

**VARIATIONS IN ZHUANG TRADITIONAL CHARACTER
(SAWNDIP) AS WRITTEN IN MO BOOKS:
A CASE STUDY OF FUNCTION WORDS**



HUANG LINA

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OF THE REQUIREMENTS FOR THE DEGREE OF
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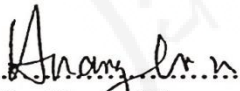
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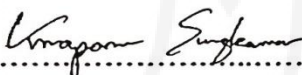
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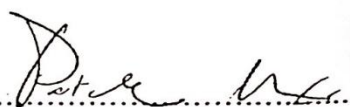

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VARIATIONS IN ZHUANG TRADITIONAL CHARACTER (SAWNDIP) AS
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ABSTRACT

This study attempted to identify geographic and non-geographic patterns of Zhuang traditional character variations. Data sources included: *Sawndip Sawdenj* (Ancient Zhuang Character Dictionary, Su YongQin, al, 1989) and Mo Books (8 volumes of *Annotated Translation of Photomechanical Printing of Zhuang Mo Scripture Buluto*, Zhang Shengzhen, 2004). Function words were selected to be analytical objects not only because they are much fewer than content words, but they also have high occurring frequency in the texts.

Two frameworks were applied during research due to study objectives, dialectology (Chamber & Trugill, 2004) method and Zhuang variation mapping (Holm, 2013) was employed to analyze variation distribution in order to find out the geographic mapping patterns of Zhuang variations. Iconicity principle (Hiraga, 2004) was applied to analyze correlation between context and variation shapes.

The results of analysis showed that geography mapping of variations displays regional continuum and boundaries features and meaning and use may cause variations, isomorphism of text structure that may restrict variations.

KEY WORDS: MO BOOKS / ZHUANG TRADITIONAL CHARACTER/
FUNCTION WORDS / VARIATIONS

149 pages

การแปรของตัวอักษรดั้งเดิม (อักษรดิบ) ที่ใช้ในคัมภีร์หมอชาติพันธุ์จ้วง: กรณีศึกษาคำหน้าที่
VARIATIONS IN ZHUANG TRADITIONAL CHARACTER (SAWNDIP) AS WRITTEN IN
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บทคัดย่อ

การศึกษาคำนี้ประสงค์จะระบุแบบแผนการกระจายรูปแปรของอักษรจ้วงดั้งเดิม
ทั้งที่สัมพันธ์กับปัจจัยเชิงพื้นที่และไม่พื้นที่โดยการวิเคราะห์เอกสารโบราณ รวมถึง พจนานุกรม
อักษรจ้วงโบราณ Sawndip Sawdenj (Su YongQin, al, 1989) และคัมภีร์หมอ (คัมภีร์หมอปู่ลั่วถัว
ชาติพันธุ์จ้วงพร้อมคำอธิบายและฉบับถ่ายสำเนาภาพถ่าย) ทั้งหมด 8 เล่ม (Zhang Shengzhen,
2004) โดยมุ่งเน้นที่การศึกษาคำหน้าที่เนื่องจากมีความถี่ในการปรากฏสูง และมีจำนวนน้อยกว่า
คำเนื้อหา

การศึกษานี้ประยุกต์ใช้แนวความคิดการศึกษาภาษาถิ่น (Chamber & Trugill, 2004)
และการกระจายรูปแปรของอักษรจ้วงโบราณ (Holm, 2013) เพื่อศึกษารูปแปรเชิงพื้นที่ และใช้
แนวคิดเกี่ยวกับอุปลักษณะและประติมาเพื่อศึกษาผลกระทบที่ความหมายและตัวบทที่มีต่อการ
เลือกรูปแปรอักษรจ้วงโบราณ

ผลการวิจัยพบว่าการกระจายเชิงพื้นที่มีลักษณะต่อเนื่องกันและเป็นขอบเขตตาม
พื้นที่ภูมิภาค นอกจากนี้ยังพบว่าความหมายและตัวบทมีผลกระทบต่อการใช้รูปแปร

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LIST OF ABBREVIATIONS

| | |
|-----|---------------------------------------|
| PRC | People's Republic of China 中华人民共和国 |
| BM | Bama Yao Autonomous County 巴马瑶族自治县 |
| BS | Baise Area 百色地区, |
| DH | Dahua County 大化县, |
| DL | Donglan County 东兰县 |
| NP | Napo County 那坡县 |
| TD | Tiandong County 田东县 |
| TY | Tianyang County 田阳县 |
| XC | Xichou County 西畴县 |
| sl. | Single |
| pl. | Plural |

CHAPTER I

INTRODUCTION

1.1 Background and rationale

Zhuang is a minority ethnic group largely residing in Guangxi Zhuang Autonomous Region and neighboring provinces including Guangdong, Yunnan and Guizhou province located in the southern part of People's Republic of China. It is the biggest minority nationality in China except Han (Liang Tingwang, 1987). It has a population of about 16.9 million according statistics in the 6th Chinese national census. Zhuang ancient people had established their special national identity and unparallel culture, in which Zhuang traditional character is involved.

Zhuang traditional character is a Chinese imitation writing system that is also called *Sawndip* which refers to immature writing (Liang Tingwang, 2007). It was the wisdom of ancient Zhuang people. On one hand, it records Zhuang ancient documents and plays a role to be carrier of culture heritage. On the other hand, as a part of culture, Zhuang traditional character increases Chinese even the world's cultural diversity. Zhuang traditional character is a writing system that possesses high research value in terms of linguistics, literature, folklore, anthropology, history and other relevant disciplines. It is the bridge leading to Zhuang study including religion, language, folk song, migration, and ancient society etc. Even the traditional writing system itself is a commendable research object in linguistics study. Furthermore, Zhuang traditional character can be analyzed by comparing with other Sinoxenic writing systems such as Chu nom in Vietnam, Yao, Miao, Bouyei and Kam in the southwest part of China (Dao Bu & Qin Kerang, al. 1991).

The significant feature of Zhuang traditional character system is complex which is caused by multi-origination (e.g. self-created and Chinese borrowing), social situation (e.g. un-standardized and limited broadcasting), individual reasons (e.g. character using habit of user, education degree). Anyhow, Zhuang traditional character has attracted plenty researchers from 1940s until now, especially in 1980s many

influential works had been published, e.g. *About Zhuang Traditional Character* of Qin Guosheng in 1986, *Research on Comparison Zhuang Character and Chu Nom* of Li Leyi in 1987 etc., Zhuang traditional character's morphological features had been repealed and categorized by these works. At the year of 1989, *Sawndip Sawdenj* (Su Yongqin, al. 1989) also called *Dictionary of Old Zhuang Character* had been compiled. It is the only tool book about Zhuang traditional characters until now.

It is beyond doubt a great success to compile *Sawndip Sawdenj*. However, there are some limitations which lead to the requirement of more interpretations of *Dictionary. Sawndip Sawdenj* lists standard characters and variants without providing adequate information about factors contributing to variations such as geographic variations. Parts of speech are not specified, thus ambiguity may be caused during reading and application, and some of the variations of lexicons are not recruited.

Mo books are the classic documents of Zhuang folk Mo belief system. They reflect the transformation from nature religion to humane religion, present philosophical thinking of Zhuang people, preach social morality and exhibit Zhuang's society development (Pan Qixu, 2003). As ancient documents Mo scriptures own priceless value for Zhuang study in many terms. The most important for this work, Mo books had shown original language and writing systems to readers. On the other hand, Mo books display regional features in both content and language (Pan Qixu, 2003), which is an important impetus for study.

Due to the above significances and requirements, this study is aimed to present Zhuang traditional character study with a data base from *Sawndip Sawdenj* and Mo books, in particular concentrating on factors causing or affecting variations.

1.2 Objectives of study

1.2.1 To identify geography variation patterns of Zhuang traditional characters;

1.2.2 To identify non geography variation patterns of Zhuang traditional characters.

1.3 Research questions

Aiming to handle with the objectives narrated above, this study is attempted to answer the questions below:

1.3.1 How Zhuang traditional character variations display geographic patterns;

1.3.2 How display non-geographic variations exhibit in Mo texts.

1.4 Theoretical framework

This study develops upon two theoretical frameworks. One is dialect geography approach which is largely drawn on experiences of Chamber with Trudgill (1998, 2004) and Holm's works (2011, 2013) on Zhuang traditional character mapping. Dialect geography concentrates on studying differences of language caused by regional reasons in dimensions of phonology, lexicon, grammar, rhetoric, dialectal vocabulary, etc.

Basically, this study treats Zhuang traditional character as a form of language and views variations as language dialects. The application of dialect geography is related to subjective criteria of intelligibility and similarity of Zhuang traditional character variations by statistical method. The concept of continuum and boundary are employed to describe correlations of survey areas.

Another theoretical framework is iconicity principle which belongs to semiotics and cognitive linguistics field. The principle admits interplay between form and meaning that means a form signifies meaning by resemblance to the meaning in varies degrees ranging from onomatopoeia to text structure (Hiraga, 2004). Turner and Fauconnier had developed model of iconicity manifestation which is often illustrated by four spaces figure as the following (Turner & Fauconnier, 1998, 2002):

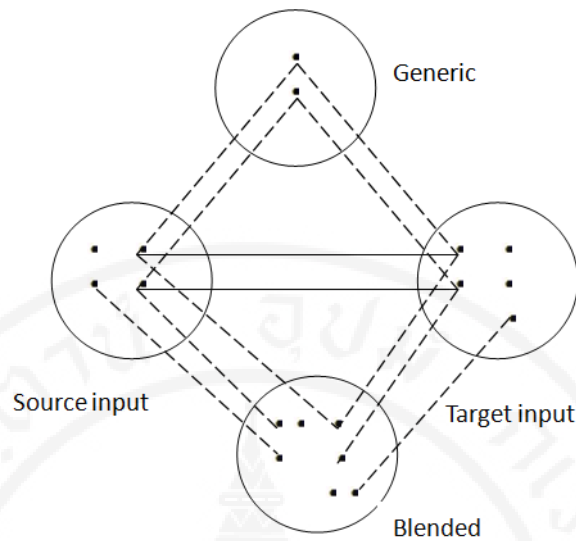


Figure 1.1 Conceptual blending model

When an analogy exists, two input spaces are created. The solid lines in Figure 1.1 presents partially counter a mapping between two input spaces. Some abstract features are shared in generic space as indicted by dashed lines. Blending space is dynamic and rich which projects partially with input spaces as indicated by the dashed line, at the same time it offers related background knowledge. The emergence structure (as the square in figure 1.1) happens based on process of composing relations or projections from input spaces, completing background information and finally elaborating by subjective or objective logic (Hiraga, 2004).

1.5 Scope of study

1.5.1 Collect data from *Sawndip Sawdenj* (Dictionary of Old Zhuang Character) (Su Yongqin, al., 1989) and *Annotated Translation of Photomechanical Printing of Zhuang Mo books Buluto* (Zhang Shengzhen, 2004) in order to conduct analysis;

1.5.2 Study geographic distribution of Zhuang function word's variations in terms of dialect geography;

1.5.4 Study non geography variations' features.

1.6 Significances and contributions

This study brings several significances and contributions to Zhuang study and theoretical framework as below:

Initially, this study imports dialect geography concepts into Zhuang traditional writing system analysis, which broaden the perspective of Zhuang traditional character study. By raising regional reason as an independent factor causing variation, it enriches and refines Zhuang traditional character study.

Secondly, it is the first study in combining variation form, meaning and use together by employing iconicity principle, which will inspire later coming researchers in relevant areas.

Thirdly, semantic analysis approach is brought into Zhuang study which branches new thinking for researching Zhuang language. At the same time, the semantic interpretation is related to Zhuang culture which will contribute to studying the culture in Mo scripture.

Fourthly, since the feasibility of analyzing Zhuang old function word's variation by dialect geography approach and iconicity principle are examined, therefore it enlarges the application of above analysis method to other groups of Zhuang traditional writing system.

1.7 Definition of key terms

Zhuang traditional character refers to the character of traditional writing system of Zhuang ethnic group in southwest part of China. It is a Chinese imitation writing system commonly considered that it originated in Tang Dynasty, and then prevailed in Ming and Qing Dynasty.

Function words refer to one with grammatical meaning as opposed to lexical meaning (Matthews, 2000) which is similar to syncategorematic words (Kearns, 2011) that are independent with only paraphrase meaning on their own and we can describe the meaning by putting them in a context. They are not the descriptive of reality and do not denote parts of reality, such as some, as, for, to, although, if, since, and, most, all...

Variation refers to different writing character forms of Zhuang lexicons.

Amount of variations for lexicon is not fixed which can range from one variation to more than forty variations.

Series is a research unit which is used to categorize homogeneous variations and decrease marvelous data. Classification of series is based on knowledge and identity of Chinese characters.

Representation refers to most common used variation in a certain place which is used to analysis the regional boundaries of variations in this study.

Continuum refers to geographical distribution status of dialect, it presents a property that different linguistics feature cumulative by distance, further distance more intelligibility (Jack C. & Peter T., 2004).

Boundary originally refers to an isogloss line in dividing two regions by certain linguistics features (Jack C. & Peter T., 1980). In this study it is defined as a certain range which is composed by areas that are highly correlated in Zhuang variation and geographically closed.

Iconicity refers to the mapping between form and meaning in various degrees of abstraction. It often works with metaphor which needs some metaphorical navigations in understand icons (Hiraga, 2004).

Mapping is equal to projection in conceptual blending theory. It refers to the evoking between shared features in four mental spaces. Due to skeletal of abstractness, it can be divided into diagrammatical mapping concerned with relational resemblance and imagic mapping related to schematized patterns (Hiraga, 2004).

Mini pair refers to correlation between each two survey places and 8 places providing 28 pairs, including relationships between: Donglan-Dahua, Donglan-Bama, Donglan-Baise, Donglan-Tianyang, Donglan-Tiandong, Donglan-Napo, Donglan-Xichou, Dahua-Bama, Dahua-Baise, Dahua-Tianyang, Dahua-Tiandong, Dahua-Napo, Dahua-Xichou, Bama-Baise, Bama-Tianyang, Bama-Tiandong, Bama-Napo, Bama-Xichou, Tianyang-Tiandong, Tianyang-Napo, Tianyang-Xichou, Tiandong-Napo, Tiandong-Xichou, Napo-Xichou. All of the mini pairs are abbreviated in capital letters if necessary.

CHAPTER II

LITERATURE REVIEW

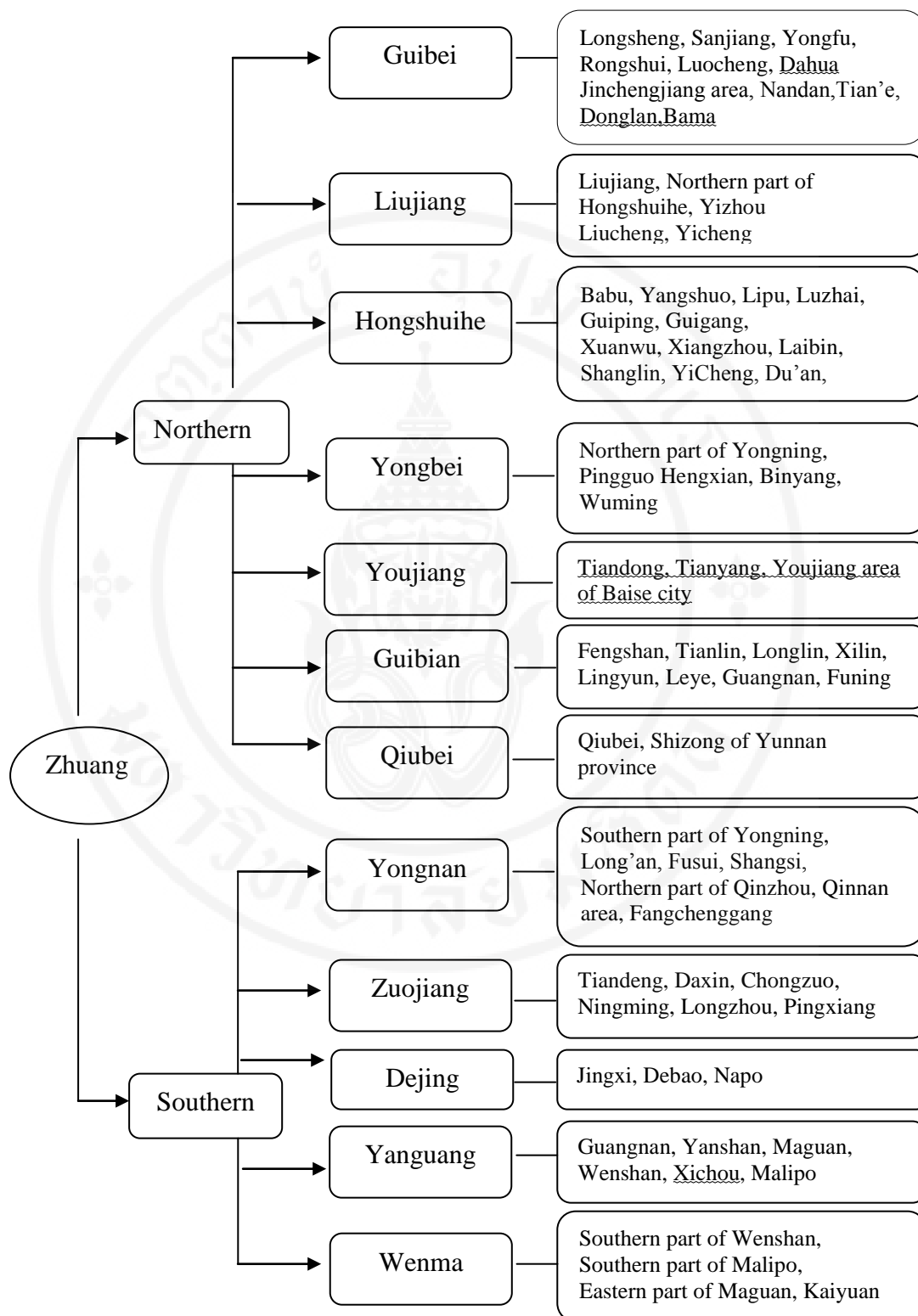
This chapter will state relevant literature review of previous works. Three sections are organized in order to conduct the chapter. In section 2.1 basic linguistics information about Zhuang language and dialect division; section 2.2 is aimed to introduce 4 writing systems in Zhuang history; section 2.3 tries to interpret some previous works on Zhuang traditional characters; section 2.4 brings glimpse of *Sawndip Sawdenj* and Mo books; section 2.5 is concerned about geographic working of Zhuang traditional characters; the last section 2.6 review iconicity principle which largely refers Hiraga's works.

2.1 Zhuang language and dialects

Zhuang language is belonged to Tai (Zhuang-Tai) branch Kam-Tai (Zhuang-Dong) group of Tai-kadai language family (Diller, Edmondson & Luo Yongxian, 2008). It is the accessible language and mainly communication tool of Zhuang ethnic group, and other ethnic groups which live in the Zhuang settlement area such as Miao, Yao, Bouyei, Han and etc.

In 1950s, minority Language Orthography Committee of Guangxi Zhuang Autonomous Region divided Zhuang language into two dialects of South Zhuang and North Zhuang by comparing the phonology, lexical system and grammar.

Zhuang language processes a great internal differentiation, therefore two big dialects of Zhuang can be divided into several smaller sub-dialects which are called vernaculars or locale languages 土语 *Tuyu*. Northern Zhuang dialect contains seven vernaculars (including *Guibe*, *Hongshuihe*, *Yongbei*, *Youjiang*, *Guibian*, *Qiubei*) while Southern Zhuang contains five vernaculars (including *Yongnan*, *Zuojiang*, *Dejing*, *Yanguang*, *Wenma*). Each sub-dialect can be divided into many dialect points 方言点 *Fangyandian* (Wei Jingyun & Qin Xiaohang, 2008) such as figure 2.1:



Language Dialect Vernacular / *Tuyu* Dialect point / *Fangyandian*

Figure 2.1 Zhuang dialect division

Remark: The figure is drawn upon statements of Zhang Junru in 1992.

The two dialects of Zhuang are highly differentiated in particular phonology. Phonologically, the most contrastive feature is that south Zhuang maintains a series of aspirated initials /p^h/ /p^{hj}/ /t^h/ /k^h/ /k^{hj}/ while they were lost in north Zhuang. The above difference is related to transcription of data which will be interpreted in detail in next chapter.

According to the survey of Zhuang Junru and his colleagues, 1440 lexemes were used to collect vocabularies about the dialects of south Zhuang and north Zhuang. The result showed that south Zhuang obtained 141 local words and north Zhuang had 193 local words (Zhang Junru, al. 1998).

The grammar of Zhuang language is similar to that of the most of dialects. However, some small differences exist between south and north Zhuang, such as *Wenma Tuyu* (south Zhuang) in double-objects phrase, except “V. + O₁ (personal) + (numeral + classifier) + O₂ (objects)”, but another expression is also common used “V. + O₁ (objects) + O₂ (personal) + numeral + classifier” (Zhang Junru, al. 1998).

2.2 Orthography of Zhuang

This section will review relevant literatures from two fields, one is providing information that concerned with three writing systems of Zhuang ethnic group, the other is stating character geographical mapping.

Throughout history, there are four writing systems in directly connection with Zhuang ethnic group. The first one or the earliest one exists in legend called *Sawva* which refers to flower character or character of insect climbing grain. The second one is carving character that can be traced to more than 3,000 years ago (Liang Tingwang, 2007). The third one is *Sawndip* (Zhuang old character) which is the subjects of this study. The last one is Romanized Zhuang (*Pinyin* Zhuang) which is established by PRC government and used as Zhuang’s formal language in temporary.

2.2.1 *Sawva*

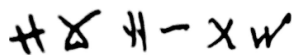
According to Mo books’ record, locust and borer ate farmers’ rice, the King caught them and wanted to kill them. Locust and borer asked for forgiveness by exchanging their writing skills, and the King agreed and wrapped them into paper.

After seven days when the King opened paper, the climbing traces of locust and borer turn them into letters (Zhang Shengzhen, 2004).

Sawva as mentioned above is the earliest writing system of Zhuang people. Stories in Mo scripture described that insect created the characters. It reflects that ancient Zhuang people created writing system by inspired from traces that insect made. Since lack of archaeological evidence, Zhuang's *Sawva* cannot be improved, and finally it has been considered as a writing system in the myths. But many researchers believe that *Sawva* was created during prime stage of Zhuang social class polarization and carving character that will be introduced in the coming section was created based on *Sawva* (Liang Tingwng, 2007).

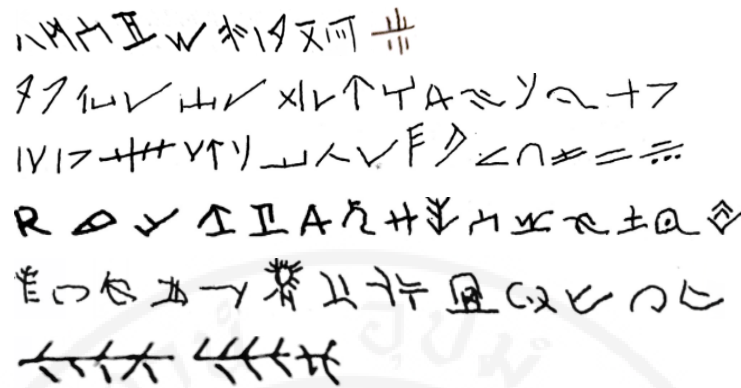
2.2.2 Carving character

As its name, **carving character** was carved on surface of stones or vessels. The strokes are simple involving indicative character and associative characters. In 1950s, six symbols were unearthed in Dingxiling Tuen Nage Village, Dasi Town, Qinzhou City, Guangxi Province. In 1974, more than 40 different symbols were unearthed in Pingle county of Guangxi. Then in 1987, 15 carving symbols were discovered in Yuanlongpo Tuen Matou Town, Wuming County, Guangxi Province. Besides Guangxi province, similar symbols are also discovered in Duofengtang Village, Taiping Town, Shixing County, Shaoguan City, Guangdong Province and in the originally being tribal land of Cangwu, branch of Zhuang ethnic group. The following figure will present carving character of Zhuang as well as criticism age of them (Liang Tingwang, 2007):



**Figure 2.2 Zhuang carving characters in Shang Dynasty
(B.C.1600-B.C.1046)**

The characters presented in figure 2.2 are Zhuang carving characters created in Shang Dynasty that is a period between B.C.1600-B.C.1046, which can be traced more than 3,000 years. Some carving characters of Warring State (*Zhanguo*) Period are also found, which is far away from modern time at least 2,200 years.



**Figure 2.3 Zhuang carving characters in Warring State Period
(B.C. 475- B.C. 221)**

Although it is hard to decode every carving character since lack of research evidences, Liang Tingwang had asserted that those unearthed carving characters might have below functions: symbols of craftsman’s name, symbols of vessels owner’ s name; totem symbols; symbols of keeping records; symbols of positions etc (Liang Tingwang, 2007).

2.2.3 Romanized Zhuang

Romanized Zhuang orthography also known as *Saw cuengh* in Zhuang language was created by China Academy of Social Sciences under command of central government. It is the formal writing system that is applied in education, academic, official documents, literature, laws etc. under permission of Central Committee and State Council of PRC.

The Romanized Zhuang system was not built in a day, and it took more than 5 years long from preparing work to finishing the project successfully. The central government commanded Zhuang Working Group to conduct research in 1952, and then sent Ethnic Group Language Investigating First Working Team to join Zhuang Language Work Conducting Committee to investigate Zhuang writing system and concerned factors in 1954. After plenary preparations, a Romanized alphabet based Zhuang writing system was drawn up in 1955 and was modified by a year’s test. Finally it obtained allowance to apply it in social activities on November 29th, 1957 (Dao Bu & Qin Kerang, al. 1991).

Romanized Zhuang is based on the phonemic system that without

aspiration consonants in the area around *Shuangqiao* town's Zhuang which is belonged to *Wuming* Zhuang dialect point, *Yongbei* sub-dialect north Zhuang dialect.

For preciseness, two remarks of tables in this section are given here. \emptyset refers to no letter; the Romanized letters are Romanized Zhuang, such as *mb nd*, but letters and symbols inside sliders are IPA system, such as /^ʳb/ /^ʳd/. The following transcription of Zhuang Romanized system is adapted from Wei Jingyun and Qin Xiaohang's work (2008).

The writing system employs 16 Latin alphabet letters to compose 23 consonants which are shown as the table 2.1 presents.

Table 2.1 Standard Zhuang Romanized consonants and phonetic transcription

| | Bilabial | Labio-dental | Dental | Alveolar | Palatal | Velar | Glotal |
|-------------|--------------------------|-----------------------|----------------------|----------|---------|--------|-----------------|
| Stop | vl. b /p/ | d /t/ | | | | g | \emptyset /ʔ/ |
| | vd. mb / ^ʳ b/ | nd / ^ʳ d/ | | | | | |
| Nasal | vd. m /m/ | | | n /n/ | ny /ɲ/ | ng /ŋ/ | |
| Fricative | vl. | f /f/ | s /θ/ | | c /ç/ | | h /h/ |
| | vd. | v /v/ | | | | r /ʁ/ | |
| Approximant | vd. | | | | y /j/ | | |
| Palatalized | by /p ^j / | my /m ^j / | gy /k ^j / | | | | |
| Labialized | gv /k ^w / | ngv /ŋ ^w / | | | | | |

Zhuang also employs 5 alphabet letters in order to represent 6 smooth tones. Two check tones are distinguished as high and low tone, and they are transcribed as final consonants *p t k* (high tone which is marked as tone 7) and *b d g* (low tone which is marked as tone 8) since tone pitches are compounded with stop finals which will be mentioned in table 2.3.

Table 2.2 Zhuang Romanized smooth tones and pitches

| Tone | 1 st | 2 nd | 3 rd | 4 th | 5 th | 6 th | 7 th | 8 th |
|---------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Zhuang | \emptyset | z | j | x | q | h | p t k | b d g |
| Pitches | /24/ | /31/ | /55/ | /42/ | /35/ | /33/ | /55/ | /21/ |

In Romanized Zhuang system, 16 alphabets are used to compose 108 rhymes in phonology which is shown as table 2.3 presents.

Table 2.3 Zhuang Romanized rhymes and phonetic transcription

| | | | | | | | | | | | |
|---------------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| Mono thong | a | e | I | | | o | oe | u | w | | |
| | /a:/ | /e:/ | /i:/ | | | /o:/ | /o/ | /u:/ | /u:/ | | |
| Diph thong | ai | ae | ei | | oi | | ui | | aw | | |
| | /a:i/ | /ai/ | /e:i/ | | /o:i/ | | /u:i/ | | /a:w/ | | |
| | au | aeu | eu | iu | | ou | | | | | |
| | /a:u/ | /au/ | /e:u/ | /i:u/ | | /ou/ | | | | | |
| Nasal | am | aem | em | iem | im | oem | om | uem | um | | |
| | /a:m/ | /am/ | /e:m/ | /i:m/ | /im/ | /om/ | /o:m/ | /u:m/ | /um/ | | |
| | an | aen | en | ien | in | oen | on | uen | un | wen | wn |
| | /a:n/ | /an/ | /e:n/ | /i:n/ | /in/ | /on/ | /o:n/ | /u:n/ | /un/ | /u:n/ | /un/ |
| | ang | aeng | eng | ieng | ing | oeng | ong | ueng | ung | wng | |
| | /a:ŋ/ | /aŋ/ | /e:ŋ/ | /i:ŋ/ | /iŋ/ | /o:ŋ/ | /oŋ/ | /u:ŋ/ | | /uŋ/ | |
| High tone | ap | aep | ep | iep | ip | oep | op | uep | up | | |
| | /a:p/ | /ap/ | /e:p/ | /i:p/ | /ip/ | /o:p/ | /op/ | /u:p/ | /up/ | | |
| | at | aet | et | iet | it | oet | ot | uet | ut | wet | wt |
| | /a:t/ | /at/ | /e:t/ | /i:t/ | /it/ | /o:t/ | /ot/ | /u:t/ | /ut/ | /u:t/ | /ut/ |
| | ak | aek | ek | iek | ik | oek | ok | uek | uk | wk | |
| | /a:k/ | /ak/ | /e:k/ | /i:k/ | /ik/ | /o:k/ | /ok/ | /u:k/ | /uk/ | /uk/ | |
| Low tone | ab | aeb | eb | ieb | ib | oeb | ob | ueb | ub | | |
| | /a:p/ | /ap/ | /e:p/ | /i:p/ | /ip/ | /o:p/ | /op/ | /u:p/ | /up/ | | |
| | ad | aed | ed | ied | id | oed | od | ued | ud | wed | wd |
| | /a:t/ | /at/ | /e:t/ | /i:t/ | /it/ | /o:t/ | /ot/ | /u:t/ | /ut/ | /u:t/ | /ut/ |
| | ag | aeg | eg | ieg | ig | oeg | og | ueg | ug | wg | |
| | /a:k/ | /ak/ | /e:k/ | /i:k/ | /ik/ | /o:k/ | /ok/ | /u:k/ | /uk/ | /uk/ | |

Zhuang language of Wenshan largely differentiates from Standard Zhuang which is based on Wuming Zhuang language. Considering the preciseness of transcription of local Zhuang language, another special Romanized Zhuang has been

established at the year of 1984 under permission of Wenshan prefecture government. The system is established by consulting standard Romanize Zhuang which is composed by 26 initial consonants, 9 single vowels, 12 diphthongs and 6 smooth tones and 2 check tones. Three tables are drawn in order to point out components of Wenshan Romanize writing system with preciseness, such as follows:

Table 2.4 Wenshan Zhuang Romanized consonants and phonetic transcription

| | Bilabial | Labio-dental | Dental | Alveolar | Palatal | Velar | Glotal |
|---------------------|--------------------------|-----------------------|--------|----------|-----------------------|--------------------|--------|
| Stop | vl. b /p/ | d /t/ | | | | g/k/ | |
| | vl. p /p ^h / | t /t ^h / | | | | k/k ^h / | |
| Nasal | vd. mb / ^ʔ b/ | nd / ^ʔ d/ | | | | | |
| | vd. m /m/ | | n /n/ | | nj /ɲ/ | q /ŋ/ | |
| Affricative | vl. | | | | dc /tɕ/ | | |
| | vl. | | | | tc /t ^h ɕ/ | | |
| Fricative | vl. | f /f/ | | s /s/ | c /ɕ/ | | h /h/ |
| | vd. | v /v/ | | | | r /ʎ/ | |
| Approximant | vd. | | | | j /j/ | | |
| Lateral-approximant | vd. | | | l /l/ | | | |
| Palatalized | bj /p ^j / | pj /ph ^j / | | | | | |
| Labialized | gv /k ^w / | | | | | | |
| voiceless | hl /hl/ | | | | | | |

Table 2.5 Monophthongs, diphthongs and phonetic transcription of Wenshan

| | | | | | | | | | | | | |
|-------------|-------|-------|------|------|------|------|------|------|------|------|------|------|
| Monophthong | a | e | i | o | eh | oh | oz | uz | | | | |
| | /a/ | /e/ | /i/ | /o/ | /ɛ/ | /ɔ/ | /ə/ | /u/ | | | | |
| Diphthongs | ai | ao | ei | eu | ie | iu | oi | ou | ue | aw | aj | azh |
| | /a:i/ | /a:u/ | /ei/ | /eu/ | /ie/ | /iu/ | /oi/ | /ou/ | /ue/ | /au/ | /ai/ | /au/ |

Final consonant of Wenshan Zhuang language includes nasal final and

check final. There are three nasal consonant finals /m/ /n/ /ŋ/ which is marked by *m n q*. There are three stop finals /p/ /t/ /k/ in Wenshan Zhuang which are marked by high and low two groups according to tones. The low group is marked by *p t k*, the high group is marked by *b d g*.

Table 2.6 Tones and phonetic transcription of Wenshan Romanized Zhuang











| Tone | 0 st | 1 st | 2 nd | 3 rd | 4 th | 5 th | low | high |
|---------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-------|-------|
| Zhuang | ∅ | c | r | x | v | s | p t k | b d g |
| Pitches | /44/ | /35/ | /55/ | /33/ | /11/ | /31/ | /11/ | /44/ |

2.2.4 Sawndip

Liang Tingwang (2005) suggested that Zhuang old character was resulted by spreading of Chinese culture after First Emperor of Qin governed *Lingnan* area around B.C. 221. As a sinoxenetic writing system it certainly processes some features as Chinese, however, at the same time it exhibits identical properties as well. Except the significances noted in section 1.1, *Sawndip* or Zhuang old character writing system as an unofficial language system, it has been exposed complexities to researchers.

Firstly, the pictograms in *Sawndip* system are unique which are not similar to Chinese, such as table 2.4 exhibits:

Table 2.7 Pictogram of *Sawndip* system

| Sawndip | Romanized | IPA | Meaning | Sawndip | Romanized | IPA | Meaning |
|---|-----------|----------------------|-----------------|---|-----------|----------------------|---------------------------|
|  | vuenh | /wu:n ⁶ / | exchange |  | ngaem | /ŋam ¹ / | shadow |
|  | ngaeu | /ŋau ¹ / | hook |  | dwngx | /tuŋ ⁴ / | crutches |
|  | ej | /e ³ / | sexual behavior |  | gonz | /ko:n ² / | one side of shoulder pole |
|  | bah | /ba ⁵ / | butterfly |  | vaez | /wai ² / | penis |
|  | yok | /jo:k ⁷ / | flower |  | vet | /we:t ⁷ / | crisscross |

Secondly, the writing shapes of Sawndip system are more complex than Chinese, and some are compounded by more than two complete Chinese characters and even sometimes are modified the compounded characters, such as *aq* /ʔa⁶ / “cracked” 𠵹, which is compounded by traditional Chinese 門 *mén* and 开 *kāi*, 門 *mén* is departed as two by inserting 开 *kāi* between them, and the positions of right and left radicals are changed during modification.

Thirdly, the system is irregular and rules are not clear enough since Sawndip developed without standardization process (Qin Xiaohang & Sun Wenling, 2007).

2.3 Previous study on Zhuang traditional characters

Zhuang character study was initiated by *Wen You* in December at the year of 1936, stepped into a new stage in 1950s and walked towards to boom period in decades of 1980s. In decades of 1990s, Zhuang character continued to develop and had obtained great success in 21 century.

Wen You had presented analysis about 107 characters collected in Palace Museum from perspective of character meaning, shape and pronunciation in his paper *Analysis on Translated Officer Language of Tuzhou County Taiping Prefecture of Guangxi Province* 广西太平府属土州司译语考. His work had brought great interesting to later coming linguists. Many works concerned with Zhuang old character have been created until temporary time. Tremendous achievement has been gained in particular in scopes of character collection works (e.g. *Sawndip Sawdenj* or Dictionary of Zhuang old characters, Su Yongqin, al. in 1989), works on literature collection and translation (e.g. *The Ancient Zhuang Characters Literature Antholog*, Zhang Yuansheng, Liang Tingwang & Wei Xinglang, 1992; Annotation translation of Photomechanical Printing of Zhuang Mo Scriptures Buluto, Zhang Shengzhen, 2004), works on Zhuang character morphological analysis (e.g. *About Zhuang Characters*, Qin Guosheng, 1986; *The Cultural Heritage of Zhuang Nationality – Zhuang Character*, Zhang Yuansheng, 1984), works on development of Zhuang character (e.g. *The Generation, Extinction and Reconstruction of Zhuang Character*, Li Fuqiang,

1995), and works on comparing with other related writing system (e.g. Comparative Study of Zhuang Character and Chu Nom, Li Leyi, 1987) (Qin Xiaohang & Sun Wenling, 2007).

Zhuang old character system is complex. Many linguists tried to categorize it in order to make it easier to understand, and morphological type analysis is involved. Due to preciseness and relativity, this study will give an overview of Zhuang character categories. As assertion of Qin Xiaohang, Zhuang old characters are categorized into 12 groups according to building methods and borrowing origin. The detail explanation will be provided in next table (Qin Xiaohang, 2010):

(1) *Jieyong* 借用 or borrowing includes borrowing from Chinese and borrowing internal Zhuang language. It can be divided into four sub-types: phonetic borrowing, such as 眉 /mei²⁵/ eyebrow in Chinese is borrowed as /mi²/ in Zhuang; semantic borrowing, such as 心 /ɛin⁵⁵/ heart in Chinese was used as 心 *heart* in Zhuang traditional character system; phonetic borrowing and semantic borrowing compounded, such as 金 /tein⁵⁵/ gold is borrowed to refer *gold* in Zhuang language which has similar phonetic features /kim¹/ at the same time; borrowing internal Zhuang language, such as 度 /du¹/ *we, us* in Zhuang is borrowed for presenting *time, classifier for verb*.

