka^{1}/	‘leg’
/ka^{6}/	‘business’
/kut^{4}/	‘to dig’

Also, /k/ is realized as [k̚] – a voiceless unaspirated and unreleased velar stop that occurs in the final position.

Examples:

/zak^{4}/	‘to steal’
/kuk^{3}/	‘tiger’
/ˀbɯk^{3}/	‘woman’
/zok^{4}/	‘bird’
/sak^{3}/	‘color’

/k^{w}/ is realized as [k^{w}] – a voiceless labialized velar stop. It only occurs in the initial position of the syllable.

Examples:

/k^{w}aːy^{1}/ ‘clever’

/k^{w}aːŋ^{3}/ ‘wide’

/k^{w}aːn^{1}/ ‘husband’

/k^{w}et^{3}/ ‘carve’

/k^{w}i^{4}/ ‘knee’

/ʔ/ is realized as [ʔ] – a voiceless glottal stop. It only occurs in the initial position of the syllable.

Examples:

/ʔak^{3}/ ‘chest’

/ʔaːy^{1}/ ‘to cough’

/ʔew^{1}/ ‘neck’

/ʔɯn^{3}/ ‘other’

/ʔit^{3}/ ‘first’

4.4.1.2 Affricate

An affricate is a combination of a stop and a fricative. There is only one affricate in Bouyei - /c/. This phoneme is realized as [t͡ɕ] - a voiceless unaspirated alveopalatal affricate. It only occurs in the initial position of the syllable. For example:

/cay^{1}/ ‘far’

/caw^{5}/ ‘head’

/cet^{3}/ ‘to pain’

/cen^{1}/ ‘arm’

/cim^{1}/ ‘gold’

4.4.1.3 Fricatives

In producing a fricative, the airstream exiting from the lungs is obstructed enough to produce a friction-like noise. There are five fricatives in Bouyei. All of them only occur in the initial position.

/**f**/ is realized as [f] – a voiceless labio-dental fricative.

Examples:

/fa^{1}/	‘bamboo wall’
/fay^{6}/	‘tree, wood’
/fɯn^{2}/	‘firewood’
/fak^{4}/	‘to cut’
/fɯat^{4}/	‘wing’

/**s**/ is realized as [s] – a voiceless alveolar fricative.

Examples:

/saːm^{1}/	‘three’
/suan^{1}/	‘garden’
/saːŋ^{1}/	‘tall’
/sɯ^{1}/	‘book’
/sak^{3}/	‘color’

/**z**/ is realized as [z] – a voiced alveolar fricative, or [ɹ] – alveolar approximant. Both of them occur in free variation, e.g. [zip^{33}] or [ɹip^{33}] ‘claw’. It is noted that the approximant [ɹ] is mostly pronounced in the old generation of the speakers. This shows that [ɹ] should be the primary sound, and then has become /z/ in the younger generation. The variation can be summarized with the following rule.

/z/ → [z] ~ [ɹ] / all environments

Examples:

/zak^{4}/ ‘to steal’

/zin^{1}/ ‘stone’

/zip^{4}/ ‘claw’

/zaw^{2}/ ‘we’

/zeŋ^{2}/ ‘power’

/**ɕ**/ is realized as [ɕ] – a voiceless alveopalatal fricative

Examples:

/ɕaːp^{4}/ ‘to cut’

/ɕaːŋ^{6}/ ‘elephant’

/ɕɯ^{6}/ ‘to buy’

/ɕit^{3}/ ‘to throw’

/ɕuk^{4}/ ‘to tie’

/**x**/ is realized as [x] – a voiceless velar fricative

Examples:

/xaːp^{4}/ ‘box’

/xaːm^{5}/ ‘to cross’

/xɯn^{5}/ ‘to go up’

/xaːw^{1}/ ‘white’

/xam^{4}/ ‘night’

4.4.1.4 Nasals

Nasal is a manner of articulation in which the outward flow of air from the lungs is directed through the nose. There are six nasals in Bouyei - /m, m^{j}, n, ɲ, ŋ, ŋ$^{w/}$. All of them are voiced.

/**m**/ is realized as [m] – bilabial nasal that occurs in both initial and final position of the syllable.

Examples:

/may^{1}/ ‘thread’

/mɯŋ^{2}/ ‘you’

/mum^{4}/ ‘moustache’

/kam^{1}/ ‘to hold’

/cim^{1}/ ‘gold’

/**m**^{y}/ is realized as [m^{j}] – palatalized bilabial nasal. It only occurs in the initial position of the syllable.

Examples:

/m^{y}aːn^{6}/ ‘to step’

/m^{y}aɯ^{5}/ ‘do not’

/m^{y}aw^{4}/ ‘to persuade’

/m^{y}aw^{3}/ ‘cat’

/**n**/ is realized as [n] – alveolar nasal that occurs in both initial and final position of the syllable.

Examples:

/na^{5}/ ‘face, before, in front of”

/nɐp^{3}/ ‘to put aside’

/naːn^{2}/ ‘long time, hard’

/tin^{1}/ ‘foot’

/pan^{1}/ ‘to divide’

/**ɲ**/ is realized as [ɲ] – palatal nasal. It only occurs in the initial position of the syllable.

Examples:

/ɲip^{4}/	‘to sew’
/ɲiŋ^{2}/	‘to shoot’
/ɲa^{1}/	‘grass’
/ɲaːp^{4}/	‘to scratch’
/ɲu^{4}/	‘to pee’

/**ŋ**/ is realized as [ŋ] – velar nasal that occurs in both initial and final position.

Examples:

/ŋan^{2}/	‘silver’
/ŋon^{2}/	‘day’
/ŋɯa^{2}/	‘snake’
/ˀdaŋ^{1}/	‘nose’
/naŋ^{4}/	‘to sit’
/ˀbaːŋ^{6}/	‘maybe’

/**ŋ^{w}**/ is realized as [ŋ^{w}] – labialized velar nasal. It only occurs in the initial position of the syllable.

Examples:

/ŋ^{w}i^{4}/	‘to kneel on the ground, wood box’
/ŋ^{w}i^{4}.waːy^{3}/	‘cotton seed’
/ŋ^{w}ɯ^{4}/	‘moon’
/ŋ^{w}a^{6}/	‘stupid’

4.4.1.5 Lateral

There is only one lateral consonant in Bouyei. /l/ is realized as [l] - an alveolar lateral that only occurs in the initial position of the syllable. It is produced by placing the tip of the tongue against the alveolar ridge. Unlike the stop,

however, the lateral is made by allowing air to escape over the sides of the tongue. This consonant occurs in the following sample words.

/lay^{1}/	‘to flow’
/laːw^{1}/	‘fear, to be afraid of’
/lin^{6}/	‘tongue’
/lok^{4}/	‘green’
/luaŋ^{3}/	‘village’

4.4.1.6 Approximants

Approximants are sounds that have properties of both consonants and vowels. Some linguists call them semi-vowels. There are four approximants in Bouyei - /ˀw, w, ˀy, y/. Two of them can occur in the final position.

/**ˀw**/ is realized as [ˀw] – preglottalized labial-velar approximant. It only occurs in the initial position of the syllable.

Examples:

/ˀwaːi^{1}/	‘to give away, to yield’
/ˀwa^{6}/	‘stupid’
/ˀwɯ^{1}/	‘pit, hole, hollow’
/ˀwi^{1}/	‘to take care of’
/ˀwet^{3}/	‘to bend, to curve’

/**w**/ is realized as [v] – a voiced labio-dental fricative, or [w] – labio-velar approximant. Both of them occur in complementary distribution. That is, [v] occurs in the initial position, while [w] only occurs in the final position.

Examples:

/waŋ^{2}/	‘pool’
/wɯn^{2}/	‘people’
/waːw^{5}/	‘rat’

/mɛw^{2}/ ‘crop’

/caw^{5}/ ‘head’

/siw^{1}/ ‘to harvest’

It is seen that the initial [v] and the final [w] are combined into one phoneme because of phonetic similarity and complementary distribution. This interpretation conform to the consonant descriptions of some of the other Tai languages, such as White Tai (Donaldson, 1963), Nung (Wilson, 1964), and Yay (Gedney, 1965).

/ʔ**y**/ is realized as [ˀj] – preglottalized palatal approximant that only occurs in the initial position.

Examples:

/ʔyap^{3}/ ‘to flap’

/ʔyam^{3}/ ‘to visit’

/ʔyia^{3}/ ‘already’

/ʔyu^{3}/ ‘to live, to stay’

/ʔya^{3}/ ‘hard’

/**y**/ is realized as [j] – palatal approximant. This sound occurs in both initial and final position of the syllable.

Examples:

/yaːŋ^{2}/ ‘thing’

/yɛw^{5}/ ‘teeth’

/yiŋ^{1}/ ‘sound’

/may^{1}/ ‘thread’

/zuy^{2}/ ‘louse’

/lɯk^{4}.kɯy^{2}/ ‘son-in-law’

4.4.2 Phonemic contrasts

Examples of consonant contrast are shown below:

4.4.2.1 Initial consonant contrast

/p/ : /pʸ/

/paːy^{6}/ ‘each’ /pʸay^{5}/ ‘to work’

/p/ : /ʔb/

/pin^{1}/ ‘to climb’ /ʔbin^{1}/ ‘to fly’

/ʔb/ : /ʔw/

/ʔbɯt^{3}/ ‘to pick up’ /ʔwɯt^{3}.kaw^{2}/ ‘to bend, to curve’

/t/ : /ʔd/

/to^{3}/ ‘to make, if’ /ʔdo^{3}/ ‘bone’

/k/ : /kʷ/

/kaːy^{3}/ ‘thing’ /kʷaːy^{3}/ ‘to complain’

/kuan^{5}/ ‘to manage’ /kʷan^{1}/ ‘husband’

/k/ : /x/

/kaw^{1}/ ‘corner, horn’ /xaw^{1}/ ‘bad-smelling’

/c/ : /ɕ/

/cim^{1}/ ‘gold, needle’ /ɕim^{1}/ ‘to look at’

/f/ : /w/

/fɯn^{2}/ ‘firewood’ /wɯn^{2}/ ‘people’

/s/ : /z/

/son^{1}/ ‘to pour’ /zon^{1}/ ‘road’

/m/ : /mʸ/

/maːn^{4}/ ‘slowly’ /mʸaːn^{6}/ ‘to step’

/mian^{4}/ ‘side’ /mʸaːn^{6}/ ‘to step’

/m/ : /n/

/ma^{1}/ ‘dog’ /na^{1}/ ‘thick’

/n/ : /ɲ/

/na^{1}/ ‘thick’ /ɲa^{1}/ ‘grass’

/ɲ/ : /ŋ/

/ɲaːn^{1}/ ‘scabies’ /ŋaːn^{1}/ ‘set a trap for fowling’

/ŋ/ : /ŋ^{w}/

/ŋi^{4} .ɕip^{4}/ ‘twenty’ /ŋ^{w}i^{4}/ ‘seed’

/ŋua^{6}/ ‘tile’ /ŋ^{w}a^{6}/ ‘stupid’

/n/ : /l/

/ni^{6}/ ‘this’ /li^{6}/ ‘to have, there be’

/ʔy/ : /y/

/ʔyi^{3}/ ‘to finish’ /yi^{3}/ ‘time’

/ʔw/ : /w/

/ʔwan^{1}/ ‘thorn’ /wan^{1}/ ‘seed’

4.4.2.2 Final consonant contrast

/p/ : /t/ : /k/

/tap^{3}/ ‘liver’

/taːt^{3}/ ‘cliff’

/tak^{3}/ ‘to dip up’

/m/ : /n/ : /ŋ/

/tam^{5}/ ‘reach, action of making clothes’

/tan^{5}/ ‘to dress, to wear’

/taŋ^{5}/ ‘to raise the head’

/w/ : /y/

/kaw^{3}/ ‘old (thing)’

/kay^{3}/ ‘chicken’

4.5 Co-occurrence of consonants and vowels

Not all consonants can co-occur with all vowel finals. A number of vowels are restricted to certain initial consonants, as shown in Table 4.5.

Table 4.5: Co-occurrence of consonants and vowels

	i	e	ɯ	a	aː	o	u
p	+	+	+	+	+	+	+
p^y				+	+	+	
ˀb	+	+	+	+	+	+	+
t	+	+	+	+	+	+	+
ˀd	+	+	+	+	+	+	+
k		+	+	+	+	+	+
k^w	+	+		+	+		
ʔ	+	+	+	+	+	+	+
c	+	+	+	+	+	+	+
f	+		+	+	+	+	+
s	+	+	+	+	+	+	+
z	+	+	+	+	+	+	+
ɕ	+	+	+	+	+	+	+
x	+	+	+	+	+	+	+
m	+	+	+	+	+	+	+
m^y				+	+		
n	+	+	+	+	+	+	+
ɲ	+	+	+	+	+	+	+
ŋ	+	+	+	+	+	+	+
$ŋ^w$	+			+			
l	+	+	+	+	+	+	+

	i	e	ɯ	a	aː	o	u
ˀw	+	+	+	+	+		
w	+	+	+	+	+	+	+
ˀy	+	+	+	+	+	+	+
y	+	+	+	+	+	+	+

From the table above, it is seen that:

1) All consonants can occur with low central vowel /a/.

2) /p/, /ˀb/, /t/, /ˀd/, /ʔ/, /c/, /s/, /z/, /ɕ/, /x/, /m/, /n/, /ɲ/, /ŋ/, /l/, /w/, /ˀy/ and /y/ can occur with all vowels.

3) Consonants with secondary articulation, labialized and palatalized, do not occur with the high back vowel /u/ and high central vowel /ɯ/.

4) Palatalized consonants, /p^y/ and /m^y/, do not occur with high front vowel /i/.

4.6 Loan consonants and vowels

Since southwestern Mandarin, a subdialect of the northern Chinese dialect, is widely spread over the south western part of China, especially in Sichuan, Guizhou, Chongqing, Yunnan, Hubei, Hunan, Guangxi, and Shanxi, thus a large number of modern Chinese loanwords are borrowed into Bouyei. Nevertheless, Bouyei does not have some Chinese consonants and vowels. So it has to borrow such consonants and vowels from Chinese by integrating phonetic features of Chinese into its phonetic system. For instance, Bouyei does not have the aspirated stop [t^h] and borrows this sound from Chinese as in the word Taiqjees [$t^hai^{53}.tɕe^{35}$] ‘great-grandparents’ that is borrowed from the word, tai po (太婆) and wai tai po (外太婆), in Chinese, referring to the same meaning. The Chinese loan consonants and vowels in Bouyei are as follows:

1) Consonants

- [p^h] as in pufbuq /$p^hu^6.pu^1$/
- [t^h] as in taojlenq /$t^haw^5.lɯn^1$/
- [k^h] as in kojyij /$k^ho^5.yi^5$/
- [ts] as in zenqziq /$\widehat{ts}ɯn^1.\widehat{ts}i^1$/
- [ts^h] as in cuanf /$\widehat{ts}^huan^6$/
- [$tɕ^h$] as in qiyfuq /$c^hi^4.fu^1$/

2) Vowels

- [ia] as in dianqnaoj /$tian^1.naw^5$/
- [iao] as in biaojsiq /$piao^5.si^1$/
- [io] as in daqxiofseny /$ta^1.ɕio^6.sɯn^4$/
- [ao] as in laojbiaoj /$lao^5.piao^5$/
- [ua] as in Huangfgojsuq /$xuaŋ^6.ko^5.su^1$/
- [ou] as in Befdoujxiny /$pɯ^6.tou^5.ɕin^4$/

It should be noted that all of Chinese loan consonants, except the affricate /$\widehat{ts}$/, are aspirated sounds. In addition, the vowel sequences /ia/ and /ua/ in Bouyei are not the same as [ia] and [ua] in Chinese loanwords because they are realized as [iə] and [uə], respectively.

In conclusion, this chapter has provided the phonological description of the Bouyei language, so that the topics to be discussed in the coming chapters can be easily followed up. This chapter started with a syllable structure, followed by the description of tones, vowels and consonants with their co-occurrence. Finally, Chinese loan consonants and vowels in Bouyei have been dealt with in the last section. It is seen that there are four possible CV patterns: CV^T, CVV^T, CVC^T and $CVVC^T$. The total inventory of phonemes includes 25 consonants, 11 vowels (7 single vowels and 4 vowel sequences), and 6 tones. The vowels /i/ and /u/ in vowel sequences are interpreted as the finals /y/ and /w/ respectively to conform to the CV patterns. The phonemic length distinction can be found only in the low central unrounded vowel - /a, aː/. Moreover, this contrast is found only in closed syllables.

CHAPTER V
MORPHOLOGY AND WORD

This chapter provides the description of word formation and word classes in Bouyei. Word formation is first discussed in Section 5.1 which includes affixation, compound, and reduplication. Word classes are dealt with in Section 5.2. The word-class classification is established following Iwazaki and Inkaphirom (2005). This study proposes that there are sixteen word classes including nouns, pronouns, demonstratives, prepositions, classifiers, numerals, verbs, auxiliary verbs, negators, adjectives, adverbs, intensifiers, linkers, particles, question words, and exclamatives. Based on structural, semantic, and functional criteria, these classes are arranged in four groups: noun-related words, verb-related words, modifying words, and miscellaneous words.

5. 1 Word formation

Word formation is defined as "the whole process of morphological variation in the constitution of words" (Crystal, 1991: 381). Bouyei words can be morphologically simplex or complex. A simplex word consists of one free morpheme which can stands as independent word by itself. Some examples of simplex words are presented below.

Simplex Nouns

/mit^{4}/ 'knife'

/kay^{3}/ 'chicken'

/ˀdoŋ^{1}/ 'forest'

/ʔoy^{6}/ 'sugarcane'

Simplex Verbs

/zan[1]/ ‘to see’

/siw[1]/ ‘to harvest’

/xaɯ[5]/ ‘to give’

/pay[1]/ ‘to go’

Simplex Adjectives

/laːw[6]/ ‘big’

/k[w]aːy[1]/ ‘clever’

/[ʔ]daːt[3]/ ‘hot’

/saːŋ[1]/ ‘tall’

/fon[6]/ ‘black’

A complex word consists of at least two morphemes. The processes of complex word formation can be divided into three major types. They are affixation, compound, and reduplication.

5.1.1 Affixation

Affixation is a linguistic process that speakers use to form different words by adding bound morphemes (affixes) at the beginning (prefixation), the middle (infixation) or the end (suffixation) of words. In Bouyei, the numbers of affixes are limited. Some affixes are derived from words. Based on the position of affixes, affixation is divided into prefixing and suffixing. Infixing is not found in the formation of Bouyei words.

5.1.1.1 Prefixation

Prefix is an affix which is added initially to a root or stem (Crystal, 1991). There are a number of prefixes involved in the derivation of Bouyei words. They can be divided into modifying prefix, noun-forming prefix, adjective-forming prefix and adverbial-forming prefix.

1) Modifying prefix

Modifying prefixes modify the meaning of the root. Some commonly-used prefixes are as follows:

/tuŋ^{6}-/ 'mutual'

This prefix means 'mutual'. It indicates reciprocal action.

/tuŋ^{6}.cay^{2}/ 'to love each other'

/tuŋ^{6}.ti^{2}/ 'to fight each other'

/tuŋ^{6}.puŋ^{2}/ 'to meet together'

/tuŋ^{6}.tan^{1}/ 'to curse each other'

/po^{2}-/ 'pluralizer'

/po^{2}.te^{1}/ 'they'

/po^{2}.zaw^{2}/ 'we'

/po^{2}.su^{1}/ 'you (pl.)'

/po^{2}.wɯn^{2}/ 'people'

/paw^{3}-/ 'elderly kinships'

/paw^{3}.pi^{6}/ 'elder brother'

/paw^{3}.ce^{3}/ 'old people'

/paw^{3}.laːw^{6}/ 'eldest brother'

/paw^{3}.ya^{4}/ 'ancestor'

2) Noun-forming prefix

A noun-forming prefix is placed before verbs to create nominal words. One commonly-used prefix is exemplified below.

/kaːy^{3}-/ ‘things’

/kaːy^{3}.kɯn^{1}/ ‘things to eat (food)’

/kaːy^{3}.tan^{5}/ ‘things to wear (clothes)’

/kaːy^{3}.sɐw^{3}/ ‘things to be embroidered (embroidery)’

/kaːy^{3}.yuŋ^{4}/ ‘things to be used (appliance)’

3) Adjective-forming prefix

Adjective-forming prefixes are added in front of verbs, adjectives or numerals to produce adjectival words. Some prefixes that are commonly used are as follows:

/ʔdi^{1}-/ ‘having a good characteristic’

/ʔdi^{1}.cay^{2}/ ‘beautiful, lovely’

/ʔdi^{1}.nɐn^{4}/ ‘beautiful’

/ʔdi^{1}.may^{2}/ ‘interesting’

/ʔdi^{1}.ɲia^{1}/ ‘pleasant to hear’

/ta^{2}-/ ‘ordinalizer’

/ta^{2}.ʔit^{3}/ ‘first’

/ta^{2}.ŋɪ^{4}/ ‘second’

/ta^{2}.saːm^{1}/ ‘third’

/ta^{2}.si^{3}/ ‘fourth’

/ta^{2}.ɕip^{4}/ ‘tenth’

4) Adverbial-forming prefix

Adverbial-forming prefixes are placed in front of adjectives or adverbs to create adverbial words. Some prefixes that are commonly used are exemplified below.

/paːy^{4}-/ ‘side’

/paːy^{4}.soy^{6}/	‘leftside’
/paːy^{4}.kua^{2}/	‘rightside’
/paːy^{4}.la^{5}/	‘below’
/paːy^{4}.zo^{4}/	‘outside’

/caːŋ^{1}-/ ‘middle’

/caːŋ^{1}.xat^{3}/	‘morning’
/caːŋ^{1}.xam^{4}/	‘evening, night’
/caːŋ^{1}.xɯn^{2}/	‘midnight’
/caːŋ^{1}.ŋon^{2}/	‘daytime’

5.1.1.2 Suffixation

Suffix is “an affix which is added following a root or stem” (Crystal, 1991: 336). The process of suffixation is limited in the Bouyei language. One commonly-used suffix found in my data is /-laŋ^{1}/ ‘next’. It is used to indicate time, for examples:

/pi^{1}.laŋ^{1}/	‘next year’
/ŋon^{2}.laŋ^{1}/	‘next day’
/xat^{3}.laŋ^{1}/	‘next morning’

5.1.2 Compound

Compounding is another morphological process for deriving nouns or verbs in Bouyei. It is defined as “a linguistic unit which is composed of elements that function independently in other circumstances” (Crystal, 1991: 70). Word compounds consist of two or more free morphemes. These morphemes or constituents cannot be separated by any modifier. Bouyei word compounds can be divided into two major types. They are semantic compound and syntactic compound.

5.1.2.1 Semantic compound

The semantic compound consists of elements which are semantically related in various ways such as synonym and antonym (Burusphat and Qin, 2010). It can be divided into two subtypes which include coordinative compound and modifier compound.

1) Coordinative compound

The coordinative compound consists of two roots that are identical, interrelated, or opposite in meaning. Some examples are presented below.

Coordinative compound having the same or similar meaning

/zi^{4}.na^{2}/	/zi^{4}/	/na^{2}/
‘field’	‘farmland’	‘paddy field’
/kaːŋ^{5}.xaːw^{3}/	/kaːŋ^{5}/	/xaːw^{3}/
‘to talk’	‘to speak’	‘to talk’
/ko^{1}.fay^{6}/	/ko^{1}/	/fay^{6}/
‘tree’	‘tree’	‘tree’
/nen^{4}.zan^{1}/	/nen^{4}/	/zan^{1}/
‘to look’	‘to look’	‘to see’

Coordinative compound having the interrelated meaning

/cim^{1}.ŋan^{2}/	/cim^{1}/	/ŋan^{2}/
‘property’	‘gold’	‘silver’
/ta^{4}.xaːy^{5}/	/ta^{4}/	/xaːy^{5}/
‘milky way’	‘river’	‘sea’
/me^{4}.taːy^{3}/	/me^{4}/	/taːy^{3}/
‘mother-in-law’	‘mother’	‘grandmother’
/taŋ^{1}.ŋon^{2}/	/taŋ^{1}/	/ŋon^{2}/
‘sun’	‘light’	‘daytime’

/tua^{2}.p^{y}a^{1}/	/tua^{2}/	/p^{y}a^{1}/
‘fish’	‘class term (animal)’	‘fish’
/ma^{3}.ʔday^{1}/	/ma^{3}/	/ʔday^{1}/
‘persimmon’	‘class term (fruit)’	‘persimmon’
/ʔdan^{1}.tom^{3}/	/ʔdan^{1}/	/tom^{3}/
‘basket’	‘class term (object)’	‘basket’
/fa^{4}.mit^{4}/	/fa^{4}/	/mit^{4}/
‘knife’	‘class term (sharp weapon)’	‘knife’

Coordinative compound having the opposite meaning

/po^{4}.me^{4}/	/po^{4}/	/me^{4}/
‘parents’	‘father’	‘mother’
/k^{w}aːn^{1}.pa^{2}/	/k^{w}aːn^{1}/	/pa^{2}/
‘spouse’	‘husband’	‘wife’
/pi^{6}.nuaŋ^{6}/	/pi^{6}/	/nuaŋ^{6}/
‘sibling’	‘elder brother’	‘younger brother’
/taːy^{1}.caw^{1}/	/taːy^{1}/	/caw^{1}/
‘life or death, fate’	‘to die’	‘living, alive’

It should be noted that, in the last four examples of the coordinative compound having the interrelated meaning, the semantic relation in each pair of morphemes, such as /ma^{3}.ʔday^{1}/ ‘persimmon’ and /fa^{4}.mit^{4}/ ‘knife’, is shape-object relation (Singnoy, 2006: 66). Class terms occurring in the first position of compounds are considered as the shape of the object. Even though they seem like classifiers, class terms and classifiers are different. According to DeLancey (1986: 441), class terms and classifiers differ in the way that “class terms occur with their classified nouns in lexicalized compounds, while classifiers occur with their classified terms in nonce syntactic constructions.” Therefore, class terms and classifiers can be identified with the following structures.

Noun compound: Class term + Noun
Noun phrase: Num + Classifier + Noun

Example:

Duezmoil	foonx	deg	soongl	**duez**	gugt	hab	daail	bai.
/**tua²**.moy¹	fon⁶	tɯk⁴	soŋ¹	**tua²**	kuk³	xap⁴	ta:y¹	pay⁴/
bear	black	to suffer	two	cls.	tiger	to bite	to die	already

'The black bear was bitten to death by two tigers.'

In the above sentence, /tua²/ in /tua².moy¹/ 'bear' is identified as a class term, while /tua²/ in /soŋ¹ tua² kuk³/ 'two tigers' is identified as a classifier. Their structures are as follows:

/tua²	moy¹/		'bear'	(Noun compound)
Class term	Noun			
/soŋ¹	tua²	kuk³/	'two tigers'	(Noun phrase)
Num.	Cls.	Noun		

2) <u>Modifier compound</u>

The modifier compound consists of two morphemes. The first morpheme functions as the head of the compound. Another morpheme functions as the modifier which specifies the head. Examples of modifier compound are as follows:

Bouyei word	**Head**	**Modifier**
/ka¹.la:w⁶/	/ka¹/	/la:w⁶/
'thigh'	'leg'	'big'
/me⁴.wa:y²/	/me⁴/	/wa:y²/
'cow'	'mother'	'buffalo'
/xa:p⁴.fay⁶/	/xa:p⁴/	/fay⁶/
'coffin'	'box'	'tree'

/naŋ^{1}.fay^{6}/	/naŋ^{1}/	/fay^{6}/
‘bark’	‘skin’	‘tree’
/zew^{1}.laːw^{6}/	/zew^{1}/	/laːw^{6}/
‘to laugh’	to laugh	big
/zew^{1}.ni^{3}/	/zew^{1}/	/ni^{3}/
‘to smile’	‘to laugh’	‘small’

5.1.2.2 Syntactic compound

According to Burusphat and Qin (2010), the syntactic compound is distinguished from semantic compound by having the same structure as a sentence. Syntactic compound in Bouyei can be classified into two subtypes. They are subject-predicate compound and verb-object compound.

1) Subject-predicate compound

The subject-predicate compound consists of two roots that function as subject and predicate. Some examples of subject-predicate compound are presented below.

Bouyei word	**Subject**	**Predicate**
/mok^{4}.xom^{3}/	/mok^{4}/	/xom^{3}/
‘blanket’	‘blanket’	‘to cover’
/sam^{1}.ɲaːp^{3}/	/sam^{1}/	/ɲaːp^{3}/
‘angry’	‘mind’	‘trouble’
/ʔdaːŋ^{1}.taːy^{1}/	/ʔdaːŋ^{1}/	/taːy^{1}/
‘dead body’	‘body’	‘to die’
/pu^{6}.ka^{6}/	/pu^{6}/	/ka^{6}/
‘businessman’	‘class term (people)’	‘to trade’
/tua^{2}.ʔbin^{1}/	/tua^{2}/	/ʔbin^{1}/
‘fly’	‘class term (animal)’	‘to fly’

2) Verb-object compound

The verb-object compound consists of two morphemes. The first morpheme is a verb which indicates an action. Another one functions as object of the verb. Verb-object compound are exemplified below.