(2) *Xingshengzi* 形声字 or phonogram is composed by two or more than two radicals, in which one radical is related to pronunciation and one radical indicates to meaning. Phonogram in Zhuang often is compounded by two complete Chinese characters, and this group obtains a largest proportion in Zhuang old character system. Such as 台 is composed by phonetic radical 台 /t^hai²⁵/ which is similar to Zhuang pronunciation /tai³/, and 死 is the semantic radical which refers to *die* in both Zhuang and Chinese.

(3) *Shuangshengzi* 双声字 or two consonants compound character refers to radicals in compounding Zhuang character that have similar phonetic features with Zhuang lexicon it marks, such as 房 is read /fa:ŋ²/ in Zhuang language, and the pronunciation is marked by two same consonants /f/ of 房 /fa:ŋ²⁵/ and 方 /fa:ŋ⁵⁵/.

(4) *Huiyizi* 会意字 or ideogram is often compounded by two or several

characters, such as 𠂔 /tam³/ “short” is composed by two Chinese characters, one is 不 “not, negative” and 长 “long”, the associated meaning “short” is caught by mixing meanings of two Chinese character.

(5) *Fanqie* 反切 is a Chinese traditional phonetic method. People used two characters to mark the pronunciation of the third character which has similar phonetic features with the initial consonant of the first character and obtains resemblance pronunciation properties with rhyme and tone with the second character (Hu Anshun, 2002), such as 𠂔 /roŋ⁵/ cage in Zhuang, the pronunciation is composed by initial consonant /t/ of 竹 *bamboo* in Zhuang language /ruk⁷/ and rhyme /oŋ/ is from pronunciation of 下 in Zhuang /loŋ²/.

(6) *Xiangxingzi* 象形字 or pictogram and logograph, such as an iconic symbol 𠂔 refers to walking stick.

(7) *Jiebu* 截部 or cutting radical refers to partially cut one radical from a complete Chinese to create a new character. Sometimes the radical is simply modified, such as 𠂔 is cut from Chinese character 部 /pu⁵¹/ which has similar pronunciation with /pu⁵/ *people or classifier of human being* in Zhuang language.

(8) *Jianbi* 减笔 or deletion refers to delete some strokes from a Chinese character in order to create a new one, such as 有 /^hbau⁴/ *not* is modified from 有 *have* by deleting 2 strokes inside the square.

(9) *Tianbi* 添笔 or adding refers to add some strokes upon a Chinese character in order to create a new one, such as 𠂔 /kau⁵/ *myself* in Zhuang language was modified from 旧 by adding one 一 into the square to construct a new one.

(10) *Zhuanyin* 转音 or phonetic transition, it is achieved by two steps. Firstly one Zhuang created character is used to mark Chinese lexicon, then the other Zhuang character is used to mark Chinese character which has similar phonetic features with the marked Chinese lexicon. Such as 𠂔 /kau¹/ refers to *rattan* in Zhuang language first, then 𠂔 is used to marked Chinese 藤 /t^həŋ²⁵/ since 藤 and 𠂔 have same radical 月, finally 𠂔 is used to present *to, until preposition* in Zhuang language that has similar phonetic feature with 藤 in Chinese.

(11) *Bihua* 笔画 or stroke refers to mark Zhuang lexicon by using one Chinese stroke since the name of stroke has similar phonetic features with lexicon, such as 丿 is named /phiə²¹⁵/ in Chinese and this pronunciation was applied in marking /p^het⁷/ *spicy* in Zhuang language.

(12) *Rongti* 融体 or integration refers to integrate two characters into one new character, such as 𠂇 /pjo:ŋ⁶/ *half* in Zhuang language is integrated by two Chinese characters, 中 /zɔŋ⁵⁵/ middle and 半 /pa:n⁵¹/ half.

2.4 Glimpse two masterpieces on Zhuang traditional character

There are two great pieces of works related to Zhuang traditional characters shall be introduced in this section. One is a collection of Zhuang traditional character directly *Sawndip Sawdenj* (Dictionary of Old Zhuang character), another masterwork is ancient literature written in Zhuang traditional characters Mo books (*Annotated Translation of Photomechanical Printing of Zhuang Mo Scripture Buluto*).

2.4.1 *Sawndip Sawdenj*

At the year of 1989, a groundbreaking work of Zhuang study had been created. The first and the only one tool book was centered by Zhuang old character *Sawndip Sawdenj* or Dictionary of Zhuang old Character was published by the Ethnic Nationality Ancient Book Publishing Planning Leader Group of Guangxi Zhuang Autonomous Region. According to the national, scientific and normative principles, the dictionary had selected 4,918 characters as standard ones from the total amount of 10,700 and the rest 5,782 listed as variations inside bracket symbols behind standard characters.

The *Sawndip Sawdenj* is the linkage between Zhuang old character writing system and Romanized Zhuang writing system. The characters are sorted and retrieved by alphabet of Romanized Zhuang. Character pronunciation is transcribed into international phonetic alphabets (IPA). In content part, standard character stands at the first place and variations are listed one by one inside a bracket symbol. If the lexicon is restricted in some location, a remark is given in form of <方> which refers

to dialect. Romanized Zhuang and IPA transcription are positioned behind bracket symbols. Meaning and example are given in Chinese and Romanized Zhuang is provided for example as well. The following figure will provide an intuitive interpretation for dictionary.

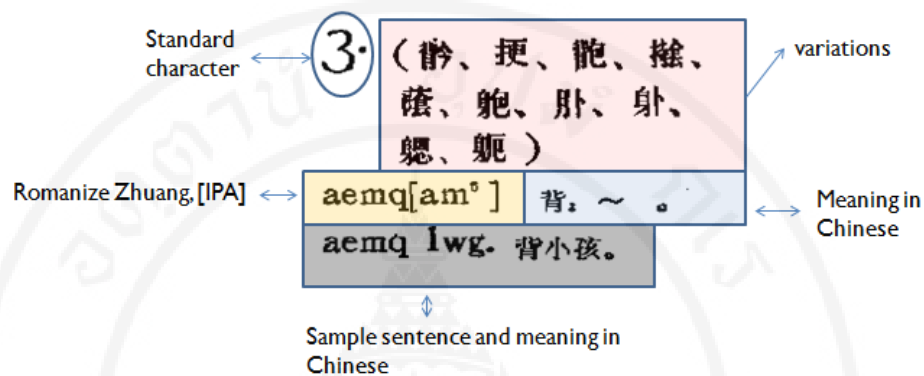


Figure 2.4 Example of *Sawndip Sawdenj* content (Su Yongqin, al. 1989)

Zhuang linguists had greatly praised the tremendous success and contributions of *Sawndip Sawdenj*. Many new generation researchers conduct analysis based on data *Sawndip Sawdenj* and most of them continue frameworks of seniors and focus on character morphology study. Some new study area by using dictionary as database has been investigated at the same time, such as the David Holm's work that will be reviewed in detail in section.

2.4.2 Mo books

In particular, Mo books are referred to one of Series of Zhuang studies *Annotated Translation of Photomechanical Printing of Zhuang Mo Scripture Buluto* (壮族麽经布洛陀影印译注) which is issued under Zhang Shengzhen's general editorship and published by Guangxi national publishing house in 2004 in this study. It has been the most complete collection of classic documents of Mo belief system so far.

Mo scripture has collected 39 handwritten copy versions of traditional from 7 counties and 1 area which located in Youjiang River valley, Hongshuihe River basin and Yunnan province, including 11 versions from Tianyang, 1 from Tiandong, 4 from Baise, 11 from Bama, 6 from Donglan, 1 from Dahua, 1 from Napo and 4 from

Xichou of Yunnan. The texts are not well-distributed, some of the versions have more than 200 pages, but some of them have only around 10 pages with a sharp contrast.

The 39 handwritten copy versions have been compiled into 29 chapters in 8 volumes according to relative contents. The following paragraphs will provide an overview of Mo scripture organization, in which basic information of each chapter is given. First of all, three Zhuang word will be interpreted.

2.5 Dialectology and mapping Zhuang old character

The previous Zhuang character study works focus on categorizing character type, original source, comparison with Chinese and other sinoxenetic characters. However, according to the review of Qin Xiaohang (2010) Wen You had given opinion that different localities owned different characters by analyzing variations in three prefectures of Taiping, Qingyuan and Zhen'an. Although the conclusion of Wen is related to south and north dialects' differences rather than location distribution, the conclusion had noticed character variation ontologically. Mostly, the dialectology approach is used to analysis Zhuang spoken dialects.

David Holm (2011, 2013) had focused on analyzing regional distribution of Zhuang variations drawing upon the view of Zhuang traditional character writing system as a spoken language and character variations as dialects by adopting dialectology methods. Definitely, dialectology studies dialects (Jack C., 1980), and dialect geography is concerned about geography features of dialect which is parallel with social dialect. Dialect is not a discrete entity but continua (Xiang Mengbing, 2012). It is proposed that the researcher like a traveler walks from one village to another. If the distance is long enough, the traveler would realize linguistic features are cumulative. The longer distance from the beginning point are discovered, but they are linked by a chain without breaking point (J.K. Chamber & Peter Trudgrill, 2004: P.5). Correspondently, Hashimoto Mantaro (1985) had declared continuum of languages in structure in Asia as well.

Holm expounds the main purpose of his book *Mapping the Old Zhuang Character Scrip: A Vernacular Writing System From South China* is to compile atlas of old Zhuang characters. 60 common words are chosen as survey morphemes in order

to collect graphs referring meaning from 48 survey points. This is a documental research accompanied by systematic interviewing. 45 texts are traditional texts from each survey points and the rest 3 are gathered from *Vocabularies Translated into Chinese from Barbarian Languages* 华夷译语 in 18th century (Holm, 2013) covering song texts, ritual texts and traditional opera texts.

As guidance of Robert S. Bauer (2014), Holm's work focus on two perspectives, one is comparing similarities between Zhuang word and Chinese characters by reconstructing Proto-Tai and old Chinese language. The borrowing method from Chinese character is an important part of Holm's work which is mainly classified as phonetically borrowing, semantically borrowing and "phonetically + semantically" borrowing. The most important concentration of Holm's work is geography distribution of Zhuang traditional characters. The coming paragraphs are attempted to introduce Holm's method and steps on analyzing Zhuang old characters' geographic distribution.

The work was conducted in two levels, one is an overview of characters for each morpheme which provides roughly impression of regional atlas of Zhuang-Bouyei-Tay area and the other is a representation which draws a precise regional atlas, which is counted by occurrence times.

Before referring dialectological analysis, variations are classified into analytical unit series by character shape. Take *aeu* "to take" for example, there are 17 representations for this lexeme which are listed in table 2.8. The table not only repeats locations the representatives occur in detail, but also sum of locations, such as 欧 is spread in the largest space (total 12 locations), then followed by 偶 (total 10 locations) and 要 (total 8 locations), the other representatives are mostly discovered in one location only which spread in much limited places.

Otherwise, the table points out which locations are absent of representatives, such as for *aeu* "to take", there are six survey points cannot discover the representative for it as listed table 2.8.

Table 2.8 List of character used to write *aeu* “to take”

| <i>Character used</i> | <i>Locations</i> | <i>No. locations</i> |
|-----------------------|--|----------------------|
| 1 偶 | TY, DL, H, DL ^{PE} | 4 |
| 2 歐 | BM, BM ^{SL} , TY ^{PF} , BS, JX, NP, CB ^N , DH, TD ^{YX} , LS ^{MS} | 10 |
| 3 要 | BS, MSh ^R , DA, TD, ZhN, XChou, TE, CH | 8 |
| 4 盪 | LB, MSh, ShL, XCh | 4 |
| 5 歐 | LZh, MSh ^S , DA, TY ^S , LBo, CB ^N , HJ ^S , HJ ^R , MSh ^R , YSh, LCh, FN | 12 |
| 6 欧 | WM | 1 |
| 7 又 | TD, XChou, FN | 3 |
| 8 区 | TY ^S | 1 |
| 9 幼 | CB ^{MS} | 1 |
| 10 幼 | CB ^{MS} | 1 |
| 11 歐 | CB ^N | 1 |
| 12 拗 | YSh | 1 |
| 13 歐 | TY ^{KP} , LS ^{MS} | 2 |
| 14 庾 | CH | 1 |
| 15 𧇗 | QZh | 1 |
| 16 撇 | QZh | 1 |
| 17 撇 | TB | 1 |
| Not found in: | TL, BM ^{HW} , GP ^L , GP ^{Zh} , CB ^T , DL ^S | 6 |

(Sketched from Holm 2013: P.102)

After that the representations are classified into series by similar character shape or same original source, such as the following table:

Table 2.9 Classification of character used to write *aeu* “to take”

| | | |
|----------------------|---|----|
| Phonetic series etc. | A. 偶 (1) | 4 |
| | B. 歐, 盪, 欧, 欧, 区, 歐, 歐, 撇, 撇 (2, 4, 5, 6, 8, 11, 13, 16, 17) | 21 |
| | C. 要 (3) | 8 |
| | D. 又 (7) | 3 |
| | E. 幼, 幼, 拗 (9, 10, 12) | 2 |
| | F. 庾 (14) | 1 |
| | G. 𧇗 (15) | 1 |

(Sketched from Holm 2013: P.103)

According to character shape, 17 variations are classified into A-G, seven series, in which series B and E have more than one membership. Series B are originated from 歐 in Chinese and series E share same radical 幼. Behind the series,

numbers of locations that series occur are provided. B is the most widely spread series (total 21 locations), then followed by series C appeared in 8 locations. Other series are not widely spread.

Drawing isogloss line is an important method in dividing geography boundaries according to one linguistics feature. J.K. Chamber and his colleague have provided an intuitional interpretation by a figure such as the following shows.

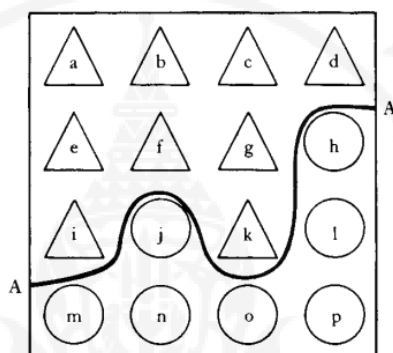


Figure 2.5 Isogloss line (sketch from Chamber & Trugill, 2004:89)

If speakers in a certain region are found to display different linguistic features, those speakers are differed by different symbols such as Δ and \circ in the picture. The line A is drawn in order to divide those people, in which a b c d e f g i k are grouped together while h l m n j p form another group (Chamber & Trugill., 2004:89). The line A is called isogloss line and the different linguistics feature is parameter in drawing this isogloss. In J.K. Chamber's view, boundaries always come with isogloss lines.

One feature will compose one map. However, dialects cannot be identified by only one feature. The patterns of isogloss line include phonetic, phonology, lexicon and even syntax. Once we put all the maps drawn by various features, it can be found that the isogloss lines are hardly fit together. However, the issue was solved by intensity of isogloss lines. A focal area may be interpenetrated most intensively which infers within the region shares the most common linguistics features. Transition areas share less common features.

Holm adapted the above method into Zhuang traditional characters' regional distribution study without drawing dash lines but marked representations of

48 survey locations onto the map.

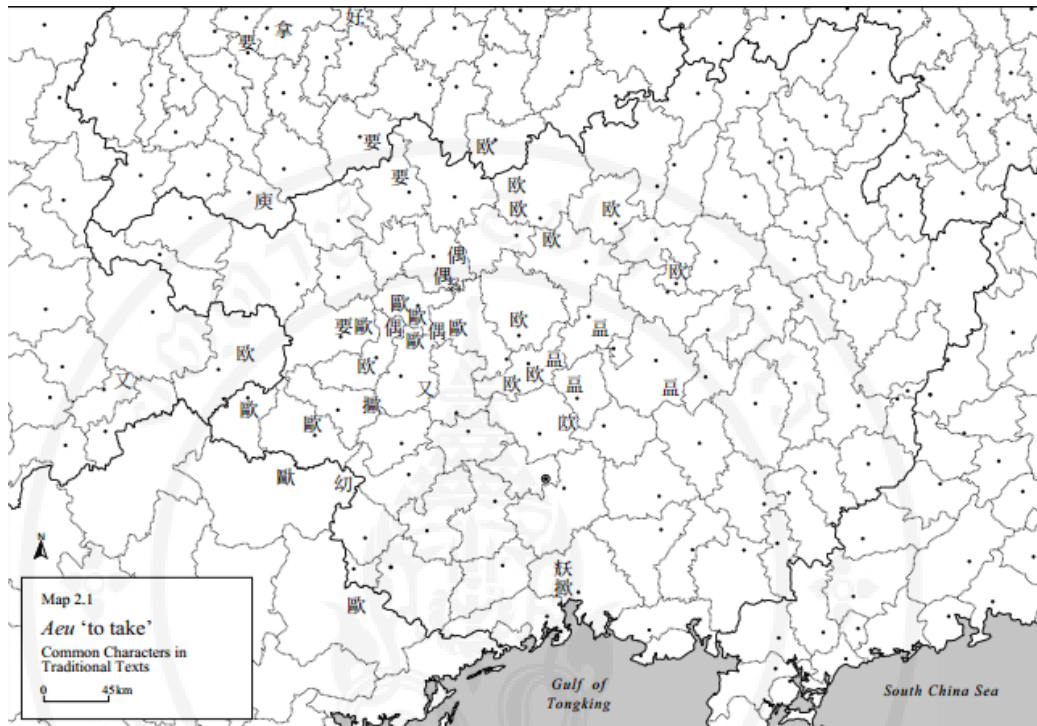


Figure 2.6 Character distribution map (Sketched from Holm 2013: P.100)

According to Holm’s statistics, the Figure 2.6 exhibits the regional distribution of representation in 48 locations, in which series B with 歐 as phonophore are found in widest scope 21 locations involving Bama–Tianyang area, northern Guangxi, southern Guizhou, east-central Guangxi, southwest and northern Vietnam, eastern Yunnan; 罍 is found in east-central Guangxi. Series C with 要 as phonophore are the second largest region which are found in 18 locations, from Mashan northern towards through Du’an to Bose, Tiandong and Tian’e in northwest Guizhou, and back down through Xichou in the eastern Yunnan. Series A with 偶 as phonophore are found in 4 locations in Donglan and northern to Bama-Tianyang. Series D 又 are found in Tiandong and two locations in eastern Yunnan. Series E with 幼 as phonophore are found in Yishan and northern Vietnam (David Hlom, 2013).



Figure 2.7 Correspondent pronunciation map
(Sketched from Holm 2013: P.101)

When compared with Figure 2.6, the map of correspondent location's pronunciation is quite consistent. Pre-glotal stop /ʔ/ is the only contrastive phonetic features as well as tone pitch. That means the variation character is not related to pronunciation or dialect for this morpheme *aeu* "to take", or at least not related directly. This opinion is correspondent with his statement in a lecture in Minzu University of China during "Program of Overseas famous professor lecture of Minzu University of China –Professor David Holm's Series" during 5 December – 9 December 2011 (http://video.zhenlian.chaoxing.com/play_400010028_86156.shtml).

The graphs distribute variedly, which means the isogloss lines of 60 common words differentiating from morpheme to morpheme. The correlation and boundary of region systems or inter-region coherences are measured by percentages rather than any one or any part of isogloss maps.

Holm (2013) believes that diachronic factor may highly impact the character selection. Therefore comparative historical linguistics methods are implied intensively. Proto-sounds reconstruction provides diachronic character pronunciation in early

modern Chinese and later modern Chinese in order to compare phonetic features with Chu nom and Han Viet.

The result of David Holm at level of representation is that the regional mapping of Zhuang old character is divided into three boundaries, including (1) east-central Guangxi region involving Liuzhou, Laibin, Xincheng and Shanglin; (2) Youjiang and Zuojiang region involving Guiping, Bose, Jingxi, Napo, Wuming, Tianyang, Tiandong in Guangxi and Caobang and Langson in Vietnam; (3) northwestern region involving Yishan, Huanjiang, Donglan, Tianlin, Tian'e, in Guangxi, Libo, Ceheng and Zhenning in Guizhou (David H., 2013).

But in the other cases, six regional systems have been concluded (1) West River valley in central Guangxi; (2) east-central Guangxi; (3) the southwest and northern Vietnam; (4) Tianzhou; (5) The north and central north area based on the Longjiang River valley in northern Guangxi; (6) the northwest Guizhou and eastern Yunan (David H., 2013).

The similarities between 48 survey points are given in percentage. What surprises us is within each system, the correlation reach range 70-80% except northwest Yishan. It has a strong connection which is different from the first glance of Zhuang old character writing system which looks like mass and lack of systematic. Furthermore, the mapping displays model of centre radiation rather than linear radiation.

2.6 Iconicity principle

This study is concerned about variations of Zhuang traditional characters, meaning, use and the reason of affecting variations. Iconicity is one aspect of meaning which plays a role in selecting variations.

Icon is a mode in which the signifier is perceived as resembling or imitating the signified (like recognizably looking, sounding, feeling, tasting or smelling) – being similar in processing some of its qualities (Daniel C., 2007). Iconicity is characterized by similarity (Daniel C., 2007). It is always dependent upon properties of the medium in which the form is manifest (Lyons, 1977).

Icon is a term in semiotics that has been implied into poem study and text

structure study by Japanese linguist Masako K. Hiraga who is in perspective of conceptual blending (Joanna R., & Hiraga. K.1995). When related to this study, Hiraga thinks a written language system of Japanese *Kanji* or Chinese logograph is “iconic and metaphorical” because of this nature “it provides a deeper understanding in poetic texts and poetic language, therefore we exploits these iconic and metaphoric implications of *Kanji* to enrich the complexity and multiplicity of meaning in text” (Hiraga, 2005).

Hiraga suggested that metaphor and iconicity not only works at micro level but also in a macro-structure of literary text (Hiraga, 2005). Hiraga had presented an opinion that EQUIVOCALITY IN MEANING IS EQUIVOCALITY IN FORM (Hiraga, 2005), an ambiguousness of *Kanji* (Chinese logograph) 啼 provided metaphorical projection with melancholy artistic conception of the whole poem. In this case, metaphor iconicity works at level of detail literal meaning of character which was considered as micro level in present study. At the same time, the distribution of another *Kanji* 行 *xíng walk, travelling* was analyzed at marco-structure level. 行 *xíng walk, travelling* disappears in middle of final location of up stanza, the next coming stanza is initialed by 行 *xíng “walk”*, and the circle distribution of *Kanji* projects a concept of LIFE AND DEATH IS A CIRCLE (Hiraga, 2005).

During the study of *Basho's Spring poem*, *Kanji* 啼 *tí human and non-human crying* was analyzed as two constituents, one is 口 referring to mouth and the other is 帝 referring to wring something (usually wet), which was personified for a bird cry. *Kanji* 啼 *tí “human and non-human crying”* provides two inputs correspondent to two radicals. The logograph provides metaphorical meaning that “crying in a voice produced by wring the throat”. The ambiguity of 口 (referring in both human’s mouth and anima’s mouth) provides two lexical meanings that: For humans, it means people shed tears and cry in such an aloud voice to wail with pain; for birds, it means animals and insects cry aloud to wail. According to that, double image has been established with birds crying loudly and human wailing and shedding tears (Hiraga, 2005). Furthermore, *bird cries* leads to an allegorical interpretation when provided pragmatic knowledge of this poem that the bird is personified as same as the poem author or people who involved in this poem cried sadly. Thus *bird cries*

offers equivocality that is embodied iconically in 啼 tí “*human and non-human crying*” and two-way mapping in the blend of human and bird two input space (Hiraga, 2005).

Hiraga suggested that the iconicity works on two levels, one is the imagic mapping between human and non-human crying by *Kanji* 啼 tí “*human and non-human crying*” in special manner, the other is diagrammatical level that the ambiguousness of bird cries creates correspondent to 啼 tí “*human and non-human crying*”.

The above analysis provides a vivid example for iconicity manifestation of logograph based on iconic graph shape and meaning and conveys as well as combining cultural conventional implication.

On the other hand, Hiraga also viewed text structure as an icon which corresponds to the meaning. To improve it, a *haiku* text (traditional short poem of Japanese) LIFE IS A JOURNEY is selected and analyzed. In which, the distribution of *Kanji* 行 xíng *walk* iconically constructs cycle frame in section of LIFE AND DEATH IS A CYCLE, such as the figure below shows:

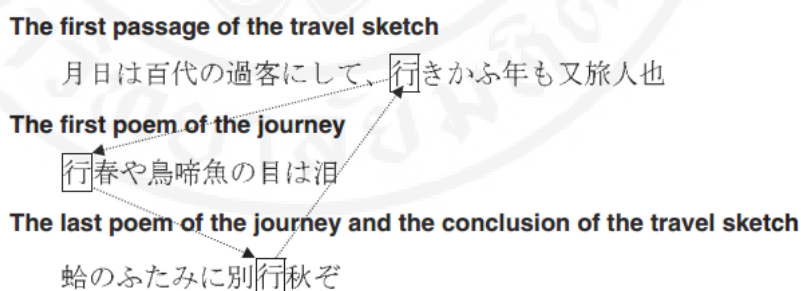


Figure 2.8 Analysis of LIFE AND DEATH IS A CYCLE (Hiraga, 2005: P.89)

“The beginning is an ending, an ending is a beginning” (Hiraga, 2005), the correspondence between general meaning of poem “endless cycle” and alternating appearing is clear and patterned neatly. Hiraga’s analysis is in connection with isomorphism of Japanese haiku emphasizes traditional implication and background information, therefore the metaphors expressions are improved in emergent structures largely.

CHAPTER III

MATERIALS AND METHODS

This chapter accounts for methodology of this study, it will be organized into three sections. Section 3.1 will provide function words extracted from *Sawndip* *Sawndenj* and comparative function words, the transcription of data are explained as well; section 3.1 will state how to deal with data; section 3.3 elaborates the analysis procedure in both geographic variation and non-geographic variation perspective.

3.1 Data collection and selection

This study is drawn upon traditional texts and concerned with geographic variations of *Sawndip*, variations caused by text or context meaning. The IPA record is transferred from Romanized Zhuang which cannot present all phonetic features of chanting Mo books during Mo ceremony, because the pronunciation for each word is not always perfectly follow with the normal reading (Holm, 2011).

3.1.1 Function words and contributions

This study determines to analyze function words that written in Zhuang characters. Content words are not used in this study because content words such as verbs, nouns, adjectives and adverbs are more flexible and changeable than function words. Function word is much steadier than content words diachronically which make the linguistic correspondence clearer. It is wealthy to research variations of less divergence word class, furthermore the stability of word root brings convenience and balance in data collection and comparison.

Due to the reason that function words are not restricted by topics of scripture content as well as for some literary reasons they occur in Mo books frequently, therefore the density of function words can be ensured rather than other word classes.

Since *Sawndip Sawdenj* has not provided part of speech of Zhuang old characters, thus function words are determined by definition in Oxford Concise Dictionary of Linguistics (P.H. Matthews, 2000:140) combining relevant reference books and contexts from other Zhuang documents.

3.1.2 Data resource

(1) Data from *Sawndip Sawdenj*

First of all, this study is concerned with Zhuang character which is a traditional, non official and marginalized writing language system. *Sawndip Sawdenj*, the only tool book with high reference value, provides broad and general meaning of function words in order to conduct next steps in analyzing.

Secondly, as contributions and limitations noted in section 1.6, more analysis works about *Sawndip Sawdenj* should be carried out. Viewing *Sawndip Sawdenj* as database is one of pathways in researching it.

Sawndip Sawdenj is in duty bond to provide a function word list because it is a data source in the initial stage of our study. From the first content page to the last, 57 function words are collected as analytical function words as the following table.

Table 3.1 Function words in *Sawndip Sawdenj*

| No. | Item | IPA | Character | | Meaning | Categories |
|-----|---------------|-----------------------------------|-----------|-----------------------|-------------|------------|
| | | | Standard | Variations | | |
| 1 | <i>baeq</i> | /pai ⁶ / | 啍 | 喻 | how, how to | Pro. |
| 2 | <i>boi</i> | /pho:i ¹ / | 誣 | 詆 | who | Pro. |
| 3 | <i>byawz</i> | /p ^j au ² / | 侷 | 溥 泊 咱 訃 白 嚼 儻 齧 | who | Pro. |
| 4 | <i>byouq</i> | /p ^j ou ¹ / | 叡 | 侷 | why | Pro. |
| 5 | <i>caemj</i> | /ɕam ³ / | 眼 | 侵 | from | Prep. |
| 6 | <i>caeuq</i> | /ɕau ⁵ / | 受 | 受 湊 | and, with | Conj. |
| 7 | <i>caengz</i> | /ɕa:ŋ ² / | 憎 | 憎 曾 | | Neg. |

Continued

Table 3.1 Function words in *Sawndip Sawdenj* (cont.)

| | | | | | | |
|----|---------------|----------------------|---|-------------------------------|--------------------------|----------------------------|
| 8 | <i>caeux</i> | /cau ⁴ / | 𠵹 | 𠵹 | as, then | Conj. |
| 9 | <i>caih</i> | /ca:i ⁶ / | 𠵹 | 再在最柴斋 | whatever | Pro. |
| 10 | <i>cix</i> | /ci ⁴ / | 只 | 是自之字 | so, so that, | Conj. |
| | | | | 𠵹 汁 則 | then | |
| 11 | <i>ciz</i> | /ci ³ / | 𠵹 | 𠵹 | if | Conj. |
| 12 | <i>coh</i> | /co ⁶ / | | 助咋初 | to | Prep. |
| 13 | <i>couh</i> | /cou ⁵ / | 𠵹 | 受尤仇祖 | so, then | Conj. |
| 14 | <i>cox</i> | /co ⁴ / | 𠵹 | 左佐 | and, or | Conj. |
| 15 | <i>daengz</i> | /taŋ ² / | 𠵹 | 𠵹、𠵹、𠵹、𠵹、 𠵹、𠵹、𠵹、𠵹、 𠵹、𠵹、𠵹 | to, until | Prep. |
| 16 | <i>dah</i> | /ta ⁵ / | 打 | - | from | Prep. |
| 17 | <i>dangh</i> | /ta:ŋ ⁶ / | 𠵹 | 当湯 𠵹 𠵹 𠵹 | if, | Conj. |
| | | | | 𠵹 | | |
| 18 | <i>dangh</i> | /ta:ŋ ⁶ / | 𠵹 | 倘当蕩 | as, like, each | Conj. |
| 19 | <i>de</i> | /te ¹ / | 𠵹 | 𠵹 𠵹 𠵹 𠵹 | he, she, it, him, her | Pro. |
| 20 | <i>deng</i> | /te:ŋ ¹ / | 𠵹 | 𠵹 𠵹 𠵹 𠵹, 𠵹 𠵹 𠵹 𠵹, 𠵹 𠵹 | passive voice marker | passive voice marker |
| 21 | <i>doh</i> | /to ⁵ / | 𠵹 | 度 | to (direction) | Prep. |
| 22 | <i>dou</i> | /tou ¹ / | 𠵹 | 杜都头 | we, us | Pro. |
| 23 | <i>dox</i> | /to ⁴ / | 𠵹 | 度徒多托 𠵹 𠵹 | each other | Pro. |
| 24 | <i>dwg</i> | /tuuk ⁸ / | 𠵹 | 提的特 | passive voice marker | Passive voice marker |

Continued

Table 3.1 Function words in Sawndip Sawdenj (cont.)

| | | | | | | |
|----|--------------|----------------------|---|-------------------------------------|--------------------|-------------------|
| 25 | <i>daeug</i> | /tou ⁵ / | 超 | 豆 短 | so, too | Conj. |
| 26 | <i>faenh</i> | /fan ⁵ / | 份 | 分 | oneself | Reflexive Pro. |
| 27 | <i>fwx</i> | /fu ⁴ / | 物 | 俳 勿 霏 斌 斌 | someone else | Pro. |
| 28 | <i>gag</i> | /ka: ⁸ / | 各 | 架 格 | oneself | Pro. |
| 29 | <i>ge</i> | /ke ¹ / | 佻 | 佻 | they, them | Pro. |
| 30 | <i>goj</i> | /ko ³ / | 可 | 也 故 | too | Conj. |
| 31 | <i>gou</i> | /kou ¹ / | 冗 | 九 戈 叻 苟 勾 句 侷 越 | I, me | Pro. |
| 32 | <i>gu</i> | /ku ¹ / | 古 | 估 沽 故 | I me | Pro. |
| 33 | <i>gwnz</i> | /kwn ⁵ / | 歪 | 勤 群 垦 志 让 歪 肯 根 肯 甦 上 息 | on, above | Prep. |
| 34 | <i>haenj</i> | /han ³ / | 很 | - | there | Pro. |
| 35 | <i>haiq</i> | /hai ⁵ / | 嗜 | 嗨 海 亥 爰 | but, however | Conj. |
| 36 | <i>heij</i> | /hei ³ / | 濇 | 喜 许 | some | Pro. |
| 37 | <i>hoeng</i> | /hoŋ ¹ / | 倥 | 工 哼 啞 | but, however | Conj. |
| 38 | <i>hix</i> | /hi ⁴ / | 亦 | 如 以 日 一 哋 | Too, also | Conj. |
| 39 | <i>hoiq</i> | /hoi ⁵ / | 候 | 灰 乞 悔 係 迺 餐 齏 | I, me | Pro. |
| 40 | <i>huj</i> | /hu ³ / | 火 | - | I, me | Pro. |
| 41 | <i>laj</i> | /la ³ / | 歪 | 喇 卡 吓 正 志 丁 早 罕 毕 森 | below, below of | Prep. |
| 42 | <i>langh</i> | /la:ŋ ⁶ / | 浪 | 狼 狼 | if, although | Conj. |
| 43 | <i>lawz</i> | /law ² / | 喇 | 雷 叻 而 护 侣 勒 墟 邦 糯 吕 由 糯 伊 那 葡 | what, where | Pro. |

Table 3.1 Function words in Sawndip Sawdenj (cont.)

| | | | | | | |
|----|--------------|-----------------------------------|---|-----------------------|---------------------|-------|
| 44 | <i>mbouj</i> | / ^h bau ⁵ / | 否 | 冇布保茛 𠵼 | not | Neg. |
| 45 | <i>mwngz</i> | /muwŋ ² / | 佸 | 名盟萌 咯 | you | Pro. |
| 46 | <i>ndij</i> | / ^h di ³ / | 𠵼 | 𠵼里与礼呢 依俐雉 | with, and | Conj. |
| 47 | <i>ndaej</i> | / ^h dai ³ / | | 礼戾累帝 𠵼挨𠵼 | result in | Aux. |
| 48 | <i>neix</i> | /nei ⁴ / | 内 | 尼侣亦尔 侣你 | this | Pro. |
| 49 | <i>raeuz</i> | / ^h au ² / | 倭 | 倭佻晋 𠵼𠵼 | we, us | Pro. |
| 50 | <i>rox</i> | / ^h o ⁴ / | | 喏兰罗乐 嚕 𠵼𠵼𠵼𠵼 𠵼𠵼𠵼 | or | Conj. |
| 51 | <i>saeng</i> | /θaŋ ¹ / | 啗 | - | what | Pro. |
| 52 | <i>saek</i> | /θak ⁷ / | 噍 | 色 吧 則 | any, any one | Pro. |
| 53 | <i>singq</i> | /θiŋ ⁵ / | 聖 | - | every | Pro. |
| 54 | <i>sawz</i> | /sau ² / | 𠵼 | - | which | Pro. |
| 55 | <i>sou</i> | /θou ¹ / | 𠵼 | 修收苏峻数 叟 𠵼𠵼𠵼𠵼 | you | Pro. |
| 56 | <i>yawz</i> | /jau ² / | 佸 | 尔邦黎 | how, how to | Pro. |
| 57 | <i>yienz</i> | /ji:n ² / | 然 | 元原 | though, although | Conj. |

The collected 57 function words in Sawndip Sawdenj include 28 pronouns, 17 conjunctions, 7 prepositions, 2 passive voice markers, 2 negations and 1 auxiliary. There are total 297 characters are used to infer 57 function words.

(2) Data from Mo books

This study operates on the bases of the data from Zhuang nationality epic Mo scripture version of *Zhang Shengzhen* which was published in 2004 which completely named *Annotated Translation of Photomechanical Printing of Zhuang Mo*

Scripture Buluto 壮族麽经布洛陀影印译注. Due to the study concerned with function words and geography distribution, the data has been collected in two facets.

Sawndip Sawdenj had collected characters from various locations including dialectal vocabularies, so that it obtains some local function words which are not used in other localities, and they are not comparable with other local's function words since they are not homologous. As well as reason of length, 28 function words are used as function words to collect variations after selecting, including:

Table 3.2 Comparable Function words

| Part of speech | Amount | Function |
|----------------|-----------|---|
| 1) Auxiliary | 1 | Structural |
| 2) Conjunction | 8 | Undertaking, transition, emphasis, accompanying |
| 3) Negative | 2 | Negation |
| 4) Preposition | 3 | Location, temporal |
| 5) Pronoun | 14 | Interrogative, infinite, personal, plural, singular |
| Total | 28 | - |

The function words are listed by Romanzied Zhuang orderly as follows:

1. *caengz*, not, yet, negative, temporal
2. *caux/tsaux/dcaos*, so, then, conjunction, conditional, undertaking.
3. *cih/dcur*, so, then, however, conjunction, Undertaking, transitional.
4. *daengz.thaengz*, to, until, preposition, temporal, position.
5. *dangq*, each, pronoun, infinite.
6. *dauq*, so, though, too, conjunction, transitional, emphasis, coordinate.
7. *de/dix/deih*, he, she, it, him, her, there, pronoun, 3rd personal, singular, infinite.
8. *du*, we, us, pronoun, personal and plural.
9. *gag*, oneself, pronoun, personal, manner.
10. *goj/goq*, too, then, conjunction, undertaking.
11. *gaeuq/gaeu*, oneself, pronoun, personal, reflexive.
12. *gu*, I, me, pronoun, 1st personal, singular.
13. *gwnz/guzn*, on, upon, prepositional, position.