Bouyei word	**Verb**	**Object**
/ɕaːw^{6}.zaːn^{2}/	/ɕaːw^{6}/	/zaːn^{2}/
‘to get married’	‘to begin’	‘house’
/ʔdam^{1}.na^{2}/	/ʔdam^{1}/	/na^{2}/
‘to transplant rice seedling’	‘to transplant’	‘paddy field’
/tok^{3}.ca^{5}/	/tok^{3}/	/ca^{5}/
‘to sow’	‘to scatter’	‘rice seedling’
/nɯ^{5}.ɕɯ^{1}/	/nɯ^{5}/	/ɕɯ^{1}/
‘to breathe in’	‘to suck’	‘air’
/ɕuaŋ^{3}.ɕɯ^{1}/	/ɕuaŋ^{3}/	/ɕɯ^{1}/
‘to breathe out’	‘to release’	‘air’

5.1.3 Reduplication

Reduplication is a morphological process of repetition of the root and used to modify or emphasize the basic meaning of the root. Reduplication in Bouyei can be divided into simple reduplication and complex reduplication as follows:

5.1.3.1 Simple reduplication

The simple reduplication emphasizes the meaning of the root or indicates plurality. The reduplicated words include nouns, verbs, adjectives and adverbs.

1) Emphasis

The reduplication of verbs, adjectives and adverbs usually emphasizes the meaning of the root. Some examples are:

/ʔaːŋ^{3}.ʔaːŋ^{3}/	‘very happy’
/ʔim^{3}.ʔim^{3}/	‘very full’
/cay^{1}.cay^{1}/	‘very far’
/lok^{4}.lok^{4}/	‘dark green’
/naːy^{4}.naːy^{4}/	‘very slowly’
/saːŋ^{1}.saːŋ^{1}/	‘very high’
/yaːŋ^{4}.yaːŋ^{4}/	‘very happy’

Besides, the reduplicative compound of modifiers also heightens the degree of intensity of quality expressed by the adjective root, for examples:

Bouyei word	**Adjective root**	**Modifier**	**Reduplicant**
/ʔaw^{6} zum^{4}.zum^{4}/	/ʔaw^{6}/	/zum^{4}/	/zum^{4}/
‘very wet’	‘wet’		
/xaːw^{1} po^{3}.po^{3}/	/xaːw^{1}/	/po^{3}/	/po^{3}/
‘very white’	‘white’		
/laːw^{6} ʔu^{6}.ʔu^{6}/	/laːw^{6}/	/ʔu^{6}/	/ʔu^{6}/
‘very big’	‘big’		

2) <u>Plurality</u>

The simple reduplication of nouns and adverbs can indicate plurality as shown below.

/pi^{1}.pi^{1}/	‘every year’
/xam^{4}.xam^{4}/	‘every night’
/ŋon^{2}.ŋon^{2}/	‘every day’
/zaːn^{2}.zaːn^{2}/	‘every family’
/yaːŋ^{2}.yaːŋ^{2}/	‘everything’

However, there is one reduplicated word found in my data indicating onomatopoeic. /fu^{2}.fu^{2}/ in /ʔbin^{1} fu^{2}.fu^{2}/ ‘to fly’ is onomatopoeic of the wind.

5.1.3.2 Complex reduplication

The pattern of the complex reduplication is A_1B_1 A_1B_2 where A_1 is a simple reduplicated word, while B_1 and B_2 are separated coordinative semantic compounds, for examples:

	A_1	**B_1**	**A_1**	**B_2**
/kua^{4}.zi^{4}.kua^{4}.na^{2}/	/kua^{4}/	/zi^{4}/	/kua^{4}/	/na^{2}/
‘to work in the field’	‘to do’	‘farmland’	‘to do’	‘paddy field’
/kua^{4}.xoŋ^{1}.kua^{4}.mew^{2}/	/kua^{4}/	/xoŋ^{1}/	/kua^{4}/	/mew^{2}/
‘to cultivate’	‘to do’	‘work’	‘to do’	‘crop’
/tuŋ^{6}.lum^{5}.tuŋ^{6}.saːw^{4}/	/tuŋ^{6}/	/lum^{5}/	/tuŋ^{6}/	/saːw^{4}/
‘to be equal’	‘each other’	‘same’	‘each other’	‘same’
/pan^{2}.ɕian^{1}.pan^{2}.faːn^{4}/	/pan^{2}/	/ɕian^{1}/	/pan^{2}/	/faːn^{4}/
‘to be rich’	‘to be’	‘thousand’	‘to be’	‘ten thousand’
/ʔdaːŋ^{1}.ʔdew^{1}.ʔdaːŋ^{1}.to^{4}/	/ʔdaːŋ^{1}/	/ʔdew^{1}/	/ʔdaːŋ^{1}/	/to^{4}/
‘to live alone’	‘body’	‘one’	‘body’	‘single’
/mi^{2}.taŋ^{6}.mi^{2}.tuan^{4}/	/mi^{2}/	/taŋ^{6}/	/mi^{2}/	/tuan^{4}/
‘never stop’	‘neg.’	‘to stop’	‘neg.’	‘to finish’

In conclusion, Bouyei complex words are formed by affixing, compounding, and reduplicating. First, the affixation consists of prefixing and suffixing. Infixing is not found in this language. Second, the compound is divided into the semantic and syntactic compound. The class term is differentiated from the classifier to form the word compound. Finally, the reduplication is divided into the simple and complex reduplication. The simple reduplication is normally used to emphasize the meaning of the root or to indicate plurality.

5.2 Word classes

Words can be classified in terms of their structure, meaning, and function. However, the classification of words based on each criterion has some limitations. A word of one class is often used as a word of another word class. In this study, the same criteria as characterized by Iwasaki and Ingkaphirom (2005) are used to classify word classes because the Bouyei language is also in the Tai language family as Thai. Iwasaki and Ingkaphirom stated that classifying words as the Western linguists is not proper for non-Western languages especially isolating languages in Tai language family. Word classes in Bouyei can be arranged in four groups based on structural, semantic, and functional criteria. They are noun-related words, verb-related words, modifying words, and miscellaneous words.

5.2.1 Noun-related words

Noun-related words refer to nouns and word classes related to nouns that include pronouns, demonstratives, prepositions, classifiers, and numerals (Iwasaki and Ingkaphirom, 2005).

5.2.1.1 Nouns

Nouns generally refer to concepts, inanimate objects, and animate beings. The major functions of the noun in sentences are to serve as subject of a sentence, object of a verb and object of a preposition. Structurally, there are simple and complex nouns as mentioned in Section 5.1. Nouns may be divided into three subclasses: proper nouns, common noun, and location and time words, as defined below.

1) Proper nouns

Proper nouns comprise those nouns that make reference to specific people, animals, institutions, places, and so on by name. They behave grammatically like common nouns, except that they are not preceded by any determiners, quantifiers or attributes, and are not followed by any demonstratives. Examples are:

/tɯ^{2}.wiŋ^{6}/	‘Tuewing’ (name of a person)
/xaːw^{1}/	‘Haaul’ (name of a dog)
/kuy^{1}.yaːŋ^{6}/	‘Guiyang’ (name of a place)
/kuan^{4}.lin^{5}/	‘Guanlin’ (name of a place)
/xuaŋ^{6}.ko^{5}.su^{1}/	‘Huangguoshu’ (name of a waterfall)
/xuaŋ^{6}.xo^{6}/	‘Huangho’ (name of a river)

Examples:

Dezwingx	xih	dez	ndaangldaail	meeh	deel
/tɯ^{2}.wiŋ^{6}	ɕi^{4}	tɯ^{2}	ʔdaːŋ^{1}.taːy^{1}	mɛ^{4}	tɛ^{1}
Tuewing	then	to bring	dead body	mother	his

jangl	xos	haabfaix	deel	bail	haml.
caŋ^{1}	ɕo^{3}	xaːp^{4}.fay^{6}	tɛ^{1}	pay^{1}	xam^{1}/
to pack	at	coffin	dem.	to go	to bury

‘Tuewing then put his mother’s body in the coffin and buried it.’

Huangfgojsuq	Pufbuq	lail	mizdangxmizduanh
/xuaŋ^{6}.ko^{5}.su^{1}	pʰu^{6}.pu^{1}	lay^{1}	mi^{2}.taŋ^{6}.mi^{2}.tuan^{4}/
Huangguoshu	waterfall	to flow	‘never stop’

‘Huangguoshu has never stopped flowing.’

It should be noted that most proper nouns are Chinese loanwords. Only two native words, /tɯ^{2}.wiŋ^{6}/ and /xaːw^{1}/, are used as the name of a person and a dog, respectively. The person’s name is found in the ancient narrative about the Bouyei’s ritual. Nowadays, all Bouyei people’s names are Chinese. The dog’s name is commonly used in the present. Pets are called by their characters, for example, a dog is named /xaːw^{1}/ ‘white’ because its fur is white.

2) Common nouns

Common nouns may be subdivided into human, non-human and abstract nouns.

2.1) Human nouns

Human nouns consist of the nouns that refer to human beings, such as /wɯn^{2}.pɯaŋ^{2}/ ‘human beings’ and /po^{2}.wɯn^{2}/ ‘people’, and kinship terms. Bouyei basic kinship terms appear to be less complicated than Chinese. They make no distinction between linealities, families, ages, genders, and parental sides for the third generation above Ego and the second and the third generation below Ego as same as other languages in Kam-Tai groups (see appendix B). Some examples are presented below.

/po^{4}/	‘father’
/me^{4}/	‘mother’
/lɯk^{4}.sa:y^{1}/	‘son’
/lɯk^{4}.ʔbɯk^{3}/	‘daughter’
/pi^{6}/	‘elder brother’
/nuaŋ^{6}/	‘younger brother’
/se^{5}/	‘elder sister’
/nuaŋ^{6}.may^{6}.ʔbɯk^{3}/	‘younger sister’
/paw^{3}/	‘father’s father’
/ya^{4}/	‘father’s mother’
/ta^{1}/	‘mother’s father’
/ta:y^{3}/	‘mother’s mother’
/po^{4}.la:w^{6}/	‘father’s elder brother’
/pa^{5}/	‘father/mother’s elder sister’
/ʔa:w^{1}/	‘father’s younger brother’
/kua^{6}/	‘father’s younger sister’
/po^{4}.luŋ^{2}/	‘mother’s elder brother’
/po^{4}.na^{6}/	‘mother’s younger brother’
/na^{6}/	‘mother’s younger sister
/la:n^{1}/	‘grandchild,

/lan^{5}/ ‘great-grandchild’

/t^{h}ay^{1}.ce^{3}/ ‘great-grandparent’

All examples of basic kinship terms can be arranged in the following diagram.

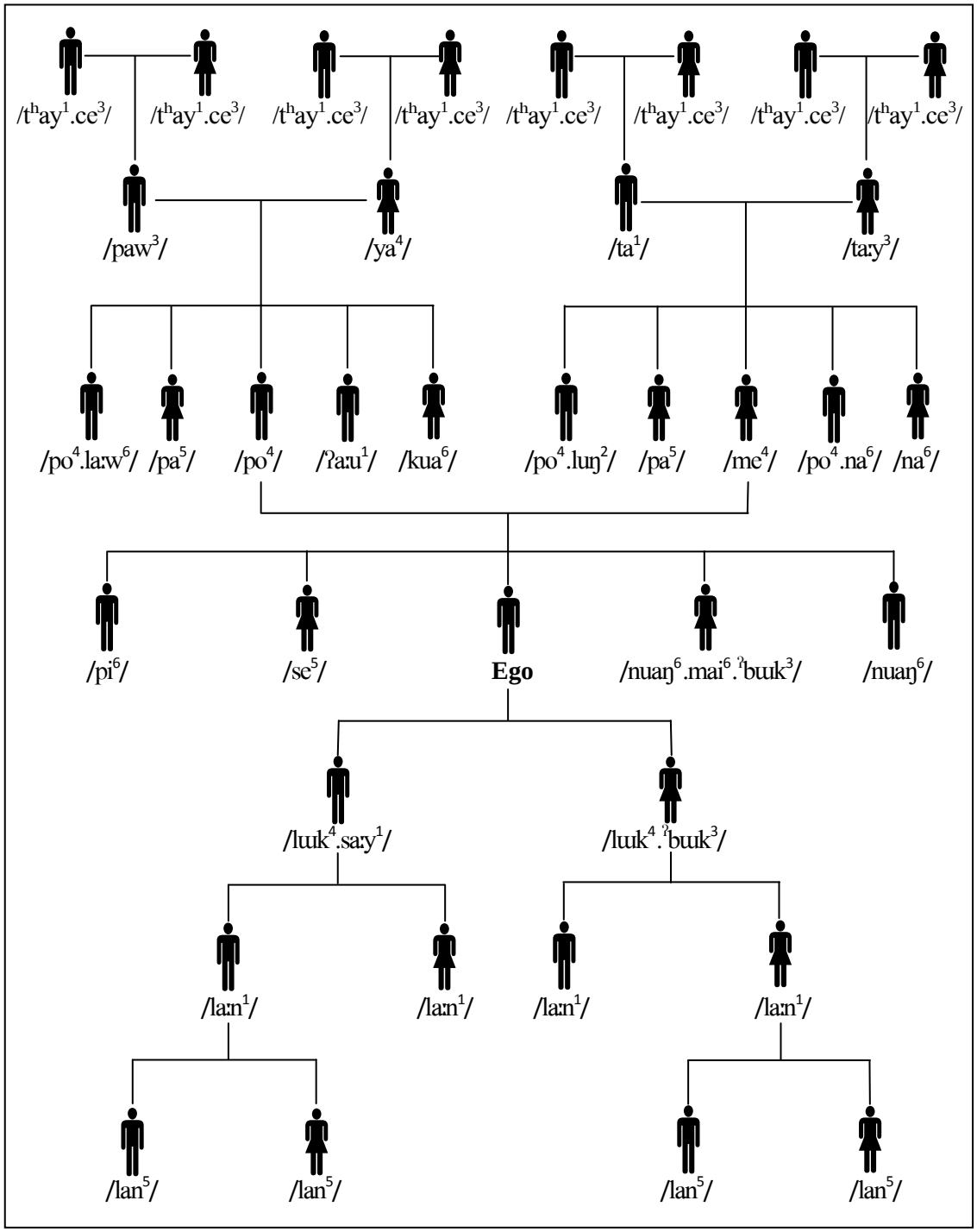


Figure 5.1: Bouyei basic kinship terms

Examples:

Wenzbeangz	miz	lix	haux	genl.	miz	lix	ramx	ndodt
/wɯn^{2}.pɯaŋ^{2}	mi^{2}	li^{6}	xaw^{6}	kɯn^{1}/	mi^{2}	li^{6}	zam^{6}	ʔdot^{3}
'**human beings**'	neg.	to have	rice	to eat	neg.	to have	water	to drink

'Humans have no rice and water.'

Legmbegt	laaux	weiq	wenzbeangz	gac	duezhaais
/lɯk^{4}.ʔbɯk	laːw^{6}	wɯy^{1}	wɯn^{2}.pɯaŋ^{2}	ka^{5}	tua^{2}.xaːy^{3}/
daughter	big	for	human beings	to kill	wild animal

'The eldest daughter killed the wild animal for the people in the world.'

2.2) Non-human nouns

Non-human nouns, the nouns which do not refer to human beings, may be classified into animate and non-animate nouns, as shown in the following examples.

2.2.1) Animate nouns

/tua^{2}.ma^{1}/	'dog'
/tua^{2}.m^{y}aw^{3}/	'cat'
/ŋɯa^{2}/	'snake'
/ɕaːŋ^{6}/	'elephant'
/waːy^{2}/	'buffalo'
/tua^{2}.kuk^{3}/	'tiger'

2.2.2) Non-animate nouns

/mit^{4}/	'knife'
/cim^{1}/	'gold'
/ʔdak^{3}.zin^{1}/	'stone'
/sɯ^{1}/	'book'
/fɯn^{2}/	'firewood'

Examples:

Meanhnix,	**duezmal**	xih	ranl	miz	ndaix	**duezmyaus,**
/mɯan^{4}.ni^{6}	**tua^{2}.ma^{1}**	ɕi^{4}	zan^{1}	mi^{2}	ʔday^{6}	**tua^{2}.m^{y}aw^{3}**
nowadays	**dog**	then	to see	neg.	can	**cat**

daz	ranl	xih	laih
ta^{2}	zan^{1}	ɕi^{4}	lay^{4}/
if	to see	then	to chase

Nowadays, whenever they see each other, the dogs will chase the cats.'

Saaml	bixnuangx	ranl	**ndagt rinl**	deel	oonsmacoonslaaux
/saːm^{1}	pi^{6}.nuaŋ^{6}	zan^{1}	**ʔdak^{3}.zin^{1}**	te^{1}	ʔon^{3}.ma^{5}.ʔon^{3}.laːw^{6}/
three	brothers	to see	**stone**	dem.	to grow bigger and bigger

'Three brothers saw that stone growing bigger and bigger.'

2.3) <u>Abstract Nouns</u>

Abstract nouns refer to something with which a person cannot physically interact. A noun that is abstract is a concept, idea, experience, state of being, trait, quality, feeling, or other entity that cannot be experienced with the sensory perception. Some examples are presented below.

/pay^{2}.fɯŋ^{2}/	'skill'
/sam^{1}/	'mind'
/ʔan^{1}/	'kindness'
/zeŋ^{2}/	'power'
/tuŋ^{6}.sɯ^{1}/	'knowledge'

Examples:

Duezbyac	xih	lix	**reengz**	bai
/tua^{2}.p^{y}a^{5}	ɕi^{4}	li^{6}	**zeŋ^{2}**	pay^{4}/
thunder	then	to have	**power**	already

'Then the thunder has got the power.'

Bozdeel	rox	sel	laail,	**dungxsel**	lag
/po^{2}.te^{1}	zo^{6}	sɯ^{1}	laːy^{1}	**tuŋ^{6}.sɯ^{1}**	lak^{4}/
They	know	book	many	**knowledge**	deep

'They are highly educated and knowledgeable.'

3) Locative words

Locative words are structurally distinguished from other nouns, in that they may be used as an oblique case without prepositions. Some of them can also occur with prepositions. They include those that refer to places, except individual names for specific places (that is, proper nouns). Examples are:

/ta^{4}/	'river'
/ʔdoŋ^{1}/	'forest'
/na^{2}/	'paddy field'
/ʔbaːn^{6}/	'village'
/po^{1}/	'mountain'

Examples:

Meanhxaux,	lix	raanz	wenz	ndeeul	qyus	ndael	**ndongl**	laaux
/mɯan^{4}.ɕaw^{6}	li^{6}	zaːn^{2}	wɯn^{2}	ʔdew^{1}	ʔyu3	ʔdaɯ^{1}	**ʔdoŋ^{1}**	laːw^{6}/
long time ago	to have	house	people	one	to live	inside	**forest**	big

'A long time ago there was a family living in a big forest.'

Deel	bail	dangz	dinlbol	langl	**mbaanx**
/te^{1}	pay^{1}	taŋ^{2}	tin^{1}.po^{1}	laŋ^{1}	**ʔbaːn^{6}/**
3SG	to go	to arrive	foothill	behind	**village**

'He arrived at the foothill behind the village.'

5.2.1.2 Pronouns

Pronouns in Bouyei are closed class and may be divided into four major groups: personal pronoun, demonstrative pronoun, indefinite pronoun, and reflexive pronoun.

1) Personal pronouns

There are three persons in Bouyei pronouns - first person, second person and third person. They are presented as follows.

Table 5.1: Personal pronouns

	Singular	**Plural**
First person	/ku^{1}/, /woy^{3}/	/tu^{1}/, /xo^{5}.tu^{1}/, /po^{2}.ku^{1}/, /zaw^{2}/, /po^{2}.zaw^{2}/
Second person	/mɯŋ^{2}/, /su^{1}/	/xo^{5}.su^{1}/, /po^{2}.su^{1}/
Third person	/te^{1}/	/te^{1}/, /xo^{5}.te^{1}/, /po^{2}.te^{1}/

In Table 5.1, it is noted that some plural pronouns are formed by adding the prefixes, /xo^{5}-/ and /po^{2}-/ 'pluralizer', to singular pronouns. Both prefixes can appear with the morphemes /su^{1}/ and /te^{1}/. In addition, the prefix /xo^{5}-/ occurs with the morpheme /tu^{1}/, while the prefix /po^{2}-/ occurs with the morphemes /ku^{1}/ and /zaw^{2}/. The words in each pair, /ku^{1}/ and /woy^{3}/ 'I', and /mɯŋ^{2}/ and /su^{1}/ 'you', are different in that the second word in each pair is more polite.

2) Demonstrative pronouns

The words listed below are demonstrative pronouns in Bouyei.

/kaːy^{3}.ne^{6}/ ‘this’

/pu^{6}.ne^{6}/ ‘this’

/kaːy^{3}.te^{1}/ ‘that’

/pu^{6}.te^{1}/ ‘that’

The words /te^{1}/ ‘that’ and /niˈ^{6}/ ‘this’ when preceded by the morphemes /pu^{6}/ ‘person’ and /kaːy^{3}/ ‘thing’ convey the meaning of demonstrativeness with the reference of persons and thing, respectively. Some examples are presented below.

Examples:

Gaaisneex	deg	ndanlraanz
/kaːy^{3}.ne^{6}	tɯk^{4}	ˀdan^{1}.zaːn^{2}/
this	to be	house

This is a house.

Buxneex	deengl	buxlaez?
/pu^{6} .ne^{6}	teŋ^{1}	pu^{6} .laɯ^{2}/
this	to be	who

‘Who is this?’

3) Indefinite pronouns

Some of indefinite pronouns are given below:

/fɯa^{6}/ ‘others’

/ta^{5}.coŋ^{3}/ ‘other people’

/pu^{6}.ʔɯn^{3}/ ‘other people’

/lew^{6}.coŋ^{3}/	‘everyone’
/pu^{6}.pu^{6}/	‘everyone’
/yaːŋ^{2}.ma^{2}/	‘anything’
/saːw^{4}.ʔdew^{1}/	‘some’

Examples:

Saaml	bixnuangx	deel	xih	leez	bail
/saːm^{1}	pi^{6}.nuaŋ^{6}	te^{1}	ɕi^{4}	le^{2}	pay^{1}
three	brothers	dem.	then	to run	to go

ndael	mbaanx	nauz	haec	**dacjongs**
ʔdaɯ^{1}	ʔbaːn^{6}	naw^{2}	xaɯ^{5}	**ta^{5}.coŋ^{3}**/
inside	village	to tell	to give	**other people**

‘Those three brothers then ran to the village to tell other people.’

Buxbux	duh	jingsings	deel
/**pu^{6}.pu^{6}**	tu^{4}	ciŋ^{3}.ʔiŋ^{3}	te^{1}/
everybody	all	to respect	3SG

‘Everybody respected it.’

4) Reflexive pronoun

There is only one reflexive pronoun in Bouyei. The pronoun is a compound form, made up of /ʔdaːŋ^{1}/ ‘body’ and /kaw^{3}/ ‘old’. It can refer to the first, second, or third person singular or plural for both male and female, as in the following examples.

Examples:

Deel	haaix	**ndaanglgaus**
/te^{1}	xaːy^{6}	**ʔdaːŋ^{1}.kaw^{3}**/
3SG	to hit	**oneself**

‘He hit himself.’

Deel	lius	duezyuanzbyal	**ndaanglgaus**
/te^{1}	liw^{3}	tua^{2}.yuan^{2}.p^{y}a^{1}	**ʔdaːŋ^{1}.kaw^{3}**/
3SG	to shoot	deer	**oneself**

‘She herself shot the deer.’

Legjax	bail	xos	naz	**ndaanglgaus**
/lɯk^{4}.ca^{6}	pay^{1}	ɕo^{3}	na^{2}	**ʔdaːŋ^{1}.kaw^{3}**/
orphan	to go	at	paddy field	**oneself**

‘The orphans themselves went to the paddy field.’

5.2.1.3 Demonstratives

Demonstratives can refer to the position of some object, person or place in either a locational or temporal dimension. They function in the demonstrative position of the noun phrase and in the time and location position of peripheral clause elements. They consist of only two words: /ni^{6}/ ‘this’ and /te^{1}/ ‘that.’

/ni^{6}/ is used when the speaker and listener are close to the object. It is sometimes pronounced as /ne^{6}/. Conversely, /te^{1}/ is used when the object is far from the speaker and listener. Some examples are presented below.

Examples:

Soongl	bixnuangx	yuangzmbeex	**nix**	rongz	bol
/soŋ^{1}	pi^{6}.nuaŋ^{6}	yuaŋ^{2}.ʔbe^{6}	**ni^{6}**	zoŋ^{2}	po^{1}
two	brothers	goat	**dem.**	to go down	mountain

bail	genl	ramz
pay^{1}	kɯn^{1}	zam^{6}/
to go	to eat	water

‘These two goats went down the mountain to drink water.’

Sul	aul	mid	mal	rons	ndagtnoh	**nix**	gueh	jeebt
/su^{1}	ʔaw^{1}	mit^{4}	ma^{1}	zon^{3}	ˀdak^{3}.no^{4}	**ni^{6}**	kua^{4}	cep^{3}/
2SG	to take	knife	to come	to cut	meat	**dem.**	to do	piece

‘Cut this meat into pieces.’

Buxgax	**deel**	hamh	**deel**	bail	songz	raanz	saauhduz	hoc	deel
/pu^{6}.ka^{6}	**te^{1}**	xam^{4}	**te^{1}**	pay^{1}	soŋ^{2}	zaːn^{2}	saːw^{4}.tu^{2}	xo^{5}	te^{1}/
merchant	**dem.**	night	**dem.**	to go	to stay	house	friend	poor	poss.

‘That merchant stayed overnight at his poor friend’s house that night.’

5.2.1.4 Prepositions

Prepositions are words that are used with nouns or their equivalents to show the relationships of the nouns to the verbs. They are as follows:

/paːŋ^{6}/	‘near, on’
/kɯn^{2}/	‘above’
/xɐn^{2}/	‘beside’
/caɯ^{5}/	‘near’
/toy^{3}.na^{5}/	‘before, in front of’
/caːŋ^{1}/	‘middle of’
/ɕo^{3}/	‘at’
/ˀdaɯ^{1}/	‘inside’
/zo^{4}/	‘outside’
/tay^{3}/	‘from’
/laŋ^{1}/	‘after, behind’
/ziaŋ^{2}/	‘with’
/pa^{6}/	‘object marker’
/taŋ^{2}/	‘until’

Examples:

Nganz	qyus	**genz**	deenh
/ŋan^{2}	ʔyu^{3}	**kɯn^{2}**	ten^{4}/
silver	to stay	**above**	bed

‘Silver was on the bed.’

Legmbux	**ndael**	suanl	yej	mac	laaux	bai
/lɯk^{4}.ʔbu^{6}	**ʔdaɯ^{1}**	suan^{1}	ye^{5}	ma^{5}	laːw^{6}	pay^{4}/
gourd	**inside**	garden	also	to grow	big	already

‘The gourd in the garden had already grown.’

According to Burusphat (2002: 376), the prepositions /tay^{3}/ ‘from’, /laŋ^{1}/ ‘for’ and /ziaŋ^{2}/ ‘with’ are originally grammaticalized from the full verbs meaning ‘pass by’, ‘help’, and ‘follow,’ respectively. However, the meaning of the preposition /laŋ^{1}/ in this study is different from Burusphat (2002). It means ‘after’ or ‘behind’ and is derived from the noun meaning ‘back’ as shown below.

Example:

Yahwaaiz	ndiex	qyus	**langl**	raanz	deel
/ya^{4}.waːy^{2}	ʔdia^{6}	ʔyu^{3}	**laŋ^{1}**	zaːn^{2}	te^{1}/
Yawai	to hide	to live	**behind**	house	dem.

‘Yawai was hiding behind that house.’

In addition, Burusphat (2002) claimed that the preposition /pa^{6}/, functioning as an object marker, has also been grammaticalized from the full verb /pa^{6}/ meaning ‘to paste.’ It is obviously a borrowed word from Chinese and yields the SOV construction. However, the emergence of this construction is not derived from the old SVO order through rearrangement of the sentential constituents but from the collapse of serial verb constructions which is adopted from Chinese through language contact. Some examples are presented below.

Examples:

Bax	ndanlsongz	nix	seenc	bail	hongs	ndael
/pa^{6}	ʔdan^{1}.soŋ^{2}	ni^{6}	sen^{5}	pay^{1}	xoŋs	ʔdaɯ^{1}/
prep.	table	dem.	to move	to go	room	inside

'Move the table inside the room.'