14. *fwex/fiex/fwxx*, someone else, pronoun, infinite.
15. *hoiq/koix*, I, me, pronoun, 1st personal, modest.
16. *hih/yiz*, too, but, then, transitional, emphasis, undertaking, coordinate.
17. *laeuz/raeuz*, we, us, pronoun, personal, plural.
18. *laj*, below, under, preposition, positional.
19. *lawz/raeuz/zaqc*, what, pronoun, interrogative, questionnaire.
20. *lix/liq/lex*, still, conjunction, coordinate.
21. *lox/rox*, or, conjunction, alternate.
22. *mbaeux/mbaexh/mbaeuj/mbov*, not, negative.
23. *mwngz/moy*, you, pronoun, personal, singular.
24. *nix/ni*, this, these, pronoun, infinite.
25. *ndaej/ndaex*, to get, result, auxiliary, structural.
26. *ndix/ndij*, with, for, conjunction, coordinate, manner.
27. *su/sou*, you, pronoun, personal, plural.
28. *unj/unh*, that, there, pronoun, infinite, position, distance.

3.1.3 Data transcription

The data transcription largely refers from the transcription of Part One in Mo scripture. All the data is phonetically transcribed into international phonetic alphabets (IPA), the transcription is almost the same as original version except Romanized initial consonants *mb* and *nd* in order to correspondent with Romanized writing system and phonology provided in section 2.2.1.2, *mb* and *nd* will be transcribed into pre-glotal voiced consonants /^hb/ and /^hd/. Dental fricative consonant /θ/ and alveolar fricative consonants /s/ /ʃ/ are dialect variations; /l/ and /ɣ/ are dialect variations.

After phonetic transcription, the data is translated into English. If the selected example is stanza of line, free variation and word-by-word translation will be given, such as the following examples:

For single words, variation is at the first position, then followed by IPA transcription, finally part of speech and English translation are given, such as the following example.

冇, /[?]bau⁴/, negative, “not”.

楼, /lau²/ or /yau²/, 1st personal pronoun, plural, “we, us”.

For stanzas, Zhuang variations are written in first line, the second line provides phonetic transcription for each character, the third line is word-by-word translation and the last line is free translation, such as the following examples:

- 1) 疋 傍 造 肩 楚
 taŋ² puəŋ² ɕa:u⁴ mi² ʈu³
 whole city then have master
 Then there is a master for the city.
- 2) 疋 甫 造 肩 千
 taŋ² pu⁴ ɕa:u⁴ mi² ka:n⁵
 whole people then have careness
 Then all the people are cared.
- 3) 甫 反 福 不 肩
 pu⁴ fa:n¹ fuk⁷ [?]bau⁴ mi²
 people rebel not have
 There is no one to rebel.
- 4) 甫 拖 提 不 闹
 pu⁴ to⁴ ti² [?]bau⁴ na:u⁵
 people each other fight not not
 There is one to fight together.

3.2 Dealing with data of geographic variation analysis

Location is the most important parameter in this study. There are 7 counties (Bama, Tianyang, Tiandong, Donglan, Dahua, Napo and Xichou) and 1 city (Baise city) that has the same acreage with the county. The table below shows the overview of characters in different locations. The texts mentioned in section 2.2.2, 29 are discovered from Tuen (administrative unit which smaller than village of PRC), and due to some texts versions are given without specifying detail locations, thus county or area (Baise) is the smallest unit that can be gained from all of the data. County is the

research unit for regional variations because of this reason.

Table 3.3 Overview of variations from different locations

| Location | Number of text | Text length | Function words | Amount |
|---------------|----------------|-------------|----------------|------------|
| BS (Baise) | 4 | 786 Pages | 26 | 71 |
| TY (Tianyang) | 8 | 709 Pages | 27 | 107 |
| TD (Tiandong) | 1 | 17 Pages | 19 | 19 |
| BM (Bama) | 9 | 768 Pages | 28 | 143 |
| DL (Donglan) | 4 | 745 Pages | 28 | 203 |
| DH (Dahua) | 1 | 171 Pages | 27 | 90 |
| NP (Napo) | 1 | 49 Pages | 24 | 30 |
| XC (Xichou) | 1 | 95 Pages | 21 | 67 |
| Total | 29 | - | 28 | 434 |

Remark: Number of texts is counted from chapters.

Length of texts is counted from pages in first part in Mo books

The absence of writing character caused by text length is varied from place to place. In such consideration, the method of dealing with the problem is calculating data into percentage for avoiding unbalance during doing research.

It is should be claimed that this study is concentrated on data discovered in Mo books only. Table 3.3 provides un-balance text lengths from 8 locations, BS TY BM DL obtains long texts while the rest locations have much shorter texts. Text length often affects words' frequency and data is largely poured in Baise, Tianyang, Bama, Donglan which leads to limitation of this study. For dealing with this problem, all the numbers are calculated into percentage in order to make data comparable.

3.3 Analysis procedure

The analysis procedure is conducted from two perspectives due to objectives such as interpretation in following sections.

3.3.1 Geography variation analysis procedure

The procedure of dealing with geography variations can be divided into 3

stages.

Stage I, classify variations into series. Variations of each function word in one location is classified into series by their character shapes.

Take *raeuz/laeuz* “we, us” 1st personal pronoun, plural for example:

There are 15 variations for this function words, including:

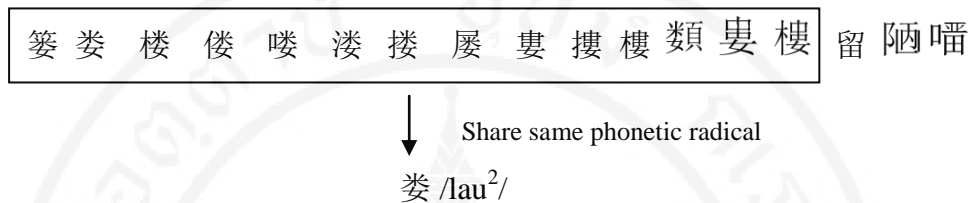


Figure 3.1 Example of categorizing variations series

From the figure above, 婁 樓 倭 唛 唛 樓 婁 婁 樓 樓 類 婁 樓 are categorized as one series because they share the same radical 婁. 婁 樓 樓 are traditional writing forms of 婁 樓 樓 orderly, thus they are grouped together. 婁 樓 are modified from 婁 樓 by deleting the upper stroke 一, therefore they are inevitably involved in this series, too. The rest 3 variations 留 唛 唛 are not similar in shapes, therefore each of them is considered as one series.

One table is used in this stage, in which the locations of each variation occurs in are repeated, such as table 3.4.

Table 3.4 Example of variation classification

| Characters used | Locations | Characters used | Locations |
|-----------------|--------------------|-----------------|-----------|
| A : 1. 婁 | DL, BM, DH, BS, TY | A : 9. 唛 | TY |
| 2. 婁 | BS | 10. 唛 | TY |
| 3. 婁 | BM | 11. 樓 | DL, XC |
| 4. 樓 | DL, BM, DH, BS, TY | 12. 類 | DL |
| 5. 樓 | DH, BS | B : 13. 留 | NP |
| 6. 樓 | DH | C : 14. 唛 | TY |
| 7. 樓 | BS | D : 15. 唛 | TY |
| 8. 婁 | DL | | |

Stage II, selecting representative variation for each function word in each location. Occurrence rate is the only parameter in determining; the highest frequency variation is considered as the representative variation for one location. One table is designed for this stage, such as table 3.5:

Table 3.5 Example of variation occurrence rate (%)

| | | | | | | | | | | |
|-----------|-----------|--------|---|-------|---|------|---|------|---|------|
| DL | 娄 | 66.39 | 楼 | 30.25 | 類 | 1.68 | 屨 | 0.84 | 簍 | 0.84 |
| BM | 娄 | 84.95 | 楼 | 13.98 | 婁 | 1.08 | | | | |
| DH | 楼 | 68.42 | 娄 | 23.68 | 樓 | 2.63 | 樓 | 2.63 | 樓 | 2.63 |
| BS | 娄 | 48.84 | 婁 | 25.58 | 楼 | 9.30 | 啍 | 9.30 | 樓 | 4.65 |
| | 樓 | 2.33 | | | | | | | | |
| TY | 娄 | 86.08 | 楼 | 10.13 | 淩 | 1.27 | 喽 | 1.27 | 陋 | 1.27 |
| TD | NOT FOUND | | | | | | | | | |
| NP | 留 | 100.00 | | | | | | | | |
| XC | 屨 | 100.00 | | | | | | | | |

Except Tiandong, the representatives of function word *raeuz/laeuz* “we, us” 1st personal pronoun, plural for other locations are listed in the table 3.6 below.

Table 3.6 Example of representative variations for survey locations

| Location | Representative | Occurrence | Location | Representative | Occurrence |
|----------|----------------|------------|----------|----------------|------------|
| DL | 娄 | 66.39% | DH | 楼 | 68.42% |
| BM | 娄 | 84.95% | NP | 留 | 100.00% |
| BS | 娄 | 48.84% | XC | 屨 | 100.00% |
| TY | 娄 | 86.08% | TD | NOT FOUND | |

Stage III, calculating similarities. This procedure is conducted in two levels including series level and representative level, by which the similarities are calculated by overlapped percentage. The two levels calculation will be interpreted by taking *raeuz/laeuz* “we, us” 1st personal pronoun, plural for example.

For series level, the variations' series discovered in 8 locations include (see table 3.4):

- DL (Donglan): series A;
- DH (Dahua): series A;
- BM (Bama): series A;
- BS (Baise): series A;
- TY (Tianyang): Series A C D;
- TD (Tiandong): NOT FOUND;
- NP (Napo): series B;
- XC (Xichou): series A.

The similarity is represented by overlap rate that is calculated by overlapped series divided by the total discovered series of 2 locations. Such as DL and TY, the repeated series is A, and there are total 3 series discovered in these two locations A C D, so that the overlap rate is $1/3 \approx 33.33\%$. Therefore, the similarity of 28 mini pairs for function words *raeuz/laeuz* "we, us" 1st personal pronoun, plural is as table 3.7 below:

Table 3.7 Series similarity for *raeuz/laeuz* "we, us" 1st personal pronoun

| | | | | | |
|-------|---------|-------|---------|-------|---------|
| DL-DH | 100.00% | DH-TD | × | BS-NP | 0 |
| DL-BM | 100.00% | DH-NP | 0 | BS-XC | 100.00% |
| DL-TY | 100.00% | DH-XC | 100.00% | TY-TD | × |
| DL-TD | × | BM-BS | 100.00% | TY-NP | 0 |
| DL-BS | 100.00% | BM-TY | 33.33% | TY-XC | 33.33% |
| DL-NP | 0 | BM-TD | × | TD-NP | × |
| DL-XC | 100.00% | BM-NP | 0 | TD-XC | × |
| DH-BM | 100.00% | BM-XC | 100.00% | NP-XC | 0 |
| DH-BS | 100.00% | BS-TY | 33.33% | | |
| DH-TY | 33.33% | BS-TD | - | | |

The correlations of 28 function words are requested as same as that of summing-up in the same way, and it finally was divided by 28 in order to request the

average value. If 28 function words do not occur in two locations, the average similarity at level of variation series is requested by dividing all discovered function words' overlap rates equally, so the result can be seen in table 4. 1.

For representative level, the similarity of function words *raeuz/laeuz* “we, us” 1st personal pronoun, plural calculation is based on table 3.6. If one mini pair shares the same representative, then the similarity is 100%; if the mini pair does not share the same representative, so the similarity is 0%, such as table 3.8 below:

Table 3.8 Representative similarity for *raeuz/laeuz* “we, us” 1st personal pronoun

| | | | | | |
|-------|---------|-------|---------|-------|-------|
| DL-DH | 0.00% | DH-TD | × | BS-NP | 0.00% |
| DL-BM | 100.00% | DH-NP | 0.00% | BS-XC | 0.00% |
| DL-TY | 100.00% | DH-XC | 0.00% | TY-TD | × |
| DL-TD | × | BM-BS | 100.00% | TY-NP | 0.00% |
| DL-BS | 100.00% | BM-TY | 100.00% | TY-XC | 0.00% |
| DL-NP | 0.00% | BM-TD | × | TD-NP | × |
| DL-XC | 0.00% | BM-NP | 0.00% | TD-XC | × |
| DH-BM | 0.00% | BM-XC | 0.00% | NP-XC | 0.00% |
| DH-BS | 0.00% | BS-TY | 100.00% | | |
| DH-TY | 0.00% | BS-TD | × | | |

The similarity of 28 function words at level of variation representative are requested and summed up, and it finally was divided by 28 in order to request the average value. In case that 28 function words do not occur in two locations, the average similarity is requested by dividing all discovered function words' overlap rates equally, the result can be seen in table 4. 4.

3.3.2 Non-geographic variation analysis procedure

Non-geographic variation analysis is conducted by three stages as following:

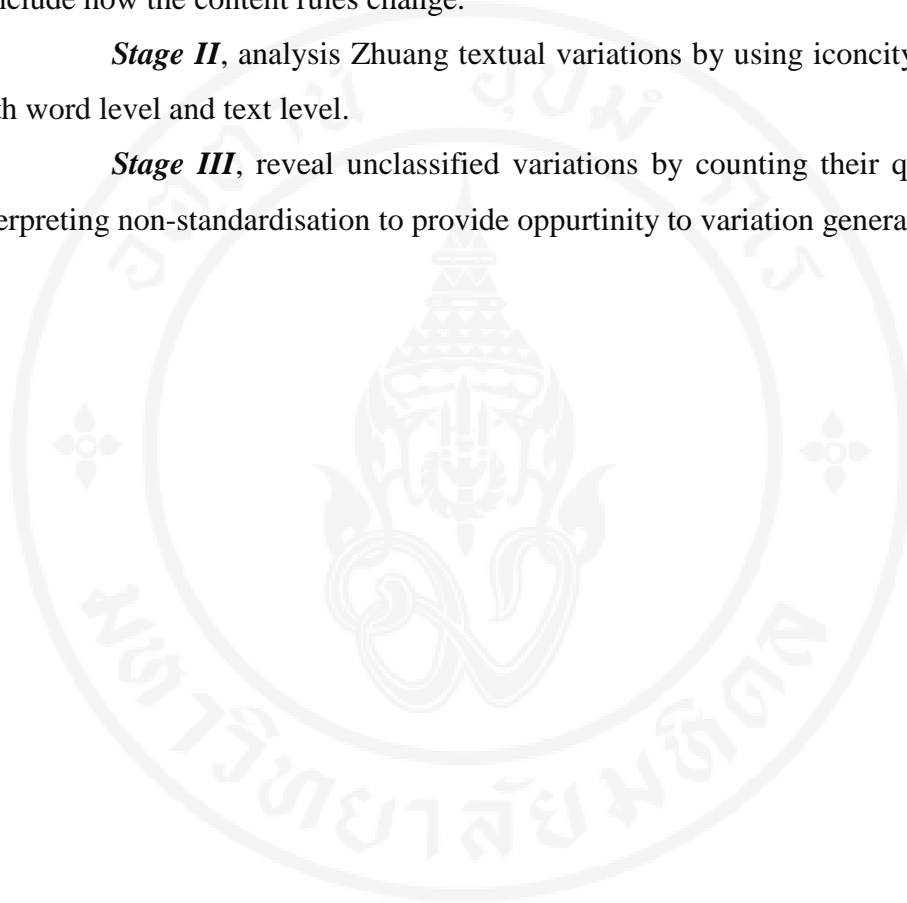
Stage I, observation is the basic method in collecting and selecting data for non geography variations which including two facets as following:

(1) Take notice of unclassified variation phenomenons in order to interpret the hybrid property of Zhuang traditional character.

(2) Observe the context of function words and examine the iconicity of function words in order to analysis interplay between meaning and form, and to conclude how the content rules change.

Stage II, analysis Zhuang textual variations by using iconcity principle in both word level and text level.

Stage III, reveal unclassified variations by counting their quantities and interpreting non-standardisation to provide oppurtunity to variation generation.



CHAPTER IV

GEOGRAPHIC VARIATIONS

This chapter is organized by three main parts, including: section 4.1 the variations will be classified into series and the occurrence rate of each variation will be given in order to conduct next analysis; section 4.2 will provide geographic continuum analysis at variation series level; the survey locations are divided into 4 boundaries by studying similarity at representative level in section 4.3.

4.1 Variation classification and analysis

In case that one graph is used to present two different function words' meaning then it is considered as two variations. There are total 448 variations are collected in this study. All of the variations for each function word are listed and classified into series in order to provide the total amount and modified memberships in each series. The modification method and borrowing method are analyzed in detail.

Beside, variations in Mo books that does not match with *Sawndip Sawdenj* are pointed out. The frequency of each variation in each location are offered for finding out the most common used graphs of function words which will be considered as representative variation in this study.

Variation of function words are not in full accord, by comparing with variations listed in table 3.1, the non coincident variations are pointed out. The variations are largely phonetically rather than semantically borrowed or modified from Chinese character, in order to analysis the phonetic borrowing basis, the local Chinese dialect phonetic feature are introduced in next coming paragraphs.

According to analysis, variations are largely phonetically borrowed from Chinese. Since Southwest Mandarin is the most widely used Chinese dialect in survey places, therefore the variation selection is impacted by its pronunciation. The Southwest Mandarin used in Bama, Donglan, Dahua, Baise, Tianyang, Tiandong,

Napo are categorized into 桂柳话 (*Guiliu* language) which is a sub-dialect of Southwest Mandarin (Huang Xuezheng, 1986: 264-266).

Initial consonant /ts/ /ts^h/ /s/ are contrastive with /tɕ/ /tɕ^h/ /ɕ/, /tʂ/ /tʂ^h/ /ʂ/ in standard Mandarin are pronounced as /tɕ/ /tɕ^h/ /ɕ/ (Li Lan, 2009: 81). In some places, aspiration of *Guiliu* language is not contrastive phonetic feature. Otherwise, the phonetic system does not distinguish /ən/-/əŋ/, /in/-/iŋ/, /u/ exists as single vowel rather than medial vowel (Li Xia, 2009). The tone values /41/ /21/ /53/ /35/ are consistently used within *Guiliu* language (Huang Xuezheng, 1986: 262).

Southwest Mandarin used in Xichou is categorized into 云南 (*Yunnan* language) which is sub-dialect of Southwest Mandarin (Huang Xuezheng, 1986: 264-266). Phonologically, retroflex and aspiration are two contrastive features (Li Xia, 2009). The tones in Xichou is categorized as *Kaiyuan* tone type which has 4 tone values /55/ /42/ /33/ /12/ (Li Lan, 2009: 75).

(1) *Caengz*, /ɕaŋ²/, *not yet, negative, temporal* is found in 7 survey locations except Xichou, 9 series of 21 variations are collected as follow:

Table 4.1 Classification of *Caengz* “not, yet”

| Series | Characters | Location | Series | Characters | Location |
|------------|------------|----------|-----------|------------|----------|
| A : | 1. 成 | DL, DH | I: | 12. 曾 | BM, TD |
| B : | 2. 臣 | DL, DH | | 13. 增 | BM |
| C : | 3. 斥 | DL | | 14. 僧 | BM |
| D : | 4. 尽 | DL | | 15. 罇 | BM |
| E : | 5. 則 | DL | | 16. 罇 | BM |
| F : | 6. 长 | DL | | 17. 罇 | BM |
| G : | 7. 長 | DL | | 18. 罇 | BS |
| | 8. 升 | DL | | 19. 罇 | NP |
| | 9. 升 | DL | | 20. 增 | TY |
| H : | 10. 昇 | DL | | 21. 增 | BM |
| | 11. 承 | DL | | | |

Character **增** and 憎 in *Sawndip Sawdenj* are not found in Mo books; all of the variations for this function word found in Mo books are not recruited in *Sawndip Sawdenj* except variation 12. 曾.

Variation 6. 长 and 7. 長 are one Chinese character “long, grow up” that written in simplified form and traditional form.

升 is the root of series G, variation 9. 𠂔 is modified from 升 *rise* by adding 丿 on bottom part of | at right side, variation 10. 昇 is modified from 昇 *ascend* that share same radical 升 by adding 丿 on lower right corner.

曾 is the shared radical or modification root for series I. Variation 12. 曾 13. 增 14. 憎 share 曾 as same component. Variation 15. 𠂔 is modified from 曾 by adding 厶 to separate up and bottom radica. Variation 16. is different from 𠂔 because radical 厶 on the top of 𠂔 is reversal with 丿 of 𠂔, but it is the common hand writing form of Chinese especially brush calligraph such as 曾. Variation 17. 𠂔 is also modified from 曾 by changing 丿 inside the up square into one 一 which is another hand writing form. Variation 18. 𠂔 is similar to 曾 except middle stroke 一. Variation 曾 is composed by deleting 丿 on the top then adding ㇇. Variation 20. 增 is composed by 土 and variation 18. 𠂔. Variation 21. is varied from 曾 by change 丿 into ㇇ on the top.

| | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|-------|--------------|-----------|
| DL | 成 | 31.47% | 臣 | 12.86% | 斥 | 12.86% | 尽 | 2.86% | 則 | 7.14% |
| | 承 | 5.71% | 升 | 4.27% | 𠂔 | 10.00% | 昇 | 1.43% | 长 | 1.43% |
| | 長 | 1.43% | | | | | | | | 11 |
| BM | 增 | 41.94% | 增 | 25.81% | 曾 | 12.90% | 𠂔 | 9.68% | 曾 | 3.23% |
| | 𠂔 | 3.23% | 憎 | 3.23% | | | | | | 7 |
| DH | 成 | 60.00% | 臣 | 40.00% | | | | | | 2 |
| BS | 曾 | 80.00% | 曾 | 20.00% | | | | | | 2 |
| TY | 增 | 87.50% | 曾 | 12.50% | | | | | | 2 |
| TD | 曾 | 100.00% | | | | | | | | 1 |
| NP | 曾 | 100.00% | | | | | | | | 1 |

This item does not exist in Xichou county. The variation selection and frequency of each location are different from location to location. Bama, Baise, Tianyang, Tiandong, Napo prefer series I which are created based on 曾, Donglan process several multi-originated variations, two variations 成 and 臣 discovered in Dahua is also used in Donglan. The usage and frequency of this item is listed as above.

All variations are phonetically borrowed from Chinese. In Donglan, 成 臣 斥 尽 则 长 升 承 are loaned character roots, which are pronounced /ts^hən⁴¹/ /tɕ^hən⁴¹/ /tɕ^hu³⁵/ /tɕin³⁵/ /tsə⁴¹/ /tɕ^ha:ŋ⁴¹/ /ɕən²¹/ /tɕ^hən⁴¹/.

Compare to Zhuang word /ɕaŋ²/, initial consonant of series G 升 升 昇 are the same as /ɕaŋ²/ . The articulator of 则's consonant is alveolar which is closed to alveolar-palatal of /ɕ/. The other initial consonants /tɕ/ /tɕ^h/ of selected Zhuang character and /ɕ/ of Zhuang word are both alveolar-palatal consonant. Variation 成 and 臣 discovered in Dahua display the same phonetical similarity as Donglan does.

Character 曾 /ts^hən⁴¹/ as the root of series I that is spoken in Bama, Tianyang, Tiandong and Napo county, the sibilant affricative alveolar consonant /ts^h/ is biologically closed to sibilant fricative alveolar-palatal consonant /ɕ/ of Zhuang word.

From percentages provided above, representatives can be extracted such as: 成 is the representative of Donglan and Dahua; Bama prefers to use 增; Baise, Tianyang, Tiandong and Napo select 𪛗 增 曾 and 𪛘 by order.

(2) *Caux/tsauh/dcaos*, /ɕa:u⁴/, /tsa:u⁶/, /tɕa:u⁶/, so, then, conjunction, **conditional, undertaking**, there are total 10 series of 14 variations listed as table 4.2.

Characters 𪛗 and 𪛘 in *Sawndip Sawdenj* are not applied in Mo books, variations from 1-14 are not recruited in *Sawndip Sawdenj* complete.

Variations in series A share same radical 召. Variation 2. 𪛘 is modified from 超 “super” by chage 刀 on the top of right radical into 𪛘. Variation 10. 𪛘 is modified from 山 “mountain” by adding 二 on the top. variation 13. 𪛘 is changed from 𪛗 by deleting 𪛘 on the top then adding 𪛘 and deleting 一 in middle of character.

Variation 14. 就 “*so, then*” of series J is semantically borrowed from Chinese, the rest variations are phonetically borrowed and modified.

Table 4.2 Classification of *Caux/tsauh/dcaos* “*so, then*”

| Series | Character | Location | Series | Character | Location | |
|------------|-----------|------------------------|------------|------------|------------|-------|
| A : | 1. 召 | DL, DH, TY | D : | 8. 少 | TY | |
| | 2. 趙 | BM | | E : | 9. 昨 | BM |
| | 3. 詔 | XC | | | F : | 10. 𠂔 |
| | 4. 招 | BM | | G : | | 11. 助 |
| | 5. 造 | DL, BM, BS, TY, TD, NP | | | H : | 12. 取 |
| B : | 6. 左 | BM | I : | 13. 𠂔 | XC | |
| C : | 7. 朝 | BM | J : | 14. 就 | TY | |

Series A are discovered in all survey places with overwhelming using frequency. Bama processes most amount of variations then followed by Tianyang. The distribution and occurrence are provided as follows:

| | | | | | | | | | | | <i>Total</i> |
|-----------|---|---------|---|--------|---|-------|---|-------|---|-------|--------------|
| DL | 召 | 90.00% | 造 | 10.00% | | | | | | | 2 |
| BM | 造 | 97.63% | 取 | 0.68% | 昨 | 0.51% | 招 | 0.34% | 朝 | 0.34% | |
| | 趙 | 0.17% | 左 | 0.17% | 助 | 0.17% | | | | | 8 |
| DH | 召 | 75.00% | 𠂔 | 25.00% | | | | | | | 2 |
| BS | 造 | 100.00% | | | | | | | | | 1 |
| TY | 造 | 92.18% | 朝 | 0.42% | 少 | 0.42% | 就 | 6.98% | | | 4 |
| TD | 造 | 100.00% | | | | | | | | | 1 |
| NP | 造 | 100.00% | | | | | | | | | 1 |
| XC | 詔 | 80.00% | 𠂔 | 20.00% | | | | | | | 2 |

For this item, the most obvious phonetic similarity is represented in rhyme /a:u/. The Zhuang word is pronounced /ɛa:u⁴/ in Donglan, Bama, Tianyang, Tiandong and Baise, /tɕa:u⁶/ in Napo. 5 memberships 召造詔招趙 of series A have same

rhyme /a:u/ which is completely the same as rhyme of Zhuang word discovered Donglan, Bama, Tianyang, Tiandong and Baise and Napo. For 朝 /tɕa:u⁴¹/ found in Bama and Tianyang also processes same rhyme as Zhuang word does.

The initial consonants of selected characters have similar phonetic features with Zhuang word.

In Donglan, the initial consonants /tɕ/ of 召 /tɕa:u³³/ and /ɕ/ of Zhuang word are both alveolar-palatal consonants, the articulator of /ts/ alveolar in 造 /tsa:u³⁵/ is closed to alveolar-palatal.

In Bama, there are three initial consonants of loaned characters :

- i. /ts/: 造 /tsa:u³⁵/, 昨 /tso:⁴¹/, 左 /tso⁵³/;
- ii. /tɕ^h/: 取 /tɕ^hy⁵³/, /tɕ^ha:u⁴¹/, 超 /tɕ^ha:u²¹/;
- iii. /tɕ/: 助 /tɕu³⁵/, 招 /tɕa:u²¹/.

As interpreted in the case of Donglan, /tɕ/ and /tɕ^h/ are sibilant affricative alveolar – palatal consonants whose articulators are the same as /ɕ/ in Zhuang word. Biologically, /ts/ is sibilant affricative palatal consonant, the articulator is closed to /ɕ/ whose articulator is alveolar – palatal. Beside, final vowel /u/ and /y/ are high round vowel which is the feature of diphthong /a:u/.

The representatives for each location are pointed out by numeral evidence: 召 is representative for Donglan and Dahua county; 造 is commonly five locations including Bama, Baise, Tianyang, Tiandong and Napo; 詔 occurs in Xichou most frequently.

(3) *Cih/cix/dcuz*, /ɕi⁶/, /ci⁴/, /tɕu²/, *so, then, however, conjunction, undertaking, transitional*, there are total 34 series of 46 variations. The details of variations and borrowing evidences are provided firstly.

Character 𠵹 字自則 and 𠵹 in *Sawndip Sawdenj* are not found in Mo books; except variation 1. 是 5. 之 34. 只, the rest 43 variations are not recruited.

Variation 26. 了 /lə/ “tense particle” is unrelated with neither pronunciation nor meaning with Zhuang word, it is more possible miss hand-writing.

Series F is most likely miss hand-writing of 思 /su⁵⁵/ “miss” which has

similar character shape with 恩 /ʔən⁵⁵/ “kindness” and its varied form 恩.

Variation 27. 冫 is modified from 市 “market, exchange” in Mandarin by deleting the long 一 and short | on the left side.

Table 4.3 Classification of *Cih/cix/dcuz* “so, then, however”

| Series | Character | Location | Series | Character | Location |
|-----------|-----------|--------------------|------------|-----------|----------|
| A: | 1. 是 | DL, BM, BS, TD | S: | 24. 敕 | BM |
| B: | 2. 拾 | DH | T: | 25. 出 | BM |
| C: | 3. 志 | DL | U: | 26. 了 | DL |
| D: | 4. 珠 | DL, DH | V: | 27. 冫 | DL |
| E: | 5. 之 | DL, BM, BS, DH, TY | W: | 28. 真 | DL |
| F: | 6. 恩 | DL | | 29. 奧 | DL |
| | 7. 恩 | DH | | 30. 奧 | DL |
| G: | 8. 前 | DL, DH | | 31. 奧 | DL |
| H: | 9. 全 | DL | | 32. 奧 | DL |
| I: | 10. 即 | BM | | 33. 冫 | DL |
| J: | 11. 習 | DL | X: | 34. 只 | DL |
| K: | 12. 已 | DH, BS, TY | Y: | 35. 十 | DL, DH |
| L: | 13. 千 | DL, BM, BS, TY | | 36. 土 | DL |
| M: | 14. 至 | BM, BS, TY | | 37. 士 | DL |
| N: | 15. 始 | BM, BS | Z: | 38. 支 | DL |
| | 16. 治 | DL | AA: | 39. 請 | DL |
| O: | 17. 使 | BM | AB: | 40. 轉 | DL |
| P: | 18. 尺 | TY | AC: | 41. 失 | NP |
| | 19. 户 | DL | AD: | 42. 周 | XC |
| | 20. 尽 | DL | AE: | 43. 初 | XC |
| Q: | 21. 系 | DH | AF: | 44. 肘 | XC |
| | 22. 係 | DL | AG: | 45. 竹 | XC |
| R: | 23. 世 | DH | AH: | 46. 就 | BM |

Memberships in series X is modified from 真 “real”. Variation 奧 was created by change 三 inside the square of 真 into 人. In the same way, variation 𠄎 was composed by change 三 inside the square into 大. Variation 31. 𠄎 and 32. 𠄎 is modified from by deleting 丿 on the top of 奧 and 𠄎. Variation 33. 𠄎 is created by deleting 一 and 八 of the bottom of 奧.

The rest variations those are not mentioned are completely borrowed from Chinese characters.

This item is varied much more than other items, especially in Donglan where 26 variations covering 20 series has been used, then followed by Bama 11 variations and Dahua 10 variations. The variations in each location and their occurrence rates are given as follow:

| | | | | | | | | | <i>Total</i> | | |
|-----------|---|---------|---|--------|---|--------|---|-------|--------------|-----------|-----------|
| DL | 之 | 56.78% | 十 | 21.00% | 奧 | 7.99% | 尽 | 4.09% | 治 | 2.05% | |
| | 奧 | 1.86% | 是 | 0.84% | 前 | 0.84% | 只 | 0.84% | 𠄎 | 0.65% | |
| | 𠄎 | 0.47% | 户 | 0.37% | 了 | 0.37% | 恩 | 0.28% | 𠄎 | 0.28% | |
| | 支 | 0.28% | 珠 | 0.19% | 志 | 0.09% | 全 | 0.09% | 習 | 0.09% | |
| | 千 | 0.09% | 係 | 0.09% | 𠄎 | 0.09% | 土 | 0.09% | 轉 | 0.09% | |
| | 請 | 0.09% | | | | | | | | 26 | |
| BM | 之 | 52.99% | 千 | 18.80% | 就 | 13.68% | 始 | 5.13% | 至 | 4.27% | |
| | 是 | 0.86% | 即 | 0.86% | 真 | 0.86% | 使 | 0.86% | 出 | 0.86% | |
| | 敕 | 0.86% | | | | | | | | 11 | |
| DH | 之 | 81.48% | 十 | 4.76% | 前 | 4.23% | 息 | 3.70% | 拾 | 2.65% | |
| | 系 | 1.06% | 已 | 0.53% | 珠 | 0.53% | 尽 | 0.53% | 世 | 0.53% | 10 |
| BS | 千 | 36.36% | 之 | 28.79% | 是 | 19.70% | 至 | 6.06% | 始 | 6.06% | |
| | 已 | 3.03% | | | | | | | | 6 | |
| TY | 之 | 48.15% | 千 | 29.63% | 至 | 14.82% | 已 | 5.56% | 尺 | 1.85% | 5 |
| TD | 是 | 100.00% | | | | | | | | 1 | |
| NP | 失 | 100.00% | | | | | | | | 1 | |
| XC | 周 | 62.90% | 就 | 32.26% | 肘 | 3.23% | 初 | 1.61% | | 4 | |

All of the variations are phonetically borrowed from Southwest Mandarin except variation 46. 就 /tɕiu³⁵/ “then, so”.

To interpret the similarity between Zhuang word and Chinese, the pronunciation of variation roots are given as follows:

- i. 是/ɛu³⁵/, 拾/ɛu⁴¹/, 始/ɛu⁵³/, 使/ɛu⁵³/, 世/ɛu³⁵/, 失//ɛu⁴¹/, 十/ɛu⁴¹/, 市/ɛu³⁵/;
- ii. 志/tɕu³⁵/, 珠/tɕu²¹/, 之/tɕu²¹/, 至/tɕu³⁵/, 真/tɕɛn²¹/, 只/tɕu²¹/, 支/tɕu²¹/, 即/tɕi³⁵/, 己/tɕi⁵³/;
- iii. 敕/tɕ^hu³⁵/, 出/tɕ^hy⁴¹/, 尺/tɕ^hu⁴¹/, 前/tɕ^hi:n⁴¹/, 千/tɕ^hi:n²¹/, 請/tɕ^hin⁵³/, 全/tɕ^hyn⁴¹/;
- iv. 思/su²¹/.

From the pronunciation above, there are two similarities between Zhuang word and Southwest Mandarin. Firstly, as the same as last two items, initial consonants of Zhuang word /ɛ/ and Chinese character /tɕ/ /tɕ^h/ /ɕ/ are both alveolar – palatal consonants. The articulation manners are close also, /ɛ/ is sibilant fricative, /tɕ/ and /tɕ^h/ are sibilant affricative. The alveolar fricative consonant /s/ has close articulator with /ɛ/, their articulation manners are same. Secondly, the most used vowel /u/ obtains high and unrounded two features with rhyme /i/ in Zhuang word, /y/ is shares high front two features with /i/.

For Xichou, the pronunciation of 周/tɕou⁵⁵/, 肘/tɕou³³/, 初/tɕ^hu⁵⁵/ are similar to Zhuang word /tɕu/. Firstly, not only the articulators of retroflex consonants /tɕ/ /tɕ^h/ and alveolar-palatal consonant /tɕ/ are closed biologically, but also both of them are sibilant affricative consonants. Secondly, /u/ is the vowel that shared by both Southwest Mandarin and Zhuang word.

The representatives for each location could be exacted out: 之 is widely used in Donglan, Bama, Dahua, and Tianyang; 千 is frequently seen in Baise area, Tiandong prefers 是; 失 is commonly used in Napo; 周 represents this function word in Xichou.

(4) *Taengz/thaengz/taqc*, /taŋ²/, /t^haŋ²/, *to, until, preposition, temporal, position*, there are total 18 series of 33 variations for this function word which are

listed in table 4.4.

For this word, Character 𠵼 𠵽 𠵾 𠵿 𠶀 in *Sawndip Sawdenj* are not used in Mo books; the variations found in Mo books are not recruited in *Sawndip Sawdenj* except 4.𠵿 6.𠵽 9.𠵾 12.𠵿 22. 𠵿 .

Among 33 characters, there are 18 characters completely loaned from Chinese and 15 self-created variations which will be interpreted in coming paragraphs.

Table 4.4 Classification of *Taengz/thaengz/taqc* “to, until”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|----------------|------------|-----------|------------|
| A : | 1. 𠵼 | DL, BM, DH, | G : | 18. 𠵿 | XC |
| | 2. 𠵽 | TY | H : | 19. 到 | BM, XC |
| | 3. 𠵾 | DL | I : | 20. 廷 | DL |
| B : | 4. 𠵿 | BM | | 21. 廷 | NP |
| | 5. 𠶀 | BM | J : | 22. 登 | BM |
| | 6. 𠶁 | BM | K : | 23. 屯 | DL |
| | 7. 𠶂 | BM | L : | 24. 吞 | DL |
| C : | 8. 豚 | DL, DH | M : | 25. 得 | DL |
| D : | 9. 𠶃 | BM, BS, TY, TD | N : | 26. 漢 | TY |
| | 10. 𠶄 | TY | O : | 27. 的 | DL |
| | 11. 𠶅 | TY | P : | 28. 托 | DL |
| | 12. 𠶆 | BM | Q : | 29. 湯 | XC |
| | 13. 𠶇 | NP | R : | 30. 炭 | XC |
| E : | 14. 𠶈 | TY | S : | 31. 等 | DH, BS, TY |
| | 15. 𠶉 | BM, BS, TY | | 32. 等 | DL |
| | 16. 𠶊 | TY | | 33. 芋 | DL |
| F : | 17. 𠶋 | DL, BS, TY | | | |

Memberships in series A are Zhuang self-created characters by composing two Chinese radicals together, but the radicals are not related to neither meaning nor pronunciation.

This item is quite varied in Donglan, Tianyang, Dahua and Bama, the occurrence rate of each location and each selected characters are provided as follows:

| | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|-------|--------------|-----------|
| DL | 𠂔 | 81.89% | 芋 | 2.04% | 屯 | 0.77% | 廷 | 0.77% | 騰 | 0.77% |
| | 得 | 8.42% | 吞 | 1.28% | 道 | 0.26% | 的 | 0.77% | 拖 | 0.77% |
| | 豚 | 2.55% | 萁 | 1.02% | 到 | 0.77% | 同 | 0.77% | | 14 |
| BM | 𠂔 | 48.79% | 𠂔 | 31.99% | 滕 | 11.44% | 𠂔 | 2.75% | 騰 | 3.74% |
| | 到 | 0.42% | 泰 | 0.21% | 登 | 0.21% | | | | 8 |
| DH | 𠂔 | 51.16% | 豚 | 27.91% | 登 | 9.30% | 等 | 2.33% | 芋 | 2.33% |
| BS | 滕 | 97.93% | 騰 | 1.04% | 勝 | 0.52% | 等 | 0.52% | | 9 |
| TY | 滕 | 51.44% | 滕 | 18.11% | 騰 | 11.52% | 滕 | 3.29% | 𠂔 | 1.65% |
| | 𠂔 | 0.82% | 芋 | 0.82% | 等 | 0.41% | 勝 | 0.41% | 漢 | 0.41% |
| TD | 滕 | 100.00% | | | | | | | | 1 |
| NP | 𠂔 | 92.59% | 廷 | 3.70% | 芋 | 3.70% | | | | 3 |
| XC | 到 | 43.33% | 炭 | 40.00% | 湯 | 13.33% | 𠂔 | 3.33% | | 4 |

In series B, 丁 is the shared phonetic radical. Except variation 5. 訂, the rest variations are self-created by using Chinese radicals. Variation 4. 𠂔 is composed by 月 “moon” and 丁 “family number”, variation 6. 𠂔 is composed from 月 “moon”, 天 “sky” and 丁 “family number” by 月 stands on the left side, 天 is on the right top, finally 丁 is at the right bottom. Variation 7. 𠂔 has some structure as 𠂔 by replacing 月 into 𠂔.

Series C is modified base on 滕 “a Chinese surname”, all the variations are Zhuang created except variation 9. 滕. Variation 10. 滕 is modified by adding short 一 on the top. Variation 11. 滕 is modified by adding a short 一 on the top, adding 丿 on the left top corner, and adding 丿 one the right top corner. Variation 12. is made by deleting left radical 月. For variation 13. 𠂔, the top radical 𠂔 is short form of 滕 (Qin Xiaohang, 2010), 至 “to, until” is semantic radical which is placed at bottom.

Variation 14. 騰 and 15. 騰 are one Chinese character, 騰 is the traditional

form of 騰. Variation 16. 騰 is modified from 騰 by deleting 灬 then adding 一.

Variation 18. 忒 is modified from Chinese character 忒 “very much” by adding a lying 丿 on middle of 匕. Variation 21. 廷 series I is modified base on 廷 “royal or imperial court” by make 丨 longer to cross 一 at the bottom. Variation 30. 炭 is modified from 炭 by shortening 一 and 丿 to compose 厂 in the middle of character.

For last series, variation 31. 等 and 32. 等 are two writing form of one character which means “wait” in Chinese. Variation 33. 𠄎 is modified from 等 by deleting 十 in middle of the character.

Variation 13. 登 and 到 is semantically borrowed from Chinese character, variation 13. 登 is composed by both semantic radical and phonetic radical. The rest variations are phonetic borrowed from Chinese characters. To improve it, the pronunciations of character roots are provided as follows:

- i. 丁/*tin*²¹/, 登/*tən*²¹/, 得/*tə*²¹/, 的/*ti*²¹/, 等/*tən*⁵³/;
- ii. 豚/*t^hun*²¹/, 滕/*t^hən*²¹/, 騰/*t^hən*²¹/, 廷/*t^hin*²¹/, 屯/*t^hun*⁴¹/, 吞/*t^hun*²¹/, 忒/*thei*²¹/, 拖/*t^ho*²¹/, 湯/*t^haŋ*²¹/, 炭/*t^ha:n*⁴²/, 同/*t^huŋ*²¹/;
- iii. 漢/*ha:n*³⁵/, 勝/*ɛən*³⁵/.

This item is pronounced as /*taŋ*²/ in Donglan, Bama, Dahua, Tianyang, Tiandong, Baise area. In Napo and Xichou, the Zhuang word is pronounced as /*t^haŋ*²/. Voiceless stop alveolar initial consonant /*t*/ and /*t^h*/ are the most obvious similarity between Zhuang and Chinese. Nasal final is the second common phonetic feature.

The representatives of 8 survey locations could be figured out by percentages as: 𠄎 is common seen in Donglan and Dahua county; 滕 is representative in Baise, Tianyang and Tiandong; Bama applies 𠄎 as common variation; Napo chooses 登 while Xichou prefers using 到.

(5) *Dangq*, /*ta:ŋ*⁵/, *each*, *pronoun*, *infinite*, there are 3 series of 5 variations collected from 5 survey locations except Baise, Tiandong and Xichou which is a item that occurs fewer than other items.

Character 𠄎, 倘, 蕩 in *Sawndip Sawdenj* are not employed in Mo books,

otherwise variation 1. 堂, 3. 當, 4. 滕, 5. are not recruited in *Sawndip Sawdenj*. The found variations are listed in table as follows:

Table 4.5 Classification of *Dangq* “each”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|------------|--------|-----------|----------|
| A : | 1. 堂 | DL | C : | 4. 滕 | BM |
| B : | 2. 当 | DL, BM | | 5. 鞞 | NP |
| | 3. 當 | DL, DH, TY | | | |

Variation 5. is transfer (see the (11) of section 2.3) from Zhuang word *daengz/thaengz/taqc, /taŋ²/, /t^haŋ²/, to, until, preposition, temporal, position* which has similar pronunciation with this item. For this item the characters are not varied widely, the occurrence rates are provided as follows:

| | | | | | | | <i>Total</i> |
|-----------|---|---------|---|--------|---|--------|--------------|
| DL | 當 | 54.55% | 堂 | 18.18% | 当 | 27.27% | 3 |
| BM | 當 | 55.55% | 滕 | 22.22% | 当 | 22.23% | 3 |
| DH | 当 | 100.00% | | | | | 1 |
| TY | 當 | 100.00% | | | | | 1 |
| NP | 鞞 | 100.00% | | | | | 1 |

All of the variations are phonetically borrowed from Chinese characters, the pronunciations of selected characters in Southwest Mandarin are as:

當 /ta:ŋ²¹/, 当 /ta:ŋ²¹/, 滕 /t^həŋ⁴¹/, 鞞 /t^həŋ⁴¹/, 堂 /t^ha:ŋ²¹/.

Compare to Zhuang word, 當 当 in Chinese have same syllable as Zhuang word, 堂 has same rhyme as /ta:ŋ²/ or /t^ha:ŋ²/, the articulation manner of initial consonant /t^h/ of 滕 鞞 is similar to /t/, rhyme /əŋ/ is similar to /a: ŋ/ because both are finished by nasal velar consonant.

The occurrence percentages help to point out representatives of survey locations, such as: 當 is widely used in Donglan, Bama and Tianyang county, Dahua selects 当, while Napo prefers 鞞 .

(6) *Dauq*, /ta:u⁵/ *so, though, too, conjunction, transitional, emphasis, coordinate*, there are total 4 series of 4 variations. Character 到 in *Sawndip Sawdenj* does not appear in Mo books, however *Sawndip Sawdenj* records none of variations listed in the table above. All variations are borrowed from Chinese completely without creation. All the variations found in Mo texts are listed as table 4.6.

Table 4.6 Classification of *dauq* “*so, though, too*”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|----------------------------|--------|-----------|------------|
| A : | 1. 到 | DL, BM, DH, BS, TY, NP, XC | C : | 3. 道 | DL, BM, DH |
| B : | 2. 刀 | DL, BS | D : | 4. 斗 | XC |

For this item, the survey locations select 到 as common character rather than others such as follows:

| | | | | | | | <i>Total</i> |
|-----------|---|---------|---|--------|---|-------|--------------|
| DL | 到 | 91.45% | 道 | 7.06% | 刀 | 0.74% | 3 |
| BM | 到 | 73.94% | 道 | 26.06% | | | 2 |
| DH | 到 | 88.89% | 道 | 11.11% | | | 2 |
| BS | 到 | 88.00% | 刀 | 12.00% | | | 2 |
| TY | 到 | 100.00% | | | | | 1 |
| TD | 到 | 100.00% | | | | | 1 |
| NP | 到 | 100.00% | | | | | 1 |
| XC | 斗 | 82.35% | 到 | 17.65% | | | 2 |

All of the variations are phonetically borrowed from Chinese, 到 /ta:u³⁵/, 刀/ta:u²¹/, 道/ta:u³⁵/ have same syllable with Zhuang word /. 斗/tou³⁵/ has same initial consonant /t/ and similar diphthongs that composed by /u/ as final.

The occurrence rate figures out that representative of Xichou is 斗, the rest seven locations is represented by 到.

(7) *De/deih*, /te¹/, /te³/, *he, she, it, him, her, there, infinite pronoun, 3rd*

personal, singular, there are total 14 series of 15 variations as table 4.7.

5 characters in *Sawndip Sawdenj* 爹 佚 修 爺 僅 are not applied in Mo books, none of variations discovered in survey texts are collected in *Sawndip Sawdenj* neither. There are only one self-created character 敵 among all variations which is modified from 敵 “enemy” by replacing 十 to 八 inside the square 冂.

Table 4.7 Classification of *de/dix/deih* “*he, she, it, him, her, there*”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|----------------|--------|-----------|------------------------|
| A : | 1. 的 | DL, BM, TY, XC | H : | 8. 達 | DL |
| B : | 2. 里 | DL, DH, | I : | 9. 弟 | DH |
| | 3. 哩 | XC | J : | 11. 敵 | XC |
| C : | 4. 位 | BS | K : | 12. 他 | DL, BM, DH, BS, TY, XC |
| D : | 5. 夜 | BS | M : | 13. 地 | DH |
| E : | 6. 得 | DL | N : | 14. 它 | DL |
| F : | 7. 帝 | DL | O : | 15. 斗 | TY |
| G : | 10. 低 | XC | | | |

Variation 12. 他 and 14. 它 are semantically borrowed from Chinese, the rest variations are phonetically borrowed. The rest variations are phonetic borrowed from Chinese. The pronunciation of character roots are given in order to compare similarity between Zhuang word and Southwest Mandarin.

- i. 的/ti²¹/, 帝/ti³⁵/, 低/ti²¹/, 弟/ti³⁵/, 敵/ti²¹/, 地/ti³⁵/, 得/tə⁴¹/, 達/ta⁴¹/,
- ii. 里/li⁵³/, 位/wei³⁵/, 夜/je³⁵/.

From data in group i. the chosen characters share same initial consonant /t/ with Zhuang word. Beside, the /i/ and /e/ are both front vowel, /ə/ and /e/ are mid-high vowel. 位 and 夜 share same vowel /e/ with Zhuang word.

The representatives can be concluded from numeral data as: 他 is the representative that widely spreads in Donglan, Bama, Baise, Tianyang, Tiandong; Dahua and Xichou select to use 的 as representative; 地 is common used in Napo.

The occurrence rate for each variation in each location is provided as follows:

| | | | | | | | | | <i>Total</i> | | |
|-----------|---|---------|---|--------|---|--------|---|-------|--------------|-------|----------|
| DL | 他 | 69.36% | 的 | 28.14% | 里 | 1.79% | 得 | 0.36% | 帝 | 0.18% | |
| | 達 | 0.18% | | | | | | | | | 6 |
| BM | 他 | 99.18% | 的 | 0.82% | | | | | | | 2 |
| DH | 的 | 73.01% | 他 | 18.41% | 里 | 7.36% | 地 | 0.61% | 地 | 0.61% | 5 |
| BS | 他 | 98.75% | 位 | 0.63% | 夜 | 0.62% | | | | | 3 |
| TY | 他 | 99.16% | 的 | 0.42% | 斗 | 0.42% | | | | | 3 |
| TD | 他 | 100.00% | | | | | | | | | 1 |
| NP | 地 | 100.00% | | | | | | | | | 1 |
| XC | 的 | 39.54% | 敵 | 28.58% | 低 | 23.26% | 哩 | 6.70% | 他 | 4.65% | 5 |

(8) *Du, /tu¹/, we, us, pronoun, personal and plural*, there are total 9 series of 11 variations such as follows:

Table 4.8 Classification of *du* “we, us”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|----------------|------------|-----------|----------|
| A : | 1. 都 | DL, BM, DH, BS | C : | 7. 杜 | BS |
| B : | 2. 土 | DL, DH, BS | D : | 8. 度 | BM, TY |
| | 3. 士 | DL | E : | 9. 讀 | DH |
| | 4. 玉 | DL | F : | 10. 免 | TY |
| | 5. 工 | DL | G : | 11. 兜 | BM, BS |
| | 6. 吐 | BM | | | |

Characters 兜 and 头 in *Sawndip Sawdenj* are not applied in Mo books, except variation 1. 都 and 7. 杜, the rest ones discovered in Mo books are not recruited.

All of the variations are phonetically from Chinese characters, in which variation 11. 兜 is modified from 兜 “pocket” by changing [and] separated on two

side of 白 into 北. Variation 10. 免 /mien⁵³/ “avoid, dismiss” is miss writing of 兔 /t^hu³⁵/ “rabbit” by dripping 丷, because 免 is not related to the Zhuang word in neither phonetic nor semantic perspective while 兔 shows similar pronunciation.

This item is not found in Napo and Xichou county, the frequency of variations in the rest 6 locations is given as follow:

| | | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|--------|---|--------------|----------|
| DL | 土 | 77.36% | 都 | 9.43% | 土 | 9.43% | 土 | 1.89% | 工 | 1.89% | 5 |
| BM | 度 | 88.18% | 都 | 7.27% | 吐 | 2.73% | 𠵹 | 1.82% | | | 4 |
| DH | 讀 | 50.00% | 度 | 16.67% | 土 | 16.67% | 土 | 16.67% | | | 4 |
| BS | 𠵹 | 76.92% | 杜 | 15.39% | 都 | 7.69% | | | | | 3 |
| TY | 度 | 92.52% | 𠵹 | 5.61% | 免 | 1.87% | | | | | 3 |
| TD | 度 | 100.00% | | | | | | | | | 1 |

All of the variations are phonetically borrowed from Chinese, the pronunciations of roots are given for promoting similarity, such as:

- i. 都/tu²¹/, 杜/tu³⁵/, 度/tu³⁵/, 讀/tu⁴¹/; ii. 兜/tou²¹/;
iii. 土/t^hu⁵³/; iv. 兔/t^hu³⁵/.

Compare to Zhuang word /tu¹/, group i. are have same syllable, 兜/tou²¹/ shares same initial consonant with Zhuang word, rhyme /ou/ is composed by high back round vowel /u/ as Zhuang word does. 土 /t^hu⁵³/ articulates as similar as /tu¹/ except /t^h/ is aspirated.

The representatives for each location can be exacted as: 度 is widely used in Bama, Tianyang and Tiandong; Donglan prefers using 土 as representative for this item; 讀 is common seen in Dahua; 𠵹 is representative for Baise area.

(9) *Gag*, /ka:k⁸/, (by) *oneself, pronoun, personal, manner*, there are total 8 series of 8 variations such as table 4.8.

Characters 架 and 格 in *Sawndip Sawdenj* are not applied in Mo books, except variation 2. 各 none of variations appearing in Mo books is recruited in the dictionary. There are no self-created characters for this item.

Table 4.9 Classification of *gag* “(by) oneself”

| Series | Characte | Location | Series | Characte | Location |
|------------|----------|------------------------|------------|----------|----------|
| A : | 1. 亢 | DL, DH | E : | 5. 个 | BS, TY |
| B : | 2. 各 | DL, BM, BS, TY, NP, XC | F : | 6. 介 | DL |
| C : | 3. 克 | DL, BM, DH | G : | 7. 盖 | DL |
| D : | 4. 卡 | DL | H : | 8. 加 | BM |

This item does not appear in Tiandong. 各 is commonly used in 6 locations, 克 is secondarily widely spread variation. The next coming list will provide every variation discovered and their frequency in every survey location such as:

| | | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|-------|---|--------------|----------|
| DL | 亢 | 32.26% | 介 | 25.81% | 克 | 22.58% | 各 | 6.45% | 卡 | 6.45% | |
| | 盖 | 3.23% | 加 | 3.23% | | | | | | | <i>7</i> |
| BM | 各 | 84.38% | 克 | 15.62% | | | | | | | <i>2</i> |
| DH | 亢 | 80.00% | 克 | 20.00% | | | | | | | <i>2</i> |
| BS | 各 | 62.50% | 个 | 37.50% | | | | | | | <i>2</i> |
| TY | 各 | 75.76% | 个 | 24.24% | | | | | | | <i>2</i> |
| NP | 各 | 100.00% | | | | | | | | | <i>1</i> |
| XC | 各 | 100.00% | | | | | | | | | <i>1</i> |

All the variations are phonetically borrowed from Chinese characters.

i. 亢/ $k^h a: \eta^{35}$ /, 卡/ $k^h a^{53}$ /, 克/ $k^h \text{ə}^{21}$ /;

ii. 各/ ko^{21} /, 个/ ko^{35} /, 盖/ $ka:i^{35}$ /, 介/ $ka:i^{35}$ /; iii. 加/ tea^{21} /.

As the same as Zhuang word / $ka:k^8$ /, the initial consonants of select variations / $k/$ / k^h / are stop velar. 加/ tea^{21} / shares same vowel as Zhuang word does.

The representatives of 8 survey locations can be exacted: 亢 is the frequently used in Donglan and Dahua; the rest six locations select 各 for variation representative.

(10) *Goj* / goq , / ko^3 /, / ko^5 /, *too*, *then*, *conjunction*, *undertaking*, there are total 8 series of 9 variations. The basic information of variations is provided follows:

Except variation 可 古故, the rest ones found in Mo books are not recruited in *Sawndip Sawdenj*.

Variation 6. 遇 is the only self-created character for this item, it is composed by radical 辶 “walking” and phonetic radical 禺 /wo²¹/ “a surname”.

Table 4.10 Classification of *goj/goq* “too, then”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|------------------------|--------|-----------|----------|
| A : | 1. 可 | DL, BM, DH, BS, TY, TD | E : | 6. 遇 | DH |
| B : | 2. 个 | DL, BM, DH, TY, NP | F : | 7. 果 | XC |
| C : | 3. 过 | DL | G : | 8. 括 | XC |
| D : | 4. 古 | BM, NP | H : | 9. 谷 | XC |
| | 5. 故 | BM, TY | | | |

The variations and their frequencies are given as follows:

| | | | | | | | | | <i>Total</i> |
|-----------|---|---------|---|--------|---|--------|---|-------|--------------|
| DL | 可 | 87.88% | 个 | 9.09% | 过 | 3.03% | | | 3 |
| BM | 可 | 72.90% | 古 | 18.07% | 故 | 8.39% | 个 | 0.65% | 4 |
| DH | 可 | 63.64% | 遇 | 27.27% | 个 | 9.09% | | | 3 |
| BS | 可 | 100.00% | | | | | | | 1 |
| TY | 可 | 71.13% | 个 | 25.77% | 故 | 3.09% | | | 3 |
| TD | 可 | 100.00% | | | | | | | 1 |
| NP | 古 | 90.00% | 个 | 10.00% | | | | | 1 |
| XC | 括 | 53.33% | 果 | 33.34% | 谷 | 13.33% | | | 3 |

All of the variations are phonetically borrowed from Chinese characters.

To present the similarity, the pronunciations of character roots are provided, such as:

- i. 可/k^ho⁵³/, 括/k^ho¹²/; ii. 个/ko³⁵/, 过/ko³⁵/, 果/ko³³/;
 iii. 古/ku⁵³/, 谷/ku³³/; iv. 禺/wo²¹/.

Variations in group ii share same syllable with Zhuang word. 可/k^ho⁵³/ and

括 /k^ho¹²/ present similar phonetic features except aspirated initial consonant. For variation 古 /ku⁵³/ and 谷 /ku³³/, they have same initial consonant as Zhuang word. Finally, the single vowel /o/ of 𠵹 is the same as goj /goq, /ko³/, /ko⁵/.

From given percentages it can be concluded that 𠵹 is the representative of Donglan, Bama, Dahua, Baise, Tianyang, Tiandong, 古 is the most common used in Napo, 括 is representative in Xichou.

(11) *Gaeuq/gaeu, oneself, pronoun, personal, reflexive*, there are total 4 series of 9 variations such as follows:

Table 4.11 Classification of *gaeuq/gaeu “oneself”*

| Series | Character | Location | Series | Character | Location |
|--------|-----------|--------------------|--------|-----------|------------|
| A : | 1. 旧 | BM, BS, TY, TD, XC | B : | 5. 苟 | NP |
| | 2. 𠵹 | BM | | 6. 苟 | NP |
| | 3. 𠵹 | TY | C : | 7. 鈎 | DL |
| | 4. 𠵹 | BS, TY | | 8. 鈎 | DL |
| | | | D : | 9. 叩 | DL, DH, TY |

Characters 𠵹 戈 勾 句 𠵹 𠵹 𠵹 in *Sawndip Sawdenj* does not exist in survey Mo books, except variation 5. 苟 the rest variations found in Mo books are not recruited in the dictionary.

There are 4 self-created characters for this item. Series A is modified from 旧 “old”. Variation 2. 𠵹 is created by changing 一 in the square 𠵹 into |. Variation 3. 𠵹 is composed by adding 一 inside the right square 𠵹. Variation 4. 𠵹 is modified basing on traditional form 𠵹 (the traditional form of 旧) which is composed by 卅 佳 白 three parts by adding short | between 𠵹 and 圭 then replacing bottom radical 白 into 𠵹. Variation 8. 鈎 is modified from 鈎 by changing 厶 into two 丶.

For this item, series A is widely used in Bama, Baise, Tianyang, Tiandong and Xichou, series B is found in Napo only while series C is used in Donglan only.

The commonness of every variation is given as follow:

All the variations are phonetically borrowed from Chinese. The similarity of phonetic features are as:

旧 /təau³⁵/, 苟 /kau⁵³/, 鈎 /kau²¹/, 叩 /k^hau³⁵/.

From the above pronunciations, 苟 /kau⁵³/ and 鈎 /kau²¹/ have same syllable while 旧 /təau³⁵/ and 叩 /k^hau³⁵/ have same rhyme as Zhuang word /kau⁵/ or /kau¹/.

| | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------------|----------|
| DL | 叩 | 66.67% | 鈎 | 22.22% | 鈎 | 11.11% | 3 |
| BM | 旧 | 96.97% | 𠵼 | 3.03% | | | 2 |
| DH | 叩 | 100.00% | | | | | 1 |
| BS | 旧 | 85.71% | 𠵼 | 14.29% | | | 2 |
| TY | 旧 | 89.29% | 𠵼 | 7.14% | 𠵼 | 3.57% | 3 |
| TD | 旧 | 100.00% | | | | | 1 |
| NP | 苟 | 98.31% | 苟 | 1.69% | | | 2 |
| XC | 旧 | 100.00% | | | | | 1 |

From the percentage above, The representatives are figured out as: 叩 is representative for Donglan and Dahua, 旧 is most common variation in Bama, Baise, Tianyang, Tiadong, Xichou, 苟 represents variations in Napo.

(12) *Gu*, /ku¹/, *I, me*, 1st personal pronoun, singular, there are total 3 series of 6 variations such as follows:

Table 4.12 Classification of *gu* “*I, me*”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|----------------------------|------------|-----------|----------|
| A : | 1. 古 | DL, BM, DH, BS, TY | B : | 5. 孤 | BM |
| | 2. 故 | DL, BM, DH, BS, TY, TD, NP | C : | 6. 我 | XC |
| | 3. 姑 | DL, DH, XC | | | |
| | 4. 𠵼 | BM | | | |

Characters 估 沽 in *Sawndip Sawdenj* are not applied in Mo books,

霏 15. 奎 16. 忒.

Series A is modified from 肯 “*be willing, sure*”, variation 2. 肯 is created by changing the bottom 月 “*moon*” of 肯 into 日 “*sun*”. In the same way, variation 3. 肯 is created by changing 月 “*moon*” of 肯 into 目 “*eye*”. Variation 4. 措 is composed by radical 扌 “*hand*” and variation 2. 肯. Variation 5. 此 is created by replacing top radical 止 “*stop*” of 肯 into 此 “*this*”. Variation 6. 此 is modified from variation 5. 此 by change bottom radical 月 “*moon*” of 肯 into 日 “*sun*”.

Variation 8. 懃 is modified from 勤 “*hardworking*” by deleting one 一 of left radical and shorten 丨, finally adding radical 心 “*heart*”.

Series E is modified from semantic radical 上 “*up*” with which variation 13. 迳 14. 霏 and 15. 奎 are created by composing 辵 “*walking*”, 雨 “*rain*” and 天 “*sky*” orderly. Variation 16. 忒 is modified from 志 by adding 一 on the top.

Table 4.13 Classification of *gwnz/guzn* “*on, upon*”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|----------|------------|------------|------------|
| A : | 1. 肯 | DL, XC | E : | 11. 上 | BM, TY |
| | 2. 肯 | DL | | 12. 志 | BM, BS, TY |
| | 3. 肯 | XC | | 13. 迳 | BM, TY |
| | 4. 措 | XC | | 14. 霏 | BM, TY |
| | 5. 此 | DL | | 15. 奎 | DL, BM, TY |
| | 6. 此 | DL | | 16. 忒 | TY |
| | 7. 皆 | DL | | F : | 17. 群 |
| B : | 8. 懃 | BM | G : | 18. 耿 | XC |
| C : | 9. 庚 | DL | H : | 19. 君 | TY |
| D : | 10. 更 | DL | | | |

Series E is semantically borrowed from Chinese because the memberships share same semantic radical 上 “*up, top*”.

The other variations are phonetically borrowed from Chinese characters,

the pronunciations of character roots are given in order to compare phonetic similarity.

- i. 更/kən³⁵/, 庚/kən²¹/, 耿/kən⁵³/;
- ii. 肯 /k^hən⁵³/;
- iii. 群/tɛ^hyn⁴¹/, 君/tɛyn²¹/, 勤 /tɛ^hin⁴¹/.

From the perspective of syllable structure, group i is most similar phonetic features with Zhuang word /kun²/, only mid unrounded vowel /ə/ varied from high unrounded vowel /u/; compare to group i 肯 /k^hən⁵³/ is more different because of aspirated initial consonant; for the last group, rhyme that composed by high vowel /i/ or /y/ and /n/ is similar to /un/ of Zhuang word.

This item does not appear in texts from Tiandong and Napo. However, the distribution of variations are categorized clearly, series A is discovered in Donglan and Xichou, series C is widely found in Bama, Dahua, Baise, Tianyang and Donglan. To extract the representatives, the occurrence rates are given as follows:

| | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|--------|--------------|----------|
| DL | 皆 | 68.22% | 更 | 20.56% | 肯 | 3.74% | 皆 | 2.84% | 𠂔 | 1.87% |
| | 庚 | 0.94% | 皆 | 0.94% | | | | | | 7 |
| BM | 志 | 86.86% | 𠂔 | 5.11% | 上 | 3.65% | 𠂔 | 2.92% | 𠂔 | 0.73% |
| | 𠂔 | 0.73% | | | | | | | | 6 |
| DH | 志 | 100.00% | | | | | | | | 1 |
| BS | 志 | 79.44% | 群 | 20.56% | | | | | | 2 |
| TY | 𠂔 | 61.11% | 上 | 11.11% | 𠂔 | 11.11% | 君 | 5.56% | 志 | 5.56% |
| XC | 肯 | 38.46% | 耿 | 30.77% | 皆 | 15.39% | 指 | 15.39% | | 4 |

The representatives should be summarized from percentages as: Donglan is represented by 皆, 志 is the most common seen of Bama and Dahua; Tianyang prefers 𠂔; finally Xichou selects 肯 to be representative.

(14) *Fwex/fiex/fwx, /fuə⁴/, /fiə⁴/, /fu⁴/, someone else, pronoun, infinite*, there are total 7 series of 16 variations in table 4.14.

Characters 勿 俳 斌 in *Sawndip Sawdenj* are not applied in Mo books. Variation 2.忽 4.埤 5.法 6.恆 and variation 9 to 16 are found in Mo books which

are not recruited in *Sawndip Sawdenj*.

There are 9 self-created characters for this item, including: variation 6. 恆
9. 武 10. 武 11. 武 12. 武 13. 武 14. 武 15. 武 16. 武 which are mostly gathered in series G with 武 “military” as root.

Table 4.14 Classification of *fwex/fiex/fwx* “someone else”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|------------|--------|-----------|------------|
| A : | 1. 勿 | DL, BM, DH | G : | 8. 武 | BM, BS, TY |
| | 2. 忽 | DL | | 9. 武 | TY |
| B : | 3. 伏 | BM | | 10. 武 | BS |
| C : | 4. 埗 | DL | | 11. 武 | TY |
| D : | 5. 法 | BM | | 12. 武 | BM |
| E : | 6. 恆 | TY | | 13. 武 | BM |
| F : | 7. 府 | TY | | 14. 武 | BM |
| | | | | 15. 武 | BM |
| | | | | 16. 武 | BM |
| | | | | | |

Variation 6. 恆 is modified from 恆 “sulk” by change 夂 into 文 /wən⁴¹/ “literature, culture” which is the phonetic radical of the whole character.

Series G is modified from 武 “military”, variation 9. 武 is created from by moving 丶 on top to below 一. Variation 10. 武 is modified from 武 by deleting short 一 then adding 丿 to middle of 弋. Variation 11. 武 is created by adding 丿 to middle of 弋. Variation 12. 武 13. 武 15. 武 16. 武 are created by composing 亻 女 雨 𠂔 with 武 orderly. Variation 14. 武 is created basing on variation 13. 武 by adding 丿 to 弋.

All of the variations are phonetically borrowed from Chinese except variation 3. 伏 /fu⁴¹/ “other people” which borrowed both pronunciation and meaning. The pronunciations of variation roots are listed in for comparing phonetic similarities.

i. 勿/wu³⁵/, 武/wu⁵³/, 文/wən⁴¹/; ii. 埗/hu²¹/; iii. 府/fu⁵³/, 法/fa⁴¹/.

府 法 have same initial consonant /f/ as Zhuang word. The initial consonant of 勿 武 文 /w/ is bilabial approximant whose articulator is close to labio-

dental fricative /f/. Initial consonant /h/ of 埤 is fricative as /f/. /u/ of selected characters' vowel is high back vowel as Zhuang word.

This item is not discovered in Tiandong and Xichou, series A is found in Donglan and Dahua, series C is discovered in Donglan only, while series G is widely used in Bama, Tianyang, Baise and Napo. The detail of occurrence rates of variations are in provided as follows:

| | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|--------|--------------|-------|
| DL | 勿 | 94.00% | 埤 | 4.00% | 忽 | 2.00% | | | 3 | |
| BM | 伏 | 32.96% | 斌 | 26.14% | 武 | 14.77% | 斌 | 10.28% | 斌 | 5.68% |
| | 法 | 2.27% | 震 | 1.14% | 震 | 1.14% | | | 8 | |
| DH | 勿 | 100.00% | | | | | | | 1 | |
| BS | 武 | 95.00% | 武 | 5.00% | | | | | 2 | |
| TY | 斌 | 31.82% | 武 | 27.27% | 武 | 25.00% | 恆 | 9.09% | 武 | 2.27% |
| | 斌 | 2.27% | 府 | 2.27% | | | | | 7 | |
| NP | 武 | 100.00% | | | | | | | 1 | |

The representatives should be pointed out as: Donglan and Dahua choose 勿 as representative; 武 is used most frequently in Baise and Napo; Bama and Tianyang promote 伏 and 斌 as representatives orderly.

(15) *Hoiq/koix*, /hoi⁵/, /k^hoi⁴/, *I, me, pronoun, 1st personal, modest*, there are total 4 series of 9 variations as table follows:

Table 4.15 Classification of *hoiq/koix* “*I, me*”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|----------|------------|-----------|--------------------|
| A : | 1. 貨 | DL | B : | 5. 灰 | BM, BS, TY, TD, NP |
| | 2. 貨 | DL | | 6. 恆 | BM |
| | 3. 貨 | DL | C : | 7. 傀 | XC |
| | 4. 貨 | DL | D : | 8. 賀 | DL |
| | | | | 9. 賀 | DL, DH |

Character 灰 仵 悔 儗 迳 替 替 in *Sawndip Sawdenj* are not applied in Mo books, none of the variations are record in dictionary except .

There are 4 self-created characters for this function word, including: variation 3. 貨 which is modified from 货 “goods, commodity” by adding 一 in the square 冂; variation 5. 灰 which is modified from 灰 “grey, ash” by shortening 一 and 丿 to shape 厂; variation 6. 悵 is created by composing radical 忄 “heart” and 灰; variation 7. 傀 is modified from 鬼 “ghost” by deleting 厶 of 厶 at the lower right corner lefting 丿, then adding 亻 to construct new character.

For this item, the distribution is regular, series A and D which have similar character shapes are common in Donglan and Dahua, series B is most widely used in Bama, Baise, Tianyang, Tiandong and Napo, Xichou selects 傀 as its only character in present study. The details of occurrence rate are given in the coming list as follow:

| | | | | | | | | <i>Total</i> | | | |
|-----------|---|---------|---|--------|---|-------|---|--------------|---|-------|----------|
| DL | 貨 | 63.04% | 賀 | 23.91% | 货 | 6.52% | 贺 | 2.17% | 貨 | 2.17% | |
| | 貨 | 2.17% | | | | | | | | | 6 |
| BM | 灰 | 98.19% | 悵 | 1.21% | 賀 | 0.60% | | | | | 3 |
| DH | 賀 | 100.00% | | | | | | | | | 1 |
| BS | 灰 | 100.00% | | | | | | | | | 1 |
| TY | 灰 | 100.00% | | | | | | | | | 1 |
| TD | 灰 | 100.00% | | | | | | | | | 1 |
| NP | 灰 | 100.00% | | | | | | | | | 1 |
| XC | 傀 | 100.00% | | | | | | | | | 1 |

All of the variations are phonetic borrowed from Chinese characters, the pronunciations of character roots are as:

- i. 货 /ho³⁵/, 贺 /ho³⁵/; ii. 灰 /h^wei²¹/; iii. 鬼 /k^wei¹²/.

This item is articulated as /hoi⁵/ in 7 places located in Guangxi province and /h^hoi⁴/ in Xichou county. Compare to Zhuang word /hoi⁵/ in Guangxi, /h/+/o/ is closest but lack of final /i/, /h^wei²¹/ keeps initial consonant /h/ and tail vowel /i/, but /o/ is replaced by labialized /^w/ and /e/; in Xichou, 鬼 /k^wei¹²/ confronts the same situation as 灰 /h^wei²¹/, however aspiration is another difference between Chinese

dialect and Zhuang word.

Percentages above figures out the representaves as: Donglan selects 貨 while Dahua select 賀; 灰 is the most common variation in Bama, Baise, Tianyang, Tiandong and Napo; 傀 is the only variation in Xichou.

(16) *Hih/yiz, /hi⁶/, /ji²/, too, but, then, transitional, emphasis, undertaking, coordinate*, there are total 8 series of 10 variations as listed in table 4.16.

Table 4.16 Classification of *hih/yiz* “*too, but, then*”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|----------|--------|-----------|--------------------|
| A : | 1. 如 | DL, DH | D : | 6. 以 | DL, BM |
| B : | 2. 一 | DL, DH | E : | 7. 抑 | DL |
| | 3. 壹 | DL, DH | F : | 8. 日 | DL, DH |
| C : | 4. 你 | DL | G : | 9. 亦 | DL, BS, NP, TY, TD |
| | 5. 尔 | DL | H : | 10. 肉 | DL |

This item is not found in Xichou, 亦 is most widely used variation covering Donglan, Baise, Tianyang, Tiandong, Napo with high frequency. The details of occurrence rate of variation are specified as follow:

| | | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|-------|---|--------------|-----------|
| DL | 亦 | 79.26% | 一 | 11.32% | 如 | 3.50% | 壹 | 2.70% | 以 | 1.08% | |
| | 你 | 0.54% | 尔 | 0.54% | 日 | 0.54% | 抑 | 0.27% | 肉 | 0.27% | 10 |
| BM | 以 | 100.00% | | | | | | | | | 1 |
| DH | 一 | 42.11% | 如 | 28.95% | 壹 | 23.68% | 日 | 5.26% | | | 4 |
| BS | 亦 | 100.00% | | | | | | | | | 1 |
| TY | 亦 | 100.00% | | | | | | | | | 1 |
| TD | 亦 | 100.00% | | | | | | | | | 1 |
| NP | 亦 | 100.00% | | | | | | | | | 1 |

Character 吔 listed in *Sawndip Sawdenj* is not applied in Mo books.

Variations 肉壹你尔抑 in Mo books are not recruited in dictionary.

There are no self-created characters for this Zhuang function word. Because 壹 is the traditional writing form of 一 so that they are categorized in one series. Variation 你 and 尔 share same radical and meaning “you” therefore they are considered as one series.

All of the variations are phonetically borrowed from Chinese characters, the pronunciations are given as follow:

i. 一 /i⁴¹/, 亦 /i³⁵/, 抑 /i³⁵/, 以 /i⁵³/, 日 /ji⁴¹/, 你 /ni⁵³/;

ii. 如 /jy⁴¹/, 肉 /ju⁴¹/.

Among 8 roots, /i/ is the most obvious common point between Zhuang word and Southwest Mandarin. /y/ is high front vowel as /i/, /u/ is also a high vowel.

The representative of survey locations are summarized as: 亦 is selected as representative in Donglan ,Baise, Tianyang, Tiandong, Napo; 以 is the most common variation in Bama,; 一 is most widely used in Dahua.

(17) *Laeuz/raeuz*, /lau²/, /yau²/, *we, us, pronoun, personal, plural*, there are total 3 series of 15 variations as listed in table 4.17.

Table 4.17 Classification of *laeuz/raeuz* “we, us”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|--------------------|------------|-----------|----------|
| A : | 1. 姿 | DL, BM, DH, BS, TY | C : | 7. 搜 | BS |
| | 2. 婁 | BS | | 8. 筊 | DL |
| | 3. 婁 | BM | | 9. 喽 | TY |
| | 4. 楼 | DL, BM, DH, BS, TY | | 10. 楼 | TY |
| | 5. 樓 | DH, BS | | 11. 屨 | DL, XC |
| | 6. 樓 | DH | | 12. 類 | DL |
| B : | 13. 留 | NP | | 15. 陋 | TY |
| | 14. 啍 | TY | | | |

The basic information of variations is offered in next coming paragraphs.