Bax	ndagtrinl	nix	ndungs	bail	jail	nuaih
/pa^{6}	ʔdak^{3}.zin^{1}	ni^{6}	ʔduŋ^{3}	pay^{1}	cay^{1}	nuay^{4}/
prep.	stone	dem.	to throw	to go	far	little bit

'Throw this stone far away.'

5.2.1.5 Classifiers

Like most other Tai-Kadai languages, Bouyei has a system of noun classifiers. They are used to categorize objects into different groups, such as 'round objects,' 'flat objects,' 'utensils,' or 'vehicle.' Many nouns require specific classifiers when they are counted and modified (Iwasaki and Ingkaphirom, 2005). To count a countable object, Bouyei use a numeric phrase consisting of a number and a classifier before a noun (Num + Cls + N).

There are five types of classifiers: general classifiers, quantitative classifiers, collective classifiers, self-classifiers, and measure classifiers.

1) <u>General classifiers</u>

General classifiers are a set of classifiers used frequently. Examples are:

/tew^{2}/ 'classifier for road'

/tua^{2}/ 'classifier for animals'

/fa^{4}/ 'classifier for knife'

/cep^{3}/ 'classifier for stone, sugar'

/ʔbeŋ^{6}/ 'classifier for land, garden'

/nam^{5}/ 'classifier for arrow'

/ˀdak^3/	‘classifier for stone, brick’
/ˀdan^1/	‘classifier for sun, box, house, etc.’
/zom^2/	‘classifier for bed sheet’
/wa^1/	‘classifier for windmill’

Examples:

Hac	**namx**	nas
/xa^5	**nam^6**	na^3/
five	**cls.**	arrow

‘five arrows’

Hac	**ndanl**	danglngonz
/xa^5	**ˀdan^1**	taŋ^1.ŋon^2/
five	**cls.**	sun

‘five suns’

2) <u>Quantitative classifiers</u>

There are two quantitative classifiers in Bouyei. They are /sam^3/ and /po^2/ ‘plural.’ Examples are:

Examples:

Sams	wenz	dungxqyas	deel	mal	rag	jac	legjax
/sam^3	wɯn^2	tuŋ^6.ˀya^3	te^1	ma^1	zak^4	ca^5	lɯk^4.ca^6/
cls.	people	bad	dem.	to come	to steal	rice seedling	orphan

‘Those bad people stole the orphan’s rice seedling.’

Boz	gangllingz	deel	aul	jimlnganz	mal	jings	deel
/po^2	kaŋ^1.liŋ^2	te^1	ʔaw^1	cim^1.ŋan^2	ma^1	ciŋ^3	te^1/
cls.	monkey	dem.	to bring	gold and silver	to come	to pay respect	3SG

‘Those monkeys paid respect to him with gold and silver.’

3) Collective classifiers

There are two collective classifiers found in this study. They are /coŋ^{3}/ ‘group’ and /fu^{3}/ ‘a pair of.’ Some examples are presented below.

Examples:

Jongs	maixmbegt	xih	dez	hauxudt	bail	qyams	buxxinl
/**coŋ^{3}**	may^{6}.ʔbɯk^{3}	ɕi^{4}	tɯ^{2}	xaw^{6}.ʔut^{3}	pay^{1}	ʔyam^{3}	pu^{6}.ɕin^{1}/
group	girl	then	to bring	a kind of food	to go	to visit	relatives

‘A group of girls then brings Hau-ut to visit their relatives.’

Sauldulgveedt	lix	**fus**	dois	ndeeul
/sau^{1}.tu^{1}.k^{w}et^{3}	li^{6}	**fu^{3}**	toy^{3}	ʔdew^{1}/
carved pillar	to have	**pair**	couplet	one

‘There is a pair of the carved pillars.’

4) Self-classifiers

Self-classifiers are a set of nouns used to classify themselves. They include some terms for kinship, human beings, and parts of body.

Examples:

Soongl	**bixnuangx**	ranl	boh	miz	haec	xeenz	yej	ndilhamz
/soːŋ^{1}	**pi^{6}.nuaŋ^{6}**	zan^{1}	po^{4}	mi^{2}	xaɯ^{5}	ɕen^{2}	ye^{5}	ʔdi^{1}.xam^{2}/
two	**brothers**	to see	father	neg.	to give	money	also	angry

‘Two brothers got angry when their father did not give them the money.’

Buxqyaix	rauz	lix	soonglbas	gucxiblaail	faanh	**wenz**
/pu^{6}.ʔyay^{6}	zaw^{2}	li^{6}	soːŋ^{1}.pa^{3}	ku^{5}.ɕip^{4}.laːy^{1}	faːn^{4}	**wɯn^{2}**/
Bouyei	1PL	to have	two hundred	more than ninety	ten thousand	**people**

‘There are over 2,900,000 Bouyeis.’

5) Measure classifiers

Measure classifiers are used to indicate the size or the weight of things. Some of them are given below.

/mi^{5}/	‘meter (loanword)’
/li^{5}/	‘half kilometer (loanword)’
/ɕik^{3}/	‘one-third meter’
/ɕaːŋ^{2}/	‘one-twenty kilograms (cls. for silver)’
/ɕew^{4}.yiaŋ^{1}/	‘one incense, 2 hours’
/ɕiaŋ^{4}/	‘1 xiangh = 10 xigt (3 xigt = 1 meter)’
/ko^{3}/	‘cup’
/kan^{1}/	‘half kilogram’

Examples:

Saaml	**xigt**	sangl
/saːm^{1}	**ɕik^{3}**	saŋ^{1}/
three	**one-third meter**	high

‘One meter’

Sis	**gos**	ramx
/si^{3}	**ko^{3}**	zam^{6}/
four	**cup**	water

‘Four cups of water’

Beedt	**ganl**	hauxsaanl
/pet^{3}	**kan^{1}**	xaw^{6}.saːn^{1}/
eight	**half kilogram**	rice

‘Four kilos of rice’

5.2.1.6 Numerals

The term numeral refers to a word class which is related to numbers. There are two classes of numerals in Bouyei: specific numerals and general numbers.

1) Specific numerals

1.1) Cardinals

The cardinal numbers are used to denote the number of objects. There is no form for zero in Bouyei. The numeral 1-10 are shown below.

/ʔdew^{1}/	‘one’
/soːŋ^{1}/	‘two’
/saːm^{1}/	‘three’
/si^{3}/	‘four’
/xa^{5}/	‘five’
/zok^{3}/	‘six’
/ɕet^{3}/	‘seven’
/pɛt^{3}/	‘eight’
/ku^{5}/	‘nine’
/ɕip^{4}/	‘ten’

The numbers from eleven to nineteen are formed in Bouyei by adding the word /ɕip^{4}/ ‘ten’ in front of the basic numerals. Examples are:

/ɕip^{4}.ʔit^{3}/	‘eleven’
/ɕip^{4}.ŋi^{4}/	‘twelve’
/ɕip^{4}.saːm^{1}/	‘thirteen’
/ɕip^{4}.si^{3}/	‘fourteen’

A group of numbers which end with –ty is the combination of two to nine plus /ɕip^{4}/ ‘ten.’ Some examples are presented below.

/ŋi^{4}.ɕip^{4}/	‘twenty’
/saːm^{1}.ɕip^{4}/	‘thirty’

/si^{3}.ɕip^{4}/ ‘forty’

/xa^{5}.ɕip^{4}/ ‘fifty’

For counting above twenty, the basic numerals follow the word for twenty, thirty, forty, etc. Examples are:

/ŋi^{4}.ɕip^{4}.ʔit^{3}/ ‘twenty one’

/ŋi^{4}.ɕip^{4}.ŋi^{4}/ ‘twenty two’

/ŋi^{4}.ɕip^{4}.saːm^{1}/ ‘twenty three’

/saːm^{1}.ɕip^{4}.ʔit^{3}/ ‘thirty one’

/saːm^{1}.ɕip^{4}.ŋi^{4}/ ‘thirty two’

/saːm^{1}.ɕip^{4}.saːm^{1}/ ‘thirty three’

/si^{3}.ɕip^{4}.ʔit^{3}/ ‘forty one’

/si^{3}.ɕip^{4}.ŋi^{4}/ ‘forty two’

/si^{3}.ɕip^{4}.saːm^{1}/ ‘forty three’

Larger numbers such as 100, 1,000, and 10,000 are similar to those in Mandarin Chinese, as in the following examples:

Bouyei	**Chinese**	
/pa^{3}.ʔdew^{1}/	/bai^{3}/	‘one hundred’
/ɕian^{1}.ʔdew^{1}/	/qian^{1}/	‘one thousand’
/faːn^{4}/	/wan^{4}/	‘ten thousand’

1.2) <u>Ordinals</u>

Ordinal numbers are derived by prefixing /ta^{2}-/ ‘ordinalizer’ to the cardinal numbers. The ordinal numbers for 1 through 10 are presented below.

/ta^{2}.ʔit^{3}/ ‘first’

/ʔdu^{6}/ ‘first’

/ta^{2}.ŋi^{4}/ ‘second’

/ta^{2}.saːm^{1}/ ‘third’

/ta^{2}.si^{3}/	‘fourth’
/ta^{2}.xa^{5}/	‘fifth’
/ta^{2}.zok^{3}/	‘sixth’
/ta^{2}.ɕet^{3}/	‘seventh’
/ta^{2}.pɛt^{3}/	‘eighth’
/ta^{2}.ku^{5}/	‘ninth’
/ta^{2}.ɕip^{4}/	‘tenth’

Examples:

Soongl	bil	**ndux**
/soŋ^{1}	pi^{1}	**ʔdu^{6}/**
two	year	**first**

‘First two year’

Bil	**dazsaaml**
/pi^{1}	**ta^{2}.saːm^{1}/**
year	**third**

‘Third year’

2) <u>General numbers</u>

General numbers are closed sub-class. They consist of the following words.

/laːy^{1}/	‘many, much’
/saːw^{4}.ni^{6}/	‘many, much’
/noy^{4}/	‘little bit’
/nuay^{4}/	‘little bit’
/sɛw^{5}/	‘little bit’
/tiŋ^{2}/	‘half’
/p^{y}oːŋ^{4}/	‘half’

Examples:

Deel	rox	**seuc**	yej	zuangh	rox	**laail**
/te^{1}	zo^{6}	**sew^{5}**	ye^{5}	t͡suaŋ^{4}	zo^{6}	**laːy^{1}**/
3SG	to know	**little bit**	also	to pretend	to know	**many**

‘He knows little, but he pretends that he knows a lot.’

Deel	bah	mbos	ndaix	**dingz**	ngonz
/te^{1}	pa^{4}	ʔbo^{3}	ʔday^{6}	**tiŋ^{2}**	ŋon^{2}/
3SG	to dig	well	able	**half**	day

‘He had dug the well for half a day.’

Deel	xih	bail	ndaix	**byoongh**	moc	nganz	deel
/te^{1}	ɕi^{4}	pay^{1}	ʔday^{6}	**pʲoːŋ^{4}**	mo^{5}	ŋan^{2}	te^{1}/
3SG	then	to go	to get	**half**	pot	silver	dem.

‘Then he got a half pot of silver.’

To say ‘over ……...’, the words /laːy^{1}/ or /ci^{5}/ ‘many’ are placed after the cardinal numbers.

Examples:

Soonglbas	**laail**	mic	saangl
/soːŋ^{1}.pa^{3}	**laːy^{1}**	mi^{5}	saːŋ^{1}/
two hundred	**over**	cls. (meter)	high

‘Over two hundred meters high’

Xib	**jic**	lic	jail
/ɕip^{4}	**ci^{5}**	li^{5}	cay^{1}/
ten	**over**	cls. (half KM)	far

‘Farther than five kilometers’

5.2.2 Verb-related words

Verb-related words are defined as verbs and classes of words related to verbs that consist of auxiliary verbs and negators (Iwasaki and Ingkaphirom, 2005). In Bouyei, they also include verbs, auxiliary verbs and negators.

5.2.2.1 Verbs

Verbs are the words that generally denote action or a state of mind or condition. They function as the heads of verb phrases. Verbs in Bouyei can be classified based on their transitivity as follows:

1) Transitive verbs

Transitive verbs function as nuclei of the active verb phrase in the transitive clause. Examples are:

/xaːy^{6}/	‘to hit’
/kɯn^{1}/	‘to eat’
/ka^{5}/	‘to kill’
/kua^{4}/	‘to do’

Examples:

Deel	**haaix**	buxdeel
/te^{1}	**xaːy^{6}**	pu^{6}.te^{1}/
3SG	**to hit**	that (person)

‘He hits that man.’

Meehwaaiz	**genl**	nyiec
/me^{4}.waːy^{2}	**kɯn^{1}**	ɲia^{5}/
buffalo	**to eat**	grass

‘The buffalo eats grass.’

2) Intransitive verbs

Intransitive verbs function as nuclei of the verb phrase in the intransitive clause. Some examples are:

/nin^{2}/	‘to sleep’
/non^{2}/	‘to wake up’
/ʔdun^{1}/	‘to stand’
/tay^{5}/	‘to cry’
/naŋ^{4}/	‘to sit’

Examples:

Deel	xih	**ninz**	qyus	heenz	ronl
/te^{1}	ɕi^{4}	**nin^{2}**	ʔyu^{3}	xen^{2}	zon^{1}/
3SG	then	**to sleep**	to live	beside	road

‘Then he slept beside the road.’

Legmbegt	laaux	deel	jamhjaangh	**noonz**	mal
/lɯk^{4}.ʔbɯk^{3}	laːw^{6}	te^{1}	cam^{4}.caːŋ^{4}	**non^{2}**	ma^{1}/
daughter	big	dem.	suddenly	**to wake up**	to come

‘That eldest daughter suddenly woke up.’

3) Ditransitive verbs

Ditransitive verbs normally take two objects called direct and indirect. They function as nuclei of the predicate slot in the ditransitive clause. The verbs below can be used in a ditransitive way, though they can all be used with just one object.

/xaɯ^{5}/	‘to give’
/soŋ^{3}/	‘to send’
/son^{1}/	‘to teach’
/xam^{3}/	‘to ask’

Examples:

Deel	**haec**	gul	duezbyal	ndeeul
/te^{1}	**xaɯ^{5}**	ku^{1}	tua^{2}.p^{y}a^{1}	ʔdew^{1}/
3SG	**to give**	1SG	fish	one

‘He gives me the fish.’

Deel	**hams**	legsaail	deel	gaaiswenqtif	ndeeul
/te^{1}	**xam^{3}**	lɯk^{4}.saːy^{1}	te^{1}	kaːy^{3}.wɯn^{1}.t^{h}i^{6}	ʔdew^{1}/
3SG	**to ask**	son	his	question	one

‘He asked his son a question.’

4) Descriptive verbs

Descriptive verbs, as their name implies, describe particular situations or conditions. A descriptive verb does not take an object and functions as a nucleus of a verb phrase in a descriptive clause. It indicates an inherent physical quality and non-inherent physical quality as shown below.

4.1) Inherent physical quality

/laːw^{6}/	‘to be big’
/fon^{6}/	‘to be black’
/na^{1}/	‘to be thick’
/ʔbeŋ^{1}/	‘to be thin’
/ka^{1}.saːŋ^{1}/	‘to be tall’

Example:

Deel	**galsaangl**
/te^{1}	**ka^{1}.saːŋ^{1}**/
3SG	**to be tall**

‘He is tall.’

4.2) Non-inherent physical quality

/ʔaːŋ^{3}/	‘to be happy’
/ʔdi^{1}.xam^{2}/	‘to be angry’
/ʔbat^{3}/	‘to be hungry’
/ʔdi^{1}/	‘to be good’

Example:

Deel	**aangs**
/te^{1}	**ʔaːŋ^{3}**/
3SG	**to be happy**

‘He is happy.’

5) Locative verb

There is only one locative verb in Bouyei. The locative verb /ʔyu^{3}/ means ‘to be, to live.’ It functions as a nucleus of the verb phrase in the locative clause.

Example:

Buxlaaux	**qyus**	raanz
/pu^{6}.laːw^{6}	**ʔyu^{3}**	zaːn^{2}/
adult	**to be**	home

‘Adults are at home.’

6) Motion verbs

Motion verbs express movement of action. They function as nuclei of the verb phrase in the motion clause. Some examples are:

/pay^{1}/	‘to go’
/pin^{1}/	‘to climb’
/ʔbin^{1}/	‘to fly’
/le^{2}/	‘to run’
/p^{y}aːy^{5}/	‘to walk’

Example:

Deel	**bail**	Befjiny
/tɛ^{1}	**pay^{1}**	pɛ^{6}.cin^{4}/
3SG	**to go**	Beijing

'He goes to Beijing.'

7) Directional verbs

Directional verbs are the motion verbs that usually appear after the main verbs to indicate the direction, such as /tok^{3} ma^{1}.la^{5}/ 'to fall down.' The word /ma^{1}.la^{5}/ 'to go down, down' is a directional verb. Directional verbs are closed sub-class. They consist of the following words.

/pay^{1}/	'to move away from the point which is the location of the speaker'
/ma^{1}/	'to move towards a point which is the location of the speaker.'
/ma^{1}.la^{5}/	'to go down, down'

Examples:

Buxsiangl	xih	binl	**bail**	genz	golfaix	saangl	ndeeul
/pu^{6}.siaŋ^{1}	ɕi^{4}	pin^{1}	**pay^{1}**	kɯn^{2}	ko^{1}.fay^{6}	saːŋ^{1}	ˀdew^{1}/
Pusiang	then	to climb	**v$_{dir}$**	above	tree	high	one

'Pusiang climbed up the high tree.'

Deel	nyingz	ndaix	danglngonz	genzmbenl	dogt	**mallac**
/tɛ^{1}	ɲiŋ^{2}	ˀday^{6}	taŋ^{1}.ŋon^{2}	kɯn^{2}.ˀbɯn^{1}	tok^{3}	**ma^{1}.la^{5}**/
3SG	to shoot	able	sun	sky	to fall	**v$_{dir}$**

'He can shoot the sun in the sky to fall down.'

8) Propulsion verbs

Propulsion verbs are the verbs that cause things, persons or animal to move. They function as nuclei of the verb phrase in the propulsion clause. Some examples are:

/tɯ^{2}/	‘to bring, to take’
/ɕeŋ^{3}/	‘to push’
/ʔdiaŋ^{6}/	‘to carry’

Example:

Legjax	yungh	reengz	**xeengs**	mbenl
/lɯk^{4}.ca^{6}	yuŋ^{4}	zeŋ^{2}	**ɕeŋ^{3}**	ʔbɯn^{1}/
orphan	to spend	power	**to push**	sky

‘The orphan used his power to push up the sky.’

9) Quotative verbs

Quotative verbs are the verbs that followed by quotations. They function as nuclei of the verb phrase in the quotative clause. Examples are:

/xam^{3}/	‘to ask’
/naw^{2}/	‘to answer’
/ʔda^{3}/	‘to curse’
/k^{w}a:y^{3}/	‘to complain’

Example:

Bohlaaux	deel	**hams**	“Mengz	xies	fahxangh	bail	gueh	maz?”
/po^{4}.la:w^{6}	te^{1}	**xam^{3}**	mɯŋ^{2}	ɕia^{3}	fa^{4}.ɕaŋ^{4}	pay^{1}	kua^{4}	ma^{2}/
uncle	dem.	**to ask**	2SG	to borrow	scale	to go	to do	what

“Why do you want to borrow my scale?” asked that uncle.

10) Equational verbs

Equational verbs are the verbs that co-occur with "subject complement." They function as nuclei of the copula verb phrase in the equational clause. Some members are:

/tɯk^{4}/ 'to be

/yɐw^{4}.kua^{4}/ 'to be called'

/pian^{3}.pan^{2}/ 'to become'

Example:

Yeeuc	deel	xih	**biansbanz**	ndaaulndis	riml	leeux	genzmbenl
/yɐw^{5}	te^{1}	ɕi^{4}	**pian^{3}.pan^{2}**	ʔdaːw^{1}.ʔdi^{3}	zim^{1}	lew^{6}	kɯn^{2}.ʔbɯn^{1}/
teeth	his	then	**to become**	star	full	all	sky

'Then his teeth became the stars all over the sky.'

11) Existential verbs

Existential verbs manifest existence. They function as nuclei of the verb phrase in the existential clause. There is only one existential verb in Bouyei: /li^{6}/ 'to have.'

Example:

Meanhxaux,	**lix**	raanz	ndeeul	saaml	bohleg
/mɯan^{4}.ɕaw^{6}	**li^{6}**	zaːn^{2}	ʔdew^{1}	saːm^{1}	po^{4}.lɯk^{4}/
long time ago	**to have**	family	one	three	father and sons

'Once upon a time, there was a family consisting of father and two sons.'

12) Ambient verbs

Ambient verbs are used to describe the natural phenomenon, such as the weather. They are different from descriptive verbs in that the subject of the ambient verbs is the natural phenomenon. Some examples are:

/ɕam^{6}/	‘to be cool’
/ɕeŋ^{6}/	‘to be cold’
/ˀdaːt^{3}/	‘to be hot’
/ʔaŋ^{1}/	‘to be hot’

Examples:

Jaanglngonz	danglngonz	**ndaadt**
/caŋ^{1}.ŋon^{2}	taŋ^{1}.ŋon^{2}	**ˀdaːt**/
daytime	sun	**to be hot**

‘The sun is hot in the daytime.’

Ngonzneex	**angl**
/ŋon^{2}.ne^{6}	**ʔaŋ^{1}**/
today	**to be hot**

‘It is hot today.’

13) Causative verbs

The causative verbs function as predicate of the causer position in a causative clause. Examples are:

/xaɯ^{5}/	‘to give, to let, to allow’
/paːy^{3}/	‘to order’

Example:

Gul	**baais**	binglmbenl	bail	xux	deel
/ku^{1}	**paːy^{3}**	piŋ^{1}.ˀbɯn^{1}	pay^{1}	ɕu^{6}	te^{1}
1SG	**to order**	soldier of the heaven	to go	to receive	3SG

mal	genzmbenl
ma^{1}	kɯn^{2}.ˀbɯn^{1}/
to come	sky

‘I ordered my soldiers to pick him up to the heaven.’

14) Submissive verb

Submissive verb is defined as "an action in which the patient subject experiences an unpleasant event" (Thepkanjana, 1986). In Bouyei, there is only one submissive verb - /tɯk^{4}/ which originally means 'touch, hit.' According to Burusphat (2002: 380), this kind of verb may be called adversative indicator because it implies an adversative effect on the subject noun phrase. However, it is treated as a full verb meaning 'to suffer or to undergo an unpleasant event.'

Examples:

Golnyal	riangz	byagtfuz	duy	**deg**	myaanx	daail	bai
/ko^{1}.ɲa^{1}	ziaŋ^{2}	p^{y}ak^{3}.fu^{2}	tu^{4}	**tɯk^{4}**	m^{y}a:n^{6}	ta:y^{1}	pay^{4}/
grass	and	duckweed	all	**to suffer**	to step	to die	already

'Both grasses and duckweeds had been stepped on to death.'

Xez	boh	lixqyus	deel,	yaangzmaz	duy	**deg**	boh	bail	gueh
/ɕɯ^{2}	po^{4}	li^{6}.ʔyu^{3}	te^{1}	ya:ŋ^{2}.ma^{2}	tu^{4}	**tɯk^{4}**	po^{4}	pay^{1}	kua^{4}/
when	father	alive	dem.	anything	all	**to suffer**	father	to go	to do

'When he was still alive, everything was done by the father.'

15) Cognitive verbs

Cognitive verbs indicate the sensory perception. They function as nuclei of the verb phrase in the cognitive clause. Examples are:

/zo^{6}/	'to know'
/zan^{1}/	'to see'
/zo^{6}.ɲia^{1}/	'to hear'

Example:

Xeeuhgoons,	buxwenz	fihsaaih	**rox**	gueh	meeuz
/ɕew^{4}.kon^{3}	pu^{6}.wɯn^{2}	fi^{4}.sa:y^{4}	**zo^{6}**	kua^{4}	mew^{2}/
ancient time	people	not really	**to know**	to do	crop

'In the past, people did not know how to cultivate.'

16) Comparative verbs

Comparative verbs are used to compare equality and comparative degree. They normally function as nuclei of the verb phrase in the comparative clause. Examples are:

/saːw^{4}/ 'to be like'

/lɯm^{5}/ 'to be like'

Example:

Lix	ndanlmbux	ndeeul	laaux	**saauh**	ndanlsaangh
/li^{6}	ʔdan^{1}.ʔbu^{6}	ʔdew^{1}	laːw^{6}	**saːw^{4}**	ʔdan^{1}.saːŋ^{4}/
to have	gourd	one	big	**to be like**	storehouse

'There was a gourd that was as big as a storehouse.'

5.2.2.2 Auxiliary verbs

Auxiliary verbs supply additional information for the main verb, such as aspect, modality, direction, and potentiality (Iwasaki and Ingkaphirom, 2005). In Bouyei, there are two classes of auxiliary verbs including aspect and modality.

1) Aspect

Aspect is a grammatical category associated with verbs that indicates a temporal view of the event or state expressed by the verb. Aspectual auxiliaries are either pre-verbal or post-verbal types. They are classified into three major types as follows:

1.1) Perfective

Perfective aspect looks at a situation from outside and treats it as a complete whole (Iwasaki and Ingkaphirom, 2005). It is equivalent to the aspectual component of past perfective forms. Perfective aspects in Bouyei are:

/lew^{6}/ 'finish, had done' (post-verb position)

/pay^{4}/ 'already' (post-verb position)

/ʔyia^{3}/ 'already' (post-verb position)

Examples:

Ramx	lengc	xaml	baillac	**leeux**
/zam^{6}	lɯŋ^{5}	ɕam^{1}	pay^{1}.la^{5}	**lew^{6}**/
water	then	to fall	to go down	**had done/asp.**

‘The tide ebbed.’

Buxgax	deel	gaail	jongshaux	deel	haec	deel	**bai**
/pu^{6}.ka^{6}	te^{1}	ka:y^{1}	coŋ^{3}.xaw^{6}	te^{1}	xaɯ^{5}	te^{1}	**pay^{4}/**
merchant	dem.	to sell	rice basket	dem.	to give	3SG	**already/asp.**

‘The merchant already sold him the rice basket.’

Gul	ranl	deel	qyus	raanz	deel	**qyies**
/ku^{1}	zan^{1}	te^{1}	ʔyu^{3}	za:n^{2}	te^{1}	**ʔyia^{3}**/
1SG	to see	3SG	to live	home	his	**already/asp.**

‘I have already seen him at his home.’

1.2) <u>Imperfective</u>

Imperfective aspect refers to internal phases of an event and the phase which leads to an event. Examples are:

/laŋ^{3}.li^{6}/	‘still’ (pre-verb position)
/xa^{6}/	‘will’ (pre-verb position)
/ʔyu^{3}/	‘continuous’ (post-verb position)

Examples:

Duezgais	deel	**langslix**	jaul
/tua^{2}.kay^{3}	te^{1}	**laŋ^{3}.li^{6}**	caw^{1}/
hen	dem.	**still**	alive

‘The hen is still alive.’

Deel	**hax**	aul	faix	mal	dosbanz	soongl	ndanl	haab
/te^{1}	**xa^{6}**	ʔaw^{1}	fay^{6}	ma^{1}	to^{3}.pan^{2}	soŋ^{1}	ˀdan^{1}	xaːp^{4}/
3SG	**will**	to bring	wood	to come	to make	two	cls.	box

‘He will bring wood to make two boxes.’

Deel	ninz	**qyus**	heenz	ronl
/te^{1}	nin^{2}	**ˀyu^{3}**	xen^{2}	zon^{1}
3SG	to sleep	**cont.**	beside	road

‘He is sleeping beside the road.’

1.3) <u>Perfect/anterior</u>

Perfect/anterior aspect refers to a present state resulting from a past situation. Examples are:

/ɕaːw^{6}/	‘just done’ (pre-verb position)
/k^{w}a^{3}/	‘ever’ (post-verb position)
/ˀday^{6}/	‘has done’ (post-verb position)

Examples:

Mbenl	**xaaux**	roongh
/ˀbɯn^{1}	**ɕaːw^{6}**	zoːŋ^{4}/
sky	**just begun**	bright

‘The sky has just been bright.’

Rihnaz	duy	bah	**gvas**	soongl	daaus
/zi^{4}.na^{2}	tu^{4}	pa^{4}	**k^{w}a^{3}**	soŋ^{1}	taːw^{3}/
paddy field	all	to dig	**ever**	two	time

‘All paddy fields have been dug for twice.’

Deel	mal	**ndaix**	saaml	ndianl
/te^{1}	ma^{l}	**ˀday^{6}**	saːm^{1}	ˀdian^{1}/
3SG	come	**has done**	three	month

‘He has come for three months.’

2) Modality

Modality shows the attitude of the speaker about obligation, necessity, uncertainty, possibility and ability. It functions in the pre-verb position and post-verb position of the verb phrase. Examples are:

/ka^{4}.ʔday^{6}/	‘must’ (pre-verb position)
/yi^{6}.tin^{1}/	‘must’ (pre-verb position)
/yin^{1}.kay^{4}/	‘should’ (pre-verb position)
/k^{h}o^{5}.yi^{5}/	‘may’ (pre-verb position)
/ʔbaːŋ^{6}/	‘may’ (pre-verb position)
/cay^{2}/	‘want to’ (pre-verb position)
/ʔday^{6}/	‘can’ (post-verb position)

Examples:

Mengz	**gahndaix**	il	xonzhaaus	bausjees	mumh	haaul	deel
/muŋ^{2}	**ka^{4}.ʔday^{6}**	ʔi^{1}	ɕon^{2}.xaːw^{3}	paw^{3}.ce^{3}	mum^{4}	xaːw^{1}	te^{1}/
2SG	**must**	to agree	word	old people	beard	white	dem.

‘You must agree with the words of the old man with the white beard.’

Bozdeel	jaanlnauz	“yianghnix	xih	**kojyij**	siul	ndaix	haux	laail”
/po^{2}.te^{1}	caːn^{1}.naw^{2}	yiaŋ^{4}.ni^{6}	ɕi^{4}	**k^{h}o^{5}.yi^{5}**	siw^{1}	ʔday^{6}	xaw^{6}	laːy^{1}/
3PL	to think	like this	then	**may**	to harvest	to get	rice	many

They thought “to be like this, we may harvest a lot.”

ndagtrinl	nix	xih	**mbaangx**	deg	rinlxiex	ba
ʔdak^{3}.zin^{1}	ni^{6}	ɕi^{4}	**ʔbaːŋ^{6}**	tɯk^{4}	zin^{1}.ɕia^{6}	pa^{4}
stone	dem.	then	**may**	to be	god stone	prt.

‘This stone may be a god stone.’

Gul	**jaiz**	ranl	deel	qyus	raanz	deel	hadtxoh
ku^{1}	**cay^{2}**	zan^{1}	te^{1}	ʔyu^{3}	za:n^{2}	te^{1}	xat^{3}.ɕo^{4}/
1SG	**want**	to see	3SG	to stay	house	his	tomorrow morning

'I want to see him at his home on tomorrow morning.'

Ronl	jail	daausmal	miz	**ndaix**
/zon^{1}	cay^{1}	ta:w^{3}.ma^{1}	mi^{2}	**ʔday^{6}**/
road	far	come back	neg.	**can**

'She cannot come back home because it is too far.'

5.2.2.3 Negators

Negators function as pre-modifier of the verb phrase and imperative clause. They include /mi^{2}/, /m^{y}aɯ^{5}/ and /fi^{4}/.

The negator /mi^{2}/ is a general negator which appears before a verb, adjective, or auxiliary verbs, e.g. /mi^{2} zo^{6}/ 'not know', /mi^{2} ʔdi^{1}/ 'not good', and /mi^{2} ʔday^{6}/ 'cannot.'

/m^{y}aɯ^{5}/ is placed before a verb to form a negative imperative, e.g. /m^{y}aɯ^{5} kɯn^{1}/ 'Don't eat.'

/fi^{4}/ is used as both negator and question particle. The negator /fi^{4}/ refers to 'not yet' and is placed before a verb, e.g. /fi^{4} zan^{1}/ 'not seen yet.'

5.2.3 Modifying words

Modifying words are classes of optional words that provide description in sentences. The removal of the modifier typically doesn't affect the grammaticality of the construction (Iwasaki and Ingkaphirom, 2005). In Bouyei, modifying words include adjectives, adverbs and intensifiers.

5.2.3.1 Adjectives

Adjectives generally indicate the kind, state, condition or quality of objects. The word /**ʔdi^{1}**/ 'good' in /li^{6} ɕa^{2} **ʔdi^{1}**/ 'There is a good tea.'

indicates the quality of the tea. The word /**ʔdaːt^{3}**/ ‘hot’ in /ʔdian^{1} **ʔdaːt^{3}**/ ‘hot month’ indicates the state of the month.

Adjectives have two major uses. One is used to modify nouns in terms of the kind, state, condition or quality, as we have seen in the preceding paragraph. The other use is very similar to that of the descriptive verbs and ambient verbs. The word /ʔdi^{1}/ ‘good’, for example, has a predicate-like function in the following sentence.

Minghwanl	mengz	miz	**ndil**	dazraaix
/miŋ^{4}.wan^{1}	mɯŋ^{2}	mi^{2}	**ʔdi^{1}**	ta^{2}.zaːy^{6}/
fate	your	neg.	**good**	really

‘Your fate is not really good.’

Nevertheless, when it is used as the predicate in a sentence, the predicate adjectives are considered to be verbs as mentioned in Section 5.2.2.1.

Attributive adjectives function in the head position of the adjective phrase or in the modifier position of the noun phrase. They can be classified in terms of their meaning. They are color, size, shape and quality adjectives. Some examples are:

Color adjectives

/ʔdiŋ^{1}/	‘red’
/xen^{5}/	‘yellow’
/fon^{6}/	‘black’
/lok^{4}/	‘green’

Size and shape adjectives

/laːw^{6}/	‘big’
/ni^{3}/	‘small’
/tin^{5}/	‘short’

/zay^{2}/	‘long’
/zan^{2}/	‘round’
/paːm^{5}/	‘flat’

Quality, state, condition adjectives

/ʔdi^{1}/	‘good’
/tuŋ^{6}.ʔya^{3}/	‘bad’
/naw^{4}/	‘rotten’
/nak^{3}/	‘heavy’
/ɕaw^{3}.ʔdi^{1}/	‘beautiful’

5.2.3.2 Adverbs

Adverbs function in the head position of the adverb phrase or in the pre-modifier and post-modifier position in the verb phrase.

Some are adverbs of manner, such as:

/ɲaːm^{4}/	‘slowly’
/xan^{1}/	‘fast, quickly’
/siŋ^{5}/	‘clearly’
/cam^{4}.caːŋ^{4}/	‘suddenly’

Some are adverbs of place, such as:

/cia^{2}.ni^{6}/	‘here’
/cia^{2}.te^{1}/	‘there’

Some are adverbs of time, such as:

/ŋon^{2}.ŋon^{2}/	‘every day’
/pi^{1}.pi^{1}/	‘every year’
/paːy^{6}.xam^{4}/	‘each night’
/paːy^{6}.pi^{1}/	‘each year’
/ŋon^{2}.ne^{6}/	‘today’
/ŋon^{2}.lian^{2}/	‘yesterday’

/ŋon^{2}.ɕo^{4}/	‘tomorrow’
/xat^{3}/	‘morning’
/xat^{3}.ɕo^{4}/	‘tomorrow morning’
/pi^{1}.kua^{3}/	‘last year’
/kon^{3}/	‘before’
/mɯan^{4}.ni^{6}/	‘nowadays’

Examples:

Gul	byaaic	**nyaamh**
/ku^{1}	p^{y}a:y^{5}	**ɲa:m^{4}**/
1SG	to walk	**slowly**

‘I’m walking slowly.’

Deel	neenh	miz	**singc**
/te^{1}	nen^{4}	mi^{2}	**siŋ^{5}**/
3SG	to see	neg.	**clear**

‘He didn’t see clearly.’

Deel	hax	byos	fiz	**goons**
/te^{1}	xa^{6}	p^{y}o^{3}	fi^{2}	**kon^{3}**/
3SG	will	to cover	fire	**before**

‘He will put out the fire first.’

Meanhnix,	lix	bozwenz	ndeeul	miz	rox	yej	zuangy	rox
/mɯan^{4}.ni^{6}	li^{6}	po^{2}.wɯn^{2}	ʔdew^{1}	mi^{2}	zo^{6}	ye^{5}	t͡suaŋ^{4}	zo^{6}
nowadays	to have	people	one	neg.	to know	also	to pretend	to know

‘Nowadays, there are people who don’t know, but they pretend that they know.’

5.2.3.3 Intensifiers

Intensifier is a modifier that emphasizes and increases the meaning of the word it modifies. It may be used to intensify verbs or adverbs such as the word /ta^{2}.zaːy^{6}/ ‘very, really’ in /xan^{1} ta^{2}.zaːy^{6}/ ‘very quickly’. Intensifiers function in the Intensifier position of an adverb phrase or in the post-modifier position of a verb phrase. Examples are:

/ta^{2}.zaːy^{6}/	‘very, really’
/ca^{2}.ɕi^{2}/	‘very, really’

Examples:

Minghwanl	mengz	miz	ndil	**dazraaix**
/miŋ^{4}.wan^{1}	mɯŋ^{2}	mi^{2}	ʔdi^{1}	**ta^{2}.zaːy^{6}**/
fate	your	neg.	to be good	**really**

‘Your fate is not really good.’

Gul	miz	lox	mengz	**dazraaix**
/ku^{1}	mi^{2}	lo^{6}	mɯŋ^{2}	**ta^{2}.zaːy^{6}**/
1SG	neg.	to tell a lie	2SG	**really**

‘I didn’t lie to you really.’

Saaml	bixnuangx	hoc	**jazxiz**
/saːm^{1}	pi^{6}.nuaŋ^{6}	xo^{5}	**ca^{2}.ɕi^{2}**/
three	brothers	to be poor	**very**

‘Three brothers were very poor.’

However, a reduplication of adverbs or adjectives can also intensify a verb or a noun. Two examples are:

/saːŋ^{1}/	‘high’	/saːŋ^{1} saːŋ^{1}/	‘very high’
/laːy^{1}/	‘many’	/laːy^{1} laːy^{1}/	‘very much’

5.2.4 Miscellaneous words

Miscellaneous words are the other word classes which cannot be arranged in the first three groups. Iwasaki and Ingkaphirom (2005) placed linkers, particles and exclamatives in this group. In Bouyei, miscellaneous words consist of linkers, particles, question words, and exclamatives.

5.2.4.1 Linkers

Linkers are the grammatical forms that serve to link NPs, VPs, or clauses. Functionally, linkers can be grouped into lexical linkers, clause linkers, and discourse linkers. They are used to connect individual words, to combine clauses and sentences, and to combine propositions in discourse, respectively. Some of them are presented below.

1) Lexical linkers

/ziaŋ^{2}/	‘and’
/zo^{6}.ɕi^{4}/	‘or, otherwise’

Examples:

Duezmoil	foonx	**riangz**	duezgugt	laaux
/tua^{2}.moy^{1}	fon^{6}	**ziaŋ^{2}**	tua^{2}.kuk^{3}	laːw^{6}/
bear	black	**and**	tiger	big

‘a black bear and a big tiger’

Ndael	dooms	deel	jangl	ramzreeb	**roxxih**	ngvihwaais
/ˀdaɯ^{1}	tom^{3}	te^{1}	caŋ^{1}	zam^{2}.zep^{4}	**zo^{6}.ɕi^{4}**	ŋ^{w}i^{4}.waːy^{3}/
inside	basket	dem.	to contain	rice skin	**or**	cotton seed

‘That basket contains rice hulls or cotton seeds.’

2) Clause linkers

/tam^{6}.ɕi^{4}/	‘but’
/ɕɯ^{2}/	‘when’

/yin^{4}.wɯy^{1}/	‘because’
/ta^{2}/	‘if’

Examples:

Pinf	osbail	**damxxih**	Zenqdongh	qyus	raanz
/p^{h}in^{6}	ʔo^{3}.pay^{1}	**tam^{6}.ɕi^{4}**	t͡sɯn^{1}.toŋ^{4}	ˀyu^{3}	za:n^{2}/
Ping	to go out	**but**	Zhengdong	to live	house

‘Ping went out, but Zhengdong stayed home.’

Xez	boh	lixqyus	deel,	yaangzmaz	duy	deg	boh	bail	gueh
/**ɕɯ^{2}**	po^{4}	li^{6}.ˀyu^{3}	te^{1}	ya:ŋ^{2}.ma^{2}	tu^{4}	tɯk^{4}	po^{4}	pay^{1}	kua^{4}/
when	father	alive	dem.	anything	all	to suffer	father	to go	to do

‘When he was still alive, everything was done by the father.’

3) <u>Discourse linkers</u>

/ɕi^{4}/	‘then’
/ʔia^{3}.ɕi^{4}/	‘and then’
/wɯy^{1}.ni^{6}/	‘therefore’
/so^{5}.yi^{5}/	‘therefore’
/yiaŋ^{4}.laɯ^{2}.tu^{4}/	‘however’

Examples:

Dez	ngvih	deel	qyogt	mal	roh,	**iesxih**
/tɯ^{2}	ŋ^{w}i^{4}	te^{1}	ˀyok^{3}	ma^{1}	zo^{4}	**ʔia^{3}.ɕi^{4}**
to bring	seed	dem.	to get out	to come	outside	**and then**

aul	ndanlmbux	das	roz
ʔaw^{1}	ˀdan^{1}.ˀbu^{6}	ta^{3}	zo^{2}/
to take	gourd	to dry	dry

‘Remove the seeds and then dry the gourd in the sun.’

Sojyij,	dangz	meanhnix,	duezmal	xih	ranl	miz	ndaix	duezmyaus
/**so^{5}.yi^{5}**	taŋ^{2}	mɯan^{4}.ni^{6}	tua^{2}.ma^{1}	ɕi^{4}	zan^{1}	mi^{2}	ʔday^{6}	tua^{2}.m^{y}aw^{3}/
therefore	till	now	dog	then	to see	neg.	can	cat

'Therefore, nowadays, cats and dogs cannot face each other.'

Bozdeel	**yianghlaezduy**	jaiz	aul
/po^{2}.te^{1}	**yiaŋ^{4}.laɯ^{2}.tu^{4}**	cay^{2}	ʔaw^{1}/
3PL	**however**	want	to get

'However, they want to get it.'

5.2.4.2 Particles

Particles are function words which have limited distribution and do not fit into a standard classification of parts of speech. The function of Bouyei particles depends on their position in the sentence and the context. The Bouyei particles consist of the final particle and post-vocative particle as shown below.

1) Final particle

The final particles are optional closed class and always occur in the final position of clauses and sentences. They are:

/pa^{4}/ 'imperative particle implied persuasive or a mild command' (may be equivalent to the word /thə̀ʔ/ in Thai)

/na^{4}/ 'interrogative particle' (may be equivalent to the word /rə̌ə/ in Thai)

/ni^{4}/ 'emphatic particle' (usually appears with interrogative sentence and may be equivalent to the word /ná/ in Thai)

/fi^{4}/ 'interrogative particle' (may be equivalent to the word /rɯ̌ɯ yaŋ/ in Thai)

/mi^{2}/ 'interrogative particle' (may be equivalent to the word /mǎy/ in Thai)

Examples:

Yahwaaiz	haanl	nauz	“Bail	**ba**!”
/ya^{4}.waːy^{2}	xaːn^{1}	naw^{2}	pay^{1}	**pa^{4}**/
Yawai	to answer	to speak	to go	**prt.**

“Let’s go!” said Yawai.

Mengz	dangz	bai	**nah**?
/mɯŋ^{2}	taŋ^{2}	pay^{4}	**na^{4}**/
2SG	to arrive	already	**prt.**

‘Have you arrived?’

Gul	miz	rox	yuz	ramx,	yianghlaez	gueh	**ni**?
/ku^{1}	mi^{2}	zo^{6}	yu^{2}	zam^{6}	yiaŋ^{4}.lauɯ^{2}	kua^{4}	**ni^{4}**/
1SG	neg.	to know	to swim	water	how	to do	**prt.**

‘I can’t swim. How should I do?’

Mengz	genl	haux	**fih?**
/mɯŋ^{2}	kɯn^{1}	xaw^{6}	**fi^{4}**/
2SG	to eat	rice	**prt.**

‘Have you had a meal yet?’

Mengz	gah	bail	raanz	ndaix	**miz**?
/mɯŋ^{2}	ka^{4}	pay^{1}	zaːn^{2}	ʔday^{6}	**mi^{2}**/
2SG	alone	to go	house	can	**prt.**

‘Can you go back home alone?’

Some final particles, such as /lə^{4}/, are borrowed from Chinese. /lə^{4}/, similar to the sentence-final particle *le* (了) in Mandarin Chinese, signals a currently relevant state (Li and Thompson, 1981). This is illustrated in the following example.

Deel	haec	gul	duezbyal	**le**
/te^{1}	xaɯ^{5}	ku^{1}	tua^{2}.p^{y}a^{1}	**lə^{4}**/
3SG	to give	1SG	fish	**prt.**

‘He gives me the fish.’

Furthermore, the particle /lə^{4}/ (◌˩) has its own alternatives. It can be replaced with /le^{4}/ and /lo^{6}/ by serving the same meaning in a different context.

2) Post-vocative particle

The post-vocative particles function as the vocative markers at the clause or sentence level. They only occur after the vocatives to express politeness or to get attention of the vocative subject. They are /xɯ^{4}/ and /xa^{4}/.

Examples:

Meeh	**he**,	mengz	bail	jeex	xex	aul	noh
/me^{4}	**xɯ^{4}**	mɯŋ^{2}	pay^{1}	ce^{6}	ɕɯ^{6}	ʔaw^{1}	no^{4}
mother	**prt.**	2SG	to go	market	to buy	to bring	meat

mal	haec	gul	genl
ma^{1}	xaɯ^{5}	ku^{1}	kɯn^{1}/
to come	to give	1SG	to eat

‘Mom, could you go to the market and buy me some meat?’

Yah	**ha**,	gul	hax	bail	roh	dul	gueh	gvaangx
/ya^{4}	**xa^{4}**	ku^{1}	xa^{6}	pay^{1}	zo^{4}	tu^{1}	kua^{4}	k^{w}aːŋ^{6}/
grandmother	**prt.**	1SG	will	to go	outside	door	to do	toilet

‘Grandma, I’ll go to the toilet.’

5.2.4.3 Question words

Question words refer to words that are used to ask questions. They function as the question markers at the clause or sentence level. They can be divided into three groups including nominal, adjectival and adverbial as follows:

Table 5.2: Question words

Nominal question words		Adjectival question words		Adverbial question words	
/pu^{6}.laɯ^{2}/	'who'	/laɯ^{2}/	'which'	/taŋ^{5}.laɯ^{2}/	'how'
/kaːy^{3}.ma^{2}/	'what'	/ci^{5}/	'how many'	/yiaŋ^{4}.laɯ^{2}/	'how'
/kam^{5}.ma^{2}/	'what'			/saːw^{4}.laɯ^{2}/	'how much'
				/cia^{2}.laɯ^{2}/	'where'
				/ku^{3}.laɯ^{2}/	'when'
				/wɯy^{1}.ma^{2}/	'why'

It is noted that most question words in Bouyei are complex words, such as /pu^{6}.laɯ^{2}/ derived from /pu^{6}/ 'people' and /laɯ^{2}/ 'which,' /cia^{2}.laɯ^{2}/ derived from /cia^{2}/ 'place' and /laɯ^{2}/ 'which,' and so on.

1) <u>Nominal question words</u>

The nominal question words, /pu^{6}.laɯ^{2}/ 'who,' /kaːy^{3}.ma^{2}/ 'what' and /kam^{5}.ma^{2}/ 'what,' appear in various positions in a sentence. They often appear as a subject or object.

Examples:

Buxlaez	bail	naz	deel?
/**pu^{6}.laɯ^{2}**	pay^{1}	na^{2}	te^{1}/
who	to go	paddy field	his

'Who went to his field?'

Mengz	gueh	**gaaismaz**?
/mɯŋ^{2}	kua^{4}	**ka:y^{3}.ma^{2}**/
2SG	to do	**what**

‘What are you doing? ‘

Mengz	ranl	**gamcmaz**	qyus	naz	deel?
/mɯŋ^{2}	zan^{1}	**kam^{5}.ma^{2}**	ʔyu^{3}	na^{2}	te^{1}/
2SG	to see	**what**	to stay	paddy field	dem.

‘What did you see at that field?’

2) Adjectival question words

The adjectival question words, /laɯ^{2}/ ‘which’ and /ci^{5}/ ‘how many’, have more restricted distribution than nominal question words. /laɯ^{2}/ ‘which’ functions as a noun modifier and always appears after the word it modifies, whereas /ci^{5}/ ‘how many’ functions as a modifier for a classifier and always appears before the word it modifies.

Examples:

Mengz	neh	aul	benjsel	**laez**?
/mɯŋ^{2}	nɯ^{4}	ʔaw^{1}	pɯn^{5}.sɯ^{1}	**laɯ^{2}**/
2SG	want	to take	book	**which**

‘Which book do you want?’

Mengz	lix	**jic**	benjsel?
/mɯŋ^{2}	li^{6}	**ci^{5}**	pɯn^{5}.sɯ^{1}/
2SG	to have	**how many**	book

‘How many books do you have?’

3) Adverbial question words

/taŋ^{5}.laɯ^{2}/ ‘how’ and /yiaŋ^{4}.laɯ^{2}/ ‘how’ function as a question marker in the pre-verbal position of the interrogative sentence. They are used to ask the manner in which an action takes place.

Examples:

Mengz	**dangclaez**	bail	dangz	ndael	naz	deel?
/mɯŋ^{2}	**taŋ^{5}.laɯ^{2}**	pay^{1}	taŋ^{2}	ʔdaɯ^{1}	na^{2}	te^{1}/
2SG	**how**	to go	to arrive	inside	paddy field	dem.

‘How did you get to the field?’

Gul	miz	rox	yuz	ramx,	**yianghlaez**	gueh	ni?
/ku^{1}	mi^{2}	zo^{6}	yu^{2}	zam^{6}	**yiaŋ^{4}.laɯ^{2}**	kua^{4}	ni^{4}/
1SG	neg.	to know	to swim	water	**how**	to do	prt.

‘I can’t swim. What should I do?’

/saːw^{4}.laɯ^{2}/ ‘how much’ usually appears after NP in the interrogative sentence. It always occurs before the word /ɕen^{2}/ ‘money’.

Example:

Benjsel	deel	**saauhlaez**	xeenz?
/pɯn^{5}.sɯ^{1}	te^{1}	**saːw^{4}.laɯ^{2}**	ɕen^{2}/
book	dem.	**how much**	money

‘How much does the book cost?’

/cia^{2}.laɯ^{2}/ ‘where’ usually appears in the post-verbal position and sometimes occurs before the aspects.

Examples:

Deel	qyus	**jiezlaez**?
/te^{1}	ʔyu^{3}	**cia^{2}.laɯ^{2}**/
3SG	to stay	**where**

'Where is he?'

Pinf	bail	**jiezlaez**	bai?
/p^{h}in^{6}	pay^{1}	**cia^{2}.laɯ^{2}**	pay^{4}/
Ping	to go	**where**	already

'Where did Ping go?'

/ku^{3}.laɯ^{2}/ 'when' and /wɯy^{1}.ma^{2}/ 'why' usually occur in the pre-verbal position of the interrogative sentence. Some examples are presented below.

Examples:

Deel	**guslaez**	bail	naz	deel?
/te^{1}	**ku^{3}.laɯ^{2}**	pay^{1}	na^{2}	te^{1}/
3SG	**when**	to go	paddy field	his

'When did he go to his field?'

Deel	**weiqmaz**	bail	naz	deel?
/te^{1}	**wɯy^{1}.ma^{2}**	pay^{1}	na^{2}	te^{1}/
3SG	**why**	to go	paddy field	his

'Why did he go to his field?'

5.2.4.4 Exclamatives

Exclamatives are independent words that express a speaker's assessment of a situation or an emotion that he is experiencing (Iwasaki and Ingkaphirom, 2005). Examples are:

/ʔo^{4}/	‘expressing surprise’
/ʔaːy^{4}/	‘expressing sympathy or pain’
/ʔaːy^{4}.ya^{4}/	‘noticing a mistake’
/xay^{4}/	‘expressing pleasure or gladness’

Examples:

Ooh,	mengz	dangz	bai	nah?
/**ʔo^{4}**	mɯŋ^{2}	taŋ^{2}	pay^{4}	na^{4}/
exc.	2SG	to arrive	already	prt.

‘Oh! Have you arrived?’

Aai,	deel	banzbingh	mos	bai
/**ʔaːy^{4}**	te^{1}	pan^{2}.piŋ^{4}	mo^{3}	pay^{4}/
exc.	3SG	to be ill	again	already

‘Poor boy! He gets sick again.’

Hai,	banz	bai
/**xay^{4}**	pan^{2}	pay^{4}/
exc.	succeed	already

‘Bravo! I got it.’

In conclusion, the word formation and word classes are discussed in this chapter. This study proposes that there are sixteen word classes in Bouyei. These classes are arranged in four groups consisting of noun-related words, verb-related words, modifying words and miscellaneous words. As they are open-class words, verbs can be classified into sixteen subclasses. Each subclass can occur together in the sequence and act together as a single predicate which is called a serial verb. The serial verb constructions will be dealt with in the next chapter. Moreover, Chapter VI will investigate the phrase structure in Bouyei which include nominal phrases, verb phrases, and minor phrases.

CHAPTER VI
PHRASE

In this chapter, the phrase level, which is a part of a grammatical hierarchy, falling between clause and word, are discussed. Phrases are defined as "a single element of structure, typically containing more than one word, and lacking the subject-predicate structure typical of clauses" (Crystal, 1991: 263). Structurally, they contain a head, such as a main noun or a main verb, and optional modifiers. Phrases in Bouyei may be divided into two main groups - major phrases and minor phrases. The major phrases include a nominal phrase and a verb phrase. The minor phrases include a numeral phrase, an adverb phrase, a prepositional phrase and a temporal phrase.

Consequently, the chapter is organized as follows. The major phrases are first discussed in Section 6.1, followed by the minor phrases in Section 6.2. The structural formula of the phrases with examples is also provided in each section.

6.1 Major phrases

6.1.1 Nominal phrases

According to Thomas (1993: 17), "nominal phrases describe participants (people, things) that are taking part in events (clauses). They most often have a noun in the Head slot, but may have a pronoun or a name as Head." So, nominal phrases in Bouyei may be divided into two types. They are noun phrases and pronoun phrases.

6.1.1.1 Noun phrases

The basic structure of a noun phrase generally requires the presence of a noun as its head and optional modifiers which may be words, phrases, or clauses as follows:

1) Adjectival modifiers
2) Nominal modifiers
3) Genitive modifiers
4) Demonstrative modifiers
5) Numeral phrase modifiers
6) Prepositional phrase modifiers
7) Relative clauses

The structures of these modifiers are shown below.

1) Adjectival modifiers (HN + Adj)

A head noun may be modified by an adjective which usually appears after the head noun, for examples:

mal	**laaux**
/ma^{1}	**laːw^{6}/**
dog	**big**
‘big dog’	

mbaanx	**jail**
/ˀbaːn^{6}	**cay^{1}/**
village	**far**
‘far village’	

ndanlraanz	**laaux**	**luamc**
/ˀdan^{1}.zaːn^{2}	**laːw^{6}**	**luam^{5}/**
house	**big**	**beautiful**
‘big beautiful house’		

2) Nominal modifiers (HN + N)

A head noun may be modified by a noun. The modifying nouns are placed after the head noun as shown below.

leggeiz	**buxgvaangl**
/lɯk^{4}.kɯy^{2}	**pu^{6}.k^{w}aːŋ^{1}**/
son-in-law	**rich man**
‘the rich son-in-law’	

leggeiz	**buxhoc**
/lɯk^{4}.kɯy^{2}	**pu^{6}.xo^{5}**/
son-in-law	**poor man**
The poor son-in-law	

3) Genitive modifiers (HN + Gen)

A head noun may be modified by genitives in which the possessive marker is omitted. Nouns and pronouns can occur after a head noun without the possessive marker. Examples are:

gaaisgenl	**Pinf**
/kaːy^{3}.kɯn^{1}	**p^{h}in^{6}**/
food	**Ping**
‘Ping’s food’	

nganzxeenz	**gul**
/ŋan^{2}.ɕen^{2}	**ku^{1}**/
money	**my**
‘my money’	

meeh	**deel**
/me^{4}	**te^{1}/**
mother	**her**
‘her mother’	

4) Demonstrative modifiers (HN + Dem)

Demonstratives, which can be used as modifiers, include /ni^{6}/ ‘this’ and /te^{1}/ ‘that’. They usually appear after the head noun. Some examples are:

yuangzmbeex	**nix**
/yuaŋ^{2}.ʔbe^{6}	**ni^{6}/**
goat	**dem.**
‘this goat’	

Buxgax	**deel**
/pu^{6}.ka^{6}	**te^{1}/**
merchant	**dem.**
‘that merchant’	

5) Numeral phrase modifiers

There are two subtypes of numeral phrase modifiers: cardinal and ordinal numeral phrase modifiers.