晋 **𠄎** 𠄎 𠄎 𠄎 in *Sawndip Sawdenj* are not implied in Mo books. *Sawndip Sawdenj* recruits none of variations of survey Mo texts.

There are total 5 self-created characters, including: variation 3. 𠄎, 6. 𠄎, 12. 𠄎, 14. 𠄎 and 15. 𠄎.

Variation 3. 𠄎 is modified from 𠄎 “*weak, debilitated*” by deleting a crossing square 口 at the top; variation 6. 𠄎 is composed by adding radical 木 “*wood*” at the left of 𠄎; variation 12. 𠄎 is constructed by 𠄎 (the simplified form of 𠄎) “*weak, debilitated*” and 頁 “*page*”.

Variation 15. 𠄎 is modified from 𠄎 “*shack*” by adding | to connect right side of 𠄎 and construct 𠄎 with 丙 “*third*” surrounded inside.

Variation 14. 𠄎 is composed by 𠄎 𠄎 田 three parts. 田 is simplified from 留 “*stay*”(Qin Xiaohang, 2010) by deleting the upper radical.

For this item, series A distributes widely in every location except Napo, the usage detail is offered in below list.

| | | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|-------|---|-------|---|--------------|----------|
| DL | 𠄎 | 66.39% | 𠄎 | 30.25% | 𠄎 | 1.68% | 𠄎 | 0.84% | 𠄎 | 0.84% | 5 |
| BM | 𠄎 | 84.95% | 𠄎 | 13.98% | 𠄎 | 1.08% | | | | | 3 |
| DH | 𠄎 | 68.42% | 𠄎 | 23.68% | 𠄎 | 2.63% | 𠄎 | 2.63% | 𠄎 | 2.63% | 5 |
| BS | 𠄎 | 48.84% | 𠄎 | 25.58% | 𠄎 | 9.30% | 𠄎 | 9.30% | 𠄎 | 4.65% | |
| | 𠄎 | 2.33% | | | | | | | | | 6 |
| TY | 𠄎 | 86.08% | 𠄎 | 10.13% | 𠄎 | 1.27% | 𠄎 | 1.27% | 𠄎 | 1.27% | 5 |
| NP | 留 | 100.00% | | | | | | | | | 1 |
| XC | 𠄎 | 100.00% | | | | | | | | | 1 |

All of the variations listed above are all phonetically from Chinese characters. 𠄎 “*weak, debilitated*” is the character root of series A, 留 “*stay*” is the basis of series B, 𠄎 “*shack*” is root of series C as interpreted above.

𠄎 /lau⁴¹/, 𠄎 /lau³⁵/, 留 /liu⁴¹/

𠄎 /lau⁴¹/ and 𠄎 /lau³⁵/ have same syllable as Zhuang function word /lau²/.

For /yau²/, the two character share same rhyme as Zhuang word. 留 /liu⁴¹/ is similar to

/lau²/ because both have /l/ as initial consonant, /iu/ and /au/ are diphthongs that contain /u/ as tail vowel.

From percentages, 娄 is most frequently used in Donglan, Bama, Baise, Tianyang; the representatives of Dahua, Napo, Xichou are 楼 留 屡 orderly.

(18) *Laj/lav, /la³/, below, under, preposition, positional*, there are total 6 series of 18 variations such as follows:

Table 4.18 Classification of *laj/lav* “below, under”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|------------|--------|-----------|----------------|
| A : | 1. 刺 | DL | D : | 10. 腊 | XC |
| | 2. 漑 | DL, DH | E : | 11. 下 | DL, BM, BS, TY |
| | 3. 漑 | DH | | 12. 恣 | BM, TY, TD |
| | 4. 喇 | DL, DH | | 13. 还 | BM, BS, TD |
| B : | 5. 羅 | TY | 14. 吓 | DL | |
| | 6. 邏 | TY | 15. 季 | DL, BM | |
| | 7. 邏 | BM | F : | 16. 还 | TY |
| C : | 8. 拉 | DL, BM, XC | 17. 逕 | BM | |
| | 9. 啦 | BS | 18. 逕 | BM | |

⊥ 早 𠂔 𠂔 早 卡 in *Sawndip Sawdenj* are not applied in Mo books.

Variation 2. 漑 3. 漑 4. 刺, variation 5. 邏 6. 邏 7. 羅 in series B, variation 9. 啦 10. 腊 and variation 16. 还 17. 逕 18. 逕 of series F found in Mo books are not recruited in *Sawndip Sawdenj*.

There are 6 self-created characters covering variation 2. 漑 3. 漑 13. 还 15. 季 17. 逕 18. 逕.

Variation 2. 漑 is modified from 漑 by deleting 丷 in 𠂔 to change into 𠂔. For variation 3. 漑 is different from variation 2. 漑 because the middle part 束 of variation 2 is modified by deleting short 一 to compose new radical 束 for 漑.

Variation 13. 还 is composed by 辵 “walking” and semantic radical 下

“below, under”. Variation 15. 𠂇 is composed by 天 “sky” and semantic radical 下 “below, under”.

Variation 17. 𠂇 and 18. 𠂇 are modified from traditional form 還 of 还 “still”. 𠂇 is created through replacing the bottom of 𠂇 by 不, 𠂇 is composed by deleting 一 and 口 in the middle of radical that inside 𠂇.

This item is not used in Napo county, Dahua prefers series A, series E widely spread in Donglan, Bama, Baise, Tianyang and Tiandong. The usage detail of each location is given as follow:

| | | | | | | | | | <i>Total</i> | | |
|-----------|---|--------|---|--------|---|--------|---|-------|--------------|-------|----------|
| DL | 拉 | 54.28% | 吓 | 25.18% | 喇 | 16.87% | 喇 | 2.20% | 刺 | 0.73% | |
| | 下 | 0.49% | | | | | | | | | 6 |
| BM | 恣 | 85.13% | 逻 | 6.33% | 𠂇 | 3.17% | 还 | 2.22% | 𠂇 | 1.58% | |
| | 拉 | 0.63% | 下 | 0.63% | | | | | | | 7 |
| DH | 喇 | 60.35% | 喇 | 27.59% | 喇 | 12.07% | | | | | 3 |
| BS | 恣 | 48.98% | 还 | 44.90% | 下 | 5.10% | 啦 | 1.02% | | | 4 |
| TY | 恣 | 81.00% | 逻 | 13.00% | 吓 | 4.00% | 邏 | 1.50% | 羅 | 0.50% | 5 |
| TD | 恣 | 75.00% | 还 | 25.00% | | | | | | | 2 |
| XC | 拉 | 90.00% | 腊 | 10.00% | | | | | | | 2 |

Series E is semantically borrowed from Chinese characters because the memberships share radical 下 /cia³⁵/ “below, under” which have meaning related to Zhuang function word.

Series F which is modified based on 还 /hai⁴¹/ “still” or /h^wan⁴¹/, “return” is not related to Zhuang word neither in pronunciation nor meaning.

The rest variations are phonetically borrowed from Chinese, 刺 “perverse” is the root of series A because the members share it as radical, 羅 “sieve” is the root of series B since 邏 “logic” is composed by 𠂇 and 羅, 逻 “logic” is the simplified form of 邏. The pronunciations of variation roots are given such as:

- i. 刺/la²¹/, 拉/la²¹/, 腊/la⁴¹/; ii. 羅/lo⁴¹/.

Group i displays same syllable as Zhuang function word /la³/, 羅/lo⁴¹/ in

group ii share same initial consonant /l/.

The representatives of survey place include: 𠵹 is representative of Bama, Base, Tianyang, Tiandong; however, 拉 is common seen in Donglan and Xichou; Dahua prefers 喇 more than other variations.

(19) *Lawz/laez/razh, /lau²/, /lai²/, /zau²/, what, pronoun, interrogative, questionnaire*, there are total 18 series of 32 variations which is considered as a large family such as table follows:

Table 4.19 Classification of *lawz/laez/razh* “what”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|------------|------------|------------|------------|
| A : | 1. 黎 | BM | G : | 18. 𠵹 | BS |
| | 2. 黎 | TY | | 19. 𠵹 | TY |
| | 3. 嚟 | BM | | 20. 护 | BM |
| | 4. 梨 | BS, TY | H : | 15. 吕 | BM, TY |
| | 5. 黎 | BM | | 16. 呂 | TY |
| B : | 6. 犁 | BS | 17. 侶 | BM | |
| | 7. 犁 | BS | I : | 24. 雷 | DL, BM, DH |
| C : | 8. 利 | BM | | J : | 25. 尔 |
| | 9. 俐 | BS | K : | | 26. 立 |
| | 10. 梨 | TY | | L : | 27. 賴 |
| D : | 11. 勒 | DL, BM, XC | M : | 28. 朗 | XC |
| | 12. 勒 | BM, XC | N : | 29. 羅 | TY |
| | 13. 勒 | DH, XC | | O : | 30. 而 |
| | 14. 勒 | DH | P : | | 31. 力 |
| E : | 21. 耳 | DL | Q : | 23. 刘 | BM |
| F : | 22. 累 | DL, BM, TY | R : | 32. 𠵹 | DL |

For this function word, character 叻 𠵹 伊 𠵹 𠵹 𠵹 𠵹 in *Sawndip Sawdenj* are not applied in Mo books.

Variations 1. 黎 2. 黎 3. 嚟 4. 梨 5. 黎 of series A, variation 6. 犁 7. 犁 of series B, variation 12. 勒 13. 勒 14. 勒 of series D, variation 16. 呂 of series E,

variation 18. 馱¹⁹ 馱 and variation 21. 耳 22. 累 23. 刘 25. 尔 26. 立 27. 賴 28. 朗 29. 羅 30. 而 31. 力 32. 晃 are not recruited in *Sawndip Sawdenj*.

There are 9 self-created characters, including: variation 2. 黎 4. 犁 5. 黎 7. 犁 12. 勒 13. 勒 14. 勒 19. 馱 32. 晃 .

Variation 2. 黎 4. 犁 5. 黎 are all modified from 黎 “dawn”, base on which variation 2. 黎 is created by deleting 丿 inside upper right 勹; variation 4. 犁 is constructed by changing upper right corner 勹 into 丨; variation 5. 黎 is created by changing upper right corner 勹 into 尔. Variation 7. 犁 is modified from 犁 “plough” by changing 丨 at the upper right corner into 勿.

Variation 12. 勒 13. 勒 14. 勒 is modified from 勒 “rein in”. Variation 12. 勒 is created by adding 一 at left radical 革 “leather, transform”; variation 13. 勒 is created by extend bottom 一 of 廿 which on the top of 革; variation 14. 勒 is created by shorten 丨 to prevent it cross 口 which is in the middle of 革.

Variation 19. 馱 is modified from 馱 through replacing 厶 by 一 of left radical 馬 “horse”.

The creation of variation 32. 晃 can not be specified because the components 旧 /təu³⁵/ “old” and 兀 /ʔu³⁵/ “rising to a height” which are not related to meaning and phonetic feature of Zhuang word.

All of the variations are phonetic borrowed from Chinese. This item is pronounced as /lau²/ in Donglan, Bama, Dahua, /lai²/ in Baise, Tianyang, Tiandong, Napo, /zau²/ in Xichou. To improve the similarity, the pronunciations of variation roots are given such as:

- i. 累 /lɛi³⁵/, 雷 /lɛi⁴¹/, 賴 /la:i³⁵/
- ii. 黎 /li⁴¹/, 犁 /li⁴¹/, 利 /li³⁵/, 立 /li⁴¹/, 力 /li⁴¹/, 刘 /liu⁴¹/;
- iii. 勒 /lɔ⁴¹/, 吕 /ly⁵³/, 馱 /ly⁴¹/, 羅 /lo⁴¹/, 朗 /la:ŋ³³/;
- iv. 耳 /ʔə⁵³/, 而 /ʔə⁴¹/, 尔 /ʔə⁵³/.

Obviously, initial consonant /l/ is the most common point between Southwest Mandarin and Zhuang word. Group i presents similar syllable structure: initial consonant + diphthong. 累 /lɛi³⁵/ as one variation discovered in Tianyang, the pronunciation is closest to Zhuang word /lai²/. Central vowel /ə/ is similar to /u/

because the highest and location are closed.

This item differentiates widely in Bama containing 14 variations, and then followed by Tianyang where has 9 variations. Series D is discovered in Donglan, Bama, Dahua and Xichou, series L and M is found in Xichou only. The usage and percentage of every variation is provided as follow:

| | | | | | | | | | <i>Total</i> | | |
|-----------|---|---------|---|--------|---|--------|---|--------|--------------|-------|-----------|
| DL | 累 | 58.33% | 尔 | 24.09% | 而 | 9.24% | 勒 | 4.53% | 晃 | 3.08% | |
| | 耳 | 0.36% | | | | | | | | | 6 |
| BM | 累 | 31.93% | 黎 | 28.15% | 刘 | 25.21% | 护 | 2.52% | 雷 | 2.52% | |
| | 立 | 2.52% | 利 | 1.26% | 勒 | 1.26% | 侣 | 1.26% | 力 | 0.84% | |
| | 黎 | 0.84% | 吕 | 0.84% | 嚟 | 0.42% | 勒 | 0.42% | | | 14 |
| DH | 勒 | 57.14% | 而 | 25.00% | 雷 | 10.71% | 勒 | 7.14% | | | 4 |
| BS | 黎 | 77.67% | 力 | 6.80% | 犁 | 6.80% | 犁 | 4.85% | 梨 | 1.94% | |
| | 馱 | 0.97% | 俐 | 0.97% | | | | | | | 7 |
| TY | 黎 | 51.94% | 梨 | 25.73% | 累 | 10.19% | 黎 | 8.74% | 梨 | 0.97% | |
| | 吕 | 0.97% | 呂 | 0.49% | 羅 | 0.49% | 馱 | 0.49% | | | 9 |
| TD | 黎 | 100.00% | | | | | | | | | 1 |
| NP | 而 | 100.00% | | | | | | | | | 1 |
| XC | 朗 | 32.26% | 勒 | 29.03% | 勒 | 19.36% | 勒 | 16.13% | 賴 | 3.23% | 5 |

The representatives are extracted out as: 累 is common used in Donglan and Bama county, 黎 is representative for Baise, Tianyang and Tiandong, 而 is the only variation for this item in Napo county, Xichou selects 朗 as representative.

(20) *Lix/liq/lex, /li⁴/, /li⁵/, /le⁴/, still, conjunction, coordinating*, there are total 17 series of 19 variations such as listed in table 4.20:

Character 力俐 𠵹 𠵺 in *Sawndip Sawdenj* does not appear in survey Mo books. 尼了立利李哩列礼禮梨宜歷店與 𠵹 𠵺 離 離 that found in Mo books are not recruited in *Sawndip Sawdenj*.

There are only one character that created by Zhuang people, 𠵹 is

composed by radical 口 “mouth” and 耒 “a kind of ancient plough” .

All of the variations are phonetically borrowed from Chinese characters except variation 18. 難 /na:n⁴¹/ “difficult”, 與 /jy³³/ “with, and” and 店 /tien⁴²/ “shop” which are not similar to Zhuang word in neither pronunciation nor meaning.

- i. 立/li⁴¹/, 利/li³⁵/, 李/li⁵³/, 里/li⁵³/, 礼/li⁵³/, 梨/li⁴¹/, 力/li⁴¹/, 歷/li⁴¹/, 離/li⁴²/;
- ii. 了/lə/, 列/le⁴¹/, 耒/lei³³/;
- iii. 尼/ni⁴¹/, 宜/i⁴²/.

This item is pronounced as /li⁴/ or /li⁵/ in Guangxi province and /le⁴/ in Xichou of Yunnan province. Variation roots of group i contain same syllable as Zhuang word that discovered in Guangxi. As variations found in Donglan and Bama, 尼 /ni⁴¹/ and 宜/i⁴²/ contain same vowel /i/ as Zhuang word. Xichou’s variation root耒 /lei³³/ is similar to Zhuang word /le⁴/ except the tail vowel /i/, 離/li⁴²/ shares same initial consonant /l/ as /le⁴/.

Table 4.20 Classification of *lix/liq/lex* “still”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|--------------------|------------|-----------|----------|
| A : | 1. 尼 | DL | I : | 11. 梨 | DL |
| B : | 2. 了 | DL, DH | J : | 12. 宜 | TY |
| C : | 3. 立 | DL, BM, DH | K : | 13. 力 | DH |
| D : | 4. 利 | DL, BM, BS, TY | L : | 14. 歷 | DL |
| E : | 5. 李 | BS, TY | M : | 15. 店 | XC |
| F : | 6. 里 | BM, DH, BS, TY, NP | N : | 16. 與 | XC |
| | 7. 哩 | XC | O : | 17. 味 | XC |
| G : | 8. 列 | DL, BM | P : | 18. 難 | XC |
| H : | 9. 礼 | DL | Q : | 19. 離 | XC |
| | 10. 禮 | DL | | | |

For this item, series B is widely spread in Bama, Dahua, Baise, Tianyang, Tiandong, Napo and Xichou , 利 is another common variation that could be found in Donglan, Bama, Baise and Tianyang. 哩店與味難離 are discovered in Xichou only.

The representatives are figured out by percentages such as: 里 is the most common variation covering 5 survey locations, which includes Bama, Baise, Tianyang, Tiandong and Napo; 立 is selected as representative for Donglan and Dahua; finally 與 is most frequently used in Xichou.

More usage details are given for referring as follows:

| | | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|--------|---|--------------|----------|
| DL | 立 | 60.28% | 利 | 26.71% | 了 | 6.83% | 尼 | 2.48% | 梨 | 1.24% | |
| | 列 | 0.62% | 禮 | 0.62% | 礼 | 0.62% | 歷 | 0.62% | | | 9 |
| BM | 里 | 71.79% | 立 | 16.67% | 列 | 6.41% | 利 | 5.13% | | | 4 |
| DH | 立 | 53.33% | 了 | 40.00% | 里 | 3.33% | 力 | 3.33% | | | 4 |
| BS | 里 | 79.41% | 李 | 17.65% | 利 | 2.94% | | | | | 3 |
| TY | 里 | 91.89% | 李 | 2.70% | 利 | 2.70% | 宜 | 2.70% | | | 4 |
| TD | 里 | 100.00% | | | | | | | | | 1 |
| NP | 里 | 100.00% | | | | | | | | | 1 |
| XC | 與 | 21.00% | 味 | 19.00% | 店 | 10.00% | 哩 | 10.00% | 難 | 10.00% | |
| | 離 | 10.00% | | | | | | | | | 6 |

(21) *Lox*, /lo⁴/, *or*, *conjunction*, *alternate*, there are total 7 series of 12 variations such as table follows:

Table 4.21 Classification of *lox/rox* “*or*”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|----------------|------------|-----------|----------|
| A : | 1. 乐 | BM | C : | 7. 而 | BM |
| | 2. 樂 | DL, BM, DH | D : | 8. 罗 | DL |
| B : | 3. 鲁 | BS | E : | 9. 棊 | DL |
| | 4. 魯 | BM, BS, TY, TD | F : | 10. 佗 | BM |
| | 5. 魯 | BM | G : | 11. 洛 | DL |
| | 6. 曾 | TY | | 12. 落 | DL, DH |

The representatives for survey locations can be concluded as: 魯 is most frequently used in Bama, Baise, Tianyang, Tiandong; 罗 obtains highest occurrence rate in Donglan; Dahua prefers 落 to be representative.

(22) *Mbaeux/mbaeuh/mbaeuj/mbov*, /*ɬau*⁴/, /*ɬau*⁶/, /*ɬau*³/, /*ɬo*⁵/, *not*, *negative*, there are total 12 series of 19 variations such as follows:

Table 4.22 Classification of *mbaeux/mbaexh/mbaeuj/mbov* “not”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|------------|--------|-----------|----------------------------|
| A : | 1. 謀 | DL, DH | G : | 10. 𠄎 | BM |
| B : | 2. 毛 | DL | | 11. 𠄎 | TY |
| C : | 3. 茂 | BM, BS, TY | | 12. 𠄎 | TY |
| | 4. 𠄎 | BM | H : | 13. 不 | DL, BM, BS, TY, TD, NP, XC |
| | 5. 𠄎 | BM | | 14. 𠄎 | BM |
| D : | 6. 甫 | TY | | 15. 吓 | XC |
| E : | 7. 怒 | DH | I : | 16. 否 | DL, BM, DH, |
| F : | 8. 播 | XC | J : | 17. 没 | DL |
| | 9. 搯 | XC | K : | 18. 勿 | DL |
| | | | L : | 19. 莫 | BM |

For this function word, character 茂保 𠄎 布 in *Sawndip Sawdenj* are not applied in Mo books. Variation 謀毛茂甫怒不吓没勿莫 𠄎 𠄎 搯 搯 𠄎 𠄎 𠄎 which discovered in Mo texts are not recruited.

There are 8 self-created characters explained at coming paragraphs.

Variation 4. 𠄎 is modified from 茂 “(plant) thick” by changing 丿 at left side into ㇇, variations 5. 𠄎 is created by adding 丶 into 戊 below radical 艹 “grass”.

Variation 8. 搯 is modified from 播 “broadcasting” by deleting 丿 on the top, based on which variation 9. 搯 is composed by deleting lower right radical 田 “farmland” then adding 口 “mouth”.

Memberships of series G are constructed from 个 “*classifier for entity*”.

Variation 10. 𠄎 is created by adding 一 and 厶 on the upper left corner of 个;

variation 11. 𠄎 is created by adding 丿 and 厶 on the upper left corner of 个;

variation 12. 𠄎 is modified from 𠄎 by changing | into |.

Variation 14. 𠄎 is modified from 不 “no” by adding little 丿 on the upper left corner of 不.

For this item, 不 is widely used in 7 survey locations except Dahua, series F is discovered in Xichou only. The usage detail of variations is given as follows:

| | | | | | | | | | <i>Total</i> | | |
|-----------|---|---------|---|--------|---|-------|---|-------|--------------|-------|----------|
| DL | 否 | 98.84% | 不 | 0.66% | 没 | 0.25% | 謀 | 0.08% | 勿 | 0.08% | |
| | 毛 | 0.08% | | | | | | | | | 6 |
| BM | 不 | 79.71% | 否 | 9.72% | 茂 | 4.52% | 𠄎 | 1.36% | 𠄎 | 1.28% | |
| | 茂 | 0.51% | 𠄎 | 0.26% | | | | | | | 7 |
| DH | 否 | 96.61% | 謀 | 2.97% | 怒 | 0.42% | | | | | 3 |
| BS | 不 | 96.36% | 茂 | 2.65% | 茂 | 0.96% | | | | | 3 |
| TY | 不 | 94.45% | 茂 | 5.06% | 甫 | 0.25% | 𠄎 | 0.12% | 𠄎 | 0.12% | 5 |
| TD | 不 | 100.00% | | | | | | | | | 1 |
| NP | 不 | 100.00% | | | | | | | | | 1 |
| XC | 播 | 64.44% | 不 | 34.82% | 吓 | 2.94% | 搯 | 1.48% | | | 4 |

Series H 不 “no”, series I 否 “not”, series J 没 “not”, series K 勿 “not to”, series L 莫 “not to” are semantically borrowed from Chinese. Series G with 个 /ko³⁵/ “*classifier for entity*” as modification basis is not related to Zhuang word in neither pronunciation nor meaning field.

The rest variations are phonetically borrowed from Chinese. The pronunciations of character roots are provided for comparison, such as:

i. 謀/mou⁴¹/, 毛/ma:u⁴¹/, 茂/ma:u³⁵/;

ii. 甫/fu⁵³/, 怒/nu³⁵/;

iii. 播 /po⁵⁵/.

For group i, /m/ of Chinese characters and /^ʔb/ of Zhuang word are all

bilabial consonants. Besides /u/ is shared by rhyme /u/ /ou/ /a:u/ of Chinese and /au/ of Zhuang word. In Xichou, 播/po⁵⁵/ and /^ʔbo⁵/ is different because /p/ is voiceless while /^ʔb/ is pre-glotal voiced consonant.

(23) *Mwngz/moy*, /mɯŋ^ʔ/, /moi¹/, *you*, *pronoun*, *personal*, *singular*, there are total 9 series of 14 variations such as follows:

Table 4.23 Classification of *mwngz/moy* “*you*, *sl.*”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|----------------|--------|-----------|----------|
| A : | 1. 名 | DL, BM, BS, TY | D : | 8. 没 | DL, DH |
| | 2. 名 | DH, TY | E : | 9. 猛 | XC |
| B : | 3. 门 | DL, TY | | 10. 猛 | XC |
| | 4. 門 | DL, DH | F : | 11. 買 | XC |
| | 5. 们 | DL | G : | 12. 之 | DH |
| | 6. 們 | DL | H : | 13. 某 | NP |
| C : | 7. 明 | BM, BS, TY | I : | 14. 你 | DL, BM |

名 is widely used in Donglan, Dahua, Tianyang, Tiandong with high frequency, the occurrence rate of this item is provided as follow:

| | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|-------|--------------|----------|
| DL | 名 | 95.19% | 们 | 1.97% | 門 | 1.73% | 没 | 0.49% | 你 | 0.37% |
| | 门 | 0.12% | 們 | 0.12% | | | | | | 7 |
| BM | 明 | 76.30% | 名 | 22.72% | 名 | 0.74% | 你 | 0.25% | | 4 |
| DH | 名 | 91.55% | 名 | 2.82% | 門 | 2.82% | 没 | 1.41% | 之 | 1.41% |
| BS | 明 | 68.89% | 名 | 31.11% | | | | | | 2 |
| TY | 名 | 62.24% | 明 | 35.65% | 名 | 1.81% | 门 | 0.30% | | 4 |
| TD | 名 | 100.00% | | | | | | | | 1 |
| NP | 某 | 100.00% | | | | | | | | 1 |
| XC | 猛 | 57.14% | 猛 | 28.57% | 買 | 14.29% | | | | 3 |

Character 咯 略 萌 盟 in *Sawndip Sawdenj* does not appear in Mo books. Variation 名, 们, 們, 们, 們, 明, 没, 猛, 猛, 買, 之, 某, 你 used in Mo books are not recruited in *Sawndip Sawdenj*.

Variation 2. 名 is modified from 名 “name” by extending 夕 to cross 𠃉. Variation 10. 猛 is composed by 子 “child” and 孟 “a Chinese surname”.

你 /ni⁵³/ “you” is semantically borrowed from Chinese. Variation 12. 之 /tɕu²¹/ “one of” is not related to Zhuang word in neither nor meaning field.

The rest variations are phonetically borrowed from Chinese. To improve it, the pronunciations of character roots are given such as:

名/min⁴¹/, 明/min⁴¹/, 们/mən⁴¹/, 猛/men⁵³/, 某/mou⁵³/, 買/ma:i³³/

Obviously, nasal initial consonant /m/ is the common point between Zhuang word and Chinese.

(24) *Nix/ni/najs, /ni⁴/, /ni¹/, /nai⁶/ this, these, pronoun, infinite*, there are total 9series of 14 variations such as table 4.24:

Table 4.24 Classification of *nix/ni/najs* “this, these”

| Series | Character | Location | Series | Character | Location |
|--------|-----------|----------------|--------|-----------|----------|
| A : | 1. 尼 | DL, DH | D : | 8. 民 | DL |
| | 2. 尼 | DL | E : | 9. 女 | BS |
| B : | 3. 你 | DL, BM, DH, BS | F : | 10. 里 | BM |
| | | TY, TD, NP | G : | 11. 弥 | BM |
| | 4. 尔 | TY | H : | 12. 倭 | DL |
| C : | 5. 你 | TY | I : | 13. 仔 | TY |
| | 6. 宜 | DL, BM, DH, XC | J : | 14. 咧 | XC |
| | | 7. 寔 | XC | K : | 15. 奧 |

For this function word, character 亦 侶 in *Sawndip Sawdenj* are not found in Mo books. Variation 宜 寔 民 女 里 弥 倭 仔 咧 in Mo books are not recruited in *Sawndip Sawdenj*.

There are three self-created characters, including: variation 2. 尼 which is modified from 尼 “*Buddhist nun*” by deleting 丿 on the 乚; variation 7. 寘 which is modified from 宜 “*suitable*” by adding 丶 to the bottom of character; variation 奥 is modified from 真 “*real*” by deleting 十 on the top and adding 丿 instead, then changing 三 inside the 冂 into 大.

For this item, 你 is widely used in every location except Xichou, variation 奥 is found in Donglan only. The usage detail is given as following list:

| | | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|-------|---|-------|---|--------------|---|
| DL | 尼 | 78.57% | 你 | 19.42% | 宜 | 0.67% | 奥 | 0.67% | 尼 | 0.22% | |
| | 民 | 0.22% | 倭 | 0.23% | | | | | | | 7 |
| BM | 你 | 89.69% | 宜 | 9.65% | 弥 | 0.44% | 里 | 0.22% | | | 4 |
| DH | 尼 | 77.36% | 你 | 16.98% | 宜 | 5.66% | | | | | 3 |
| BS | 你 | 98.53% | 女 | 1.47% | | | | | | | 2 |
| TY | 你 | 97.79% | 尔 | 2.85% | 咧 | 0.32% | 仔 | 0.32% | | | 4 |
| TD | 你 | 100.00% | | | | | | | | | 1 |
| NP | 你 | 100.00% | | | | | | | | | 1 |
| XC | 宜 | 92.06% | 仔 | 7.00% | 寘 | 0.94% | | | | | 3 |

Variation 仔 /tsu⁵³/ “*carefully*”, 咧 /le⁵³/ “*open (the mouth)*” and 尼 are related to Zhuang word in neither nor meaning field.

The rest variations are phonetically borrowed from Chinese, therefore the pronunciations of character roots are given for comparison such as:

- i. 尼/ni⁴¹/, 你/ni⁵³/, 宜/ni⁴¹/; ii. 里/li⁵³/, 倭/nin³⁵/, 弥/mi⁴¹/.

This item is pronounced as /ni⁴/ and /ni¹/ in Guangxi, /nai⁶/ in Xichou. Group i have same syllable /ni/ as Zhuang word. 宜/ni⁴¹/ as variation found in Xichou, initial consonant /n/ and tail vowel /i/ is similar to /nai⁶/ but lack of /a/. Syllables in group ii contain vowel /i/ as Zhuang word /ni⁴/ /ni¹/.

(25) *Ndaej/ndaex/ndajs*, /²dai³/, /²dai⁴/, /²dai⁶/, *to get, result, auxiliary, structural*, there are total 9 series of 16 variations such as table 4.25.

For this function word, character 𠵹𠵹𠵹𠵹 帝 in *Sawndip Sawdenj* are not discovered in Mo books. Variation 禮房內屨里侶得得 𠵹𠵹𠵹𠵹 found in Mo books are not recruited.

There are 5 self-created characters covering variation 3. 𠵹, 4. 𠵹, 6. 𠵹, 9. 𠵹 and 16. 𠵹.

Variation 3. 𠵹 is composed by 口 “mouth” and 𠵹 “politeness”, variation 4. 𠵹 is modified from 𠵹 “politeness” by adding 丿 at 𠵹 to compose 𠵹 which is the left radical of whole character.

Variation 𠵹 is modified from 𠵹 “grumpy” by deleting 丿 of 犬 “dog”. Variation 9. 𠵹 is composed by 𠵹 “weak, debilitated” and 𠵹 “page” as interpretation of the 17th item. Variation 16. 𠵹 is composed by phonetic radical 𠵹 “politeness” and semantic radical 得 “can, to get”.

Table 4.25 Classification of *ndaej/ndaex/ndajs* “to get”

| Series | Character | Location | Series | Character | Location | |
|--------|-----------|------------------------|--------|-----------|----------|--------------------|
| A : | 1. 𠵹 | DL, BM, DH, BS, TY, NP | D : | 9. 𠵹 | DL | |
| | 2. 禮 | DL | | E : | 10. 內 | DL |
| | 3. 𠵹 | BM | | | F : | 11. 屨 |
| | 4. 𠵹 | DL | | G : | | 12. 里 |
| B : | 5. 𠵹 | DL | H : | 13. 侶 | BS | |
| | 6. 𠵹 | DL, DH | | I : | 14. 得 | DL, BM, BS, TY, XC |
| | 7. 房 | DH | | | 15. 得 | BM |
| C : | 8. 累 | DL, DH | | 16. 𠵹 | NP | |

Series I is semantically borrowed from Chinese. The rest variations are phonetic borrowed from Chinese, the pronunciations of character roots are given in order to compare similarities such as:

- i. 𠵹/ɿ⁵³/, 𠵹/ɿ³⁵/, 里/ɿ⁵³/; ii. 屨/ɿ⁵³/, 侶/ɿ⁵³/;
- iii. 累/ɿ³⁵/, 內/ɿ³⁵/; iv. 𠵹/ɿ⁵³/.

The selected variations contain /l/ and /n/ as initial consonants whose resonant is closed to /³d/. Diphthong /ei/ of group iii is similar to Zhang word's rhyme /ai/ because /ε/ and /a/ are both front unrounded vowel, beside they have same tail vowel /i/.

This item is not found in Tiandong, series A, G and I are widely spread. The detail of occurrence rates is as follow:

| | | | | | | | | <i>Total</i> | | | |
|-----------|---|---------|---|--------|---|--------|---|--------------|---|-------|-----------|
| DL | 累 | 32.22% | 類 | 19.67% | 礼 | 19.25% | 里 | 11.30% | 戾 | 9.21% | |
| | 戾 | 5.86% | 屢 | 0.84% | 得 | 0.42% | 禮 | 0.42% | 内 | 0.42% | |
| | 礼 | 0.42% | | | | | | | | | 11 |
| BM | 礼 | 83.07% | 溥 | 13.80% | 吼 | 2.80% | 得 | 1.04% | | | 4 |
| DH | 累 | 90.32% | 房 | 6.45% | 礼 | 3.23% | | | | | 3 |
| BS | 礼 | 77.57% | 得 | 20.56% | 里 | 0.94% | 侶 | 0.94% | | | 4 |
| TY | 礼 | 98.79% | 得 | 0.81% | 里 | 0.40% | | | | | 3 |
| NP | 禮 | 64.29% | 礼 | 35.71% | | | | | | | 2 |
| XC | 得 | 100.00% | | | | | | | | | 1 |

The representatives should be concluded as: 累 is used as representative in Donglan and Dahua, 礼 is most frequently occur in Bama, Baise and Tianyang, Napo prefers 禮, finally Xichou selects 得 to be representative.

(26) *Ndix/ndij/ndaajs*, /²di⁴/, /²di³/, /²dai⁶/, *with, for, conjunction, coordinate, manner*, there are total 11 series of 18 variations such as table 4.26.

Character 低 嘛 雉 呢 与 依 俐 in *Sawndip Sawdenj* are not used in Mo books, otherwise the *Sawndip Sawdenj* recruits none of variations found in survey texts except the first variation 里 in the above table.

There are two self-created characters, including: variation 6. 戾 which has been interpreted in the 25th item; variation 17. 与 is modified from 与 “with, and” by changing 一 into 卅.

Chinese character 里 “inside” is root of series A because all of the

members share it as radical. 你 is the basis which displays similar phonetic features with Zhuang word, 尔 is the part of 你 “you” by deleting 亻. 与 “with, and” is the root of series J because 與 is the traditional form of 与, 与 is modified from 与 as interpretation in previous paragraph.

Table 4.26 Classification of *ndix/ndij/ndajs* “with, for”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|------------------------|------------|-----------|----------|
| A : | 1. 里 | DL, BM, DH, BS, TY, NP | D : | 10. 如 | TY |
| | 2. 哩 | BM, XC | E : | 11. 宜 | DH, TD |
| | 3. 裡 | DL | F : | 12. 累 | BM |
| | 4. 俚 | TY | G : | 13. 嚙 | BM |
| B : | 5. 礼 | DL, BM, DH, BS, TY, NP | H : | 14. 以 | BM |
| | 6. 禮 | DL | I : | 15. 利 | DL |
| | 7. 禮 | DL | J : | 16. 與 | BM |
| C : | 8. 你 | BM, TY | | 17. 与 | BM |
| | 9. 尔 | TY | K | 18. 得 | XC |

This item is pronounced /^ʔdi⁴/or /^ʔdi³/ in Guangxi province, /^ʔdai⁶/ in Xichou of Yunnan province. All of the variations are phonetically borrowed except 与 modified from 与 “with” is semantically borrowed from Chinese. To improve it, the pronunciations of variation roots are provided for comparison as follow:

- i. 里/li⁵³/, 礼/li⁵³/, 嚙/li⁴¹/, 利/li³⁵/; ii. 你/ni⁵³/,
iii. 以/^ʔi⁵³/, 宜/^ʔi⁴¹/; iv. 如/jy⁴¹/; vi. 累/lei³⁵/.

In the same case as the 25th item, initial consonants /l/ and /n/ of group i and group ii are resonant as well as /^ʔd/ of Zhuang word. Vowel /i/ is more obvious similarity between Zhuang word and Southwest Mandarin. Besides, /y/ is front high vowel as /i/ except /y/ is rounded but /i/ is unrounded.

Character 得 is transferred from last item, which presents similar phonetic features as this item (/^ʔdi⁴/or /^ʔdi³/ in Guangxi, /^ʔdai⁶/ in Yunnan) except vowels.

For this item, 礼 “politeness” and 里 “inside” are widely spread in Donglan, Bama, Dahua, Baise, Tianyang and Napo with high occurrence rates. The detail of frequency is given as below list:

From the percentage, the representatives of survey locations are pointed out as: 礼 is most common seen in Donglan, Tianyang, Napo; 里 is frequently used in Bama, Dahua, Baise; 宜 and 得 are representatives for Tiandong and Xichou by order. The detail information for usage in survey locations can be referred in the following list, such as:

| | | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|--------|---|--------------|----------|
| DL | 礼 | 46.05% | 里 | 28.29% | 禮 | 17.76% | 礼 | 6.58% | 裡 | 0.66% | |
| | 利 | 0.69% | | | | | | | | | 6 |
| BM | 里 | 55.17% | 你 | 12.07% | 哩 | 8.62% | 与 | 9.48% | 累 | 8.62% | |
| | 礼 | 3.45% | 噶 | 0.86% | 以 | 0.86% | 與 | 0.86% | | | 9 |
| DH | 里 | 76.19% | 礼 | 19.05% | 宜 | 4.76% | | | | | 3 |
| BS | 里 | 97.80% | 礼 | 2.20% | | | | | | | 2 |
| TY | 礼 | 36.94% | 你 | 24.32% | 里 | 22.52% | 尔 | 11.71% | 如 | 2.70% | |
| | 俚 | 1.80% | | | | | | | | | 6 |
| TD | 宜 | 100.00% | | | | | | | | | 1 |
| NP | 礼 | 84.62% | 里 | 15.39% | | | | | | | 2 |
| XC | 得 | 59.09% | 哩 | 40.91% | | | | | | | 2 |

(27) *Su/sou/tcazhc, /su¹/, /sou¹/, /tɕ^haʋ¹/, you, pronoun, personal, plural*, there are total 15 series of 27 variations such follows:

For this function word, character 做 修收 苏 峻 倭 徂 徂 倭 in *Sawndip Sawdenj* are not used in Mo books. Variation 素 索 蘇 守 双 炉 楚 湊 訴 初 助 助 玆 美 示 素 索 蘇 蘇 蘇 蘇 楚 楚 are not recruited.