5.1) Cardinal numeral phrase modifiers: (Num P + HN)

This type of modifier specifies the number of an object. A cardinal numeral phrase is followed by a head noun. Number /ʔdew^{1}/ ‘one’ is special in that it usually occurs after the head noun. Some examples are presented below.

sis	**duez**	mal
/si^{3}	**tua^{2}**	ma^{1}/
four	**cls.**	dog

‘four dogs’

soongl	dal
/soŋ^{1}	ta^{1}/
two	eye

‘two eyes’

ngonz	**ndeeul**
/ŋon^{2}	**ʔdew^{1}/**
day	**one**

‘one day’

5.2) Ordinal numeral phrase modifiers: (HN + Num P)

Ordinal numbers (e.g. ‘the first, second, etc.’) always appear after the head noun. Examples are:

hoongs	**dazngih**
/xoŋ^{3}	**ta^{2}.ŋi^{4}/**
room	**second**

‘the second room’

bil	**dazsaaml**
/pi^{1}	**ta^{2}.sa:m^{1}/**
year	**third**

‘the third year’

6) Prepositional phrase modifiers (HN + PP)

A head noun may be modified by a prepositional phrase which usually occurs after the head noun. Some examples are:

legmbux	**ndael**	**suanl**
/lɯk^{4}.ʔbu^{6}	**ʔdaɯ^{1}**	**suan^{1}**/
gourd	**inside**	**garden**

'The gourd in the garden'

wenz	**jaangl**	**mbaanx**
/wɯn^{2}	**caːŋ^{1}**	**ʔbaːn^{6}/**
people	**middle of**	**village**

'people in the village'

7) Relative clauses (HN + Rel Cl)

A relative clause usually appears after a head noun without any relative marker or subordinator. Examples are:

Gaaisneex	deg	ndanlraanz	**lix**
/kaːy^{3}.ne^{6}	tɯk^{4}	ʔdan^{1}.zaːn^{2}	**li^{6}**
this	to be	house	**to have**

nyeeulraanz	**riangz**	**xiangz**
ɲew^{1}.zaːn^{2}	**ziaŋ^{2}**	**ɕiaŋ^{2}**/
roof	**and**	**wall**

'This is the house that has a roof and walls.'

In the above sentence, the head noun /ʔdan^{1}.zaːn^{2}/ 'house' is followed by the relative clause /(ʔdan^{1}.zaːn^{2}) li^{6} ɲew^{1}.zaːn^{2} ziaŋ^{2} ɕiaŋ^{2}/ '(the house) has a roof and walls.' It should be noted that the subject of the relative clause is embedded in the head noun to form a noun phrase.

The six types of modifiers mentioned above can be combined in various ways. In general, the demonstrative modifier is the last element in a string of modifiers, for example:

soongl	**duez**	moil	**foonx**	**deel**
/soŋ^{1}	tua^{2}	moy^{1}	fon^{6}	te^{1}/
two	**cls.**	bear	**black**	**dem.**

'those two black bears'

raanz	**saauhduz**	**hoc**	**deel**
/za:n^{2}	sa:w^{4}.tu^{2}	xo^{5}	te^{1}/
house	**friend**	**poor**	**dem.**

'that poor friend's house'

The first example shows that there are three types of modifiers combined in one phrase. They include the numeral phrase, adjectival and demonstrative modifiers. The second one consists of genitive, adjectival and demonstrative modifiers.

For ease of understanding, all elements of a noun phrase are explained with the following structural formula:

$$NP_n = \pm Qt_1\text{: num } p_{card} + H\text{: n } \pm Qual_1\text{: adj}_1 \pm Qual_2\text{: } \left\{ \begin{array}{c} adj_2 \\ pp \\ rel\ cl \end{array} \right\}$$
$$\pm Qt_2\text{: } \left\{ \begin{array}{c} /^{?}dew^{1}/ \\ num\ p_{ord} \end{array} \right\} \pm Poss\text{: np } \pm Dem\text{: dem}$$

That is, a noun phrase consists of an optional $Quantity_1$ position filled by a cardinal numeral phrase, an obligatory Head position filled by a noun, an optional $Quality_1$ position filled by an $adjective_1$ (color, size and shape adjectives) which indicates an inherent physical quality (big, tall, short, round, red, etc.), an optional $Quality_2$ position filled by an $adjective_2$ (state and condition

adjectives) which indicates a non-inherent quality (beautiful, clean, good, etc.), or a prepositional phrase or a relative clause, an optional $Quantity_2$ filled by a cardinal number /ʔdew^{1}/ ‘one’ or an ordinal numeral phrase, an optional Possessor position filled by a nominal phrase, and an optional Demonstrative position filled by a demonstrative.

6.1.1.2 Pronoun phrases

A pronoun functions as a head of a pronoun phrase. The basic structure of a pronoun phrase is quite different from a noun phrase, in that the numerals never appear before the head, as shown in the following examples.

bozrauz	**hac**	**bux**
/po^{2}.zaw^{2}	**xa^{5}**	**pu^{6}/**
1PL	**five**	**cls.**
‘five of us’		

bozrauz	**soongl**	**bux**
/po^{2}.zaw^{2}	**soŋ^{1}**	**pu^{6}/**
1PL	**two**	**cls.**
‘both of us’		

bozrauz	**leeuxboz**
/po^{2}.zau^{2}	**lew^{6}.po^{2}/**
1PL	**all**
‘all of us’	

hocsul	**leeuxboz**
/xo^{5}.su^{1}	**lew^{6}.po^{2}/**
2PL	**all**
‘all of you’	

Therefore, the elements of a pronoun phrase can be explained with the formula as follows:

NP_{pron} = +H: pron ±Qt: num p

That is, a pronoun phrase consists of an obligatory Head position filled by a pronoun, and an optional Quantity position filled by a numeral phrase.

It is noticeable that the form of the pronoun phrase is restricted. There are no variations in the order of the elements. A pronoun phrase normally consists of a pronoun only. The full pronoun phrase structure is used infrequently.

6.1.1.3 Nominal phrase compound

A sequence of two or more nominal phrases that together form a structure that itself acts like a nominal phrase is called nominal phrase compound. A nominal phrase in Bouyei can be linked with the other nominal phrases to form an additive or alternative compounding nominal phrase as shown below.

1) Additive compounding nominal phrase

An additive compounding nominal phrase consists of two or more nominal phrases functioning as a single unit. The lexical linker /ziaŋ^{2}/ ‘and’ is used to combine such phrases together, for example:

Guiqzouy	jiezens	**riangz**	Yinfnanf,	Siqcuany,
/kuy^{1}.t͡sou^{4}	cia^{2}.ʔɯn^{3}	**ziaŋ^{2}**	yin^{6}.nan^{6}	si^{1}.t͡s^{h}uan^{4}
Guizhou	other part	**and**	Yunnan	Sichuan

yej	lix	wenz	buxqyaix	rauz	qyus
ye^{5}	li^{6}	wɯn^{2}	pu^{6}.ʔyay^{6}	zaw^{2}	ʔyu^{3}/
also	to have	people	Bouyei	our	to live

‘Some Bouyei are also found in Yunnan, Sichuan and the other parts of Guizhou.’

Golnyal	**riangz**	byagtfuz	duy	deg	myaanx	daail	bai
/ko^{1}.ɲa^{1}	**ziaŋ^{2}**	p^{y}ak^{3}.fu^{2}	tu^{4}	tɯk^{4}	m^{y}aːn^{6}	taːy^{1}	pay^{4}/
grass	**and**	duckweed	all	to suffer	to step	to die	already

‘All grasses and duckweeds had been stepped on to death.’

Nevertheless, the linker /ziaŋ^{2}/ ‘and’ is sometimes deleted in some additive phrases, for example:

Raanz	deel	lix	saaml	**meeh**	**leg**
/zaːn^{2}	te^{1}	li^{6}	saːm^{1}	**me^{4}**	**lɯk^{4}**/
house	dem.	to have	three	**mother**	**daughter**

‘In the house there was one mother and two daughters.’

Buxlaaaux	**buxnis**	duy	dungxxiez	mal
/pu^{6}.laːw^{6}	**pu^{6}.ni^{3}**	tu^{4}	tuŋ^{6}.ɕia^{2}	ma^{1}
adult	**young people**	all	to tell each other	to come

banl	noh	buxdaail	genl
pan^{1}	no^{4}	pu^{6}.taːy^{1}	kɯn^{1}/
to share	meat	dead people	to eat

‘Adults and young people tell each other to share the flesh of the dead as their food.’

These examples yield the following structural formula:

NP_{add} = +$Item_1$: np ± Lk_1: /ziaŋ^{2}/ (+$Item_2$: np)^{n} ±Qt: /tu^{4}/

That is, an additive compounding nominal phrase consists of an obligatory $Item_1$ position filled by a nominal phrase which may be a noun phrase or a pronoun phrase, an optional $Linker_1$ position filled by /ziaŋ^{2}/ ‘and,’ an obligatory $Item_2$ position filled by a nominal phrase as in $Item_1$, and an optional Quantity position filled by /tu^{4}/ ‘all.’ The exponent ^{n} over the parenthesis indicates that the additional items can also be added. There is no limit on the number of items that may occur.

2) Alternative compounding nominal phrase

An alternative compounding nominal phrase is formed by the lexical linker /zo^{6}.ɕi^{4}/ ‘or.’ This linker is used to link two phrases in alternative relationship, for example:

Ndael	dooms	deel	jangl	ramzreeb	**roxxih**	ngvihwaais
/ʔdaɯ^{1}	tom^{3}	te^{1}	caŋ^{1}	zam^{2}.zep^{4}	**zo^{6}.ɕi^{4}**	ŋ^{w}i^{4}.waːy^{3}/
inside	basket	dem.	to contain	rice skin	**or**	cotton seed

‘The basket contains rice hulls or cotton seeds.’

The elements of the alternative compounding nominal phrase can be explained with the formula below.

NP_{alt} = +$Item_1$: np + Lk: /zo^{6}.ɕi^{4}/ +$Item_2$: np

That is, an alternative compounding nominal phrase consists of an obligatory $Item_1$ position filled by a nominal phrase which may be a noun phrase or a pronoun phrase, an obligatory Linker position filled by /zo^{6}.ɕi^{4}/ ‘or,’ and an obligatory $Item_2$ position filled by a nominal phrase as in $Item_1$.

6.1.2 Verb phrases

Verb phrases are defined as “a group of verbs which together have the same syntactic function as a single verb. In such phrases, one verb is the main verb and the others are subordinate to it” (Crystal, 1991: 372). This definition conforms to Thomas (1993) that views a verb phrase as a semantic unit. A semantic verb phrase consists of a main action, plus other elements that tell us more about the nature of the action; not the participants (noun phrases), nor the participants as they act (clause), but just the action itself. A verb phrase generally requires the presence of a main verb which functions as a head or nucleus of a verb phrase. A main verb can be modified by two types of modifiers consisting of the pre-verbal and post-verbal modifiers.

6.1.2.1 Pre-verbal modifiers

Pre-verbal modifiers in this study refer to the elements which appear pre-verbally within a verb phrase. They consist of adverbs, aspects, modalities, and negators. The structures of these modifiers are as follows:

1) Adverb + Main Verb

Adverbs in Bouyei are commonly found in a post-verbal position. However, there is a group of adverbs which occur pre-verbally. All of them are Chinese loanwords. Some examples are presented below.

jamhjaangh	noonz	dauc
/cam^{4}.caːŋ^{4}	non^{2}	taw^{5}/
suddenly	to wake up	to come (lit.)

'suddenly wake up'

Yahwaaiz	xih	**maanhmaanh**	hencbail	genz	xaangz
/ya^{4}.waːy^{2}	ɕi^{4}	**maːn^{4}.maːn^{4}**	xɯn^{5}.pay^{1}	kɯn^{2}	ɕaːŋ^{2}/
Yawai	then	**slowly**	to go up	above	bed

'Yawai was going up to the bed slowly.'

Deel	**naaihnaaih**	osmal	roh
/te^{1}	**naːy^{4}.naːy^{4}**	ʔo^{3}ma^{1}	zo^{4}/
3SG	**slowly**	to come out	outside

'He was coming out slowly.'

2) Aspect + Main Verb

Seen in Section 5.2.2.2, imperfective aspects and a perfect/anterior aspect can occur in pre-verbal position. Examples are:

lengclix	jaul
/lɯŋ^{5}.li^{6}	caw^{1}/
still	alive

'still alive'

hax	bail	roh	dul
/xa^{6}	pay^{1}	zo^{4}	tu^{1}/
will	to go	outside	door

‘will go out’

xaaux	ndamlnaz
/ɕaːw^{6}	ʔdam^{1}.na^{2}/
just begun	to transplant rice seedlings

‘just start transplanting in the paddy field’

3) <u>Modality + Main Verb</u>

Modalities in Bouyei have been discussed in Section 5.2.2.2. Most of them usually occur in pre-verbal position as shown below.

gahndaix	il
/ka^{4}.ʔday^{6}	ʔi^{1}/
must	to agree

‘must agree’

mbaangx	deg	rinlxiex
/ʔbaːŋ^{6}	tɯk^{4}	zin^{1}.ɕia^{6}/
may	to be	god stone

‘may be a god stone’

jaiz	bail	genzmbenl
/cay^{2}	pay^{1}	kɯn^{2}.ʔbɯn^{1}/
want	to go	sky

‘want to go in the sky’

4) Negator + Main Verb

Seen in Section 5.2.2.3, negation in Bouyei is expressed through three negators: /mi^{2}/, /m^{y}aɯ^{5}/, and /fi^{4}/. The negator /mi^{2}/ is most frequently used. The occurrence of the three negators is the same. They usually precede the main verb. However, they differ in that only negator /m^{y}aɯ^{5}/ functions as a negative marker in an imperative clause. Some examples are presented below.

miz	hams
/mi^{2}	xam^{3}/
not	to ask
‘not ask’	

myaec	nyingz
/m^{y}aɯ^{5}	ɲiŋ^{2}/
do not	to shoot
‘Do not shoot.’	

fih	dangs
/fi^{4}	taŋ^{3}/
not yet	to tell
‘not told yet’	

6.1.2.2 Post-verbal modifiers

Post-verbal modifiers refer to the elements occurring in post-verbal position of the verb phrase. They consist of adverbs, aspects, modalities and intensifiers.

1) Main Verb + Adverb

Most adverbs in Bouyei usually occur in the post-verbal position of the verb phrase, especially the adverbs of manner. Some examples are:

byaaic	**nyaamh**
/p^{y}a:y^{5}	**ɲa:m^{4}**/
to walk	**slowly**

‘walk slowly’

neenh	**singc**
/nen^{4}	**siŋ^{5}**/
to see	**clear**

‘see clearly’

2) Main Verb + Aspect

As mentioned previously, while some aspects can appear before a main verb, some aspects such as perfective aspects are found in post-verbal position. Examples are:

Deel	daail	**leeux**
/te^{1}	/ta:y^{1}	**lew^{6}/**
3SG	to die	**already**

‘He died.’

Deel	mal	**ndaix**	saaml	ndianl
/te^{1}	ma^{l}	**ʔday^{6}**	sa:m^{1}	ʔdian^{1}/
3SG	come	**has done**	three	month

‘He has come for three months.’

3) Main Verb + Modality

The most typical post-verbal modality is /ʔday^{6}/ ‘can.’ When it is used post-verbally, the modality /ʔday^{6}/ indicates that the subject noun phrase has the ability to do something. Some examples are presented below.

Deel	ndiabt	**ndaix**	ndil,	gueh	**ndaix**	dois
/te^{1}	ʔdiap^{3}	**ʔday^{6}**	ʔdi^{1}	kua^{4}	**ʔday^{6}**	toy^{3}/
3SG	to think	**can**	good	to do	**can**	correct

'He can think well and do things correctly.'

4) Main Verb + Intensifier

When it is used to intensify a verb, an intensifier commonly occurs in the post-verbal position of a verb phrase. Examples are:

Deel	gvaail	**jazxiz**
/te^{1}	k^{w}aːy^{1}	**ca^{2}.ɕi^{2}**/
3SG	smart	**very**

'He is very smart.'

mail	gah	xoonl	bail	riez	jiml	**dazraaix**
/may^{1}	ka^{4}	ɕon^{1}	pay^{1}	zia^{2}	cim^{1}	**ta^{2}.zaːy^{6}/**
thread	only	to go through	to go	ear	needle	**really**

'The thread actually went through the needle's hole.'

As same as noun phrases, the pre-verbal and post-verbal modifiers can be combined within a verb phrase in various ways, for example:

Wois	**miz**	**jaiz**	bail	guehraanz
/woy^{3}	**mi^{2}**	**cay^{2}**	pay^{1}	kua^{4}.zaːn^{2}/
1SG	**neg.**	**want**	to go	to get married

'I don't want to get married.'

Deel	**hax**	**miz**	daail
/te^{1}	**xa^{6}**	**mi^{2}**	taːy^{1}/
dem.	**will**	**neg.**	to die

'He will not die.'

Gul	**jaiz**	**maanhmaah**	genl
/ku^{1}	**cay^{2}**	**maːn^{4}.maːn^{4}**	kɯn^{1}/
1SG	**want**	**slowly**	to eat

‘I want to eat slowly.’

Gul	byaaic	**hanl**	**dazraaix**
/ku^{1}	p^{y}aːy^{5}	**xan^{1}**	**ta^{2}.zaːy^{6}/**
1SG	to walk	**quickly**	**very**

‘I’m walking very quickly.’

Mengz	gueh	**ndaix**	**dois**	**leeux**
/mɯŋ^{2}	kua^{4}	**ʔday^{6}**	**toy^{3}**	**lew^{6}/**
2SG	to do	**can**	**correctly**	**had done**

‘You did it correctly.’

The pre-verbal and post-verbal modifiers in all examples given above are presented in Table 6.1 to show their occurrence restriction.

Table 6.1: Co-occurrence of the pre-verbal and post-verbal modifiers in a verb phrase

No	Pre-verbal modifiers				Main Verb	Post-verbal modifiers			
	(Asp$_1$)	(Neg)	(Mod$_1$)	(Adv$_1$)		(Mod$_2$)	(Adv$_2$)	(Asp$_2$)	(Inten)
1		mi^{2} ‘neg.’	cay^{2} ‘want’		pay^{1} ‘to go’				
2	xa^{6} ‘will’	mi^{2} ‘neg.’			taːy^{1} ‘to die’				
3			cay^{2} ‘want’	maːn^{4}.maːn^{4} ‘slowly’	kɯn^{1} ‘to eat’				
4					p^{y}aːy^{5} ‘to walk’		xan^{1} ‘quicly’		ta^{2}.zaːy^{6} ‘very’
5						ʔday^{6} ‘can’	toy^{3} ‘correctly’	lew^{6} ‘had done’	

As seen in Table 6.1, the co-occurrence of the pre-verbal and post-verbal modifiers is complicated. All modifiers are shown as being optional, which is marked by the symbol of parenthesis. An auxiliary verb (aspect, modality) and adverb can occur in either pre-verbal or post-verbal position. A negator only occurs pre-verbally, while an intensifier only occurs in the post-verbal position. This yields the following formula.

$$VP = \pm\text{Pre Mod}_3\text{: asp}_1\ \pm\text{Neg: neg}\ \pm\text{Pre Mod}_2\text{: mod}_1$$
$$\pm\text{Pre Mod}_1\text{: adv}_1\ +\text{MV: v}\ \pm\text{Post Mod}_1\text{: mod}_2$$
$$\pm\text{Post Mod}_2\text{: adv}_2\ \pm\text{Post Mod}_3\text{: asp}_2\ \pm\text{Post Mod}_4\text{: inten}$$

That is, a verb phrase consists of an optional Pre-Modifier$_3$ position filled by an aspect$_1$, an optional Negation position filled by a negator, an optional Pre-Modifier$_2$ position filled by a modality$_1$, an optional Pre-Modifier$_1$ position filled by an adverb$_1$, an obligatory Main verb position filled by a verb, an optional Post-Modifier$_1$ filled by a modality$_2$, an optional Post-Modifier$_2$ filled by an adverb$_2$, an optional Post-Modifier$_3$ filled by an aspect$_2$, and an optional Post-Modifier$_4$ filled by an intensifier.

6.1.2.3 Serial verb construction

A serial verb construction is defined by many linguists, such as Baker (1989: 513) proposed that it is “a construction in which a sequence of verbs appears in what seems to be a single clause, usually there is only one tense/aspect specification for the whole chain of verbs; the verbs also have a single structural subject and share logical arguments.” Collins (1997: 462) claimed that “a serial verb construction is a succession of verbs and their complements (if any) with one subject and one tense value that are not separated by any overt marker of coordination or subordination.” Aikhenvald and Dixon (2006: 1) defined it as “a sequence of verbs which act together as a single predicate, without any overt marker of coordination, subordination or syntactic dependency of any other sort. Serial verb constructions describe what is conceptualized as a single event. They are monoclausal; their intonational properties are the same as those of a monoverbal clause, and they have just one tense, aspect and polarity value.”

Based on the definitions mentioned above, a serial verb construction in this study refers to a series of two or more verbs that occur together in the sequence without any phonetic pauses or conjunctions and all the verbs share the same subject. The following are the examples of the serial verb constructions which are categorized by their semantic properties. They include benefactive, instrumental, motion, resultative, sequential, and purposive serial verb constructions.

1) Benefactive serial verb construction

The first verb in benefactive serial verb constructions is usually a transitive verb, such as /pan^{1}/ 'to divide,' /ɕit^{3}/ 'to throw,' and the second verb is the benefactive verb /xaɯ^{5}/ 'to give,' which indicates the transfer of possession.

Examples:

Gul	yuanq	aul	rihnaz	gul	**banl**	**haec**	deel
/ku^{1}	yuan^{1}	ʔaw^{1}	zi^{4}.na^{2}	ku^{1}	**pan^{1}**	**xaɯ^{5}**	te^{1}/
1SG	will	to bring	field	my	**to divide**	**to give**	3PL

'I will divide my field and give it to them.'

Legmbegt	deel	xih	dez	ndanldooms	deel	**xidt**	**haec**	deel
/lɯk^{4}.ʔbɯk^{3}	te^{3}	ɕi^{4}	tɯ^{2}	ʔdan^{1}.tom^{3}	te^{1}	**ɕit^{3}**	**xaɯ^{5}**	te^{1}/
daughter	dem.	then	to bring	basket	dem.	**to throw**	**to give**	3SG

'That daughter throws the basket to him.'

2) Instrumental serial verb construction

The first verb in instrument serial verb constructions is usually realized by the verb /ʔaw^{1}/ 'to take,' and the second verb is from the open class. The object noun phrase of the first verb is understood as the instrument of the action denoted by the second verb.

Examples:

Gul	xih	**aul**	fiz	**byaul**	mengz	genl
/ku^{1}	ɕi^{4}	**ʔaw^{1}**	fi^{2}	**p^{y}aw^{1}**	mɯŋ^{2}	kɯn^{1}/
1SG	then	**to take**	fire	**to burn**	2SG	to eat

'I will burn you to be my food.'

Baussaaml	**aul**	fahqyas	**bail**	**ndois**	rinl
/paw^{3}.saːm^{1}	**ʔaw^{1}**	fa^{4}.ʔya^{3}	**pay^{1}**	**ʔdoy^{3}**	zin^{1}/
third brother	**to take**	shovel	**to go**	**to knock**	stone

'The third brother knocks the stone with the shovel.'

3) Motion serial verb construction

The first verb in motion serial verb constructions is limited to motion verbs, such as /pin^{1}/ 'to climb,' /tok^{3}/ 'to fall,' /ˀbin^{1}/ 'to fly,' and the second verb is from the directional verbs /pay^{1}/ 'to move away from the point which is the location of the speaker,' /ma^{1}/ 'to move towards a point which is the location of the speaker' and /ma^{1}.la^{5}/ 'to go down, down.'

Examples:

Deel	xih	**binl**	**bail**	dangz	bolluangz	saanglsaangl	deel
/te^{1}	ɕi^{4}	**pin^{1}**	**pay^{1}**	taŋ^{2}	po^{1}.luaŋ^{2}	saːŋ^{1}.saːŋ^{1}	te^{1}/
3SG	then	**to climb**	**to go**	to	dragon mountain	very high	dem.

'He climbed to that very high dragon mountain.'

Ndanlnyianz	**dogt**	**mal**	dangz	beangz	Buxqyaix
/ˀdan^{1}.ɲian^{2}	**tok^{3}**	**ma^{1}**	taŋ^{2}	pɯaŋ^{2}	pu^{6}.ʔyay^{6}/
bronze drum	**to fall**	**to come**	to	village	Bouyei

'The bronze drum fell into the Bouyei village.'

4) Resultative serial verb construction

A resultative serial verb construction consists of two verbs. The second verb denotes the result of the action expressed by the first verb.

Examples:

Yuangzmbeex	nis	xih	**genl**	ramx	**imsims**	bai
/yuaŋ^{2}.ʔbe^{6}	ni^{3}	ɕi^{4}	**kɯn^{1}**	zam^{6}	**ʔim^{3}.ʔim^{3}**	pay^{4}/
goat	small	then	**to eat**	water	**full**	already

‘The small goat drank the water and it was full.’

Golnyal	deg	**myaanx**	**daail**	bai
/ko^{1}.ɲa^{1}	tɯk^{4}	**m^{y}a:n^{6}**	**ta:y^{1}**	pay^{4}/
grass	to suffer	**to step**	**to die**	already

‘Grasses had been stepped on to death.’

5) Sequential serial verb construction

Verbs in sequential serial verb constructions express a sequence of actions performed by the same subject. There is no noticeable time span in between the sequence of actions.

Examples:

Deel	**ndabt**	dangl	**bail**	**ninz**
/te^{1}	**ʔdap^{3}**	taŋ^{1}	**pay^{1}**	**nin^{2}**/
3SG	**to quench**	light	**to go**	**to sleep**

‘He put out the fire and slept.’

Legmbegt	laaux	deel	**noonz**	**dauc**	**rox**	deel	daail	bai
/lɯk^{4}.ʔbɯk^{3}	la:w^{6}	te^{1}	**non^{2}**	**taw^{5}**	**zo^{6}**	te^{1}	ta:y^{1}	pay^{4}/
daughter	big	dem.	**to wake up**	**to come**	**to know**	3SG	to die	already

‘The eldest daughter woke up and knew that she was dead.’

6) Purposive serial verb construction

A purposive serial verb construction consists of two or more verbs with the object being shared between the first verb and the verb denoting purpose. It is distinctive from the sequential serial verb construction in that the purposive serialization involves object sharing.

Examples:

deel	bail	riangz	bix	deel
/te^{1}	pay^{1}	ziaŋ^{2}	pi^{6}	te^{1}
3SG	to go	with	elder brother	his

xies	haux	**mal**	**gvasxiangl**
ɕia^{3}	xaw^{6}	**ma^{1}**	**k^{w}a^{3}.ɕiaŋ^{1}/**
to borrow	rice	**to come**	**to spend in the festival**

‘He borrowed his brother the rice to be used in the festival.’

Gul	xih	aul	fiz
/ku^{1}	ɕi^{4}	ʔaw^{1}	fi^{2}
1SG	then	to take	fire

byaul	mengz	**genl**
p^{y}aw^{1}	mɯŋ^{2}	**kɯn^{1}/**
to burn	2SG	**to eat**

‘I will burn you to be my food.’

It is noted that the verbs /ɕia^{3}/ ‘to borrow’ and /k^{w}a^{3}.ɕiaŋ^{1}/ ‘to spend in the festival’ share the same object /xaw^{6}/ ‘rice.’ The second action /k^{w}a^{3}.ɕiaŋ^{1}/ ‘to spend in the festival’ is understood as the purpose of the first action /ɕia^{3}/ ‘to borrow.’

6.2 Minor phrases

Minor phrases usually occur for filling slots in noun phrases or the peripheral structure in higher ranks. Minor phrases in Bouyei consist of a numeral phrase, an adverb phrase, a prepositional phrase and a temporal phrase.

6.2.1 Numeral phrases

Numeral phrases in Bouyei may contain specific number like /soːŋ^{1}/ ‘two,’ /ɕip^{4}/ ‘ten,’ /ta^{2}.zok^{3}/ ‘sixth’; general number like /ci^{5}.laːy^{1}/ ‘many, much,’ /noy^{4}/ ‘little bit,’ /tiŋ^{2}/ ‘half’ which function as an obligatory core of units, plus optional approximatives like /laːy^{1}/ ‘more than,’ /ci^{5}/ ‘more than’; classifiers like /tua^{2}/ ‘classifier for animals,’ /ʔdak^{3}/ ‘classifier for stone, brick’ and the completives /tu^{4}/ ‘all.’ As seen in Section 6.1.1.1, they usually function as a head noun modifier in a Quantity position of a noun phrase. The following are the examples of the numeral phrases in Bouyei.

hac	**ndanl**	danglngonz
/xa^{5}	**ʔdan^{1}**	taŋ^{1}.ŋon^{2}/
five	**cls**.	sun

‘five suns’

saaml	**leggeiz**	**duy**
/saːm^{1}	**luk^{4}.kuy^{2}**	**tu^{4}/**
three	**cls. (son-in-law)**	**all**

‘all three sons-in-law’

soonglbas	**laail**	**mic**	saangl
/soːŋ^{1}.pa^{3}	**laːy^{1}**	**miˀ^{5}**	saːŋ^{1}/
two hundred	**more than**	**cls. (meter)**	high

‘over two hundred meters high’

xib	**jic**	**lij**	jail
/ɕip^{4}	**ci^{5}**	**li^{5}**	cay^{1}/
ten	**more than**	**cls. (half kilometer)**	far

'Farther than five kilometers'

dingz	**ngonz**
/tiŋ^{2}	**ŋon^{2}/**
half	**cls. (day)**

'half day'

dingz	**laail**
/tiŋ^{2}	**laːy^{1}/**
half	**more than**

'over a half'

jiclaail	**ngonz**	**duy**
/ci^{5}.laːy^{1}	**ŋon^{2}**	**tu^{4}/**
many	**cls. (day)**	**all**

'many days'

These examples can be arranged in the same table to show the co-occurrence of each element in a numeral phrase as follows:

Table 6.2: Co-occurrence of each element in a numeral phrase

No	Numerals	Approximatives	Classifiers	Completives
1	xa^{5} 'five'		ʔdan^{1} 'cls.'	
2	saːm^{1} 'three'		lɯk^{4}.kɯy^{2} 'cls. (son-in-law)'	tu^{4} 'all'

No	Numerals	Approximatives	Classifiers	Completives
3	soːŋ^{1}.pa^{3} ‘two hundred’	laːy^{1} ‘more than’	mi^{5} ‘cls. (meter)’	
4	ɕip^{4} ‘ten’	ci^{5} ‘more than’	li^{5} ‘cls. (half kilometer)’	
5	tiŋ^{2} ‘half’		ŋon^{2} ‘cls. (day)’	
6	tiŋ^{2} ‘half’	laːy^{1} ‘more than’		
7	ci^{5}.laːy^{1} ‘many’		ŋon^{2} ‘cls. (day)’	tu^{4} ‘all’

The formula for these examples would be:

$$\text{Num P} = +\text{H: num } \pm\text{Approx: } \left\{ \begin{array}{l} /\text{laːy}^{1}/ \\ /\text{ci}^{5}/ \end{array} \right\} \pm\text{Cls: cls } \pm\text{Comp: } /\text{tu}^{4}/$$

That is, a numeral phrase consists of an obligatory Head position filled by a numeral, an optional Approximate position filled by /laːy^{1}/ ‘more than’ and /ci^{5}/ ‘more than,’ an optional Classifier position filled by a classifier, and an optional Completive position filled by /tu^{4}/ ‘all.’

6.2.2 Adverb phrases

An adverb phrase is defined as “a phrase with an adverb as its head” (Chrystal, 1991: 11). Adverbs in Bouyei may be modified for degree, emphasis, or negation as shown below.

Deel	byaaic	**hanl**	**jazxiz**	(Degree/Emphasis)
/te^{1}	p^{y}aːy^{5}	**xan^{1}**	**ca^{2}.ɕi^{2}**/	
3SG	to walk	**quickly**	**very/indeed**	

‘He is walking very quickly.’

‘Indeed, he is walking quickly.’

Deel	byaaic	**miz**	**hanl**	(Negation)
/ku^{1}	p^{y}a:y^{5}	**mi^{2}**	**xan^{1}**/	
1SG	to walk	**neg.**	**quickly**	

'I am walking very quickly.'

Deel	neenh	**miz**	**singc**	(Negation)
/te^{1}	nen^{4}	**mi^{2}**	**siŋ^{5}**/	
3SG	to see	**neg.**	**clearly**	

'He didn't see clearly.'

The above examples yield the following formula:

Adv P = ±Neg: neg +H: adv ±Mod: inten

That is, an adverb phrase consists of an optional Negation position filled by a negator, an obligatory Head position filled by an adverb, and an optional Modifier position filled by an intensifier.

6.2.3 Prepositional phrases

A prepositional phrase in Bouyei consists of a preposition and a nominal phrase (Prep + NP), or a preposition and an adverb (Prep + Adv), as in /ziaŋ^{2} tɛ^{1}/ 'with him' and /tay^{3} cia^{2}.ni^{6}/ 'from here', respectively. It functions as a relator in the relator position of clauses, and as a modifier of a noun phrase (as in Section 6.1.1.1.6). Furthermore, prepositional phrases can occur pre-verbally and post-verbally as shown below.

1) Pre-verbal position

riangz	**deel**	dungxdiz
/ziaŋ^{2}	**te^{1}**	tuŋ^{6}.ti^{2}/
with	**3SG**	to fight

'fight with him'

Ndanlmbux	**xos**	**lac**	**danglngonz**	das	roz
/ˀdan^{1}.ˀbu^{6}	**ɕo^{3}**	**la^{5}**	**taŋ^{1}.ŋon^{2}**	ta^{3}	zo^{2}/
gourd	**at**	**below**	**sun**	to dry	dry

‘The gourd was dried in the sun.’

Legmbegt	deel	xih	**dais**	**genzlauz**	**raanz**	**deel**
/lɯk^{4}.ˀbɯk^{3}	te^{1}	ɕi^{4}	**tay^{3}**	**kɯn^{2}.law^{2}**	**za:n^{2}**	**te^{1}**
daughter	dem.	then	**from**	**upstairs**	**house**	**dem.**

rongz	mal	lac
zoŋ^{2}	ma^{1}	la^{5}/
to come down	to come	below

‘That daughter then came down from the house.’

Danglngonz	mbaangx	**dais**	**jieznix**	osmal
/taŋ^{1}.ŋon^{2}	ˀba:ŋ^{6}	**tay^{3}**	**cia^{2}.ni^{6}**	ˀo^{3}.ma^{1}/
sun	may	**from**	**here**	to come out

‘The sun may come out from here.’

Legmbegt	laaux	**weiq**	**wenzbeangz**	gac	duezhaais
/lɯk^{4}.ˀbɯk^{3}	la:w^{6}	**wɯy^{1}**	**wɯn^{2}.pɯaŋ^{2}**	ka^{5}	tua^{2}.xa:y^{3}/
daughter	big	**for**	**people**	kill	wild animal

‘The eldest daughter killed the wild animal for people.’

2) <u>Post-verbal position</u>

bail	byaaus	**xos**	**ndael**	**naz**
/pay^{1}	p^{y}a:w^{3}	**ɕo^{3}**	**ˀdaɯ^{1}**	**na^{2}**/
to go	to sow	**at**	**inside**	**paddy field**

‘go sowing in the field’

Deel	ninz	qyus	**heenz**	**ronl**
/te^{1}	nin^{2}	ʔyu^{3}	**xen^{2}**	**zon^{1}**/
3SG	to sleep	asp.	**beside**	**road**

‘He was sleeping beside the road.’

Lix	raanz	wenz	ndeeul	qyus	**ndael**	**ndongl**	**laːw^{6}**
/li^{6}	zaːn^{2}	wɯn^{2}	ʔdew^{1}	ʔyu^{3}	**ʔdaɯ^{1}**	**ʔdoŋ^{1}**	**laːw^{6}**/
to have	house	people	one	to live	**inside**	**forest**	**big**

‘There was a family living in a big forest.’

From the examples given above, the general structure of a prepositional phrase may be shown with the following formula:

PP = +Rel: prep +H: np/adv

That is, a prepositional phrase consists of an obligatory Relator position filled by a preposition, and an obligatory Head position filled by a nominal phrase or an adverb.

6.2.4 Temporal phrases

Temporal phrases fill structural time setting slots in clauses and sentences. They may consist of a word or an expanded phrase as shown below.

Examples:

ngonzlianz

/ŋon^{2}.lian^{2}/

yesterday

‘yesterday’

rogtnguadrogt

/zok^{3}.ŋuat^{4}.zok^{3}/

sixth day of the sixth lunar month

‘on the sixth day of the sixth lunar month’

dangz jaanglhamh

/taŋ^{2} caːŋ^{1}xam^{4}/

until evening, night

‘until the night’

ngonzdaamlngonz

/ŋon^{2}.taːm^{1}.ŋon^{2}/

day by day

‘day by day’

These examples yield the following structural formula:

TP = ±Rel: prep. +H: adv$_{t}$

That is, a temporal phrase consists of an optional Relator position filled by a preposition, and an obligatory Head position filled by an adverb of time.

It is seen that there is only one preposition used in a temporal phrase. It is /taŋ^{2}/ ‘until’ which usually appears before the head position. In addition, the sequence of day and month in the second example of temporal phrase is a day followed by a month as same as the other Tai languages.

Temporal phrases in Bouyei generally occur in final and pre-verbal position in a clause. However, when the time is focused, the temporal phrases can occur at the initial position as well, for example:

1) Initial position

Dangz	**jaanglhamh,**	mbenl	labt	bai
/taŋ^{2}	**caːŋ^{1}.xam^{4}**	ʔbɯn^{1}	lap^{3}	pay^{4}/
until	**night**	sky	dark	already

‘When the nightfall comes, the sky turns dark.’

bilbil	wenl	duy	seeuc
/pi^{1}.pi^{1}	wɯn^{1}	tu^{4}	sew^{5}/
every year	rain	all	few

‘There is a little rain every year.’

Ngonzlangl,	hac	bux	deel	xih	daih	fenz
/ŋon^{2}.laŋ^{1}	xa^{5}	pu^{6}	te^{1}	ɕi^{4}	tay^{4}	fɯn^{2}
the next day	five	person	dem.	then	to carry	firewood

mal	byaul	ndagtrinl	deel
ma^{1}	p^{y}aw^{1}	ʔdak^{3}.zin^{1}	te^{1}/
to come	to burn	stone	dem.

‘On the next day, those five people bring the firewood for burning that stone.’

2) <u>Pre-verbal position</u>

Roggveeus	xih	**ngonzngonz**	bail	rag	aul	nganz
/zok^{3}.k^{w}ew^{3}	ɕi^{4}	**ŋon^{2}.ŋon^{2}**	pay^{1}	zak^{4}	ʔaw^{1}	ŋan^{2}
a kind of bird	then	**every day**	to go	to steal	to bring	silver

buxweangz	mal	haec	meeh	deel	yungh
pu^{6}.wɯaŋ^{2}	ma^{1}	xaɯ^{5}	me^{4}	te^{1}	yuŋ^{4}/
Emperor	to come	to give	mother	dem.	to spend

‘Daily the bird stole silver from the Emperor to give to that woman.’

Deel	**ngonzlianz**	dez	leg	bail	Befjiny
/te^{1}	**ŋon^{2}.lian^{2}**	tɯ^{2}	lɯk^{4}	pay^{1}	pe^{6}.cin^{4}/
3SG	**yesterday**	to take	child	to go	Beijing

‘He took the child to Beijing yesterday.’

3) Final position

Gul	jaiz	ranl	deel	qyus	raanz	deel	**hadtxoh**
/ku^{1}	cay^{2}	zan^{1}	te^{1}	ʔyu^{3}	za:n^{2}	te^{1}	**xat^{3}.ɕo^{4}/**
1SG	want	to see	3SG	to live	house	his	**tomorrow morning**

'I want to see him at his home tomorrow morning.'

To sum up, this chapter has provided a detailed description of the phrase structure in Bouyei. It dealt with the classification of the major phrases and the minor phrases. The major phrases consist of nominal phrases and verb phrases. The minor phrases consist of a numeral phrase, an adverb phrase, a prepositional phrase, and a temporal phrase. The structural formulas based on Tagmemics theory are provided for each type of phrases. It should be noted that the structures of a prepositional phrase and a temporal phrase are similar. However, they are distinctive in that the relator position of the prepositional phrase is obligatory, while the relator position of the temporal phrase is optional. Furthermore, the Head position of a prepositional phrase can be filled by a noun phrase or an adverb, while the Head position of a temporal phrase can be filled by an adverb only. The occurrence of these phrases in a clause and sentence level will be provided in the next chapter.

CHAPTER VII
CLAUSE AND SENTENCE

Based on the discussion in Chapter VI, phrases can be joined into the larger structure of clauses. The structures of clauses and sentences in Bouyei are investigated in this chapter. Definition and structural classification of clauses are first described in Section 7.1. Clauses are classified into independent and dependent clauses. Each of the clauses is then analyzed in order to find its clause components. Section 7.2 discusses the definition and classification of sentences. Sentences are divided into a simple sentence that are made up of a single clause and a complex sentence that consists of two or more clauses.

7.1 Clauses

Clauses can be defined in terms of both semantic and structural. Thomas (1993: 63) defined a semantic clause as "a clause which describes participants interrelating in an action or state. It may be an action actually performed or an action just referred to. It is usually manifested by a structural clause. A structural clause consists of a predicate plus noun phrases filling slots such as subject, object, destination, instrument, etc. A clause is a minimum sentence, just as a verb phrase is a minimum clause."

On the basis of their status in the sentence, Bouyei clauses can be divided into two categories. They include independent and dependent clauses as follows:

7.1.1 Independent clauses

An independent clause, also known as a main clause, contains a verb phrase with optional preceding or following phrases filling slots such as subject, object, complement, and clause periphery, in SVO order. The clause periphery is considered to be an additional element to the clause. It consists of a prepositional

phrase, a temporal phrase, a final particle, a vocative, and an exclamative. Some examples of independent clause in Bouyei are given below.

Gul	ximlranl	deel
/ku^{1}	ɕim^{1}.zan^{1}	tɛ^{1}/
1SG	to see	3SG

‘I see him.’

Deel	deg	buxjaucdauz	mbaanx	deel
/tɛ^{1}	tɯk^{4}	pu^{6}.caw^{5}.taw^{2}	ʔbaːn^{6}	tɛ^{1}/
3SG	to be	chief	village	dem.

‘He is the chief of that village.’

Duezmal	riangl	fonx	deel	hab	bux	deel
/tua^{2}.ma^{1}	ziaŋ^{1}	fon^{6}	tɛ^{1}	xap^{4}	pu^{6}	tɛ^{1}/
dog	tail	black	dem.	to bite	person	dem.

‘That dog with black tail bit that man.’

Ngonzlangl,	baussaaml	xih	bail	ral	gogtramx
/ŋon^{2}.laŋ^{1}	paw^{3}.saːm^{1}	ɕi^{4}	pay^{1}	za^{1}	kok^{3}.zam^{6}/
next day	third brother	then	to go	to seek	source of water

‘On the next day, the third brother went seeking a source of water.’

Gul	jaiz	ranl	deel	hadtxoh
/ku^{1}	cay^{2}	zan^{1}	tɛ^{1}	xat^{3}.ɕo^{4}/
1SG	want	to see	3SG	tomorrow morning

‘I want to see him tomorrow morning.’

Bozdeel	bail	byaaus	xos	ndael	naz
/po^{2}.tɛ^{1}	pay^{1}	pʲaːw^{3}	ɕo^{3}	ʔdaɯ^{1}	na^{2}/
3PL	to go	to sow	at	inside	paddy field

‘They go sowing in the field.’

Gul	riangz	deel	dungxdiz
/ku^{1}	ziaŋ^{2}	te^{1}	tuŋ^{6}.ti^{2}/
1SG	with	3SG	to fight

‘I fight with him.’

Gul	hozhes
/ku^{1}	xo^{2}.xɯ^{3}/
1SG	to be thirsty

‘I’m thirsty.’

Bail	ba!
/pay^{1}	pa^{4}/
to go	prt.

‘Let’s go.’

Soongl	boh	leg	deel	xih	ngonzngonz	daic
/soŋ^{1}	po^{4}	lɯk^{4}	te^{1}	ɕi^{4}	ŋon^{2}.ŋon^{2}	tay^{5}/
two	father	child	dem.	then	every day	to cry

‘Both father and son cried every day.’

These examples can be arranged in the following table to show the occurrence of each component in an independent clause.

Table 7.1: Co-occurrence of each element in an independent clause

No	Peripheral$_1$	Subject	Peripheral$_2$	Predicate	Object/Complement	Peripheral$_3$
1		ku^{1} ‘1SG’		ɕim^{1}.zan^{1} ‘to see’	te^{1} ‘3SG’	
2		te^{1} ‘3SG’		tɯk^{4} ‘to be’	pu^{6}.caw^{5}.taw^{2} ʔba:n^{6} te^{1} ‘the chief of that village’	
3		tua^{2}.ma^{1} ziaŋ^{1} fon^{6} te^{1} ‘that dog with black tail’		xap^{4} ‘to bite’	pu^{6} te^{1} ‘that man’	
4	ŋon^{2}.laŋ^{1} ‘next day’	paw^{3}.sa:m^{1} ‘third brother’		pay^{1} za^{1} ‘to go seeking’	kok^{3}.zam^{6} ‘source of water’	

No	Peripheral$_1$	Subject	Peripheral$_2$	Predicate	Object/Complement	Peripheral$_3$
5		ku^1 '1SG'		cay^2 zan^1 'want to see'	tɕ^1 '3SG'	xat^3.ɕo^4 'tomorrow morning'
6		po^2.te^1 '3PL'		pay^1 p^{y}a:w^3 'to go sowing'		ɕo^3 ʔdauɯ^1 na^2 'in the field'
7		ku^1 '1SG'	ziaŋ^2 te^1 'with 3SG'	tuŋ^6.ti^2 'to fight'		
8		ku^1 '1SG'		xo^2.xuɯ^3 'to be thirsty'		
9				pay^1 'to go'		pa^4 'prt.'
10		soŋ^1 po^4 luɯk^4 te^1 'both father and son'	ŋon^2.ŋon^2 'every day'	tay^5 'to cry'		

The structural formula for the above examples would be:

$$Cl_{ind} = \pm Per_1\text{: per el } \textbf{±S: np } \pm Per_2\text{: per el } \textbf{+P: vp ±} \left\{ \begin{array}{c} \textbf{O: np} \\ \textbf{Compl: np} \end{array} \right\} \pm Per_3\text{: per el}$$

That is, an independent clause consists of an optional Peripheral$_1$ position filled by a clause peripheral element, an optional Subject position filled by a nominal phrase, an optional Peripheral$_2$ position filled by a clause peripheral element, an obligatory Predicate position filled by a verb phrase, an optional Object or Complement position filled by a nominal phrase, and an optional Peripheral$_3$ position filled by a clause peripheral element.

According to Thomas (1993: 63), "structural clause types usually correlate fairly closely with the semantic characteristics of the main verb (or nonverb) in the predicate, so semantic names can often be used for structural types." Therefore, the Bouyei independent clauses can be divided into sixteen basic clause types following this statement. They include transitive, intransitive, ditransitive, descriptive, locative, motion, directional, propulsion, quotative, equational, existential, ambient, causative, submissive, cognitive, and comparative clauses. Since "the clause types are usually defined by their nuclei" (Thomas, 1993: 64), thus a formula for each clause type in Bouyei will be a formula for the nucleus only. The Bouyei clause types are as follows:

7.1.1.1 Transitive clauses

A transitive clause nucleus requires the presence of an object. It consists of a subject, a predicate and an object. The structure of a transitive clause is shown below.

Cl_{tr} = ±S: np +P: vp_{tr} +O: np

That is, a transitive clause consists of an optional Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a transitive main verb, and an obligatory Object position filled by a nominal phrase. Some examples are presented below.

Deel	gac	duezwaaiz	ndeeul
/te^{1}	ka^{5}	tua^{2}.wa:y^{2}	ˀdew^{1}/
3SG	to kill	buffalo	one

‘He killed a buffalo.’

legmbegt	deel	gueh	dooms
/lɯk^{4}.ˀbɯk^{3}	te^{1}	kua^{4}	tom^{3}/
daughter	dem.	to do	rice basket

‘That daughter made the rice basket.’

7.1.1.2 Intransitive clauses

An intransitive clause nucleus consists of a subject and a predicate. It never has an object. The structural formula for an intransitive clause could be:

Cl_{intr} = ±S: np +P: vp_{intr}

That is, an intransitive clause consists of an optional Subject position filled by a nominal phrase, and an obligatory Predicate position filled by a verb phrase with an intransitive main verb. Examples are:

Soongl	boh	leg	deel	xih	ngonzngonz	daic
/soŋ^{1}	po^{4}	lɯk^{4}	te^{1}	ɕi^{4}	ŋon^{2}.ŋon^{2}	tay^{5}/
two	father	child	dem.	then	every day	to cry

‘Both father and son cried every day.’

Buxsiangl	nangh	qyus	genz	golfaix	saangl	ndeeul
/pu^{6}.siaŋ^{1}	naŋ^{4}	ʔyu^{3}	kɯn^{2}	ko^{1}.fay^{6}	saːŋ^{1}	ʔdew^{1}/
Pusiang	to sit	cont.	above	tree	tall, high	one

‘Pusiang was sitting on a high tree.’

7.1.1.3 Ditransitive clauses

A ditransitive clause nucleus usually takes two objects. It consists of a subject, a predicate, an indirect object and a direct object. An intransitive clause can be formulated as follows:

Cl_{di} = ±S: np +P: vp_{di} +IO: np +DO: np

That is, a ditransitive clause consists of an optional Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a ditransitive main verb, an obligatory Indirect object position filled by a nominal phrase, and a Direct object position filled by a nominal phrase. Some examples are:

Deel	haec	gul	duezbyal	ndeeul
/te^{1}	xaɯ^{5}	ku^{1}	tua^{2}.p^{y}a^{1}	ʔdew^{1}/
3SG	to give	1SG	fish	one

‘He gives me the fish.’

Deel	hams	legsaail	deel	gaaiswenqtif	ndeeul
/te^{1}	xam^{3}	lɯk^{4}.saːy^{1}	te^{1}	kaːy^{3}.wɯn^{1}.t^{h}i^{6}	ʔdew^{1}/
3SG	to ask	son	his	question	one

‘He asked his son a question.’

7.1.1.4 Descriptive clauses

A descriptive clause nucleus does not take an object. It consists of a subject and a predicate. Even though this structure is similar to an intransitive clause, a descriptive clause cannot be transformed into imperative. Moreover, the subject of descriptive clause is obligatory, while the subject of intransitive clause is optional. For examples:

Gul	miz	**ninz**
/ku^{1}	mi^{2}	**nin^{2}**/
1SG	neg.	**to sleep**

'I don't sleep.'

Ninz	ba!
/nin^{2}	pa^{4}/
to sleep	prt.

'Let's go to bed.'

Jac	ndael	naz	youq	**dih**	youq	**nal**
/ca^{5}	ʔdauɯ^{1}	na^{2}	you^{1}	**ti^{4}**	you^{1}	**na^{1}/**
rice seedling	inside	field	all	**dense**	all	**thick**

'Rice seedlings in the field are both dense and thick.'

It is noted that the first two examples are the intransitive clauses. The first clause with the main verb /nin^{2}/ 'to sleep' can be transformed into imperative in the second one without subject. Conversely, the third example is the descriptive clause which cannot be transformed into imperative.

The formula of a descriptive clause is shown below.

Cl_{des} = +S: np +P: vp_{des}

That is, a descriptive clause consists of an obligatory Subject position filled by a nominal phrase and an obligatory Predicate position filled by a verb phrase with a descriptive main verb.

7.1.1.5 Locative clauses

A locative clause nucleus requires a nominal phrase or prepositional phrase following a main verb. It contains a subject, a predicate, and a location. This clause type differs from the intransitive clause in the verb class which it takes and an obligatory location slot in the locative clause. The structural formula for a locative clause would be:

Cl_{loc} = ±S: np +P: vp_{loc} +Loc: np/pp

That is, a locative clause consists of an optional Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a locative main verb, and an obligatory Location position filled by a nominal phrase or a prepositional phrase. Some examples are presented below.

Deel	qyus	raanz
/te^{1}	ʔyu^{3}	zaːn^{2}/
3SG	to be	home

‘He is at home.’

Deel	qyus	ndael	ndongl	laaux
/te^{1}	ʔyu^{3}	ʔdaɯ^{1}	ʔdoŋ^{1}	laːw^{6}/
3SG	to live	inside	forest	big

‘He lives in a big forest.’

7.1.1.6 Motion clauses

A motion clause nucleus requires an optional destination slot in pre-verbal or post-verbal position. It consists of a subject, a predicate, and a destination. This clause type differs from the intransitive and locative clause in the

verb class which it takes and an optional destination slot in the motion clause. The formula of a motion clause is shown below.

$$Cl_{mo} = \pm S\text{: np} \pm \overbrace{Dest_1\text{: pp}} + P\text{: } vp_{mo} \mp Dest_2\text{: np/pp}$$

That is, a motion clause consists of an optional Subject position filled by a nominal phrase, an optional $Destination_1$ position filled by a prepositional phrase, which occur in complementary distribution with $Destination_2$ filled by a nominal phrase or a prepositional phrase, and an obligatory Predicate position filled by a verb phrase with a motion main verb. Examples are:

Buxnis	bail	xiofxiaoq
/pu^{6}.ni^{3}	pay^{1}	ɕio^{6}.ɕiao^{1}/
children	to go	school

‘Children go to school.’

Bail	ba!
/pay^{1}	pa^{4}/
to go	prt.

‘Let’s go.’

Danglngonz	dais	jieznix	osmal
/taŋ^{1}.ŋon^{2}	tay^{3}	cia^{2}.ni^{6}	ʔo^{3}.ma^{1}/
sun	from	here	to come out

‘The sun came out from here.’

Buxweangz	xih	bail	ndael	raanzmeeuh
/pu^{6}.wɯaŋ^{2}	ɕi^{4}	pay^{1}	ˀdaɯ^{1}	za:n^{2}.mew^{4}/
Emperor	then	to go	inside	temple

‘The Emperor went to the temple.’

7.1.1.7 Directional clauses

A directional clause nucleus consists of a subject, a predicate, a direction and a destination. This clause type differs from the motion clause in that it contains a direction slot to indicate the direction. Moreover, there is only one destination slot which appears in post-verbal position in the clause. A directional clause can be formulated as follows:

Cl_{dir} = ±S: np +P: vp_{mo} +Dir: v_{dir} +Dest: np/pp

That is, a directional clause consists of an optional Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a motion main verb, an obligatory Direction position filled by a directional verb, and an obligatory Destination position filled by a nominal phrase or a prepositional phrase. Examples are:

Soongl	bixnuangx	xih	henc	bail	neengzbol	bai
/soŋ^{1}	pi^{6}.nuaŋ^{6}	ɕi^{4}	xɯn^{5}	pay^{1}	neŋ^{2}.po^{1}	pay^{4}/
two	brothers	then	to go up	dir.	peak	already

‘Two brothers went up to the peak.’

Ndanlnyianz	dogt	mal	dangz	beangz	Buxqyaix
/ʔdan^{1}.ɲian^{2}	tok^{3}	ma^{1}	taŋ^{2}	pɯaŋ^{2}	pu^{6}.ʔyay^{6}/
bronze drum	to fall	dir.	to	village	Bouyei

‘The bronze drum fell into the Bouyei village.’

7.1.1.8 Propulsion clauses

A propulsion clause nucleus requires an optional destination slot and the presence of an object which is moved by the subject. It consists of a subject, a predicate, an object and a destination. This clause type differs from the motion and directional clauses in having an object slot. It also differs from the transitive clause in its verb class and a direction slot plus destination. The structural formula for a propulsion clause would be:

Cl_{prop} = ±S: np +P: vp_{prop} +O: np ±Dir: v_{dir} ±Dest: np/pp

That is, a propulsion clause consists of an optional Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a propulsion main verb, an obligatory Object position filled by a noun phrase, an optional Direction position filled by a directional verb, and an optional Destination position filled by a nominal phrase or a prepositional phrase. Some examples are presented below.

Deel	dez	leg	bail	Befjiny
/te^{1}	tɯ^{2}	lɯk^{4}	pay^{1}	pe^{6}.cin^{4}/
3SG	to take	child	dir.	Beijing

‘He took the child to Beijing.’

Legjax	xeengs	mbenl
/lɯk^{4}.ca^{6}	ɕeŋ^{3}	ˀbɯn^{1}/
orphan	to push	sky

‘The orphan pushed up the sky.’

7.1.1.9 Quotative clauses

A quotative clause nucleus contains a subject, a predicate, and a quotation. This clause type differs from the transitive clause in the verb class which it takes and a quotation slot that is filled by a clause in the final position. A quotative clause can be formulated as follows:

Cl_{quot} = ±S: np +P: vp_{quot} +Quot: cl

That is, a quotative clause consists of an optional Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a quotative main verb, an optional Object position filled by a noun phrase, and an obligatory Quotation position filled by a clause. Some examples are:

Legmbegt	laaux	haanl	nauz:	“Gul	qyus	genz
/lɯk^{3}.ʔbɯk^{3}	laːw^{6}	xaːn^{1}	naw^{2}	ku^{1}	ʔyu^{3}	kɯn^{2}
daughter	big	to answer	to say	1SG	to stay	above

nix	aul	masndail	haec	mengz	genl
ni^{6}	ʔaw^{1}	ma^{3}.ʔday^{1}	xaɯ^{5}	mɯŋ^{2}	kɯn^{1}/
here	to bring	persimmon	to give	2SG	to eat

“I’m picking the persimmons on the tree for you,” answered the eldest daughter.

Boh	deel	nauz:	“Nganzxeenz	gul	haml
/po^{4}	te^{1}	naw^{2}	ŋan^{2}.ɕen^{2}	ku^{1}	xam^{1}
father	dem.	to say	money	my	to bury

xos	ndael	rih	ndael	naz
ɕo^{3}	ʔdaɯ^{1}	zi^{4}	ʔdaɯ^{1}	na^{2}/
at	inside	farm	inside	paddy field

“My money is buried in the field,” said the father.