All of the variations are phonetically borrowed from Chinese, the pronunciations of character roots are given in order to compare the similarity, such as:

- i. 素/su³⁵/, 蘇/su²¹/, 訴/su³⁵/;

- ii. 数/ ɕu^{35} /, 䟽/ ɕu^{21} /, 楚/ $\text{tɕ}^{\text{h}}\text{u}^{53}$ /, 初/ $\text{tɕ}^{\text{h}}\text{u}^{21}$ /, 助/ tɕu^{35} /;
- iii. 户/ hu^{35} /; iv. 索/ so^{53} /; v. 湊/ $\text{ts}^{\text{h}}\text{ou}^{35}$ /, 由/ jou^{41} /, 守/ ɕou^{53} /;
- vi. 双/ $\text{ɕ}^{\text{w}}\text{aŋ}^{21}$ /; vii. 擇/ tsə^{12} /.

This word is pronounced as / su^1 / in Donglan, Dahua, Tianyang, / sou^1 / in Napo and / $\text{tɕ}^{\text{h}}\text{au}^1$ / in Xichou. The group i has same syllable as Zhuang word while group ii and iii have similar vowel. 索/ so^{53} / has same initial consonant as Zhuang word. For 由/ jou^{41} / of Donglan and 湊/ $\text{ts}^{\text{h}}\text{ou}^{35}$ / of Bama, the similarity is presented by rhyme which contain /u/. For 守/ ɕou^{53} / of Xichou, the rhyme is totally same as Zhuang word’s pronunciation. 双/ $\text{ɕ}^{\text{w}}\text{aŋ}^{21}$ / is far different from / su^1 / in Donglan, lefts only libalized /w/and fricative / ɕ / have similar phontic feature with /u/ and /s/. For Xichou, the initial consonants of Zhuang and Chinese are affricative.

Table 4.27 Classification of *su/sou/ tcazhc* “you, pl.”

| Series | Character | Location | Series | Character | Location |
|------------|-----------|------------|------------|-----------|----------|
| A : | 1. 素 | DL, DH | G : | 15. 駙 | TY |
| | 2. 𦵑 | DL | | 16. 駙 | TY |
| | 3. 𦵑 | DL | | 14. 炉 | TY |
| B : | 4. 数 | DL, BM, TY | H : | 17. 畝 | DL |
| C : | 5. 索 | DL | I : | 18. 䟽 | BM |
| | 6. 索 | DL | J : | 19. 楚 | BM |
| | 7. 索 | DL | | 20. 楚 | BM |
| D : | 8. 蘇 | DL | K : | 21. 湊 | BM |
| | 9. 蘇 | DH | L : | 22. 訴 | DH |
| | 10. 蘇 | DH | M : | 23. 初 | BM |
| E : | 11. 守 | BM, NP | N : | 24. 助 | BM |
| F : | 12. 双 | DL | | 25. 助 | BM |
| | 13. 𦵑 | DL | O : | 26. 擇 | XC |
| | | | | 27. 澤 | XC |

There are 12 self-created characters such as:

Variation 2. 𦉰 is modified from 素 by adding 丿 on the top, then deleting 幺 in the middle of character, variation 3. 𦉱 is similar to variation 2. 𦉰, one of 一 is deleted, the 丨 is shortened to prevent it cross below 一.

Variation 6. 𦉲 is modified from 索 “search” by changing 十 on the top into 土. Variation 7. 𦉳 is composed by adding short 一 to 十 on the top of 索.

Variation 9. 𦉴 is modified from 蘇 by changing radical 艹 “grass” into radical 艹 “orchid”. Variation 10. 𦉵 is a little different from variation 9. 𦉴, the 灬 of 魚 “fish” is extended to embrace 羊 “sheep”.

Variation 13. 𦉶 is similar to 双 “pair, classifier” but the left 又 “again” is replaced by 𠂇.

Variation 16. 𦉷 is modified from 駙 by changing 灬 into 一 which had been elaborated in the 19th item. 户 “household” is the root of series G because it is the shared radical of three memberships.

Variation 17. 𦉸 is modified based on 由 /jou⁴¹/ “reason, from” by adding radical 攴 “culture, literature”. Variation 18. 𦉹 is modified from 疏 “dredge” by deleting 丿 on the top. Variation 19. 𦉺 is modified from 助 “assist, help” by changing 且 “just, even” on the left into 耳 “ear”.

Variation 20. 𦉻 is modified from 楚 “clear” by adding short 丨 to connect with 冫 and construct 冫 below upper radical 林 “forest”, then adding short 一 on top of 心 and compose 正 under 冫.

This item is not found in Tiandong county. The representatives of this item is not repeated in 7 survey locations from statistics with details as: Donglan prefers 数, Bama likes to use 助; 素 is commonly seen in Dahua; Baise selects self-created character 疏 as representative; 駙 is more frequently found in Tianyang; Napo applies 守 in most cases; 擇 is generally used in Xichou county.

To support it, the occurrence rate of variation is provided as follows:

| | | | | | | | | | <i>Total</i> | |
|-----------|---|---------|---|--------|---|--------|---|-------|--------------|-------|
| DL | 数 | 48.11% | 蘇 | 25.47% | 𦵏 | 7.55% | 素 | 5.66% | 𦵏 | 4.72% |
| | 𦵏 | 2.83% | 𦵏 | 1.89% | 𦵏 | 0.94% | 𦵏 | 0.94% | 双 | 0.94% |
| BM | 助 | 57.14% | 初 | 8.93% | 数 | 8.93% | 守 | 8.93% | 𦵏 | 5.14% |
| | 𦵏 | 3.57% | 楚 | 3.57% | 湊 | 1.79% | | | | |
| DH | 素 | 58.33% | 訴 | 25.00% | 蘇 | 8.33% | 𦵏 | 4.17% | 𦵏 | 4.17% |
| BS | 䟽 | 100.00% | | | | | | | | |
| TY | 𦵏 | 46.00% | 数 | 30.00% | 𦵏 | 20.00% | 炉 | 4.00% | | |
| NP | 守 | 100.00% | | | | | | | | |
| XC | 擇 | 92.86% | 澤 | 7.14% | | | | | | |

(28) *Unj/unh/hazn, that, there, pronoun, infinite, position, distance*, there are total 7 series of 12 variations such as follows:

Table 4.28 Classification of *unj/unh “that, there”*

| Series | Character | Location | Series | Character | Location |
|------------|-----------|----------|------------|-----------|----------------|
| A : | 1. 恨 | DL, DH | C : | 7. 温 | DL, BM, DH, TD |
| | 2. 根 | DL | | 8. 瘟 | BM |
| B : | 3. 恩 | DL, DH | D : | 9. 恒 | DL |
| | 4. 恩 | DL | E : | 10. 寒 | XC |
| | 5. 恩 | DL | F : | 11. 嚇 | XC |
| | 6. 恩 | DL | G : | 12. 印 | DL |

The character 很 in *Sawndip Sawdenj* is not found in Mo books. Non of the variations discovered in Mo books is not recruited. All of the variations are phonetically borrowed from Chinese characters, the pronunciations of character roots are listed as:

- i. 恩 /²ən²¹/; ii. 温 /wən²¹/, 温 //wən²¹/; 很 /hən⁵³/; 寒 /han¹²/.

This word is pronounced as /²un³/ or /²un⁶/ in Guangxi which is closest to /²ən²¹/, 温 or 瘟 /wən²¹/ also contain similar rhyme /ən/. In Xichou, the Zhuang word

is pronounced as /han⁴⁴/ which has same syllable as 寒 /han¹²/.

The occurrence of variations and locations are provided to extract the representatives:

| | | | | | | | | <i>Total</i> | | | |
|-----------|---|---------|---|--------|---|--------|---|--------------|---|-------|----------|
| DL | 忌 | 24.32% | 温 | 18.92% | 恨 | 18.92% | 印 | 10.81% | 恩 | 8.11% | |
| | 忌 | 8.11% | 恩 | 5.41% | 恒 | 2.70% | 根 | 2.70% | | | 9 |
| BM | 瘟 | 54.55% | 温 | 45.45% | | | | | | | 2 |
| DH | 温 | 76.92% | 恩 | 15.39% | 恨 | 7.69% | | | | | 3 |
| TD | 温 | 100.00% | | | | | | | | | 1 |
| NP | 痕 | 100.00% | | | | | | | | | 1 |
| XC | 寒 | 78.79% | 嚇 | 21.21% | | | | | | | 2 |

From the percentage above, the representatives for this item include: Donglan selects 忌 as representative; 瘟 is most frequently found in Bama; Dahua and Tiandong commonly use 温; Napo likes 痕 and Xichou chooses 寒.

4.2 Geographic continuum

It is suggested that if travelling from one village to another the linguistics differences are CUMULATIVE... the outer edges of geographical area may not be mutually intelligible, but will be linked by a chain of mutual intelligibility (J. Chamber & P. Trudgill, 2004: P.5). The opinion makes a vivid metaphorical description of gradient changes of dialects. Writing system as a form of language, Zhuang variations also provide a certain locale continuum as spoken dialects do.

After statistics work by method noted in section 3.2, the percentages of 28 mini pairs' correlation can be arranged steadily into high ($\geq 50\%$), mid-high (40-50%), middle (30-40%), mid-low (20-30%) and low (10-20%) five gradient levels.

Table 4.29 Correlation at series level

| | | | | | | | |
|--------------------------------|----|-------|--------|-------------------------------|-------|--------|--------|
| Level 1 High | 1. | BS-TD | 62.50% | Level 4 Mid- Low | 1. | DL-BS | 29.45% |
| | 2. | BS-TY | 57.96% | | 2. | DL-BM | 29.19% |
| Level 2 Mid- high | 3. | BM-BS | 48.51% | 3. | DL-TY | 26.58% | |
| | 4. | TY-TD | 45.88% | 4. | BM-XC | 25.77% | |
| | 5. | BM-TY | 45.67% | 5. | DL-TD | 24.19% | |
| | 6. | DL-DH | 45.62% | 6. | BS-XC | 23.64% | |
| | 7. | BS-NP | 44.10% | 7. | DL-TD | 22.83% | |
| | 8. | TY-NP | 41.92% | 8. | BM-DH | 22.42% | |
| Level 3 Middle | 1. | BM-NP | 38.91% | 9. | DH-TY | 21.03% | |
| | 2. | TD-NP | 36.84% | 10. | DH-BS | 20.26% | |
| | 3. | BM-TD | 33.75% | Level 5 Low | 1. | TD-XC | 18.75% |
| | 4. | NP-XC | 32.08% | | 2. | DL-XC | 18.41% |
| | | | 3. | | DH-NP | 18.40% | |
| | | | 4. | | DH-TD | 17.67% | |
| | | | 5. | | TY-XC | 16.82% | |
| | | | 6. | | DH-XC | 14.77% | |

4.2.1 Geographical Information

“.....dialects are organized in a continuum without sharp boundaries are likewise popular.” (Heringa W. & Nerbonne J., 2001). From the above chart, one fact can be ensured that the distribution of variations is not cut off sharply, the connections are cumulative in average correlations arranged from 20% to 45%. The continuum is correspondent with the geographical of survey locations, distance and orientations are two importance factors in affecting variations’ continuum. To improve the geography correspondence, the regional information will be provides.

The 8 survey locations distribute in northwest part of Guangxi and east part of Yunnan province such as the figure 4.1.

(1) BS is simplified from Baise City as purple area in the above map, it refers in particular to Youjiang area of Baise City which has equal administrative level as county. BS is located in northwest of Guangxi Province, on the upstream of Youjiang River. The acreage is 3,713 square kilometers which from East 106°7’ to 106°56’ (84 kilometers long) and North 23°33’ to 24°18’ (82 kilometers high). The area is featured by Karst landform where hills and rivers can be found vastly.

Mo books are found in 2 villages in the east part of Baise City, including

Nafu Village, Luping Village Bailan Town and 1 Village Lianxiang Village Longchuan Town Youjiang area (Zhang Shengzhen, 2004).

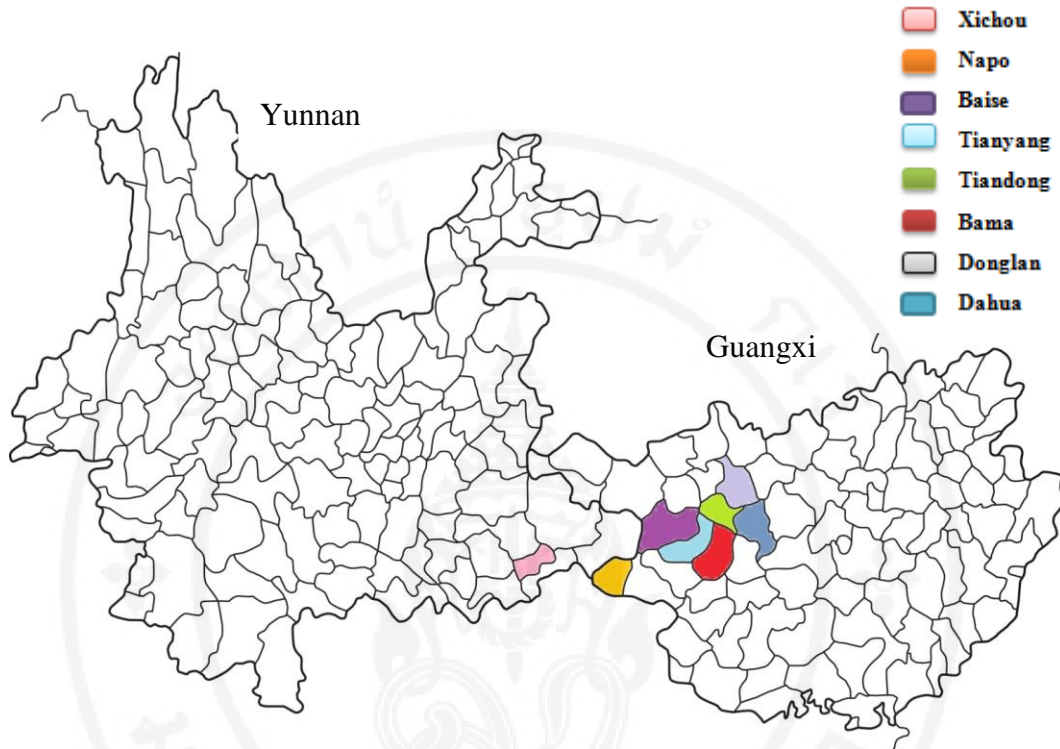


Figure 4.1 Map of survey locations

(2) TY is simplified from Tianyang County which is marked by blue color in the above map, it is located in west Guangxi, middle stream of Youjiang River, the middle of Baise and Tiandong and sharing long borderline with two neighbouring counties, the acreage is 2,394 kilometers. Along the narrow valley, the terrain becomes flat. Tianyang is rich in Mo books, there are 8 texts from 5 villages, including Yufeng, Nengdai, Nengzao, Nengdai Village of Yufeng Town (Zhang Shengzhen, 2004), where is located in east part of Tianyang and especially hinge point of connecting Bama, Tiandong, Tianyang. The rest Village is Powang of Kunping Town, which is on the north part of Tianyang, and south side connects with Yufeng town.

(3) TD is simplified from Tiandong County as red area in the above map, which is located in middle area of Youjiang River and hinterland of Youjiang Valley, the west side is connected with Tianyang, and north side is connected with BM, the acreage is 2,816 square kilometres. Tiandong is on the edge of collecting Mo books, only one text from Dingnu Tuen Banlong Village and Yixu Town is employed in Mo

books. The location of Yixu town is near Yufeng Town of Bama.

(4) BM is simplified from Bama Yao Autonomous County as green region in the above map, which is located in east side of Hongshuihe River, northwest of Guangxi, affiliating to Hechi Area, connected with Youjiang Area of Baise on west in Tianyang and Tiandong, Pingguo on the south, with Donglan, Fengshan on north. The acreage is 1,971 square kilometres.

The Mo books employed 9 texts from 8 points of Bama County (Zhang Shengzhen, 2004). The west of Bama county is area that discovered most Mo books, including Yandong council, Banlai and Pofu Tuen of Yandong Village, Yanya Tuen of Yanting Village, Najian Tuen of Laiman Village, Bashi Tuen of Hongwan Village, these points are located in southwest of Bama County, where is connected with Yixu Town of Tiandong County or TD in this study, and border on Yufeng Town of Tianyang County where is the Mo books' collecting centre of Tianyang. Suolve is another town that Mo bookss are found and where is connected with the central place of Mo bookss in Yandong Town.

(5) DL is simplified from Donglan county as the gray area in the map, where is situated along midstream of Hongshuihe River, connecting with Bama in southwest and with Dahua in Southeast, the acreage is 2,415 square kilometres. Donglan is a Mo books center along Hongshuihe River, these 3 texts from 2 survey places are employed into photocopying, including Nongbing Tuen Changdong Village of Sihe Town and BangouTuen Yong'an Village of Po'e Town (Zhang Shengzhen, 2004), where are located in southeast part of Donglan County. Although they are a small amount of texts, the texts are long enough to promote Donglan as the main Mo books collecting place, especially 麽送𧈧 (/mo¹, song⁵, fang²/, Ceremony of Sending Ghost) is separated as one isolated volume having more than 400 pages' length in photocopying (Zhang Shengzhen, 2004).

(6) DH is simplified from Dahua Yao Autonomous County as the dark blue area in the above map, which also locates along Hongshuihe, connecting with Donglan in the north and Bama in the east, acreage is 2,716 square kilometres. There are only one short text from Shengping Village of Bansheng Town located in the north of Dahua, and near Donglan.

Po'e town of Donglan and Bansheng town of Dahua are nearly distributed

in the same line of longitude. Sihe town of Donglan is located in the west side middle level between Po'e and Bansheng, where is nearly in the same line of latitude of Yandong town of BM.

(7) NP is simplified from initial consonant of Napo County as area that marked by yellow color where is the most west county of Guangxi Zhuang Autonomous Region, connected to Funing County of Yunnan Province, in Guangxi, Napo is near to southwest corner of Baise but aparted by Jingxi County and Debao County, it is also another isolated place as XC. There is only one text found in Napo (Zhang Shengzhen, 2004).

(8) XC is simplified from Xichou County as the pink area in the map, located at Wenshan Miao Autonomous Prefecture of Yunnan Province, the southeast part of Yunnan Province and on the edge of Yunnan-Guizhou Plateau. XC is the only one survey point that is not in Guangxi Province. Middle and north areas have higher sea level than south areas and mountains going in West-East, West-South linears and 12 rivers. The total acreage is 1,506 square kilometers.

XC is connected with Wenshan County and Yanshan County on the east side, Masupo County on southwest and Guangnan County on southeast. Funing County spans on middle of Xichou and Napo which is the most west county of Guangxi Province, it is an isolated island of areas finding Mo Books in this study. There are 9 administrative towns, in which Guyu Village of Jijie Town located in west of Xichou County is survey place where found Mo Books <麽荷泰> /mo¹, hok⁷, t^hai⁵/, which is recruited in the 8th volume of photocopying with content of narrating a ceremony of releasing dead men's souls from purgatory (Zhang Shengzhen, 2004).

4.2.2 Variation Distribution and Geography Continuum

Associating with geographical map of Guangxi and part of Yunnan province, considering BS is peak of correlation, the similarity degrees are decreasing in two directions, which are: Tianyang, Tiandong, Bama, Donglan, Dahua in the east direction, Napo and Xichou in west direction.

The differences may be large or may be small, but they are cumulative by distances (Chamber & Trudgill, 2004), on an opposite perspective, the resemblances are also cumulative from the furthest point to the center.

(1) West Direction

From west orientation, Xichou is an isolated and drifting apart from the main area of discovering Mo books, it shares 21.46% variations with other places in average, on the other hand, it shares 32.08% 25.77% 23.64% 18.75% 18.41% 16.82% 14.77% with Napo, Bama, Baise, Tiandong, Donglan, Tianyang, Dahua by order. XC related to Napo strongest since they are closed geographically.

Napo displays a similar chain linkage also, it averagely connects with other places in rate of 33.58% which is a third high proportion, and there are 44.10% 41.92% 38.91% 36.84% 32.08% 22.83% 18.40% with Baise, Tianyang, Tiandong, Xichou, Donglan, Dahua by order. It shares the same variations in a mid-high level with BS, middle level with Tianyang, Bama, Tiandong those are areas along Youjiang River Valley, then followed by XC which takes advantage of distance, Donglan and Dahua are most divergent which are linked in a low level.

(2) East direction

The east direction linear presents more complicated relationships, the data are not perfect correspondent in a linear. However, generally speaking, the percentages of other mini pairs and average correlation rate can provide that DL DH are different from BS TY TD BM which is correspondent with their geographical locations.

Distance is one important factor that affects spreading of variations, landform character is another factor for variations using divergence. Distance and geographic features will be interpreted in detail behind.

1) From Baise to Tiandong and Tianyang

BS shares most variations reaching proportion of 40.92% in average, and it is linked with Tiandong strongly which indicated by a highest shared proportion 62.50%, then followed by BS-TY, 57.96%. BS is related to Bama and Napo in a mid-high level (48.51% and 44.10%), related with Xichou, Donglan, Dahua in a mid-low level (23.64% 29.45% and 20.26%).

The percentage of BS-TY and BS-TD bring a puzzle. Geographically, BS is close to Tianyang rather than Tiandong, however, BS-TY similarity rate is 62.50% which is 4.54% more than BS-TY (57.96%). There is an assumption that Tianyang's Mo books are somehow affected by Mo books in Bama can be improved here.

9 Mo texts of Tianyang are found in Yufeng Town, 9 texts of Bama are

found in Yandong town and 1 is found in Suolve town of BM, only 1 text of Tiandong is found in Yixu town. Yufeng, Yandong and Yixu are three connected areas which are divided by administration. Yufeng and Yandong is much closer than distance to Yixu in Tiandong, Suolve of BM is on the top of Yufeng, which radiates variations to Yufeng from another northwest direction, such as the interpretative figure below:

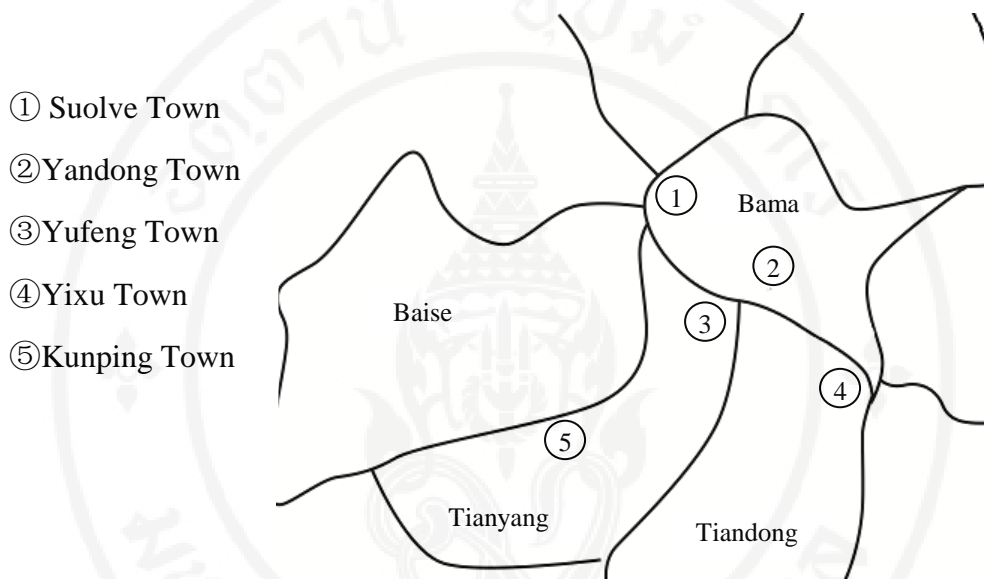


Figure 4.2 Locations of Yufeng, Yandong, Yixu and Suolve Town

Without doubt, Tianyang and Tiandong these two connected and sharing long borderline counties are also highly coherent in shared variations proportion 45.88%, which is the 4th high value in present study.

2) Bama as a transitional area

Bama is transition area in both location and correlation. Geographically, it is located in almost the same latitude line and connected with Baise in west corner area. The similarity is in mid-high level (48.51%), which is a 3rd high proportion in study. On the other hand, Bama is connected to Donglan and Dahua in east side. The correlative is descendent from BS to BM and then much less to Donglan (mid-low level, 29.19%) and Dahua (mid-low level, 22.42%).

There is a gap 6.77% of percentage between BM-DL and BM-DH, the distances of Mo books discovering places provide convincing evidence of continuum.

One of Mo books of Donglan is found in Sihe town where is located in middle-west of Donglan county and has short distance to Bama, almost on the same latitude line of Yandong town. The rest two texts are found in Po'e town, where is located in middle-east area of Donglan county and nearly the same longitude line of Bansheng town that is the place of discovering Mo bookss in Dahua county. Therefore, Sihe town plays a role of transitional area between DL and BM, such as the figure 4.3:

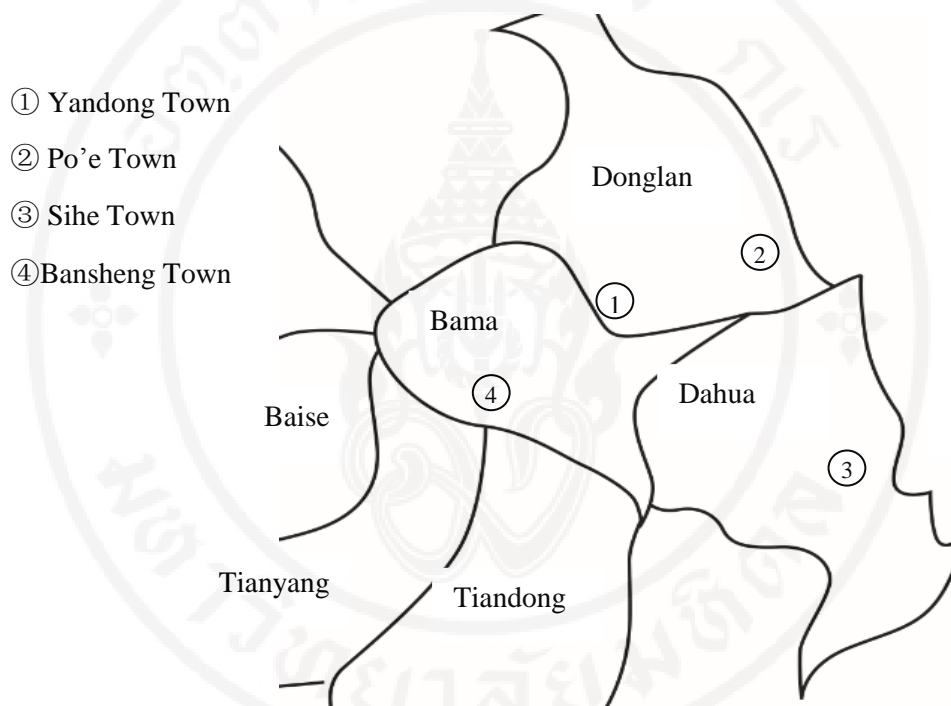


Figure 4.3 Locations of Yandong, Sihe, Po'e and Bansheng Town

From the figure above, Sihe is located in the middle of Po'e and Yandong, where are two places of finding Mo books, then prolonged to Po'e town. Otherwise, Bansheng of Dahua is at the east point, it has a longer distance with Yandong of Bama rather than Sihe and Po'e of Donglan. Correspondently, the percentage of correlation of BM-DH is less than BM-DL. More important, Bansheng town of Dahua county is the east pole survey places, it is not only less connection with BM but also with other places excepts DL, its average correlation value 22.88% is the last but two.

It has often been observed that languages which are spoken in the same general geographical region tend to have features in common even if they are not closely related historically (Chamber and Trudgill, 2004: P.168). Bama and

Napo display deep relation (mid level, 38.91%) , however, Napo is quite far away from Bama, Jingxi, Debao, Tianyang, Tiandong and Baise lie between them, compare to Donglan, which is a county has same borderline, Bama shares more same variations series with Napo rather than with Donglan. Distance is not always the factor of affecting continuum.

4) Secondary East linear

Donglan and Dahua are located along the east longitude line in the east part, the high connection composes a longitudinal line at east pole of all survey places, which is the secondary branch of major east-west continuum linear. They obtain 45.618% correlation which is at a mid-high level. Correspondently, geographical locations of Bansheng of Dahua, Sihe and Po'e of Donglan are close. Hongshuihe River makes the connection more intent.

(3) Geographical Continuum of Variations Series

Base on the analysis above, a model on continuum of 8 survey places can be drawn as the following figure:

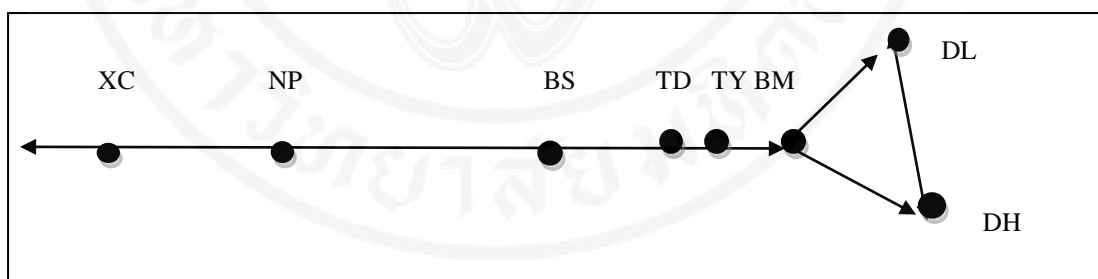


Figure 4.4 Character geographic continuum

From the data above, BS is a center of character variations' radiation, it owns highest correlation with other places, and displays descending resemblance by distance in general, longer distance the larger intelligibilities are found, such as DH or XC which distributed on two poles of linear has less common variation series. Geographical nearer places also applied more same variation series, such as NP-XC. Landscape orientation is the major form of continuum, Donglan and Dahua display a portrait connection, but it is under basic east-west linear trend.

4.3 Variations' Distribution boundaries

The organizing concept behind dialect variation is still seen predominantly as realized by areas with which similar varieties are spoken (Heeringa & Nerbonne, 2008). Continuum and boundaries are two opposite concepts of language variations and space. The present study suggests that variation displays spatial boundaries in a representative level which indicates to typical and small part of variations which provides a more precise organized variation distribution, and emphasis character choosing.

4.3.1. Representative Extracting

The boundary drawing is based on similarity between representatives of each function word in every survey location which is calculated by percentage. In section 4.1, all the representatives are figured out which is organized in table 4.30 in order to make them net and more intuitive.

The overview of representatives of function words can be perceived from table 4.30.

There are only 99 variations are most common used in 8 locations which means the representatives distribute overlaply, 8 locations often share 3-5 representative. Beside, self-created characters are seldomly used as representatives.

Table 4.30 Representative of function words

| Function words | DL | BM | DH | BS | TY | TD | NP | XC |
|--|----|----|----|----|----|----|----|----|
| 1. <i>Caengz</i> , “not yet”, <i>Neg.</i> | 曾 | 增 | 成 | 曾 | 曾 | 曾 | 曾 | - |
| 2. <i>Caux/tsaux</i> , “then, thus”, <i>conj.</i> | 造 | 造 | 召 | 造 | 造 | 造 | 造 | 詔 |
| 3. <i>Cih</i> , “then, but”, <i>conj.</i> | 之 | 之 | 之 | 千 | 之 | 是 | 失 | 周 |
| 4. <i>Daengz</i> , “to, until”, <i>prep.</i> | 𠵼 | 𠵼 | 𠵼 | 滕 | 滕 | 滕 | 𠵼 | 到 |
| 5. <i>Dangq</i> , “each”, <i>pro.</i> | 當 | 當 | 當 | - | 當 | - | 𠵼 | - |
| 6. <i>Dauq</i> , “however”, <i>conj.</i> | 到 | 到 | 到 | 到 | 到 | 到 | 到 | 到 |
| 7. <i>De/dix/deih</i> , “he, she, it, him, her, it”, <i>pro.</i> | 他 | 的 | 他 | 他 | 他 | 他 | 地 | 敵 |

Continued

Table 4.30 Representative of function words (cont.)

| Function words | DL | BM | DH | BS | TY | TD | NP | XC |
|--|----|----|----|----|----|----|----|----|
| 8. <i>Du</i> , “we, us”, <i>pro.</i> | 土 | 度 | 讀 | 堯 | 度 | 度 | - | - |
| 9. <i>Gag</i> , “by oneself”, <i>pro.</i> | 亢 | 各 | 亢 | 各 | 各 | - | 各 | 各 |
| 10. <i>Goj/goq</i> , “then”, <i>conj.</i> | 可 | 可 | 可 | 可 | 可 | 可 | 古 | 括 |
| 11. <i>Gaeuq/gaeu</i> , “I, me”, <i>pro.</i> | 叩 | 旧 | - | 旧 | 旧 | 旧 | 苟 | 告 |
| 12. <i>Gu</i> “I, me”, <i>pro.</i> | 故 | 故 | 古 | 故 | 故 | 故 | 故 | 姑 |
| 13. <i>Gwnz/guzn</i> “on, above”, <i>pro.</i> | 皆 | 志 | 志 | 志 | 志 | - | - | 肯 |
| 14. <i>Fwex/fiex/fwx</i> , “someone else”, <i>pro.</i> | 勿 | 伏 | 勿 | 武 | 武 | - | 武 | - |
| 15. <i>Hoiq/koix</i> , “I, me” <i>pro.</i> | 貨 | 灰 | 賀 | 灰 | 灰 | 灰 | 灰 | 傀 |
| 16. <i>Hih/yiz</i> “then, but”, <i>conj.</i> | 亦 | 以 | 一 | 亦 | 亦 | 亦 | 亦 | - |
| 17. <i>Laeuz/raeuz</i> , “we, us”, <i>pro.</i> | 娄 | 娄 | 楼 | 娄 | 娄 | - | 留 | 屡 |
| 18. <i>Lawz/rawz</i> , “what, which”, <i>pro.</i> | 累 | 累 | 勒 | 黎 | 黎 | 黎 | 而 | 朗 |
| 19. <i>Laj</i> , “below”, <i>prep.</i> | 拉 | 恣 | 喇 | 恣 | 恣 | 恣 | - | 拉 |
| 20. <i>Lix/liq/le</i> , “still, and”, <i>conj.</i> | 立 | 里 | 立 | 里 | 里 | - | 里 | 咧 |
| 21. <i>Lox/rox</i> , “or” <i>conj.</i> | 罗 | 魯 | 落 | 魯 | 魯 | 魯 | - | - |
| 22. <i>Mbaeux/mbaexh/mbaeu,j</i> “not”, <i>neg.</i> | 否 | 不 | 否 | 不 | 不 | 不 | 不 | 播 |
| 23. <i>Mwngz/moy</i> , “you”, <i>pro.</i> | 名 | 明 | 名 | 明 | 名 | - | 某 | 猛 |
| 24. <i>Nix/ni/najs</i> , “this”, <i>pro.</i> | 尼 | 你 | 尼 | 你 | 你 | 你 | 你 | 宜 |
| 25. <i>Ndaej/ndaex/ndajs</i> , “result in” <i>aux.</i> | 累 | 礼 | 戾 | 礼 | 礼 | - | 礼 | 得 |
| 26. <i>Ndix/ndij</i> , “with, and” <i>conj.</i> | 礼 | 里 | 里 | 里 | 礼 | 宜 | 礼 | - |
| 27. <i>Su/sou</i> , “you” <i>pro.</i> | 数 | 数 | 素 | 守 | 疏 | - | 守 | 擇 |
| 28. <i>Unj/unh</i> , “else” <i>pro.</i> | 忌 | 瘟 | 溫 | - | - | 溫 | 痕 | 寒 |

4.3.2 Data analysis

The correlation between one mini pair is requested by representative overlap ratio which is requested by method that interpreted in section 3.2, finally the results is as the following table:

Table 4.31 Correlation at representative level

BS

| | | | | | | | |
|--------|--------|--------|--------|--------|-------|-------|----|
| 76.92% | TY | | | | | | |
| 83.33% | 94.44% | TD | | | | | |
| 65.37% | 66.67% | 52.63% | BM | | | | |
| 30.77% | 37.04% | 36.84% | 28.57% | DL | | | |
| 20.00% | 23.08% | 16.67% | 25.93% | 40.74% | DH | | |
| 45.46% | 47.83% | 33.33% | 37.50% | 20.83% | 4.38% | NP | |
| 10.00% | 10.00% | 6.25% | 9.52% | 9.52% | 5.26% | 5.26% | XC |

The percentage can be grouped into five levels by ranges, including:

Low: 0-25%

Middle: 25% - 50%

Mid- high: 50-75 %

High: $\geq 75\%$

From the table above, the features of representative sharing of 8 places can be concluded that the percentages cross a large range starting from less than 5 percent (DH-NP: 4.38%) to more than 90 percent (TY-TD: 94.44%). Overviewly, correlation at representative level obtains higher percentages than series level. Besides, the percentages provide boundaries of representatives' distribution, distance and rivers are two major factors in affecting variation distribution.

The linguistics features are accumulative by distance, the longer distance the more intelligibilities. To approve it, the distances between two mini pairs are provided in as the table 4.3. The distance refers to shortest route that google map offers between two locations in stead of straight line distance.