Sojyij	nauz,	wenzbeangz	xih	deg
/so^{5}yi^{5}	naw^{2}	wɯn^{2}.pɯaŋ^{2}	ɕi^{4}	tɯk^{4}
therefore	to say	human	then	to suffer

soongl	bixnuangx	deel	xaaux	osmal
soŋ^{1}	pi^{6}.nuaŋ^{6}	te^{1}	ɕaːw^{6}	ʔo^{3}.ma^{1}/
two	brothers	dem.	to create	to come out

‘That’s why it is said that the humans were created by two brothers.’

7.1.1.10 Equational clauses

An equational clause nucleus consists of a subject, a predicate and a complement which indicates the character or identity of the subject. The structural formula for an equational clause is shown below.

Cl_{equat} = +S: np +P: vp_{equat} +Compl: np

That is, an equational clause consists of an obligatory Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with an equational main verb, and an obligatory Complement position filled by a nominal phrase. Examples are:

Deel	deg	buxjaucdauz	mbaanx	deel
/te^{1}	tɯk^{4}	pu^{6}.caw^{5}.taw^{2}	ʔbaːn^{6}	te^{1}/
3SG	to be	chief	village	dem.

‘He is the chief of that village.’

Jeebtrinl	ndeeul	biansbanz	xiex
/cɛp^{3}.zin^{1}	ʔdew^{1}	pian^{3}.pan^{2}	ɕia^{6}/
stone	one	to become	god

‘A stone became a god.’

7.1.1.11 Existential clauses

An existential clause expresses the existence of something. It is commonly used to introduce a person or an object into a discourse. This clause type consists of a predicate and a complement. It can be formulated as follows:

Cl_{exist} = +P: vp_{exist} +Compl: np

That is, an existential clause consists of an obligatory Predicate position filled by a verb phrase with an existential main verb, and an obligatory Complement position filled by a nominal phrase. Examples are:

Meanhxaux,	lix	soongl	duez	yuangzmbeex	nis
/mɯan^{4}.ɕaw^{6}	li^{6}	soŋ^{1}	tua^{2}	yuaŋ^{2}.ʔbe^{6}	ni^{3}
long time ago	to have	two	cls.	goat	small

songz	qyus	neengzbol
soŋ^{2}	ʔyu^{3}	neŋ^{2}.po^{1}/
to live	cont.	top of the moutain

‘Once upon a time, there were two small goats living on the peak.’

Meanhxaux,	lix	raanz	wenz	ndeeul	qyus
/mɯan^{4}.ɕaw^{6}	li^{6}	zaːn^{2}	wɯn^{2}	ʔdew^{1}	ʔyu^{3}
long time ago	to have	house	human	one	cont.

ndael	ndongl	laaux
ʔdaɯ^{1}	ʔdoŋ^{1}	laːw^{6}/
inside	forest	big

‘Once upon a time, there was a house in a big forest.’

7.1.1.12 Ambient clauses

An ambient clause normally refers to the weather, the atmosphere, or the natural phenomena. It consists of a subject and a predicate. The structural formula for an ambient clause would be:

Cl_{amb} = ±S: np +P: vp_{amb}

That is, an ambient clause consists of an optional Subject position filled by a nominal phrase, and an obligatory Predicate position filled by a verb phrase with an ambient main verb. Some examples are presented below.

ndianl	idtlaab	mbenl	xeengx
/ˀdian^{1}	ʔit^{3}.laːp^{4}	ˀbɯn^{1}	ɕeŋ^{6}/
month	eleventh and twelfth lunar month	sky	cold

‘The sky is cold between eleventh and twelfth lunar month.’

Ngonzneex	angl
/ŋon^{2}.ne^{6}	ʔaŋ^{1}/
today	to be hot

‘It is hot today.’

7.1.1.13 Causative clauses

A causative clause is the linguistic expression of causation. Causation is a somewhat abstract concept in which the occurrence of one event results in the occurrence of another event. A causative clause can be defined as “a linguistic expression that contains in semantic/logical structure a predicate of cause, one argument of which is a predicate expressing an effect” (Payne, 1997:176). It consists of a subject, a predicate, and a causation. A causative clause can be formulated as follows:

Cl_{caus} = +S: np +P: vp_{caus} +Caus: cl

That is, a causative clause consists of an obligatory Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a causative main verb, and an obligatory Causation position filled by a clause. Some examples are:

Gul	baais	binglmbenl	bail	xux
/ku^{1}	paːy^{3}	piŋ^{1}.ˀbɯn^{1}	pay^{1}	ɕu^{6}
1SG	to order	soldier of the heaven	to go	to receive

deel	mal	genzmbenl
te^{1}	ma^{1}	kɯn^{2}.ˀbɯn^{1}/
3SG	to come	sky

‘I ordered my soldiers to take him to the heaven.’

Bohdal	deel	haec	soongl	leggeiz
/po^{4}.ta^{1}	te^{1}	xaɯ^{5}	soŋ^{1}	lɯk^{4}.kɯy^{2}
father-in-law	dem.	to allow	two	son-in-law

buxgvaangl	deel	ninz	moghoms	mogxah
pu^{6}.k^{w}aːŋ^{1}	te^{1}	nin^{2}	mok^{4}.xom^{3}	mok^{4}.ɕa^{4}/
rich man	dem.	to sleep	blanket	mattress

‘The father allowed his two sons-in-law to sleep on the mattress with a blanket.’

7.1.1.14 Submissive clauses

A submissive clause has the same structure as passive construction. That is the deep object nominal phrase of a transitive clause is promoted to surface subject in this clause type. The agent of a transitive clause is either deleted or demoted to an oblique function. A submissive clause nucleus consists of a subject, a predicate, and an unpleasant event. The structural formula for this clause type is shown below.

Cl_{sub} = +S: np +P: vp_{sub} +Unpl: cl

That is, a submissive clause consists of an obligatory Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a submissive main verb, and an obligatory Unpleasant Event position filled by a clause. Some examples are:

Duezmoil	foonx	deg	duezgugt	hab	daail	bai
/tua^{2}.moy^{1}	foːn^{6}	tɯk^{4}	tua^{2}.kuk^{3}	xap^{4}	taːy^{1}	pay^{4}/
bear	black	to suffer	tiger	to bite	to die	already

‘The black bear was bitten to death by the tiger.’

Rinlxiex	xih	deg	nyingz	daail	bai
/zin^{1}.ɕia^{6}	ɕi^{4}	tɯk^{4}	ɲiŋ^{2}	taːy^{1}	pay^{4}/
stone god	then	to suffer	to shoot	to die	already

‘The stone god was shot dead.’

7.1.1.15 Cognitive clauses

A cognitive clause expresses the mental processes of perception, memory, judgment, and reasoning. It consists of a subject, a predicate and a complement. A cognitive clause can be formulated as follows:

Cl_{cog} = ±S: np +P: vp_{cog} +Compl: np/cl

That is, a cognitive clause consists of an optional Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase with a cognitive main verb, and an obligatory Complement position filled by a nominal phrase or a clause. Examples are:

Gul	ximlranl	deel
/ku^{1}	ɕim^{1}.zan^{1}	te^{1}/
1SG	to see	3SG

‘I see him.’

Roggveeus	rox	ndael	gvih	raanz
/zok^{4}.k^{w}ew^{3}	zo^{6}	ʔdaɯ^{1}	k^{w}i^{4}	za:n^{2}
a kind of bird	to know	inside	box	house

buxweangz	lix	nganz	laail	jazxiz
pu^{6}.wɯaŋ^{2}	li^{6}	ŋan^{2}	la:y^{1}	ca^{2}.ɕi^{2}/
emperor	to have	silver	many	really

‘The bird knew that there were a lot of silver inside the box in the Emperor’s house.’

7.1.1.16 Comparative clauses

A comparative clause expresses the comparison of quality, quantity or degree. It can be divided into two subtypes: comparison of equality and comparative degree.

1) Comparison of equality

This clause subtype consists of a subject, a predicate, an equality marker, and a comparative item. It can be formulated as follows:

$$Cl_{com\text{-}equ} = \pm S\text{: np } +P\text{: vp } +\text{Equ mk: } \left\{ \begin{array}{l} /sa{:}w^{4}/ \\ /lɯm^{5}/ \end{array} \right\} +\text{Com Item: np/cl}$$

That is, the formula contains an optional Subject position filled by a noun phrase, an obligatory Predicate position filled by a verb phrase, an obligatory Equality marker filled by /sa:w^{4}/, /tuŋ^{6}lɯm^{5}/ and /tuŋ^{6}sa:w^{4}/, and an obligatory Comparative Item position filled by a nominal phrase or a clause. Some examples are presented below.

Golfaix	nyeeh	ndeeul	laaux	saauh	daaml	liamz
/ko^{1}.fay^{6}	ɲe^{4}	ˀdew^{1}	la:w^{6}	sa:w^{4}	ta:m^{1}	liam^{2}/
tree	a kind of tree	one	big	to be like	handle	knife

‘The tree is as big as the knife handle.’

Pufbuq	lumc	dahhaaic	rongz	mbenl
/p^{h}u^{6}.pu^{1}	lum^{5}	ta^{4}.xa:y^{5}	zoŋ^{2}	ˀbɯn^{1}/
waterfall	to be like	milky way	to go down	sky

‘The waterfall is like a milky way coming down from the sky.’

Lumc	haaic	laaux	yianghndeeul
/lum^{5}	xa:y^{5}	la:w^{6}	yiaŋ^{4}.ˀdew^{1}/
to be like	sea	big	as well

‘It seems like a big ocean.’

2) Comparative degree

This clause subtype consists of a subject, a predicate, a comparative marker, and a comparative item. Its structure can be shown below.

$$Cl_{com\text{-}deg} = \pm S\text{: np } +P\text{: vp } +\text{Com mk: } /to^{1}/ \pm\text{Com Item: np}$$

That is, the formula contains an optional Subject position filled by a nominal phrase, an obligatory Predicate position filled by a verb phrase, an obligatory Comparative marker filled by /to^{1}/, and an optional Comparative Item position filled by a nominal phrase. Examples are:

Goljac	gul	mac	ndil	dol	bai
/ko^{1}.ca^{5}	ku^{1}	ma^{5}	ʔdi^{1}	to^{1}	pay^{4}/
rice seedling	my	to grow	good	than	already

‘My rice seedlings grow better.’

Pinf	saangl	dol	Zenqdongy
/pʰin^{6}	saːŋ^{1}	to^{1}	t͡sɯn^{1}.toŋ^{4}/
Ping	to be tall	than	Zhengdong

‘Ping is taller than Zhengdong.’

Noh	gul	waanl	dol
/no^{4}	ku^{1}	waːn^{1}	to^{1}/
meat	my	good taste	than

‘My flesh tastes better.’

All sixteen clause types presented above are declarative clauses. However, there are other kinds of speech acts in Bouyei that are the variant structure of the declarative clause. They include interrogatives and imperatives.

1) Interrogatives

An interrogative clause refers to “clause types typically used in the expression of question” (Crystal, 1991: 182). It differs from a declarative clause in that a particular response is required from the addressee. Based on the kind of response, the interrogative clause can be divided into two subtypes. It consists of a polar question and a content question.

1.1) Polar questions

A polar question, also known as a yes-no question, is defined as "a question form where a grammatical reply would have to be of the type yes or no" (Crystal, 1991: 385). The structure of the polar question in Bouyei is similar to the declarative clause, but it is distinct in that the polar question adds the interrogative particles /na^4/, /fi^4/ and /mi^2/ following the basic clause. The structural formula for a polar question is shown below.

$$Cl_{pol\ q} = +Cl\ \ +Q\ Mk: \left\{ \begin{array}{l} /na^4/ \\ /fi^4/ \\ /mi^2/ \end{array} \right\}$$

That is, the formula contains an obligatory Clause position filled by any clause types (see Section 7.1.1) plus an obligatory Question Marker filled by /na^4/, /fi^4/ and /mi^2/. Some examples are:

Soongl	leg	deel	xih	hams	boh	deel:	"Boh	ya!
/soŋ^1	lɯk^4	te^1	ɕi^4	xam^3	po^4	te^1	po^4	ya^4
two	child	dem.	then	to ask	father	dem.	father	prt.

mengz	lix	nganzxeenz	gec	xos	jiezlaez	**miz?"**
mɯŋ^2	li^6	ŋan^2.ɕen^2	kɯ^5	ɕo^3	cia^2.laɯ^2	**mi^2/**
2SG	to have	money	to hide	at	where	**or not**

Two sons asked their father "Dad, do you hide your money somewhere?"

Duezmyaus	hams	duezmal:	"Hax	dangz	rans	**fih?"**
/tua^2.m^{y}aw^3	xam^3	tua^2.ma^1	xa^6	taŋ^2	zan^3	**fi^4/**
cat	to ask	dog	will	to arrive	shore	**or not**

The cat asked the dog "Are we close to the shore?"

1.2) Content questions

A content question requires specific information. It is marked by a question word, such as /pu^{6}.laɯ^{2}/ ‘who,’ /ka:y^{3}.ma^{2}/ ‘what,’ /cia^{2}.laɯ^{2}/ ‘where,’ etc. These question words occur in various positions in a sentence. Therefore, the normal order of the elements cannot be generally formulated. The positions of all question words in clauses are already explained in Section 5.2.4.3.

2) Imperatives

An imperative clause is defined as “the clause types typically used in the expression of command” (Crystal, 1991: 172). The imperative differs from other basic clause structure in that the subject position is not presented in this clause type. It can be divided into two subtypes: positive imperatives and negative imperatives.

2.1) Positive imperatives

A positive imperative clause normally consists of a predicate and an object or a complement. To indicate request or politeness, the question markers /pan^{2}.mi^{2}/ ‘Could you?’ or /pan^{2}.mi^{2}.pan^{2}/ ‘Could you?’ are added to the end of the clause. The structural formula for a positive imperative clause is shown below

$$Cl_{imp\text{-}pos} = +P\text{: vp} \pm \left\{ \begin{array}{c} \text{O: np} \\ \text{Compl: np} \end{array} \right\} \pm Q\ Mk\text{:} \left\{ \begin{array}{c} /pan^{2}.mi^{2}/ \\ /pan^{2}.mi^{2}.pan^{2}/ \end{array} \right\}$$

That is, the formula contains an obligatory Predicate position filled by a verb phrase, an optional Object or Complement position filled by a nominal phrase, and an optional Question Marker filled by /pan^{2}.mi^{2}/ or /pan^{2}.mi^{2}.pan^{2}/ ‘Could you?’ Examples are:

Nangh	jieznix
/naŋ^{1}	cia^{2}.ni^{6}/
to sit	here

‘Sit here.’

Bail	naz	mengz
/pay^{1}	na^{2}	mɯŋ^{2}/
to go	field	your

'Go to your field.'

Byaaic	bail	nac,	qyies	qvidt	bail	baaih	soix,
/p^{y}a:y^{5}	pay^{1}	na^{5}	ʔyia^{3}	ʔwit^{3}	pay^{1}	pa:y^{4}	soy^{6}
to walk	to go	front	then	to turn	to go	side	left

youq	qvidt	bail	baaih	gvaz
you^{1}	ʔwit^{3}	pay^{1}	pa:y^{4}	k^{w}a^{2}/
and	to turn	to go	side	right

'Go straight on, then turn left and then turn right.'

Seeuc	noih	**banzmizbanz?**
/sew^{5}	noy^{4}	**pan^{2}.mi^{2}.pan^{2}/**
to lower the price	a little	**Could you?**

'Can you lower the price, please?'

Nauz	nyaamh	noih,	**banzmiz?**
/naw^{2}	ɲa:m^{4}	noy^{4}	**pan^{2}.mi^{2}/**
to speak	slow	a little	**Could you?**

'Could you speak slowly, please?'

2.2) Negative imperatives

A negative imperative clause consists of a negative imperative marker - /m^{y}aɯ^{5}/ 'do not', a predicate and an object or a complement. The formula for this clause subtypes is shown below.

$$Cl_{imp\text{-}neg} = +Neg\ Mk: /m^{y}aɯ^{5}/ +P: vp \pm \left\{ \begin{array}{c} O: np \\ Compl: np \end{array} \right\}$$

That is, the formula contains an obligatory Negative Imperative Marker position filled by /m^{y}aɯ^{5}/ ‘do not’, an obligatory Predicate position filled by a verb phrase, and an optional Object or Complement position filled by a nominal phrase. Examples are:

Myaec	genl	noh	meeh	gul
/m^{y}aɯ^{5}	kɯn^{1}	no^{4}	me^{4}	ku^{1}/
do not	to eat	meat	mother	my

‘Don’t eat my mother’s flesh.’

Myaec	nyingz	bai
/m^{y}aɯ^{5}	ɲiŋ^{2}	pay^{4}/
do not	to shoot	already

‘Don’t shoot.’

Myaec	daic
/m^{y}aɯ^{5}	tay^{5}/
do not	to cry

‘Don’t cry.’

7.1.2 Dependent clauses

A dependent clause, also known as a subordinate clause, is a clause that augments an independent clause with additional information, but which cannot stand alone as a sentence. Dependent clauses usually modify the independent clause of a sentence or serve as a component of it. However, they can also modify a head noun in a nominal phrase as mentioned in 6.1.1.1. The structural formula for a dependent clause is given below.

$$Cl_{dep} = \pm Sub{:}\ lk_{cl}\ \pm S{:}\ np\ \pm Per_1{:}\ per\ el\ +P{:}\ vp\ \pm \left\{ \begin{array}{c} O{:}\ np \\ Compl{:}\ np \end{array} \right\} \pm Per_2{:}\ per\ el$$

That is, a dependent clause consists of an optional Subordinator position filled by a clause linker (see Section 5.2.4.1.2), an optional Subject position filled by a nominal phrase, an optional Peripheral$_1$ position filled by a clause peripheral element, an obligatory Predicate position filled by a verb phrase, an optional Object or Complement position filled by a nominal phrase, and an optional Peripheral$_2$ position filled by a clause peripheral element. Some examples are presented below.

Xez	hocdul	rongz	mal	lac	deel,
/ɕɯ^{2}	xo^{5}.tu^{1}	zoŋ^{2}	ma^{1}	la^{5}	te^{1}
when	1PL	to go down	to come	below	dem.

bungz	duezmoil	foonx	goons
puŋ^{2}	tua^{2}.moy^{1}	fon^{6}	kon^{3}/
to meet	bear	black	before

‘When we were coming down here, we met the black bear first.’

Yinyweiq	bozdeel	hamhhamh	mal	rag	jac,
/yin^{4}.wɯy^{1}	po^{2}.te^{1}	xam^{4}.xam^{4}	ma^{1}	zak^{4}	ca^{5}
because	3PL	night	to come	to steal	rice seedling

legjax	ndilhamz	laail
lɯk^{4}.ca^{5}	ʔdi^{1}.xam^{2}	laːy^{1}/
orphan	angry	very

‘The orphan was very angry because they stole his rice seedlings last night.’

7.2 Sentences

According to Thomas (1993: 87), “a structural sentence consists of at least one main clause, with or without subordinate clauses, with a distinct illocutionary force (mood).” In other words, a sentence is any string of units including at least one major clause and one or more optional minor clause. Since a clause completely

overlaps a sentence when it has one main verb and it can form a part of a sentence in which case the sentence is complex, sentences in Bouyei can be classified in two categories - simple sentences and complex sentences.

7.2.1 Simple sentences

A simple sentence is formed by an independent clause. It contains only one main clause. Generally, declaratives, interrogatives, and imperatives are expressed by simple sentence. The structural formula for a simple sentence is an obligatory Main Clause filled by an independent clause as shown below.

$Sent_{sim}$ = +Main Cl: cl_{ind}

Examples:

Duezmal	xih	genz	ndaangl	el	duezmyaus
/tua^{2}.ma^{1}	ɕi^{4}	kɯn^{2}	ʔdaːŋ^{1}	ʔɯ^{1}	tua^{2}.m^{y}aw^{3}/
dog	then	above	body	carry	cat

‘The dog carried the cat on his body.’

Ramx	dumh	jiclaail	bil
/zam^{6}	tum^{4}	ci^{5}.laːy^{1}	pi^{1}/
water	to cover	many	year

‘It had been flooded for many years.’

Mengz	gueh	gaaismaz?
/mɯŋ^{2}	kua^{4}	kaːy^{3}.ma^{2}/
2SG	to do	what

‘What are you doing?’

7.2.2 Complex sentences

A complex sentence comprises of two or more clauses with or without linkers. It can be divided into coordinative and subordinative sentences.

7.2.2.1 Coordinative sentences

The sentences which take more than one main clause are coordinative sentences. Coordinative sentences can occur with or without a linker. The coordinate clauses, which are component of a coordinative sentence, are not subordinate to each other, but they are related with each other from the view point of larger semantic significance. A coordinative sentence can be formulated as follows:

$$Sent_{co} = +Main\ Cl_1: cl_{ind} \pm Co: lk_{cl} +Main\ Cl_2: cl_{ind}$$

That is, a coordinative sentence consists of an obligatory Main $Clause_1$ position filled by an independent clause, an optional Coordinator position filled by a clause linker, and an obligatory Main $Clause_2$ position filled by an independent clause. Examples are:

Pinf	nauzweanl,	mizxih	Zenqdongy	tiaoqwuj
/$p^{h}in^{6}$	$naw^{2}.wɯan^{1}$	$mi^{2}.ɕi^{4}$	$\widetilde{ts}ɯn^{1}.toŋ^{4}$	$t^{h}iao^{1}.wu^{5}$/
Ping	sing	either…or	Zhengdong	dance

‘Either Ping will sing or Zhengdong will dance.’

Pinf	osbail	damxxih	Zenqdongy	qyus	raanz
/$p^{h}in^{6}$	$ʔo^{3}.pay^{1}$	$tam^{6}.ɕi^{4}$	$\widetilde{ts}ɯn^{1}.toŋ^{4}$	$ʔyu^{3}$	$zaːn^{2}$/
Ping	to go out	but	Zhengdong	to live	house

‘Ping went out but Zhengdong stayed home.’

Pinf	hax	nauzweanl,	Zenqdongy	hax	tiaoqwuj
/$p^{h}in^{6}$	xa^{6}	$naw^{2}.wɯan^{1}$	$\widetilde{ts}ɯn^{1}.toŋ^{4}$	xa^{6}	$t^{h}iao^{1}.wu^{5}$/
Ping	will	sing	Zhengdong	will	dance

‘Ping will sing and Zhengdong will dance.’

7.2.2.2 Subordinative sentences

Such sentences which have one independent main clause and at least one subordinate clause are subordinative sentences. Subordinate clauses can be

conditional, temporal, cause-effect, etc. and they are embedded in subordinative sentences by some markers which are classified as clause linkers. To form a subordinative sentence, the main clause may precede or follow the subordinate clause. The structural formula for this sentence subtypes is shown below.

$$Sent_{subor} = +Main\ Cl: cl_{ind} \longleftrightarrow +Subor\ Cl: cl_{dep}$$

That is, a subordinative sentence consists of an obligatory Main Clause position filled by an independent clause plus an obligatory Subordinate Clause position filled by a dependent clause which can be moved to the front of the main clause. Some examples are:

Xez	boh	lixqyus	deel,	yaangzmaz	duy
/ɕɯ^{2}	po^{4}	li^{6}.ʔyu^{3}	te^{1}	yaːŋ^{2}.ma^{2}	tu^{4}
when	father	alive	dem.	anything	all

deg	boh	bail	gueh
tɯk^{4}	po^{4}	pay^{1}	kua^{4}/
to suffer	father	to go	to do

‘When he was still alive, everything was done by the father.’

Wenzbeangz	hax	guehmeeuz,	duezbyac	xih	xuangs
/wɯn^{2}.pɯaŋ^{2}	xa^{6}	kua^{4}.mɐw^{2}	tua^{2}.p^{y}a^{5}	ɕi^{4}	ɕuaŋ^{3}
human	will	to crop	thunder	then	release

ramx	mallac	haec	xail	naz	dogtjac
zam^{6}	ma^{1}.la^{5}	xaɯ^{5}	ɕay^{1}	na^{2}	tok^{3}.ca^{5}/
water	to go down	to give	to plow	field	to sow

‘When the people grow crops, the Thunder God pours the water for plowing and sowing.’

Daz	ranl	xih	laih
/ta^{2}	zan^{1}	ɕi^{4}	lay^{4}/
if	to see	then	to chase

‘If (the dog) sees (the cat), (the dog) will chase (the cat).’

Deel	miz	roxnyiel	yinyweiq	yingl	nis	laail
/te^{1}	mi^{2}	zo^{6}.ɲia^{1}	yin^{4}.wɯy^{1}	yiŋ^{1}	ni^{3}	laːy^{1}/
3SG	neg.	to hear	because	sound	small	very

‘He cannot hear because the voice is very soft.’

It is noted that the semantic relationship between the main clause and subordinate clause are various. That is the first and second examples indicate temporal, the third example indicates condition, and the fourth example indicates cause-effect.

To sum up, this chapter has focused on an analysis of clauses and sentences in Bouyei. It started by describing the clause which is classified into two categories: independent and dependent clauses. Independent clauses consist of transitive, intransitive, ditransitive, descriptive, locative, motion, directional, propulsion, quotative, equational, existential, ambient, causative, submissive, cognitive, and comparative clauses. These clauses can be transformed into interrogative and imperative. Sentences are classified into simple and complex. It has been shown that a complex sentence in Bouyei can be formed without linkers and a subordinate clause can appear before or after a main clause without changing of meaning.

CHAPTER VIII
CONCLUSION

As stated at the beginning of this dissertation, the objective of this study is to describe the phonology, morphology and syntax of the Bouyei language spoken in Guizhou, P.R. China. This chapter attempts to show that the objective has been achieved in the summary in Section 8.1. Discussion of the study will be dealt with in Section 8.2. Section 8.3 points out some possible directions for further studies.

8.1 Summary

Each chapter of this dissertation is summarized as follows:

Chapter 1 serves as an introductory chapter of the study. The research background section in this chapter briefly introduces the Bouyei language and its speakers, and outlines the reasons for choosing the grammar of this language to be studied. This chapter then deals with the objective of the study, expected outcome, hypotheses, scope of the study, and terminology of the study, followed by brief information of Bouyei. It contains the information about the people, the language and the culture of Bouyei.

Chapter 2 is a review of extant literature. It provides an overview of grammatical theory, research on the Bouyei language, and the status of research on Tai-Kadai studies.

First, the researcher considers Tagmemics as the model for analyzing the Bouyei syntax because it is suitable to the objective of the study. The methods of analysis of the tagmemic model are not complicated. This model is convenient in describing languages that have not been studied before.

Second, the research on the Bouyei language manifests the relationship and position of the Bouyei language within the Kam-Tai branch of languages. Moreover, the studies on the Bouyei orthography, phonology and syntax are also

explicated in this part. It reveals that research of Bouyei grammar written in English is minimal.

Finally, the status of research on Tai-Kadai shows that Tai languages are much studied by American and Chinese scholars and most of them are written in Chinese. The research on the Bouyei language by Thai linguists is focused on two topics, phonetics and phonology, along with semantics. Therefore, more research on morphology and syntax should be conducted in order to fill a gap in the linguistic study of the Bouyei language.

Chapter 3 relates the methodology which provides an overview of the theoretical framework, data collection, and data analysis. The theoretical framework of the study is based on Tagmemics, a structuralist approach of linguistic analysis, developed by Kenneth L. Pike (1967). Since there are various versions of Tagmemics developed from Pike by many scholars, the methodology used in this study is divided into two parts – (1) the phonemic procedures (Pike, 1976) are used for describing and classifying the phonemes of the Bouyei language including consonants, vowels and tones, and (2) Thomas's version of the tagmemic model (1993) is used for syntactical analysis including morphology and syntax. For classifying word classes, Iwasaki and Ingkaphirom (2005)'s specific terms are implemented.

The data collected in this study are both wordlist and texts. They were gathered from different sources. The basic wordlist was collected from the informant directly, while the twenty text data were obtained from Wang and Zhou (2005), and then were translated into English and analyzed with various computer programs, including FLEx version 5.0, Phonology Assistant version 3.0.1, and PRAAT version 5.3.06, by the researcher.

Chapter 4 deals with the phonological description of the Bouyei language including syllable, tones, vowels and consonants. The study reveals that the syllable structure in Bouyei consists of an obligatory initial consonant, an obligatory single vowel (monophthong), or the optional vowel sequences (diphthong), plus tone, and an optional final consonant. This structure yields four possible CV patterns. They are CV^T, CVV^T, CVC^T and $CVVC^T$.