Table 4.32 Distance of locations

| Locations | Distance (Km) | Locations | Distance (Km) | Locations | Distance (Km) |
|-----------|---------------|-----------|---------------|-----------|---------------|
| DH-XC | 523 Km. | NP-XC | 230 Km. | BS-BM | 134 Km. |
| DL-XC | 496 Km. | TY-NP | 206 Km. | BM-DH | 126 Km. |
| BM-XC | 430 Km. | TD-NP | 200 Km. | BS-TD | 107 Km. |
| TD-XC | 423 Km. | BS-DL | 188 Km. | TD-BM | 101 Km. |
| TY-XC | 357 Km.. | TY-DH | 179 Km. | BS-TY | 77 Km. |
| DL-NP | 341 Km. | BS-NP | 169 Km. | TY-BM | 75 Km. |
| DH-NP | 335 Km. | TD-DL | 167 Km. | BM-DL | 65 Km. |
| BS-XC | 320 Km. | TD-DH | 144 Km. | TY-TD | 31 Km. |
| BM-NP | 275 Km. | DL-DH | 143 Km. | | |
| BS-DH | 236 Km. | TY-DL | 141 Km. | | |

(Source from <http://www.google.cn/maps>)

The distance is gradiently correspondent with similarity, this study will discuss them by dividing them into four levels for convenience.

1) Low level: 170 Km – 530 Km, except TD-DH (143 Km, 16.67%)

The spatial distance between TD and DH is 143 Km, the similarity of this mini pair is lower than consideration, that because both TD and DH are limited in length of texts and function words discovered, in which there are only 19 function words found in TD and 27 function words in DH.

Geographically, XC has the furthest distances with other places when compare with other mini pairs. The nearest county is NP, but they are aparted from each other around 230 kilometers. At the same time similarity of XC is quite weak with other locations, in which the highest relation is 10.00% with TY and BS. Therefore, XC is the first boundary should be drawn.

NP is the second boundary that because NP is an isolated place between XC and large connected area in the east. Correspondently, NP also shares low similarity with other locations. It shares low level similarity with XC, DH and DL, it also has long distances (230 Km, 341 Km, 335 Km) with these three counties too. Although it shares middle level representative similarity with BM BS TY and TD, they are not connected in geography.

2) Middle level: 140 Km- 170 Km, except BM-NP (275 Km, 37.50%) and BM-DL (65 Km, 28.57%).

The two excluding cases here are both concerned about BM which is a transitional area, the similarity with other locations are affected by rivers which will be explained in the next paragraphs.

3) Mid-high level: 75 Km-140 Km;

There are 3 nimi pairs share mid-high level which are relations between BM and BS TY TD where are located in Youjiang River Valley (see figure 4.6). the similarity between BM and BS TY TD are 66.67% 65.39% 52.63% with in order, which are lower than inner relations of BS TY TD (high level).

4) High level: 30 Km.-100 Km.

There are three mini pairs share high level similarity which are TY TD and BS which are three connected areas lie along Youjiang river. 94.44% overlap rate indicates TY and TD share almost all of the representatives, then followed by BS-TD, 83.33% is the second high correlation rate, BS and TY share 76.92% representatives. The percentages is quite correspondent with geographical disbution. About the problem of BS-TD has a higher proportion than BS-TY.

Figure 4.5 gives a direct overview on correspondence between geographic distance and similarity.

The columnars refer to distances listed in table 4.22 whcih is arranged vertically from far to close, the solid line displays a contour oritenttion of similarities which presented by blue points on the line. The similarity and distance display opposite trend in general, the longer distance the less similarity. The dropped points on the line such as TD-XC, DH-NP, NP-XC, TD-DH, BM-DH, BM-DL are caused by length of texts or environmental elements which need more information to research the problem more comprehensively.

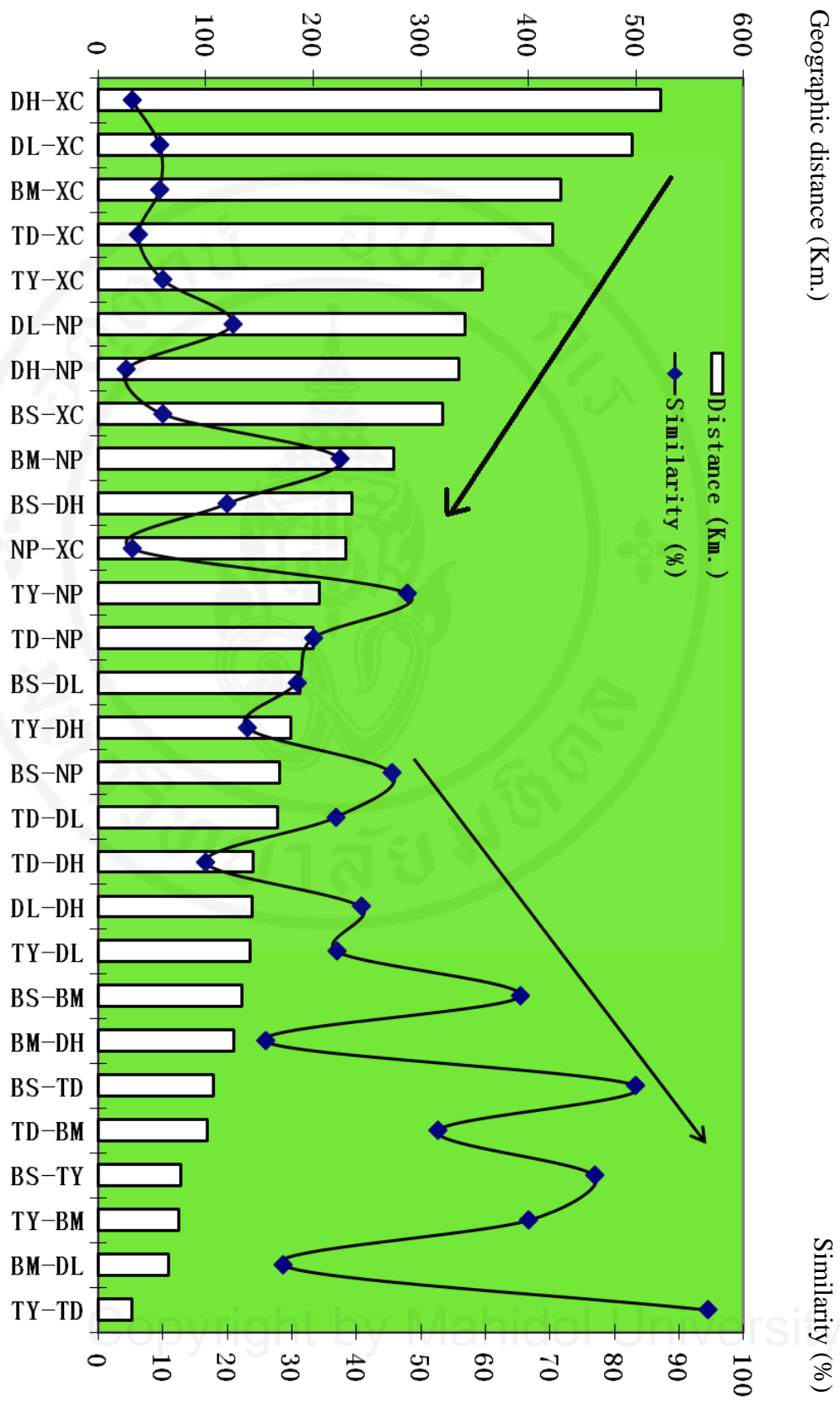


Figure 4.5 Correspondence Between distance and similarity

It is more reasonable to draw BM with Youjiang dRiver Valley area (see figure 4.6). Not only because BM is related with this area stronger than other places, but also because BM is geographically connected with BS TY and TD.

For reason of situated on the edge of Yunnan-Guizhou Plateau, Karst landform brings large mountains and water streams. BS, BM are higher (sea level) than TY and TD. BS TY TD lie in the narrow Youjiang River Valley from north south, BS is on the upstream area, TY and TD are on the middle stream, BM is transitional area of Youjiang River and Hongshuihe River, but basically, the connections between BS, TY, TD, BM are oriented by Youjiang River.

Therefore, BS-TY-TD-BM is the thrid area of representation boundary.

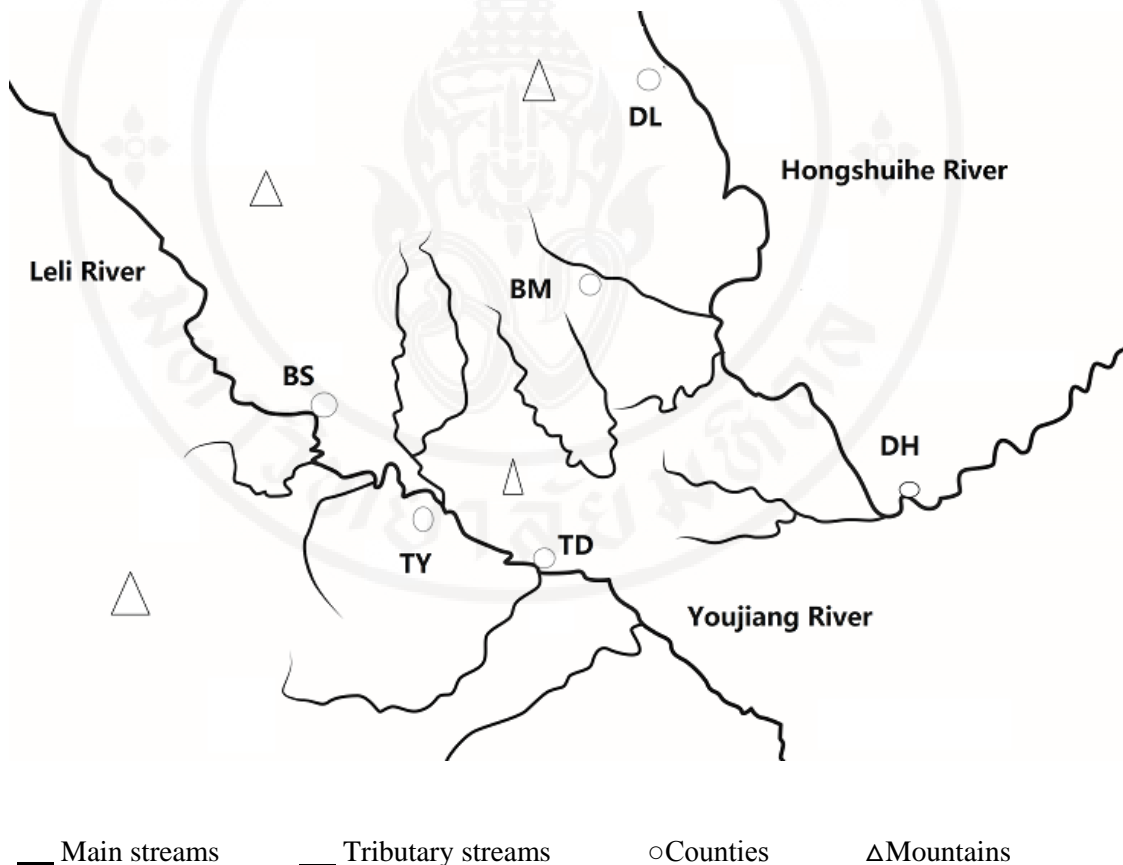


Figure 4.6 Distribution of Youjiang River and Hongshuihe River

Both Donglan and Dahua are located along middle stream of Hongshuihe River, Donglan is on the north side and Dahua is on the south side. Correspondent with geographic locations, Donglan and Dahua share 40.74% representatives, which is a middle level correlation. To compare with other places, Donglan is related to

Youjiang River Valley (BS TY TD BM) in proportions of in a range of 30%- 40%, and the similarity with NP XC are quite low. Another membership of Hongshuihe River Basin DH is related to Youjiang River Valley (BS TY TD BM) in mid-low and low levels, the similarity of DH-NP and DH-XC (5.26%, 4.35%) are last two proportions in this study. Therefore, Hongshuihe River Basin is the fourth area in micro level of variations geographical distribution.

Finally, geography boundaries of 8 survey places can be divided as 4 areas (see figure 4.7) , including:

- (1) Yunnan province: Xichou county;
- (2) Western of Guangxi: Naop county;
- (3) Youjiang River valley area: Tianyang – Tiandong - Bama- Baise;
- (4) Hongshuihe River basin area: Donglan, Dahua county.



Figure 4.7 Geography boundaries

4.4 Intera-regional variation

Section 4.2 and 4.3 provide geographic correlation by calculating overlap on level of variation series and representatives, contrastively, the un-overlap rate is given in order to approve variations vary within certain regional scope.

Take *hoiq/khoix*, I, me, 1st personal pronoun for example, there are 9 variations for the function word in Mo books, including: 1. 贺, 2. 賀, 3. 货, 4. 貨, 5. 貨, 6. 貸, 7. 灰, 8. 恢 and 9. 傀, from analysis it can be found that not all the variations are dispersed in every position, variation 1-6 which have similar character structure are all found in Donglan, at the same time, variation 賀 distributes in Dahua where is quite related to Donglan as analysis in section 4.1. For variation 1-6, there is not a rule to explain when and why they will appear, but it can be edsured that they are not found in Bama, Baise, Tianyang, Tiandong, Napo, Xichou. Variation 7 and 8 are found in Baise, Bama, Tianyang, Tiandong, Napo while the last graph 9. 傀 is discovered in Xichou, readers cannot trace them outside the regional scope which means those exclusive variations are not overlapped in other places.

The above case *hoiq/khoix*, I, me, 1st personal pronoun is not occasional, it is generally applicable to other variations. To approve it, more convincible evidence is given in the following table:

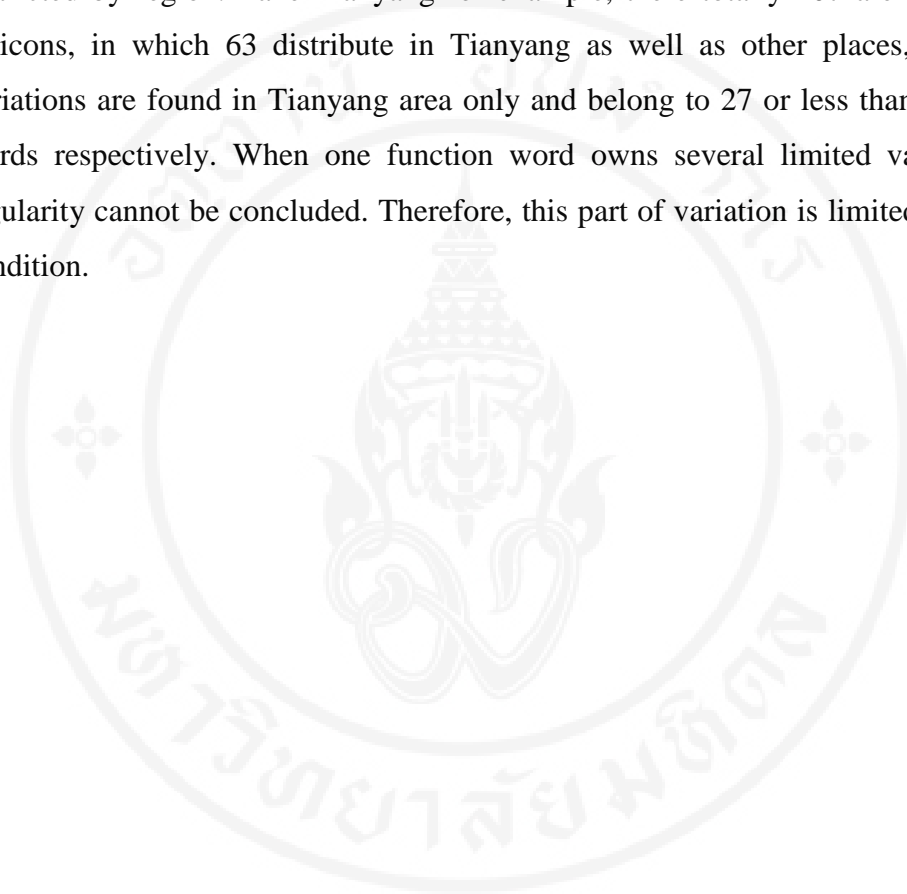
Table 4.33 Proportion of overlap and un-overlap variations

| Index Location | Found variations | Overlapped variations | | Not overlapped variations | |
|-------------------|---------------------|-----------------------|------------|---------------------------|----------------|
| | | Amount | Percentage | Amount | Percentage |
| XC | 67 | 23 | 34.328% | 44 | 65.672% |
| DL | 203 | 97 | 47.783% | 106 | 52.214% |
| TY | 107 | 63 | 58.879% | 44 | 41.121% |
| NP | 30 | 18 | 60.000% | 12 | 40.000% |
| BM | 143 | 87 | 60.839% | 56 | 39.161% |
| BS | 71 | 53 | 74.648% | 18 | 25.352% |
| DH | 90 | 74 | 82.222% | 16 | 17.118% |
| TD | 19 | 19 | 100% | 0 | 0 |

The table above provides proportions of non overlap characters for each place in this study which arrange from 17% to almost 66%, the unshared variations of each place can be perceived by statistics. Xichou and Donglan are varied from other places with high independent variations which obtain more than half non overlapped

graphs. Then followed by Tianyang, Napo and Bama, Baise and Dahua relatively have few non overlapped characters. TianDong is exceptional because the text is too short to provide unshared variations.

The numeral information improves that the variations are partially restricted by region. Take Tianyang for example, there totally 107 are found for 27 lexicons, in which 63 distribute in Tianyang as well as other places, the rest 44 variations are found in Tianyang area only and belong to 27 or less than 27 function words respectively. When one function word owns several limited variations, the regularity cannot be concluded. Therefore, this part of variation is limited by regional condition.



CHAPTER V

NON GEOGRAPHIC VARIATIONS

This chapter is concerned with non-geographic variations, section 5.1 is aimed to interpret how iconicity effects variation selection; section 5.2 is concerned about unclassified variations.

5.1 Textual variations

Iconicity is one principle that affects variation selecting, it works at both word level and structural level. At level of function words, iconicity plays role of choosing character that is consistent with meaning it convey; at level of text structure, iconicity plays a role of regularizing variations in order to unify text forms and gain expression effect which is named as isomorphism in section 5.1.2.

5.1.1 Iconic property of Zhuang character

Iconicity is an obvious property of content word and function word in Zhuang's *Sawndip* writing system. The self-created logographs display more native features that distinguish themselves from Chinese or modified Chinese characters, such as the following bodily action verbs and nouns (see table 5.1).

The contour stroke 3 is sketched from human body, the top smaller semi-circle points to head of human body, the bottom part refers to the trunk. The 3[•] “carry on back” and 3 “hug, hold in arms” presents the left hand of 3 is front and right hand is back of a human body. In this way, the symbolic icon has been established, a series of ideograms can be constructed by adding some certain strokes, new association meanings are delivered by those ideographical characters, such as 𠃉 “walk”, by adding one lying \ behind human body which refers to road, the human body and road two necessary components establish concept of walking behavior mutually.

Table 5.1 Pictogram in Zhuang old character system

| No. | Sawndip | Romanize Zhuang | IPA | Meaning |
|-----|---------------|-----------------|------------------------------------|-------------------|
| 1. | 3̣ | aemq | /ʔam ⁵ / | Carry on back |
| 2. | 𠵿 𠵿 𠵿 𠵿 𠵿 | naengh | /naŋ ⁶ / | Sit, sit down |
| 3. | 𠵿 | ndwn | /ʔdwn ¹ / | Stand, stand up |
| 4. | 𠵿 | ngaem | /ŋam ¹ / | Bow (one's head) |
| 5. | 𠵿 | ngaem | /ŋam ¹ / | Shade, shadow |
| 6. | 𠵿 | umj | /ʔum ³ / | Hug, hold in arms |
| 7. | 𠵿 | byaij | /p ¹ a:i ⁵ / | Walk |
| 8. | 𠵿 | oemq | /ʔom ⁵ / | Cover |

5.1.2 Iconic Function Words

(1) Negation “not” VS “have”

Iconicity also presents by function words, but it is less significant and visible than content words. Take negation 有 “not” (*Sawndip Sawdenj*, 1988, P.321, inside bracket symbol behind 否) that is borrowed from Cantonese in both meaning and pronunciation /mou³⁵/ for example.

The meaning “not” is acquired successfully by two steps. Firstly, the character shape construct opposite meaning of “have” by comparing character shape concept of *miz/mi²/* “have” which is written in five variations as following:

1. 眉 2. 𠵿 3. 𠵿 4. 𠵿 5. 𠵿

Among the above characters, variation 3. 𠵿 is composed by semantic radical 有 /jou⁵³/ “have” and phonetic radical 米 /mi⁵³/ “rice”. The comparison happens between 有 and 有 because of contrary character shapes. The two characters are similar in structure except bottom square radical 冂, the characters of “have” has 二 inside square 冂 while “not” is empty.

Metaphorically, 冂 is compared to a container while 二 is entity. There is embracing relationship between container and entity, if entity 二 is inside the container the embracing relation is true, contrastively, if 冂 is empty the embracing relation is fault.

Concept “*have*” is composed by at least three necessary components, including subject, entity that was processed by subject, relationship of procession. Therefore, the character shape displays resemblance features with concepts of “*have*”.

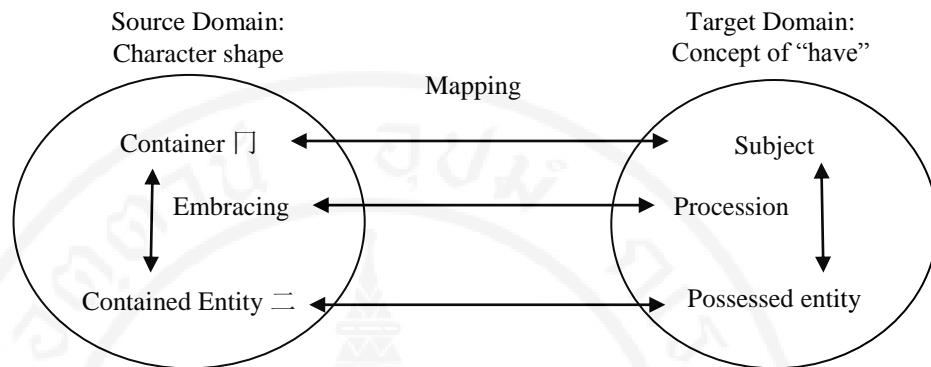


Figure 5.1 Mapping of 有 and 冇

The concept “*not have*” is a negative form of “*have*”. The meaning is achieved by deleting 二 inside the square 冂. The absence of 二 leads to vanishing of embracing relationship, the mapping cannot access because the rest container component cannot project with subject or owner without procession and processed entity contexts, finally the concept of “*have*” becomes not true, the negative meaning is established “*not have*” is established.

Secondly, the negative meaning “*not*” that available for negating adjectives, adverbs and verbs is gained by extending from “*not have*” based on same negative component. The pronunciation of Cantonese /mou³⁵/ is another restrictive condition for expressing meaning.

Compare with other variations discovered in *Sawndip Sawdenj* and Mo books, 冇 is more iconic and easier to be remembered, such as 茂毛謀 which are phonetically similar to “*not*” in Zhuang word (see section 4.1) are not referred to meaning the characters convey. Beside, characters marked pronunciation are more likely to be used for marking another word that has same phonetic features.

(2) Contrastive character shapes of “*on*” and “*below*”

From observation, once concept *on* and *below* appear together in Bama’s text, they may often written in 志忑, in which 志 is represented to *on* and 忑 is represented to *below*.

In Chinese, 上 and 下 are two ideograms inferring iconic properties. The stroke 一 is a reference frame that plays a role of association in compounding character, when 一 is put in the bottom it means on (above something), when put on the top it means below (something).

Gwnz /kum²/ on, preposition and /la³/ below, preposition are not only contrastive in meaning, the variations' shapes also provide resemblance with meaning they convey at the same time. such as 上志 上志 上志 上志 in series F of *gwnz* /kum²/ on, preposition which found in Bama, Baise, Tianyang, and 下志 下志 下志 下志 in series D of *laj* /la³/ below, preposition that found in Donglan, Bama, Baise and Tianyang.

志 上志 上志 上志 上志 上志 all are composed by two top and bottom parts, accordingly, up and down are two relative and independent concept that require two different spatial objects in distinguishing them.

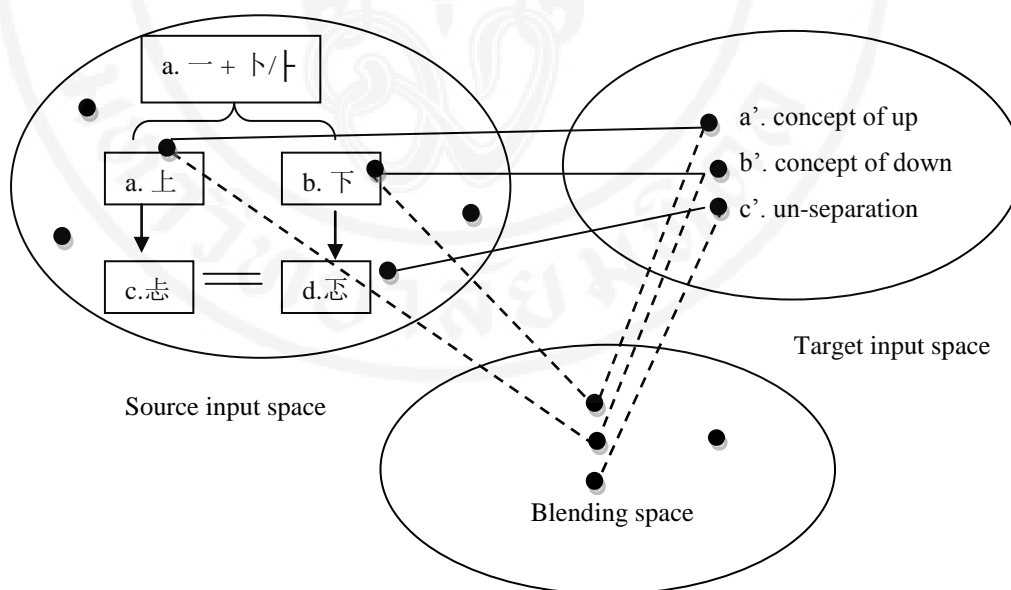


Figure 5.2 Mapping of 志 and 忑

On one hand, 志 and 忑 express their original intentions in parallel lines more vividly by their associated character shapes, at the same time, they organize two contrastive elements of one thing together in order to make semantic frame more completely, such as:

- 1) 畚 連 轉 唔 涿 刀 志
 ham⁶ liən² ɕiən² pa:k⁷ lo:k⁷ ta:u⁵ la³
 night yesterday turn mouth copper sword below
 (Bouh Mo or the priest) turn the edge of copper sword down last night
- 2) 叻 不 在 平 跟
 luk⁸ ʔbau⁵ ɬa:i⁶ pan² kun²
 children not very link-verb eat
 The children cannot find much rice.
- 3) 𠵼 你 轉 唔 涿 刀 志
 hat⁷ ni⁴ ɕiən² pa:k⁷ lo:k⁷ ta:u⁵ kun²
 morning this turn mouth copper sword up
 (Bouh Mo or the priest) turn the edge of copper sword up this morning
- 4) 叻 平 跟 滿 召
 luk⁸ pan² kun² muən⁴ ɕi:u⁶
 children link-verb eat whole life
 The children find food that is enough for (their) whole lives.

This text is written about two opposite behaviors of priest in exorcism by copper sword ceremony. The Mo belief restricts that if turn the sword edge down, descendant will suffer famine, because the down edge sword cannot drive evil away; when turning the sword edge up, the power of copper sword will be strong enough to expel bad things, the descendant will have enough rice to survive. The coming consequent analysis will make it clear that why Mo scriptures choose 志 and 𠵼 together to express the concept on and below simultaneously rather than other variations.

In the above figure, the first input space contains a b c d four elements in source input space, which are: **a)** Based on Chinese knowledge, the iconic character shape of 上, which is concerned about position of 一, when 一 is on the bottom, is concept of “on” is created; **b)** Based on Chinese knowledge, the iconic character shape of 下, which is concerned about position of 一, when 一 is on the top, is concept of “below” is created; **c)** Up-down composition of radical 上 and 心, they are combined to form a Zhuang character; **d)** Up-down composition of radical 下 and 心, they are combined to form a Zhuang character.

On the other hand, the target input space also obtains a' b' c' three elements, in which a' b' are imagic mapping with elements a b in source input space and c' is diagrammatical mapping with elements c d in source input space, including: **a'**) Up, a concept of direction; **b')** Down, a concept of direction; **c')** The relative relationship of “up-down” concept.

The generic space provides two directions of copper sword edge, which can lead associating to BouxMo's behaviors. ASYMMETRICAL MEANING IS ASYMMETRICAL FORM (Hiraga, 2005). It is visible that the up radicals of 𠄎 and 𠄏 are composed contrastively, the asymmetrical relationship of the cognition are true also.

The blending space is scoped in two semantic frames, one is knowledge of Mo ceremony, there are two possibilities in this ceremony, turn up the sword edge – wipe out the evils – get rice, or turn down the sword edge – cannot wipe out the evils – no rice to eat. Another semantic frame is a conventional metaphorical thinking, that is UP IS POSITIVE WHILE DOWN IS NEGATIVE.

Correspondently, the believing in this copper sword ceremony displays a same thinking as the conventional metaphor, having no rice to eat is negative so that it is down, having rice enough for whole life is positive which as the sword edge turning up. What's more, time is another directional linear. The negative utterance choose “last night” which refers to a past and darkness as behaving time, while the positive utterance selects “this morning” which indicates to a fresh, branch-new and shining start point as the ceremony holding time. Therefore, the conventional metaphor certainly strengthens and ensures the behaviors of priest or BouxMo more reasonable and convincing.

5.1.3 Structural Consistency affects variation selection

From the observation, it can be found that most unclassified variations distributed in lines which is asymmetric with the up lines and down lines. Otherwise, if a series parallel lines within a certain theme often applies same variations for function words. The consistency of is composed by three parts, including same theme, same literary expression and same variation shape.

The consistent variations help to extend, strengthen or complete the textual meaning. Besides, function words are used not because of grammatical request but also a demand from rhyme and fix character amount to each line.

As the assertion of Pan Qixun, the Mo scriptures are mostly composed into poems with five characters to a line, four or seven character to a line also can be found. Parallel construction is entirely employed (Pan Qixu, 2003: P.83), several lines often are used to express same meaning, such as:

| | |
|-------------------------------|-----------------------------------|
| <i>Bae cam Baeuq lug doz</i> | “Go to ask Buluto (male God)” |
| <i>Bae cam mo lug gyap</i> | “Go to ask Mulukyap (female God)” |
| <i>Baeuq lu doz caux hap</i> | “Buluto then say” |
| <i>Mo lug gyap caux naeuz</i> | “Mulukyap then tell” |

These four lines are connecting link between preceding and following of section. The first two lines are talking about Zhuang people go and ask help from God when they need which end the narrative of suffering, the last two lines guide to priming of two God. The example 5.4 is used in every case that Zhuang people asking help from the God. Instead of composing the 4 lines into one complete sentence, Mo books choose to compile it into four same literary structures in order to make text more poetic and rhythmical, the form is neatly by using parallelism method.

The following 12 lines are extracted from section 14 <吆抬衣筐> (<*Hold up bracket of master's clothes ceremony*>, total 66 lines, Bama) from the Chapter 3 <吆兵全卷> (<*Complete Version of Weeding Out Inauspicious Things Ceremony*>) of *Annotated Translation of Photomechanical Printing of Zhuang Mo Scripture Buluto* Volume 1. The organization is neat and parallel construction is widely used. In this selected section, except initial line was written in 4 characters, line 2-7 and final lines (line 55-66) are written in five characters, the others are organized neatly in a form of seven- five characters of each two lines.

| | | | | | | | |
|-----|--|-------------------|-------------------|------------------|-------------------|------------------|--------------------------------------|
| 1) | 楚 | 使 | 搯 | 塘 | 那 | 成 | 刘 lau ² what, which |
| | ɬu ¹ | ɬai ⁵ | jo ¹ | tam ² | na ² | pan ² | |
| | major | officer | support | pool | paddy field | link-verb | |
| 2) | 搯 | | 初 | 布 | 成 | 引 | 刘 lau ² what, which |
| | jo ¹ | | ɬu ³ | pu ¹ | pan ² | jin ⁴ | |
| | support | | master | clothes | Link-verb | This kind | |
| | (The God / Bouhruto) will support the master or patient like major officer supports pool and paddy field. | | | | | | |
| 3) | 船 | 茶 | 搯 | 盆 | 少 | 成 | 刘 lau ² what, which |
| | lu ¹ | ɕa ² | jo ¹ | pu ² | ɕa:u ⁴ | pan ² | |
| | boat | big | support | pot | jar | link-verb | |
| 4) | 搯 | | 初 | 布 | 成 | 引 | 刘 lau ² what, which |
| | jo ¹ | | ɬu ³ | pu ¹ | pan ² | jin ⁴ | |
| | support | | master | clothes | link-verb | this kind | |
| | (The God / Bouhruto) will support the master or patient as the big boat supports (small) pot and jar. | | | | | | |
| 5) | 甫 | 道 | 搯 | 丁 | 冠 | 成 | 刘 lau ² what, which |
| | pu ⁴ | ta:u ⁴ | jo ¹ | tin ¹ | ku ⁵ | pan ² | |
| | Cl. | priest | support | top | crown, hat | link-verb | |
| 6) | 搯 | | 初 | 布 | 成 | 引 | 刘 lau ² what, which |
| | jo ¹ | | ɬu ³ | pu ¹ | pan ² | jin ⁴ | |
| | support | | master | clothes | link-verb | this kind | |
| | (The God / Bouhruto) will support the master or patient as the priest supports crown on his head. | | | | | | |
| 7) | 老 | 傍 | 搯 | 天 | 地 | 成 | 刘 lau ² what, which |
| | la:u ⁴ | pu ² | jo ¹ | ti ¹ | ti ⁶ | pan ² | |
| | Elder | territory | support | sky | earth | link-verb | |
| 8) | 搯 | | 初 | 布 | 成 | 引 | 刘 lau ² what, which |
| | jo ¹ | | ɬu ³ | pu ¹ | pan ² | jin ⁴ | |
| | support | | master | clothes | link-verb | this kind | |
| | (The God / Bouhruto) will support the master or patient as the elder people supports their territory. | | | | | | |
| 9) | 四 | 收 | 輶 | 搯 | 輶 | 成 | 刘 lau ² what, which |
| | ɬi ⁵ | ɬau ¹ | lok ⁷ | jo ¹ | lok ⁷ | pan ² | |
| | four | pillar | water wheel | support | water wheel | link-verb | |
| 10) | 搯 | | 初 | 布 | 成 | 引 | 刘 lau ² what, which |
| | jo ¹ | | ɬu ³ | pu ¹ | pan ² | jin ⁴ | |
| | support | | master | clothes | link-verb | this kind | |
| | (The God / Bouhruto) will support the master or patient as the pillars support waterwheel. | | | | | | |
| 11) | 六 | 收 | 杓 | 搯 | 杓 | 成 | 刘 lau ² what, which |
| | lok ⁷ | ɬau ¹ | ʔi:u ⁴ | jo ¹ | ʔi:u ⁴ | pan ² | |
| | six | pillar | granary | support | granary | link-verb | |
| 12) | 搯 | | 初 | 布 | 成 | 引 | 刘 lau ² what, which |
| | jo ¹ | | ɬu ³ | pu ¹ | pan ² | jin ⁴ | |
| | support | | master | clothes | link-verb | this kind | |
| | (The God / Bouhruto) will support the master or patient as the pillars support the granary. | | | | | | |

Figure 5.3 Consistency of text structure and function words

The text content is written about last program of Weeding Out Inauspicious Things Ceremony, the BouxMo holds up a bracket filled with master or patient's clothes and walks back and forth when chanting for banishing disaster and

asking protection and supporting from God and keeping his family flourishing.

Table 5.2 Structural consistency

| Literary expression | Content | | Form | |
|--|---|------------------|-------------------------------|---|
| | Shared components | | | |
| | Source | Target | | |
| 1) 7-5 characters quantity pattern for each stanza | 1) | Clothes | Master | - |
| | 2) | holding up | Support | - |
| 2) repetition even lines | Un-shared components | | | |
| | 1) | Major officer | Supporter | 刘 |
| | Water pool and paddy field | Rice cultivating | | |
| 3) substitution metaphorical elements in odd lines | 2) | Big boat | Supporter | 刘 |
| | | Basin and pot | Daily life | |
| | 3) | Priest | Supporter | 刘 |
| | | Hat and crown | Social status | |
| | 4) | Elder people | Supporter | 刘 |
| | | Territory | Land | |
| | 5) | Four pillars | Supporter | 刘 |
| | | Waterwheel | Irrigation | |
| | 6) | Six pillars | Supporter | 刘 |
| | | Granary | Food | |
| Consistency of literary expression | Consistency of theme: asking for blessing— common desire of Zhuang people | | Consistency of character form | |

The example 5.5 provides a text that consistent in both literacy expression way and meaning that constraint the varying of Sawndip.

As listed in table 5.2, the literary consistency is embodied in three facets. Firstly, each two lines consist one stanza, the up line is compiled by 7 characters and the down line is compiled by 5 characters, this pattern is applied throughout 66 lines of section <吆抬衣筐> (<Hold up bracket of master's clothes ceremony>). Secondly, the

even line is completely repeated six times in order to compose sequences of conditional clauses. Thirdly, un-share metaphorical entities are substituted in the same sentential form, all the elements point to common desires of Zhuang people which leads to consistency of theme.

The metaphorical expression is concerned about praying ceremony, the consistency of content displayed in two parts.

The first part is components that shared by six stanzas, clothes is metonymically substituted for people who needs help from God, the holding up action is another shared component in this section which inferring support. The selected example is composed by 6 stanzas, the second lines are of each stanza are totally the same. The character 搯 /jo¹/ “*support*” in the middle of first line and beginning of second line are correspondent as arrow points in figure 5.3.

The second part is un-shared components are desires of Zhuang people that wish in the ceremony which display two consistent features. They are not only typically conformed with rice culture and water culture of Zhuang, but also exhibit Zhuang people’s survival and social desires. The next paragraphs will interpret the wishes Zhuang people in ceremony.

1) Water pool, paddy field in stanza 1 provides a rice planting frame. Logically, farmer is more matched with rice planting frame rather than major officer, however it is reasonable because 土司制 *Tusizhi* (a method of governing minority ethnic group of Han people by) had permeated into Zhuang’s society greatly, the rice planting was not only individual but also social productive active.

2) Waterwheel in stanza 5 is most common seen irrigation tool of Zhuang, four pillars support waterwheel reflects to well-operated irrigation which is metonymically implicated to successful cultivating. It defers to Zhuang people attach importance to rice planting.

3) Big boat in stanza 2 is associated with water and flood, basin and pot are related to daily life. The big boat support basin and pot form image schema that Zhuang people live on a boat floating on water that is associated with seeking a livelihood on water or escaping from flood.