The phonetic realization of six tones in Bouyei includes a low rising tone - [^{214}], a low falling tone - [^{21}], a mid rising tone - [^{35}], a mid level tone - [^{33}], a high

falling tone - [^{51}], and a mid falling tone - [^{31}]. Vowels are divided into seven single vowels - /i/, /e/, /ɯ/, /a/, /aː/, /u/, /o/, and four vowel sequences - /ia/, /ɯa/, /ua/, /aɯ/. The vowels /i/ and /u/ in vowel sequences are interpreted as the finals /y/ and /w/ respectively to conform to the CV patterns. The phonemic length distinction can be found only in the low central unrounded vowel - /a, aː/. Moreover, this contrast is found only in closed syllables. There are twenty five consonants in Bouyei, /p, p^{y}, ʔb, t, ʔd, k, k^{w}, ʔ, c, f, s, z, ɕ, x, m, m^{y}, n, ɲ, ŋ, ŋ^{w}, l, ʔw, w, ʔy, y/. All these consonants can appear as an initial consonant. Only eight of them can occur finally. They consist of /p/, /t/, /k/, /m/, /n/, /ŋ/, /w/ and /y/.

Co-occurrence of consonants and vowels is also discussed. It is seen that 1) all consonants can occur with low central vowel /a/; 2) /p/, /ʔb/, /t/, /ʔd/, /ʔ/, /c/, /s/, /z/, /ɕ/, /x/, /m/, /n/, /ɲ/, /ŋ/, /l/, /w/, /ʔy/ and /y/ can occur with all vowels; 3) consonants with secondary articulation, labialized and palatalized, do not occur with the high back vowel /u/ and high central vowel /ɯ/; and 4) palatalized consonants, /p^{y}/ and /m^{y}/, do not occur with high front vowel /i/.

Chinese loan consonants in Bouyei consist of /p^{h}/, /t^{h}/, /k^{h}/, /ts/, /ts^{h}/ and /tɕ^{h}/. All of them, except the affricate /t͡s/, are aspirated sounds. Chinese loan vowels consist of /ia/, /iao/, /io/, /ao/, /ua/, /ou/. The vowel sequences /ia/ and /ua/ in Bouyei are not the same as [ia] and [ua] in Chinese loanwords because they are realized as [iə] and [uə], respectively.

Chapter 5 is descriptive of word formation and word classes in Bouyei. Bouyei complex words are formed by affixing, compounding, and reduplicating. The affixation consists of prefixing and suffixing. Infixing is not found in this language. The compound is divided into the semantic and syntactic compound. The class term is differentiated from the classifier to form the word compound. The reduplication is divided into the simple and complex reduplications. The simple reduplication is normally used to emphasize the meaning of the root or to indicate plurality.

Word classes are divided into sixteen word classes. They are arranged in four groups that consist of noun-related words, verb-related words, modifying words and miscellaneous words. As they are open-class words, verbs can be classified into

sixteen subclasses. Each subclass can occur together in the sequence and act together as a single predicate which is called a serial verb construction.

Chapter 6 focuses on an analysis of the phrase structure in Bouyei. Phrases are divided into two main groups - major phrases and minor phrases. The major phrases include a nominal phrase and a verb phrase. The minor phrases include a numeral phrase, an adverb phrase, a prepositional phrase and a temporal phrase. The structural formulas based on Tagmemics theory are provided for each type of phrases. It is seen that the structures of a prepositional phrase and a temporal phrase are similar. However, they are distinctive in that the relator position of the prepositional phrase is obligatory, while the relator position of the temporal phrase is optional. Furthermore, the Head position of a prepositional phrase can be filled by a noun phrase or an adverb, while the Head position of a temporal phrase can be filled by an adverb only.

Chapter 7 provides an analysis of clauses and sentences in Bouyei. Clauses are classified into two categories: independent and dependent clauses. Independent clauses consist of transitive, intransitive, ditransitive, descriptive, locative, motion, directional, propulsion, quotative, equational, existential, ambient, causative, submissive, cognitive, and comparative clauses. These clauses can be transformed into interrogative and imperative. Sentences are classified into simple and complex. It is seen that a complex sentence in Bouyei can be formed without linkers and a subordinate clause can appear before or after a main clause without changing of meaning.

8.2 Discussion of the study

Since the Bouyei language is placed in the Northern Tai branch of Tai languages, the grammar of Bouyei should be similar to the other Tai languages in all ranks of grammatical hierarchy. The results of the study revealed the similarities from the phonological system up to the level of syntactic system as shown below.

1) Phonological system

- There is a contrast of duration in syllables (CVC and CVːC) in Tai languages. This feature is also found in Bouyei, such as /kay^{3}/ ‘chicken’ and /kaːy^{3}/ ‘thing.’

- Preglottalized initials, which are the proto-sounds for Tai languages, are preserved in Bouyei, for instance, /ˀbaɯ^{1}/ ‘leaf,’ /ˀba^{3}/ ‘shoulder,’ /ˀda^{3}/ ‘to curse’ and /ˀdoŋ^{1}/ ‘forest.’

- Bouyei is a tonal language as well as other Tai languages. Many words are differentiated by the tones associated with them, such as /ka^{1}/ ‘leg,’ /ka^{5}/ ‘to kill,’ /ka^{6}/ ‘to trade.’

- Proto-Tai final consonants, reconstructed by Li (1977), consist of /p, t, k, m, n, ŋ/. These consonants are also found as finals in Bouyei.

- Sound correspondences between Bouyei and other Tai languages can be found, for example (without tone marker):

	Bouyei	**Thai**	
/x - k^{h}/	/xaːw/	/k^{h}aːw/	‘white’
	/xam/	/k^{h}am/	‘night’
/ˀb - b/	/ˀba/	/baː/	‘shoulder’
	/ˀbin/	/bin/	‘to fly’

	Bouyei	**Lao**	
/ɕ - s/	/ɕaːŋ/	/saːŋ/	‘elephant’
	/ɕɯ/	/sɯ/	‘to buy’

	Bouyei	**Black Tai**	
/f - m/	/ko.fay/	/ko.may/	‘tree’
	/fɯŋ/	/mɯ/	‘hand’

2) Morphological system

- Most of Bouyei words are of monosyllabic monomorphemic form as well as words in other Tai languages. Moreover, they can occur in free form. For disyllabic and polysyllabic words, they are usually derived from the combination of free morphemes.

- Tai cognate words are much found in Bouyei, especially the vocabulary with regard to wet paddy rice cultivation.

- Tai languages usually have final particles that are used to express politeness or speakers' intention. Bouyei also has this feature, such as /mɯŋ^{2}(2SG) kɯn^{1}(to eat) xaw^{6} (rice) fi^{4} (prt.)/ 'Have you had a meal yet?'

- Verbs in Bouyei cannot be nominalized as well as verbs in most Tai languages, except Thai.

3) Syntactic system

- Modifiers in Bouyei usually occur after the head noun in a noun phrase, for example, /ma^{1} (dog) laːw^{6} (big)/ 'big dog,' /ʔbaːn^{6} (village) cay^{1} (far)/ 'far village.' This is a common feature in Tai languages.

- In Tai languages, numerals are usually followed by classifiers. Bouyei also has this characteristic, for instance, /si^{3}(four) tua^{2}(cls.) ma^{1}(dog)/ 'four dogs,' /xa^{5}(five) ʔdan^{1}(cls.) taŋ^{1}.ŋon^{2}(sun)/ 'five suns.'

- Bouyei is basically an SVO language which is the same as other Tai languages, for example, /te^{1}(3SG) ka^{5}(to kill) tua^{2}.waːy^{2}(buffalo) ʔdew^{1}(one)/ 'He killed a buffalo.'

Nevertheless, the Bouyei language is influenced by Chinese, especially phoneme and morpheme because the Bouyei people have a rather long period of contact with Chinese. Some Chinese characteristics found in Bouyei are as follows:

1) Phonological system

- Aspirated initials found in Bouyei are borrowed from Chinese. They include [p^{h}], [t^{h}], [k^{h}], [ts^{h}], [tɕ^{h}] (see examples in Section 4.6). Even though these

aspirated sounds are proto-Tai initials but they merged with unaspirated stops over a period of time (Snyder, 1995). Later these initials appear again after contact with Chinese.

2) Morphological system

- There are many Chinese loanwords found in the Bouyei language. Most of them relate to concept in Chinese culture and developing technologies, for example:

Bouyei	**Chinese**	**Meaning**
/tian^{1}.nao^{5}/	diànnǎo (电脑)	‘computer’
/sɯ^{1}/	shū (书)	‘book’
/kuŋ^{4}.yuan^{6}/	gōngyuán (公园)	‘park’
/ɕio^{6}.ɕi^{6}/	xuéxí (学习)	‘to study’

Besides content words, it is noted that many function words in Bouyei, especially modalities and linkers, are also borrowed from Chinese. Examples are:

Bouyei	**Chinese**	**Meaning**
/yi^{6}.tin^{1}/	yīdìng (一定)	‘must’
/yin^{1}.kay^{4}/	yīnggāi (应该)	‘should’
/yin^{4}.wɯy^{1}/	yīnwèi (因为)	‘because’
/so^{5}.yi^{5}/	suǒyǐ (所以)	‘therefore’

- Some monosyllabic nouns in Bouyei can be reduplicated to express the meaning of “every” as same as in Chinese. Examples are:

Bouyei	**Chinese**	**Meaning**
/pu^{6}.pu^{6}/	gè gè (个个)	‘every one’
/ŋon^{2}.ŋon^{2}/	tiān tiān (天天)	‘every day’
/zaːn^{2}.zaːn^{2}/	jiā jiā (家家)	‘every family’

3) Syntactic system

- According to Burusphat and Zhou (2009), the structure of traditional numeral noun phrase in Tai languages is a noun followed by a numeral plus classifier. Therefore, the numeral noun phrases in Bouyei should be influenced from Chinese because they have the same structure as in Chinese. That is a numeral plus classifier followed by a noun.

- Even though Bouyei is basically an SVO language, some SOV characteristics have been found due to the strong influence of Chinese, such as the SOV order in the /pa^{6}/ construction mentioned in Section 5.2.1.4.

- Some adverbs in Bouyei, which are Chinese loanwords, can occur pre-verbally. This structure is the same as adverbials in Chinese that usually occur prior to the predicate, or in some cases, at the beginning of a sentence. For example:

Yahwaaiz	xih	**maanhmaanh**	hencbail	genz	xaangz
/ya^{4}.waːy^{2}	ɕi^{4}	**maːn^{4}.maːn^{4}**	xɯn^{5}.pay^{1}	kɯn^{2}	ɕaːŋ^{2}/
Yawai	then	**slowly**	to go up	above	bed

‘Yawai was going up to the bed slowly.’

- Prepositional phrases and temporal phrases in Bouyei which occur in pre-verbal position are also influenced from Chinese. Burusphat (2002) claimed that the preverbal prepositional phrase is created through the collapse of serial verb construction, not through the rearrangement of the sentential constituents. Some examples are presented below.

Prepositional phrase

Legmbegt	laaux	**weiq**	**wenzbeangz**	gac	duezhaais
/lɯk^{4}.ˀbɯk^{3}	laːw^{6}	**wɯy^{1}**	**wɯn^{2}.pɯaŋ^{2}**	ka^{5}	tua^{2}.xaːy^{3}/
daughter	big	**for**	**people**	to kill	wild animal

‘The eldest daughter killed the wild animal for people.’

Temporal phrase

Deel	**ngonzlianz**	dez	leg	bail	Befjiny
/te^{1}	**ŋon^{2}.lian^{2}**	tɯ^{2}	lɯk^{4}	pay^{1}	pe^{6}.cin^{4}/
3SG	**yesterday**	to take	child	to go	Beijing

'He took the child to Beijing on yesterday.'

In summary, the Bouyei language has been influenced by Mandarin Chinese in all ranks of grammatical hierarchy, especially phonemes and morphemes, because of language contact. However, the Bouyei language is still similar to other Tai languages. Thus, the results of this research bear out the hypotheses mentioned in the first chapter.

8.3 Suggestions for further studies

1. As mentioned in the previous section that there are many Chinese loanwords in Bouyei, the topic of Chinese loanwords could be further studied in order to find out when or how these loanwords are borrowed.

2. The grammar of Bouyei could be used for comparative studies between the Bouyei language in China and in Vietnam in order to find out how they are similar and dissimilar.

3. Since this study is limited to sentence level, discourse analysis should be studied in order to complete all ranks of grammatical hierarchy.

4. Language planning could be conducted because the younger generations of Bouyei gradually give up their native language and shift to Chinese. Even though there are large numbers of Bouyei people, this language is considered to be an endangered language.

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APPENDICES

APPENDIX A
BOUYEI BASIC VOCABULARY BY SEMANTIC AREA

1. Terms for Parts of Human Body and Excreta:

head	/caw^{5}/
hair	/meːw^{2}/
mouth	/pa^{3}/
tongue	/lin^{6}/
tooth	/yeːw^{5}/
nose	/ˀdaŋ^{1}/
face	/na^{5}/
mustache, beard	/mum^{4}/
ear	/zia^{2}/
eye	/ta^{1}/
eyeball	/lɯk^{4}.ta^{1}/
neck	/ʔeːw^{1}/
shoulder	/ˀba^{3}/
back	/laŋ^{1}/
abdomen	/tuŋ^{6}/
hand	/fɯŋ^{2}/
palm	/wa^{3}.fɯŋ^{2}/
fingernail	/zip^{4}.fɯŋ^{2}/
arm	/ceːn^{1}/
chest	/ʔak^{3}/
penis	/way^{2}/
foot	/tin^{1}/

toenail	/zip^{4}.tin^{1}/
leg	/ka^{1}/
knee	/maw^{6}.xo^{3}/
thigh	/ka^{1}.laːw^{6}/
calf	/ʔaːy^{1}.pi^{1}/
skin	/naŋ^{1}/
heart	/tom^{3}/
liver	/tap^{3}/
intestines	/say^{5}/
flesh	/no^{4}.ɕiŋ^{1}/
blood	/liat^{4}/
fat	/no^{4}.pi^{2}/
bone	/ʔdo^{3}/
sweat	/xaːn^{4}/

2. Natural Phenomena:

sun	/taŋ^{1}.ŋon^{2}/
moon	/zoŋ^{4}.ʔdian^{1}/
star	/ʔdaːw^{1}.ʔdi^{3}/
sky	/ʔbɯn^{1}/
cloud	/wɯa^{5}/
wind	/zum^{2}/
rain	/wɯn^{1}/
rainbow	/ɕuŋ^{2}/
thunder	/p^{y}a^{5}/
water	/zam^{6}/

fire	/fi^{2}/
smoke	/xon^{2}/
fog	/lap^{3}.mo^{3}/
forest	/ʔdoŋ^{1}/
tree	/ko^{1}.fay^{6}/
bark of tree	/naŋ^{1}.fay^{6}/
grass	/ko^{1}.ɲa^{1}/
flower	/wa^{1}/
leaf	/ʔbaɯ^{1}/
root	/za^{4}/
fruit	/ma^{3}/
banana	/coy^{5}/
sugarcane	/ʔoy^{6}/
seed	/ŋ^{w}i^{4}/, /wan^{1}/
earth, dirt	/naːm^{4}/
mud	/poŋ^{2}/
sand	/ze^{3}/
ashes	/taw^{4}/
dust	/wɯa^{3}/
gold	/cim^{1}/
silver	/ŋan^{2}/
stone	/zin^{1}/
mountain	/po^{1}/
hillside	/paːŋ^{6}.po^{1}/
river	/ta^{4}/
riverside	/paːŋ^{6}.ta^{4}/
sea	/xaːy^{5}/

waterfall	/pʰu^{6}.pu^{1}/
road	/zon^{1}/
night	/xam^{4}/, /xɯn^{2}/
day	/ŋon^{2}/
sunshine	/ʔdit^{3}/

3. Animate Things:

person	/xun^{2}/
people	/wɯn^{2}/
man	/pu^{6}.saːy^{1}/
woman	/ɕi^{2}.ya^{4}/, /ʔbɯk^{3}/
child	/ɕi^{2}.laːn^{1}/
old woman	/ya^{4}.ce^{3}/
old people	/pu^{6}.ce^{3}/
young people	/pu^{6}.ɕo^{2}/
adult	/pu^{6}.laːw^{6}/
dog	/tua^{2}.ma^{1}/, /ma^{1}/
cat	/tua^{2}.mʸaw^{3}/, /mʸaw^{3}/
horse	/tua^{2}.ma^{6}/, /ma^{6}/
cow	/ɕia^{2}.me^{4}/
buffalo	/waːy^{2}/
goat	/yuaŋ^{2}.ʔbe^{6}/
pig	/mu^{1}/
chicken	/kay^{3}/
duck	/pit^{3}/
rat	/waːw^{5}/

fish	/tua^{2}.p^{y}a^{1}/
bird	/zok^{4}/
cricket	/tak^{3}.tay^{3}/
eagle	/zom^{4}/
deer	/yuan^{2}.p^{y}a^{1}/
tiger	/tua^{2}.kuk^{3}/
elephant	/ɕaːŋ^{6}/
monkey	/liŋ^{2}/
rabbit	/ɲut^{4}.to^{3}/
snake	/ŋɯa^{2}/
worm	/tua^{2}.ʔdian^{1}/
spider	/k^{w}aːw^{1}/
insect, bug	/neːŋ^{2}/
mosquito	/neːŋ^{2}.ka^{1}.zay^{2}/
louse (on cloth)	/nan^{2}/
louse (on head)	/zuy^{2}/

4. Deictic Words:

I	/ku^{1}/, /woy^{3}/
you	/mɯŋ^{2}/, /su^{1}/
we	/tu^{1}/, /xo^{5}.tu^{1}/, /po^{2}.ku^{1}/, /zaw^{2}/, /po^{2}.zaw^{2}/
they	/te^{1}/, /xo^{5}.te^{1}/, /po^{2}.te^{1}/
he, she, it	/te^{1}/
here	/cia^{2}.ni^{6}/
there	/cia^{2}.te^{1}/
this	/ne^{6}/, /ni^{6}/

that	/tɛ^{1}/
now	/pay^{2}.ni^{6}/
then	/ɕi^{4}/
later	/ɕo^{4}.zɯ^{2}/
today	/ŋon^{2}.nɛ^{6}/
tonight	/xam^{4}.nɛ^{6}/
tomorrow	/ŋon^{2}.ɕo^{4}/
yesterday	/ŋon^{2}.lian^{2}/
month	/ŋuat^{4}/
year	/pi^{1}/

5. Question Words

who	/pu^{6}.laɯ^{2}/
what	/kaːy^{3}.ma^{2}/, /kam^{5}.ma^{2}/
which	/laɯ^{2}/
how many	/ci^{5}/
how	/taŋ^{5}.laɯ^{2}/, /yiaŋ^{4}.laɯ^{2}/
how much	/saːw^{4}.laɯ^{2}/
where	/cia^{2}.laɯ^{2}/
when	/ku^{3}.laɯ^{2}/
why	/wɯy^{1}.ma^{2}/

6. Parts of Animals:

claw	/zip^{4}/
horn	/kaw^{1}/
feather	/pɯn^{1}/

wing	/fɯat^{4}/
tail	/ziaŋ^{1}/
egg	/cay^{3}/

7. Numerals

one	/ʔdew^{1}/
two	/soːŋ^{1}/
three	/saːm^{1}/
four	/si^{3}/
five	/xa^{5}/
six	/zok^{3}/
seven	/ɕɛt^{3}/
eight	/pɛt^{3}/
nine	/ku^{5}/
ten	/ɕip^{4}/
eleven	/ɕip^{4}.ʔit^{3}/
twelve	/ɕip^{4}.ŋi^{4}/
thirteen	/ɕip^{4}.saːm^{1}/
fourteen	/ɕip^{4}.si^{3}/
fifteen	/ɕip^{4}.xa^{5}/
sixteen	/ɕip^{4}.zok^{3}/
seventeen	/ɕip^{4}.ɕɛt^{3}/
eighteen	/ɕip^{4}.pɛt^{3}/
nineteen	/ɕip^{4}.ku^{5}/
twenty	/ŋi^{4}.ɕip^{4}/
twenty-one	/ŋi^{4}.ɕip^{4}.ʔit^{3}/
twenty-two	/ŋi^{4}.ɕip^{4}.ŋi^{4}/

thirty	/saːm^{1}.ɕip^{4}/
forty	/si^{3}.ɕip^{4}/
fifty	/xa^{5}.ɕip^{4}/
sixty	/zok^{3}.ɕip^{4}/
seventy	/ɕet^{3}.ɕip^{4}/
eighty	/pet^{3}.ɕip^{4}/
ninety	/ku^{5}.ɕip^{4}/
one hundred	/pa^{3}.ʔdew^{1}/
two hundred	/soːŋ^{1}.pa^{3}/
thousand	/ɕian^{1}.ʔdew^{1}/
two thousand	/soːŋ^{1}.ɕian^{1}/
ten thousand	/faːn^{4}/
hundred thousand	/ɕip^{4}.faːn^{4}/
million	/pa^{3}.faːn^{4}/
first	/ta^{2}.ʔit^{3}/, /ʔdu^{6}/
second	/ta^{2}.ŋi^{4}/
third	/ta^{2}.saːm^{1}/
fourth	/ta^{2}.si^{3}/
fifth	/ta^{2}.xa^{5}/
sixth	/ta^{2}.zok^{3}/
seventh	/ta^{2}.ɕet^{3}/
eighth	/ta^{2}.pet^{3}/
ninth	/ta^{2}.ku^{5}/
tenth	/ta^{2}.ɕip^{4}/
many, much	/laːy^{1}/, /saːw^{4}.ni^{6}/
little bit	/noy^{4}/, /nuay^{4}/, /sew^{5}/
half	/tiŋ^{2}/, /p^{y}oːŋ^{4}/

8. Descriptive Verbs:

hot	/ˀdaːt^{3}/
cold	/ɕeŋ^{6}/
dry	/xɯ^{3}/
wet	/tum^{2}/
good	/ˀdi^{1}/
bad	/waːy^{4}/
smooth	/ˀdoŋ^{3}/
beautiful	/ɕaw^{4}.ˀdi^{1}/
soft	/ʔun^{3}/
heavy	/nak^{3}/
hard	/naːn^{2}/
easy	/ŋaːy^{4}/
full	/zim^{1}/
empty	/piw^{3}/
round	/zan^{2}/
new	/mo^{3}/
old	/kaw^{3}/
big	/laːw^{6}/
small	/ni^{3}/
long	/zay^{2}/
tall	/saːŋ^{1}/
short	/tin^{5}/
low	/tam^{3}/
thick	/na^{1}/
thin	/ˀbeŋ^{1}/
stupid	/ˀwa^{6}/

clever	/kʷaːy^{1}/
red	/ʔdiŋ^{1}/
black	/fon^{6}/
white	/xaːw^{1}/
yellow	/xɛn^{5}/
green	/lok^{4}/
blue	/cam^{6}/
pink	/non^{4}/
grey	/mi^{3}/

9. Verbs:

eat	/kɯn^{1}/
bite	/xap^{4}/
lick	/zia^{2}/
suck	/ʔdot^{3}/, /nɯ^{5}/
sit	/naŋ^{4}/
stand	/zun^{3}/, /ʔdun^{1}/
walk	/pʸaːy^{5}/
run	/le^{2}/
get up	/zun^{3}.ma^{1}/
sleep	/nin^{2}/
dream	/pan^{2}.xɯn^{2}/
wake up	/non^{2}.ma^{1}/
swim	/lew^{4}/, /yu^{2}/
come	/ma^{1}/
go	/pay^{1}/

step	/mʸaːn^{6}/
step on something	/tam^{4}/
jump out	/sat^{3}.tɐw^{2}/
kick	/le^{3}/
climb	/pin^{1}/
fly	/ʔbin^{1}/
see	/zan^{1}/
hear	/zo^{6}.ɲia^{1}/
listen to	/ɲia^{1}/
speak	/naw^{2}/
write	/zaːy^{2}/
smell	/ʔdum^{4}.ʔdu^{3}/
know	/zo^{6}/
think	/ʔdiap^{3}/, /nɯ^{4}/
vomit	/ʔok^{4}/
tie	/ɕuk^{4}/, /xɯat^{4}/
untie	/ce^{5}/
kill	/ka^{5}/
cut	/fan^{2}/, /ɕaːp^{4}/
drink	/ʔdun^{6}/
hold in hand	/kam^{1}/
throw	/ɕit^{3}/, /wit^{4}/
fall down	/tok^{3}/
dig	/kut^{4}/, /pa^{4}/
push	/ɕeŋ^{3}/
pull	/loŋ^{3}/
buy	/ɕɯ^{6}/

sell	/kaːy^{1}/
bring, take	/tɯ^{2}/
carry	/ʔdiaŋ^{6}/
ask	/xam^{3}/
answer	/naw^{2}/
curse	/ʔda^{3}/
complain	/k^{w}aːy^{3}/
give	/xaɯ^{5}/
order	/paːy^{3}/

APPENDIX B
BOUYEI BASIC KINSHIP TERMS

Table 1: Third generation above Ego

Relation to ego	Bouyei terms
1. father's father's father	taiqjees /$t^hay^1.ce^3$/
2. father's father's mother	taiqjees /$t^hay^1.ce^3$/
3. father's mother's father	taiqjees /$t^hay^1.ce^3$/
4. father's mother's mother	taiqjees /$t^hay^1.ce^3$/
5. mother's father's father	taiqjees /$t^hay^1.ce^3$/
6. mother's father's mother	taiqjees /$t^hay^1.ce^3$/
7. mother's mother's father	taiqjees /$t^hay^1.ce^3$/
8. mother's mother's mother	taiqjees /$t^hay^1.ce^3$/

Table 2: Second generation above Ego

Relation to ego	Bouyei terms
1. father's father	baus /paw^3/
2. father's mother	yah /ya^4/
3. mother's father	dal /ta^1/
4. mother's mother	daais /$ta{:}y^3$/

Table 3: First generation above Ego

Relation to ego	Bouyei terms
1. father	boh /po^{4}/
2. mother	meeh /me^{4}/
3. father's elder brother	bohlaaux /pɔ^{4}.laːw^{6}/
4. father's younger brother	aaul /ʔaːw^{1}/
5. father's elder sister	bac /pa^{5}/
6. father's younger sister	guex /kua^{6}/
7. mother's elder brother	bohlungz /po^{4}.luŋ^{2}/
8. mother's younger brother	bohnax /po^{4}.na^{6}/
9. mother's elder sister	bac /pa^{5}/
10. mother's younger sister	nax /na^{6}/

Table 4: Ego

Relation to ego	Bouyei terms
1. elder brother	bix /pi^{6}/
2. younger brother	nuangx /nuaŋ^{6}/
3. elder sister	sej /se^{5}/
4. younger sister	nuangxmaixmbegt /nuaŋ^{6}.may^{6}.ʔbuk^{3}/
5. father's brother's son: elder	bixnuangx /pi^{6}.nuaŋ^{6}/
6. father's brother's son: younger	bixnuangx /pi^{6}.nuaŋ^{6}/
7. father's brother's daughter: elder	bixnuangx /pi^{6}.nuaŋ^{6}/
8. father's brother's daughter: younger	bixnuangx /pi^{6}.nuaŋ^{6}/
9. father's sister's son: elder	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
10. father's sister's son: younger	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
11. father's sister's daughter: elder	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/

12. father's sister's daughter: younger	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
13. mother's brother's son: elder	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
14. mother's brother's son: younger	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
15. mother's brother's daughter: elder	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
16. mother's brother's daughter: younger	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
17. mother's sister's son: elder	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
18. mother's sister's son: younger	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
19. mother's sister's daughter: elder	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/
20. mother's sister's daughter: younger	bixnuangxbiaoj /pi^{6}.nuaŋ^{6}.piao^{5}/

Table 5: First generation below Ego

Relation to ego	Bouyei term
1. son	legsaail /lɯk^{4}.saːy^{1}/
2. daughter	legmbegt /lɯk^{4}.ˀbɯk^{3}/
3. elder brother's son	laanl /laːn^{1}/
4. elder brother's daughter	laanl /laːn^{1}/
5. younger brother's son	laanl /laːn^{1}/
6. younger brother's daughter	laanl /laːn^{1}/
7. elder sister's son	laanl /laːn^{1}/
8. elder sister's daughter	laanl /laːn^{1}/
9. younger sister's son	laanl /laːn^{1}/
10.younger sister's daughter	laanl /laːn^{1}/

Table 6: Second generation below Ego

Relation to ego	Bouyei term
1. son's son	laanl /laːn^{1}/
2. son's daughter	laanl /laːn^{1}/
3. daughter's son	laanl /laːn^{1}/
4. daughter's daughter	laanl /laːn^{1}/

Table 7: Third generation below Ego

Relation to ego	Bouyei term
1. son's son's son	lanc /lan^{5}/
2. son's son's daughter	lanc /lan^{5}/
3. son's daughter's son	lanc /lan^{5}/
4. son's daughter's daughter	lanc /lan^{5}/
5. daughter's son's son	lanc /lan^{5}/
6. daughter's son's daughter	lanc /lan^{5}/
7. daughter's daughter's son	lanc /lan^{5}/
8. daughter's daughter's daughter	lanc /lan^{5}/

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