3) Hat and crown on one's head infers to high social status, priest supports one's hat and crown infers honored people helps the person who is eager to change social status.

4) Elder people are respected as grandfather who is powerful and reliant to management family and even village (Liang Tingwang, 2004: P337). "Elder people supports territory" composes an image schema of social management model of Zhuang. The metaphor oblique references to desire that Zhuang people needs protection from like grandfather hood.

6) Granary is metonymically inferred to rice, "six pillars support the granary" implicates to a steady life with enough food.

Since text found in BM, there are 14 options 黎 嚟 黎 利 勒 勒 吕 吕 护 累 雷 立 力 刘 can be chosen for function word *which, what, interrogative pronoun*, but 刘 was used uninterruptedly in the selected section in Mo books, which helps to compose the structural consistency.

Therefore, the consistency of literature form and meaning certainly restricts variation's usage and selection. At the same time, the consistency of variations also effects meaning conversely.

"If the content expressed by the figured repetition conveys some meaning which "fits" with figure, then the link between form and meaning is felt stronger and becomes self-evident" (Hiraga, 2004). Desires from master or patient is listed frequently in a certain pace by using parallelism as literary form. The unified function words links the elements as a linear, large parallel events make people feel that the master or patient's wish will come true, the same variation is like an emotion collector, more accumulated more strong feeling.

Ishikawa had claimed that iconicity brings intensity to meaning (Ishikawa, 1991: P558). The above text has presented that one intention is repeated 7 times in different perspective, 刘 here exposures the aim's recurrence, the desire is strengthened.

Furthermore, the above example had examined and ensured that in a section of parallel utterance the consistent character make the meaning of a certain

section's meaning can be sketched easier and more systematically, because the context frame will be scoped smaller in a certain context.

The section 4.2 illustrates that Mo scripture content is another factor affecting variation selection, a series of semantic continue content much possibly apply same function word variation, Mo scripture recorder BouxMo were certainly impacted by the content.

5.2 Unclassified variations

The writer of Mo books is one part of the carriers of Zhuang characters, except geographical distribution, BouxMo's usage is another important reason of Zhuang characters varying. Excluding individual reasons, some regulars in selecting variation can be found, but all these rules are available only in certain scopes.

Zhuang old character variation is simply an issue of location, but critically related to history, society, property of character itself and individual reasons. Among those causing factors, social factors are propulsive force, property of writing system is internal reason as well as individual reason is the most active factor in drifting generation and development of Zhuang character variation.

5.2.1 Reasons of un-standardization

Un-standardization is the basic and main factor in causing unclassified variations. There are several major reasons for giving rise to development that without standardizing Zhuang's Sawndip.

Naturally, any system is changeable without constrain of standard during its development. Zhuang old character grew out base on emitted folk activity rather than official regulating. The scattered and multi-original system has been varied without standardization.

Historically, Zhuang language had been constrained by Chinese language from ancient to resent times as well as Zhuang writing system. Chinese language and wiring system was raised as official language in 岭南 *Lingnan* area (Area of Guangdong and Guangxi Province as well as part of Jiangxi and Hunan province) after First Emperor of Qin carried out single written language policy and educated Zhuang

people by Chinese, since that Chinese had been ingrained in Zhuang society (Qin Xiaohang, 2010).

Socially, Zhuang language had much lower status than Chinese in both economic and social identity. Zhuang old character had been debased from beginning when it generated, people often called it “sound from birds and animals” (Liang Tingwang, 2007), Zhuang old character was considered as a writing system that unqualified to take its place in the higher circles, people cannot gain high position by learning Zhuang old character, therefore the development motivation is negligible. Besides, as a minority language, Zhuang was invisible for policy makers, the government had never promoted growth of Zhuang writing system but spread Chinese culture in minority nationality regions instead which squeezed living space of Zhuang old characters.

In perspective of Mo books social function, Mo books are used for ceremonies. Mo beliefs is widespread in Zhuang society, once there is a big ceremony the priest BouxMo would chant to ask help from God (Huang Guiqiu, 2005, 2009). BouxMo is the only writer, user, owner and heritage of Mo books, the broadcasting and popularizing functions are quite weak and even negligible. Besides, during the ceremony, Mo scriptures are used as performance tools rather than a reading book (David Holm, Lecture in Minzu University of China, in 9 to 12 December, 2011), the characters written in Mo books are almost depended on BouxMo, it had an effect on reminding that leads to the preciseness was weakened down.

Technically, printing technology was not applied into copying Mo books, all of the found Mo books are written by hand, which had increased the likelihood in making varied characters.

5.2.2 Complexity caused by un-standardization

Zhuang old character is an superposed system rather than single system, in which traditional Chinese character system and simplified system co-exist, such as 騰 and 騰 are used for indicating function word “arrive”, 一 and 壹 are used to refer “also” phonetically. Besides it is visually perceived that some pictograms are not similar to Chinese style, such as 𠄎 in table 2.3, the circle belongs to drawing or a much elder writing system of Zhuang rather than Chinese style strokes.

Zhuang old character is different to write, to read and remember (Qin Xiaohang, 2007). As noted in section 2.2, Zhuang character has more strokes since most of them are composed by two complete Chinese characters. The characters are not related to phonology directly, according to statistics of Qin Xiaohang (2010) 42% of Zhuang old character are phonetic borrowed from Chinese in order to transcribe Zhuang pronunciation, due to Zhuang and Chinese have different phonology systems, the transcription is not perfect efficacious. Furthermore, Zhuang old character system is huge, except 10,700 characters collected in Sawndip Sawdenj, there are many more in folk documents, thus it is very difficult to remember them precisely in case without detail regularities.

5.2.3 Personal Reasons

As asserted of Qin Xiaohang in 2010, the different education levels of Zhuang people who created character would cause variations. People who educated highly were tended to use complex Chinese character, such as 邏 喇 for *below*, compare to 下 they are much more difficult.

As noted in section 2.2, except unspecified cases, the education level of BouxMo who owned Mo books is general low. The Mo scripture are collected from 22 BouxMos in which 5 were not specified education levels, the rest 13 were graduated from primary school and rest 4 were graduated from junior school. Most of them were occupied as farmers, once there is a ceremony they would be invited to hold ceremony and chant scripture.

The low education BouxMo was more likely to create new variations when a miss copying happened, such as: 廷 and 廷 which are two variations for *daengz* /*thaengz*, /*taŋ*²/ or /*t^haj*²/, “to, until” is almost the same except extended | (see section 4.1), 免 is considered as one variations of *du* /*du*¹/ “we, us, 1st plural pronoun” which is created by dropping 丶 of 免 pronounced likely to Zhuang word in Southwest Mandarin (see section 4.1).

Except education limitation, the randomness in selection of BouxMo is another important reason in causing various characters in Mo books, such as:

| | | | | |
|-----------------|-----------------|-----------------|------------------|-------------------|
| 合 | 他 | 尽 | 本 | 门 |
| ho ² | te ¹ | ci ⁶ | pan ² | muɯt ⁷ |
| throat | he | then | linking verb | worm |

Then his throat will be rotten.

| | | | | |
|-----------------|-------------------|-----------------|------------------|------------------|
| 吓 | 残 | 之 | 本 | 哄 |
| la ³ | ca:n ² | ci ⁶ | pan ² | ʔuŋ ¹ |
| below | flat roof | then | linking verb | mud water |

Then the flat roof will become mud water.

(Extracted from Zhang Shengzhen, 2004: P.1574)

The above two connected lines are extracted from one text 麽送 , /mo¹, θoŋ⁵, fa:ŋ²/ of Qin Jiaoxing in Donglan county. The function word “then” is represented by two different variations 尽 and 之 surrounded in the circle.

From the above case, the variation selection is random and not restricted by region or other reasons, the conditions of occurrence of them is unpredictable. Furthermore, the randomness exists in other texts, regions and function words also.

The unclassified variations are often self-created because most of them are created by wrong writing of Chinese intentionally or without purpose. Although there are many self-created character, they are small in quantity. Take *gaeuq/gaeu, oneself, pronoun, personal, reflexive* for example (see section 4.1), there are 4 self-created characters 𠵱, 𠵲, 𠵳, 𠵴 among total amount, however the frequency of using are quite low than Chinese character. The occurrence times of 𠵱 in Donglan county is only 3.03% of sum, 𠵲 in Bama appears 3.57% of total times, 𠵳 in Tianyang is 7.14% and in Baise is 14.29%, 𠵴 in Donglan is 11.11%.

It should be concluded that the completely Chinese loaned characters are main body of Zhuang traditional writing system.

CHAPTER VI

CONCLUSIONS AND DISCUSSIONS

This chapter will elaborate in 3 sections: 6.1 is aimed to sum up the main findings of this study in order to make conclusions, 6.2 will discuss the contributions to Zhuang traditional writing system and Mo books study, finally 6.3 will give some suggestions for further research.

6.1 Main conclusions

There are three main findings could be summed up in this study. 1) The variations in Mo texts and *Sawndip Sawdenj* are not completely overlapped. 2) The distribution of Zhuang variations displays geographic patterns in both series level and representative level. 3) The textual meaning and use may affect variation selection.

6.1.1 Different variations between *Sawndip Sawdenj* and Mo books

From section 4.1, it can be concluded that the variations in dictionary are partially used in Mo books instead of whole set. Zhuang variations that discovered in Mo books are not completely coincided with *Sawndip Sawdenj*. The variations discovered in Mo texts are totally 448 characters, among which only 99 variations are included in *Sawndip Sawdenj* that is a quite small proportion comparing to 349 excluded variations.

Associating to section 2.4.1, *Sawndip Sawdenj* is a great piece of work in Zhuang study field, however conclusion of in section 6.1.1 figures out that many old characters are not record in this reference book, especially locale words. *Sawndip Sawdenj* is established based on vocabulary of many Zhuang ethnic literatures, except Mo books, mythical story *BouxBoh* and heroic epic *Vueng Moyi* are two important character resources of *Sawndip Sawdenj*'s (Su Yongqin, al. 1989) compilation.

Therefore, many variations that found in Mo books are absent while some involved characters had not been applied in Mo books.

Otherwise, the variations are listed without geographic information. The conclusion of section 6.1.2 provides explanation that the variations are restricted by geography conditions. That means researchers or learners can make judgment for Zhuang language or characters and helps to bring structured clarity into analysis.

6.1.2 Geographic distribution of Zhuang function word variation

The geographic distribution is interpreted according to thinking in terms of dialect boundary and continuum (Chamber & Trugill, 2004) and Zhuang old character mapping (Holm, 2013). Holm's (2011) works had improved Zhuang old character display regional patterns, the *Mapping the Old Zhuang Character Script* (2013) presented statements that the geographic mapping of Zhuang variation was affected by local Chinese dialect phonetic features and local Zhuang dialect phonology at the time Zhuang old character formed.

This study is inspired by Holm's work and has employed some different materials and method during research.

On perspective of survey location, compare to Holm's large area covering west-central of Guangxi province (Tianzhou), Donglan – north – northwest of Guangxi, central of Guangxi, east-central Guangxi, north-central of Guangxi, Guizhou, eastern of Yunnan, southwest of Guangxi, northern of Vietnam where are all Tai-kadai language areas, this study is limited in a small region which covers only 8 county in northwest of Guangxi and eastern of Yunnan province.

On perspective of material and research method, Holm's work is based on texts with the help of face-to-face interviews in order to catch precise pronunciation of characters which paid more attention to. Reconstruction is used to find similarities between Tai-kadai languages and Chinese dialects speak in survey areas. The present study is document based, all the data are from literature record. Simple Southwest Mandarin language pronunciations are given.

Dialectological maps and historical phonology comparisons of Tai-kadai languages are highlighted in Holm's work. Otherwise, this work is tended to use

percentages in order to provide believable evidences drawing variation geographic distribution.

On perspective of involving language, holm's work has been related to Zhuang language, Bouyai language (in Guizhou) and Nong language (in Vietnam and written in Chunom). This study is concerned Zhuang language only which are belong to Guibei vernacular (Donglan, Bama, Dahua), Youjiang vernacular (Tianyang, Tiandong, Baise), Dejing vernacular (Napo) and Wenma vernacular (Xichou).

On perspective of conclusion, due to the geographic factor analysis is taken in two different levels, the results display two kinds of geographic distribution of characters. The analysis at level of variation series comes to result that variations display geographic continuum: Baise is centre of radiation, in the west direction correlation decreases from Napo county to Xichou county, in the east direction correlation decreases from Tiandong county to Tianyang County, then followed by Bama where it area that connect Youjiang River valley and Hongshuihe River basin area, finally followed by Donglan and Dahua county. Geographically, although Tianyang is much closer to Baise, Tianyang is affected by Bama greatly that makes the variations varied from Baise rather than Tiandong.

Donglan and Dahua display a vertical linkage at east pole of survey places, because they connect to each other more than other places.

The representative level analysis comes to result that variations distribution can be divided into 4 boundaries, including: (1) Yunnan Province: xichou county; (2) Most West County of Guangxi Province: Napo county; (3) Youjiang River Valley: Baise-Tianyang-Tiandong-Bama area; (4) Hongshuihe River Basin: Donglan-Dahua.

Distance is the most important factor in causing variation's divergence. Xichou is only place located outside of Guangxi province that is farthest from Baise. In the same way, Napo is the second area. Since Xichou and Napo are not connected strong enough, therefore they are two dependent centres of variation.

River is secondary factor in causing Zhuang character varying. Youjiang River and Hongshuihe River play roles of dividing areas into two boundaries. Baise, Tianyang, Tiandong and Bama are drawn in boundary of Youjiang River area, they have strong connection inside rather than other places. Donglan and Dahua are

divided into Hongshuihe River basin area. Bama is a connection point between Youjiang River valley and Hongshuihe River basin, it connects with Tianyang, Baise (Youjiang River) and Donglan (Hongshuihe River) in high ratio at the same time.

Holm's work provides dialectology theoretical basis and approach guidance. Due to different survey areas, research methods and perspectives, this study comes to conclusion which is not perfectly matched with Holm's. Firstly, Holm's conclusion is emphasized on drawing boundaries more than continuum. According to conclusion in section 6.1.2, this study has made division of work by interpreting continuum at level series and boundaries at level of representative.

This study applies dialectology approaches to study Zhuang character variations geographic distribution, there are two concept of dialectology are allowed to be used here. One is concept of continuum which is used to analysis the coherence between survey places at level of variation overview, another concept is boundary which is applied for scoping the boundaries of variation distribution.

The conclusion raises geographic distribution as a factor that causing variation, and approves the dialectology concepts or method is applicable for Zhuang character study as dialects do. Base on the contribution, this study investigates a new area for Zhuang character study, and broadens methodology at the same time.

6.1.3 Meaning affects variation

The analysis of interplay between variation and using is developed in terms of contexts and iconicity projection (Hiraga, 2004). Meaning affects variation in two ways, special text meaning select special variation, another one is consistent text selects consistent variation.

Firstly, variations caused by meaning and used are few in this research, but there are some individual cases exist. Certain content will accompany with a certain variation. Such as, Among 26 variations of *cih*, /ci⁶/ "then, thus, however" 𠵹 𠵹 𠵹 𠵹 𠵹 that found in Donglan are mostly used in a certain context.

The example text in the next page from is concerned about young people runs counter to mores that leads to their parents and grandfather's death. 𠵹 as well as other memberships in series W are used in this context of "becoming old, die" or

some bad situations, it is seldom applied in other cases, instead of which, 亡之十尽 治是前只了恩支珠志全習請轉全土千係 are used in other contexts.

| | | | | | |
|-------------------|------------------|-----------------|-----------------|-----------------|------------------|
| 芒 | 名 | 普 | 乜 | 奧 | 亡 |
| ma:ŋ ⁴ | muŋ ² | po ⁶ | me ⁶ | ci ⁶ | vaŋ ² |
| no wonder | you | father | mother | then | die |

“No wonder your parents die”

| | | | | |
|-------------------|-----------------|------------------|-----------------|-------------------|
| 芒 | 土 | 公 | 奧 | 老 |
| ma:ŋ ⁴ | tu ¹ | kuŋ ⁵ | ci ⁶ | la:u ⁴ |
| no wonder | classifier | grandfather | then | old, die |

“No wonder the grandfather die”

(Extract from the 5th volume of Mo Book)

Similar to Hiraga's (2005) work at part of comparing Kanji with Hiragana and Katakana in Japanese writing system which comes to the conclusion that the logographs provide more poeticity than alphabet writing, the logographs of function words present much closer connection with meaning, such as 冇 “not”, 志 “on, up”, 忒 “below, under”.

Secondly, structural consistency would be more likely to use one variation to makes the whole text harmonious. Iconicity is a principle in selecting variations, it often works at structural level. The projection manifests in two steps, step one is the literary parallelism and consistent meaning somehow affects *BouhMo* in selecting same variation in sequent expression, step two is process that the repetition of function word variation works as part of form bringing intensity to the whole text such as 刘 “what, which”.

6.2 Discussion

This section will be organized in two parts: 6.3.1 will discuss the limitation of this study causing by research materials; 6.3.2 is concerned about applicability of iconicity principle.

6.2.1 Limitation of this study

The first limitation of this study is mentioned in section 3.2 that the analysis is scoped at found characters. For reason that 28 function words are analytical object, the conclusion might be more applicable for function words rather than any other part of speech, especially the impact of iconicity principle is more suitable in doing content word researches which will be explained in detail in section 6.3.2.

Beside, table 3.3 provides a text length of each survey location which are quite un-balance, Baise, Tianyang, Donglan and Bama are four locations which are rich of Mo books, on the other hand, Xichou, Dahua, Napo and Tiandong have less Mo texts especially Tiandong. Usually, the word frequency is related to length. The large difference of text length might bring un-balance to analytical parameter. Though percentage helps to decrease inclination of data, but it cannot be denied that there is an opportunity to change conclusion if more texts are found in Tiandong, Xichou, Dahua and Napo.

6.2.2 Applicability of iconicity

This study explores iconicity principle as a new approach in doing research of Zhuang old character variations, the practicability is examined by several cases in last chapter. As the analytical object, textual iconic property can be traced by accidental cases.

Function word denotes to nothing in the real world as content word does. Kai Von Fintel's (1995: p.175-189) opinion has supplemented the property correlation between content word and function word. Between pure functional morpheme and pure content morpheme there is a transitional form which can be explained by examples in the following table:

Table 6.1 Category of lexical/functional morpheme

| | Lexical morpheme | Functional morpheme |
|---------------------|----------------------|----------------------|
| Non-logical meaning | horse, run, purple | *** |
| Logical meaning | mere, deny, majority | all, not, most, must |

The above table has been drawn for dividing intermediate category between lexical and functional morpheme. Obtaining logical meaning is an important property of function words. The Logical meaning class contains *mere*, *deny*, *majority* which are lexical morphemes sharing same property with functional morpheme. Fintel's conclude the above table that there is quite

Finally Fintel made outcome of functional morpheme involving: functional meaning is permutation – invariant; they have high types; there are universal semantic constraints on possible functional meaning; there is only a limited inventory of possible functional meaning; there is quite possibly an intermediate kind of morpheme with logical meaning and lexical syntax (Fintel, 1995: p.183).

Grammaticalization is another concept of supporting intermediate form. It is a procedure of decreasing content meaning, it is a way of enriching the inventory of overtly express functional meaning (Fintel, 1995: p.184).

In this study, the interpreted example such as concept of “*not*” is function word which is positioned in the transitional section as well as “*up, on*” and “*below*” (see section 5.1.2). The iconicity projection manifests based on remained content meaning inside those function words rather logical meaning, or the mapping happens when function words are repeated in the macro structure, the iconicity principle plays role by relaying repetition action instead of the character itself.

The iconicity principle is closely related to semantic. The metaphoric analog can be established by two necessary components, one is form and the other one is meaning denoting to the real world. More content meaning, there might be more opportunity of evoking. From this perspective, iconicity principle is more applicable for content word study.

The above interpretation is not aimed to say that iconicity principle is not good alternative, but to tell us that how iconicity is more correctly used for Zhuang old character study.

Firstly, iconicity should be used in content word study because of their natural property. It is should be declared that this study is aimed to find out the factors causing or impacting Zhuang's variation. There is a big problem during doing research that is the permutation – invariant and high types (Fintel, 1995: p.183) of function words bring convenience to geographic analysis in 4th chapter but it contrastively

gives rise to difficulties in meaning and use analysis since the materials do not perfectly support framework and conclusion at this part. The 4th and 5th chapters are not equal in both length and reliability because the study chooses function words as materials therefore the geographic variation is more convincing.

Secondly, it is better to apply iconicity principle in one text and in one location, not only the geographic factor and personal reasons will be excluded for consideration, but the context consistency can be ensured which will lead to a more precise iconicity analysis.

6.3 Suggestions for further study

Base on the finding of this study, there are several suggestions of relevant areas can be given as follows:

(1) More explorations are demanded of factors causing Zhuang old character variations, such as dialect phonetic, migration, social economics and development, etc.

(2) The later coming works might investigate more parts of speech of Zhuang language. Other classification of research lexicons are also admitted, such as perspective of usage frequency common – non common, perspective of semantic field, plants, animal, kinship term etc..

(3) Other approaches in terms of dialectology are expected in analysis Zhuang character's distribution, such as computational distance measuring, isogloss, etc.

(4) New methodologies are necessary for Zhuang study in order to expanse research thinking and enlarge perspective.

(5) Zhuang Mo scripture as the national epic of Zhuang nationality, it is rich, poetical and typical in content, structure and thinking. Since the metaphor manifests under cultural conditions, therefore the metaphor analysis is needed to be carried out and be related to Zhuang culture.

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EXAMPLES IN MO BOOKS

Photocopying of Handle written version

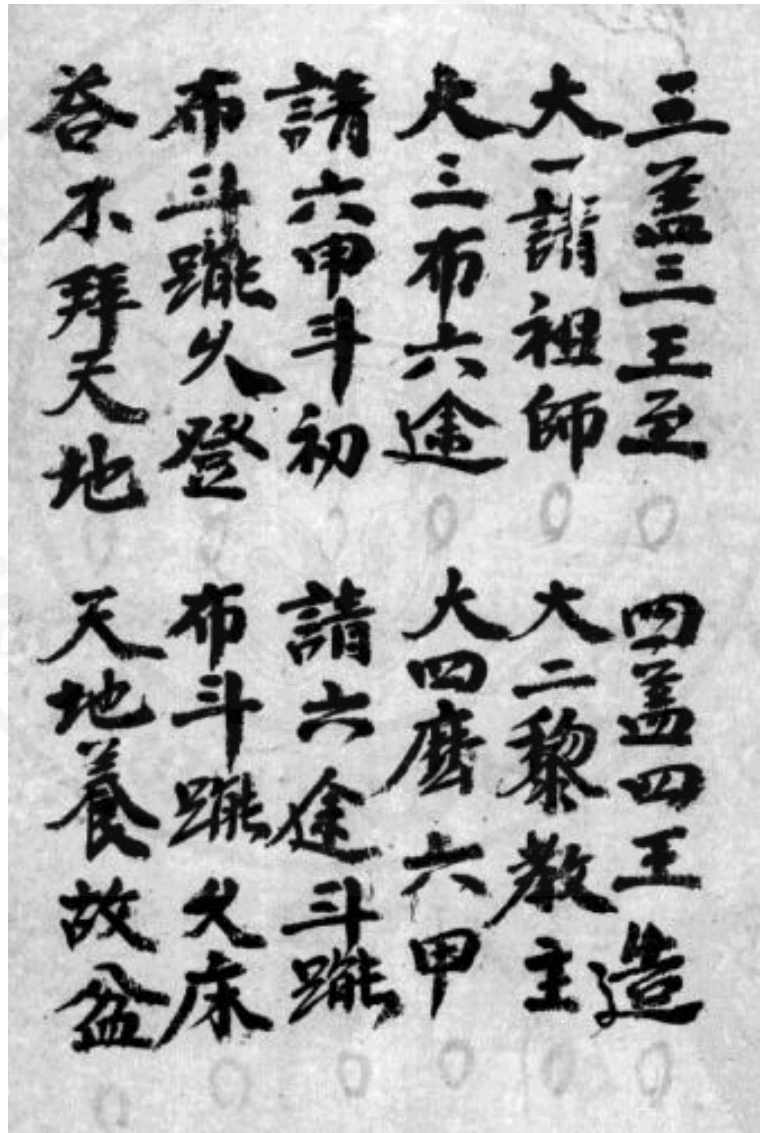


Figure 6.1 Example of photocopying part of Mo books (1)

Extracted from Part two of Volume 3, 麼使重郎甲科, /mo1,ei5, euŋ2, la:ŋ6, tea4, ko6/, *chanting for rainbow and orphan*, Pofu Tuen, Nengdai Village, Yufeng Town, Tianyang County, Guangxi Province (Zhang Shengzhen: 2004: P.759).

The hand writing version should be read from up to down and left to right.

Annotated Version

| | | | | | |
|----|-------------------|-------------------|-------------------|--------------------|--------------------|
| 1) | 三 | 盖 | 三 | 王 | 至 |
| | Sam | gaiq | sam | vueng | ciq |
| | ɬa:m ¹ | ka:i ⁵ | ɬa:m ¹ | vuəŋ ² | ɕi ⁵ |
| | 三 | 界 | 三 | 王 | 安置 |
| 2) | 四 | 盖 | 四 | 王 | 造 |
| | siq | gaiq | siq | vueng | caux |
| | ɬi ⁵ | ka:i ⁵ | ɬi ⁵ | vuəŋ ² | ɕa:u ⁴ |
| | 四 | 界 | 四 | 王 | 创造 |
| 3) | 大 | 一 | 请 | 祖 | 师 |
| | daih | it | cingj | coj | sae |
| | ta:i ⁶ | it ⁷ | ɕiŋ ³ | ɕo ³ | ɬai ¹ |
| | 第 | 一 | 请 | 祖 | 师 |
| 4) | 大 | 二 | 黎 | 教 | 主 |
| | daih | ngih | laez | gyaeuq | cwj |
| | ta:i ⁶ | ŋi ⁶ | lai ² | tɕa:u ⁵ | ɕu ³ |
| | 第 | 二 | 喊 | 教 | 主 |
| 5) | 大 | 三 | 布 | 六 | 途 |
| | daih | Sam | baeuq | lug | doz |
| | ta:i ⁶ | ɬa:m ¹ | pau ⁵ | luk ⁸ | to ² |
| | 第 | 三 | 布 | 洛 | 陀 |
| 6) | 大 | 四 | 麽 | 六 | 甲 |
| | daih | siq | mo | lug | gyap |
| | ta:i ⁶ | ɬi ⁵ | mo ¹ | luk ⁸ | tɕa:p ⁷ |
| | 第 | 四 | 麽 | 淥 | 甲 |

Annotated Version

| | | | | | |
|-----|-------------------|------------------|--------------------|-------------------|-------------------|
| 7) | 請 | 六 | 甲 | 斗 | 初 |
| | cingj | lug | gyap | daeuj | coh |
| | ciŋ ³ | luk ⁸ | tɕa:p ⁷ | tau ³ | ɕo ⁶ |
| | 請 | 禄 | 甲 | 来 | 光临 |
| 8) | 請 | 六 | 途 | 斗 | 蹴 |
| | Cingj | lug | doz | daeuj | naengh |
| | ciŋ ³ | luk ⁸ | to ² | tau ³ | naŋ ⁶ |
| | 請 | 洛 | 陀 | 来 | 坐 |
| 9) | 布 | 斗 | 蹴 | 以 | 登 |
| | Baeuq | daeuj | naengh | gyaeuj | daengq |
| | pau ⁵ | tau ³ | naŋ ⁶ | tɕau ³ | taŋ ⁵ |
| | 祖公 | 来 | 坐 | 首 | 席 |
| 10) | 布 | 斗 | 蹴 | 以 | 床 |
| | Baeuq | daeuj | naengh | gyaeuj | congz |
| | pau ⁵ | tau ³ | naŋ ⁶ | tɕau ³ | ɕo:ŋ ² |
| | 祖公 | 来 | 坐 | 首 | 桌 |
| 11) | 苔 | 不 | 拜 | 天 | 地 |
| | Dat | mbaeux | baiq | dien | dih |
| | ta:t ⁷ | bau ⁴ | pa:i ⁵ | tiən ¹ | ti ⁶ |
| | 若 | 不 | 拜 | 天 | 地 |
| 12) | 天 | 地 | 養 | 故 | 盆 |
| | dien | dih | ciengx | gu | baenz |
| | tiən ¹ | ti ⁶ | ciəŋ ² | ku ¹ | pan ² |
| | 天 | 地 | 养 | 我 | 成人 |

Extracted from Part one of Volume 3, 麽使重郎甲科, /mo1,ei5, ɕuŋ2, la:ŋ6, tea4, ko6/, *chanting for rainbow and orphan*, Pofu Tuen, Nengdai Village, Yufeng Town, Tianyang County, Guangxi Province (Zhang Shengzhen: 2004: P.790).

Translated Version

- 1) 三 盖 三 王 至
 ʃa:m¹ ka:i⁵ ʃa:m¹ vuəŋ² ɕi⁵
 three world three Kings arrange
 Three realms were arranged by three Kings.
- 2) 四 盖 四 王 造
 ʃi⁵ ka:i⁵ ʃi⁵ vuəŋ² ɕa:u⁴
 four world four King create
 Four realms were created by four Kings.
- 3) 大 一 请 祖 师
 ta:i⁶ it⁷ ɕiŋ³ ɕo³ ʃai¹
 Firstly invite patriarch
 Firstly (we) should invite patriarch.
- 4) 大 二 黎 教 主
 ta:i⁶ ŋi⁶ lai² tɕa:u⁵ ɕu³
 Secondly call leader
 Secondly (we) should call leader.
- 5) 大 三 布 六 途
 ta:i⁶ ʃa:m¹ pau⁵ luk⁸ to²
 thirdly Baeuqlugdoz
 Thirdly (we should invite) Baeuqlugdoz.
- 6) 大 四 麽 六 甲
 ta:i⁶ ʃi⁵ mo¹ luk⁸ tɕa:p⁷
 Fourthly Moluggypap
 Fourthly (we should invite) Moluggypap.

Translated Version (cont.)

- 7) 請 六 甲 斗 初
 ɕiŋ³ luk⁸ tɕa:p⁷ tau³ ɕo⁶
 invite Moluggyap come visit
 Invite Moluggyap come and visit (us).
- 8) 請 六 途 斗 蹴
 ɕiŋ³ luk⁸ to² tau³ naŋ⁶
 invite Baeuqlugdoz come sit
 Invite Baeuqlugdoz come and sit (with us).
- 9) 布 斗 蹴 以 登
 pau⁵ tau³ naŋ⁶ tɕau³ taŋ⁵
 Baeuqlugdoz come sit head seat
 Baeuqlugdoz comes to sit at the first seat.
- 10) 布 斗 蹴 以 床
 pau⁵ tau³ naŋ⁶ tɕau³ ɕo:ŋ²
 Baeuqlugdoz come sit head desk
 Baeuqlugdoz comes to sit at the first desk.
- 11) 苔 不 拜 天 地
 ta:t⁷ bau⁴ pa:i⁵ tiən¹ ti⁶
 if not worship sky earth
 If do not worship the sky and earth
- 12) 天 地 養 故 盆
 tiən¹ ti⁶ ɕiəŋ² ku¹ pan²
 sky earth feed I linking verb
 The sky and earth will not feed me until grown up.

EXAMPLES IN MO BOOKS

Photocopying of Handle written version

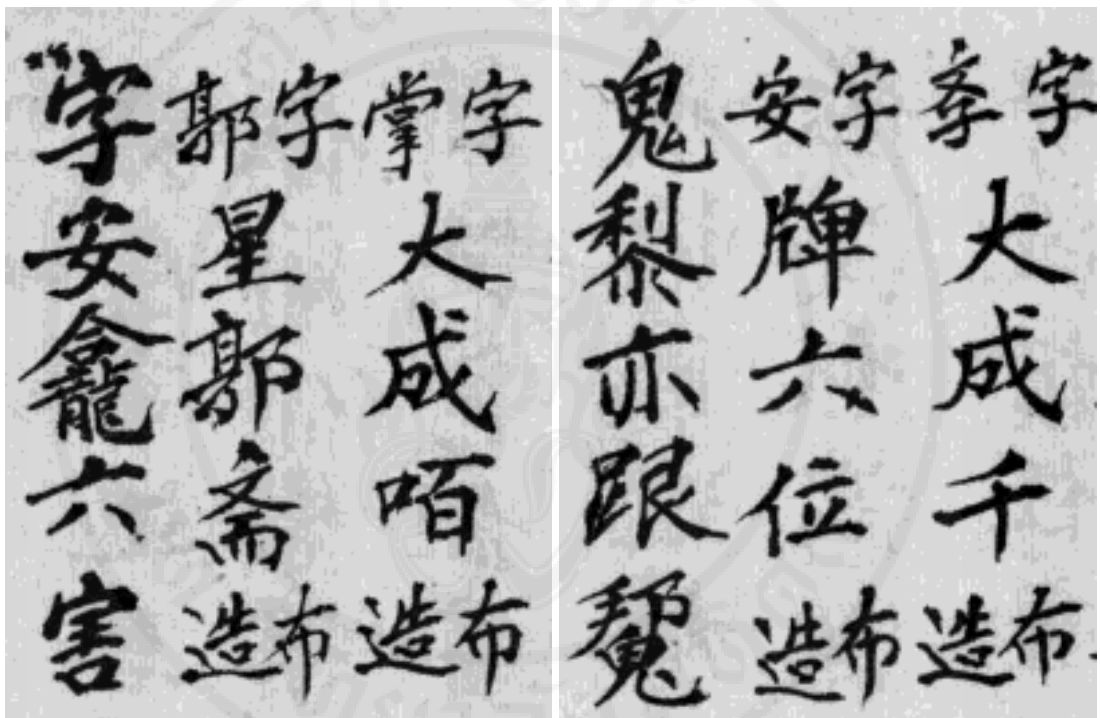


Figure 6.2 Example of photocopying part of Mo books (2)

Extracted from part two of volume 4 本麼叭, /po:n³, mo¹, tɕa:t⁷/, a book of Mogyat, version is formed around middle to end of 19th century, discovered in Nafu Tuen, Nafu Village, Bailan Town, Baise Area, Guangxi Province (Zhang Shengzhen: 2004: P.1065)

Annotated Version

| | | | | | | | |
|----|------------------|-------------------|-------------------|-------------------|-------------------|------------------|-------------------|
| 1) | 字 | 掌 | 大 | 成 | 啗 | 布 | 造 |
| | Sw | cieng | daih | cingz | bak | baeuq | caux |
| | ɬu ¹ | ɕiəŋ ¹ | ta:i ⁶ | ɕiŋ ² | pa:k ⁷ | pau ⁵ | ca:u ⁴ |
| | 书 | 匠 | 大 | 呈文 | (是)嘴 | 祖公 | 造 |
| 2) | 字 | 亨 | 大 | 成 | 千 | 布 | 造 |
| | Sw | hak | daih | cingz | cih | baeuq | caux |
| | ɬu ¹ | ha:k ⁷ | ta:i ⁶ | ɕiŋ ² | ɕi ⁶ | pau ⁵ | ca:u ⁴ |
| | 书 | 官 | 大 | 呈文 | 是 | 祖公 | 造 |
| 3) | 字 | 郭 | 星 | 郭 | 斋 | 布 | 造 |
| | Sw | gueg | seng | gueg | cai | baeuq | caux |
| | ɬu ¹ | kuək ⁸ | ɬe:ŋ ¹ | kuək ⁸ | ɕa:i ¹ | pau ⁵ | ca:u ⁴ |
| | 书 | 做 | 春 | 做 | 斋蘸 | 祖公 | 造 |
| 4) | 字 | 安 | 牌 | 六 | 位 | 布 | 造 |
| | Sw | an | baiz | loeg | vih | baeuq | caux |
| | ɬu ¹ | an ¹ | pa:i ² | lok ⁸ | vi ⁶ | pau ⁵ | ca:u ⁴ |
| | 书 | 安 | 牌 | 六 | 位 | (是)祖公 | 造 |
| 5) | 字 | 安 | 龕 | 六 | 害 | | |
| | Sw | an | ham | loeg | haih | | |
| | ɬu ¹ | an ¹ | ha:m ¹ | lok ⁸ | ha:i ⁶ | | |
| | 书 | 安 | 神龕 | 六 | 害 | | |
| 6) | 鬼 | 梨 | 亦 | 跟 | 覓 | | |
| | Gvij | laez | yaek | gwn | bang | | |
| | kvi ³ | lai ² | jak ⁷ | kun ¹ | pa:ŋ ¹ | | |
| | 鬼 | 哪个 | 要 | 吃 | 祭祀 | | |

- 8) 防 黎 亦 跟 甫
 Fangz laez yaek gwn buq
 fa:ŋ² lai² jak⁷ kwn¹ pu⁵
 鬼 哪个 要 吃 祭供
- 9) 字 掌 大 成 咭 布 造
 ʔu¹ ɕiəŋ¹ ta:i⁶ ɕiŋ² pa:k⁷ pau⁵ ca:u⁴
 Letter artisan big petition mouth Baeuqlugdoz create
 The big artisan taking charge of petition was created by Baeuqlugdoz's order.
- 10) 字 亨 大 成 千 布 造
 ʔu¹ ha:k⁷ ta:i⁶ ɕiŋ² ɕi⁶ pau⁵ ca:u⁴
 Letter officer big petition linking verb Baeuqlugdoz create
 The official calendar was created by Baeuqlugdoz's order.
- 11) 字 郭 星 郭 斋 布 造
 ʔu¹ kuək⁸ ʔe:ŋ¹ kuək⁸ ɕa:i¹ pau⁵ ca:u⁴
 Letter do spring do ceremony Baeuqlugdoz create
 Baeuqlugdoz decreed created the spring countering illness ceremony.
- 12) 字 安 牌 六 位 布 造
 ʔu¹ an¹ pa:i² lok⁸ vi⁶ pau⁵ ca:u⁴
 letter arrange memorial six Cl. Baeuqlugdoz create
 table
 Baeuqlugdoz decreed to set six memorial tablets of God and ancestor (to worship).
- 13) 字 安 龕 六 害
 ʔu¹ an¹ ha:m¹ lok⁸ ha:i⁶
 letter arrange shrines six bad times
 (Baeuqlugdoz decreed) six bad times to set shrines.
- 14) 鬼 梨 亦 跟 覓
 kvi³ lai² jak⁷ kwn¹ pa:ŋ¹
 ghost which want eat oblation
 Which ghost wants to eat oblation?

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