

AN INVESTIGATION OF VARIOUS LINGUISTIC CHANGES  
IN  
CHINESE AND NAXI

by  
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A DISSERTATION

Presented to the Department of Linguistics  
and the Graduate School of the University of Oregon  
in partial fulfillment of the requirements  
for the degree of  
Doctor of Philosophy

September 2012

DISSERTATION APPROVAL PAGE

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Title: An Investigation of Various Linguistic Changes in Chinese and Naxi

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## DISSERTATION ABSTRACT

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September 2012

Title: An Investigation of Various Linguistic Changes in Chinese and Naxi

This dissertation investigates the diachronic development of Chinese and Naxi, focusing particularly upon six linguistic puzzles that are likely to be associated with the various linguistic changes in most areas of the grammar, including sound/phonological changes, semantic/meaning changes, syntactic/sentence-structure changes, and contact-induced changes.

This dissertation's primarily purpose is to provide new perspectives in order to solve these puzzles on the basis of typological and diachronic evidence. The dissertation will analyze cross-linguistic data from Chinese and Tibeto-Burman languages in order to reconstruct various diachronic developments in Chinese and Naxi. The main body of the dissertation from Chapter II to Chapter V will examine the six linguistic puzzles successively, as follows: (1) tonal splits in proto-checked syllables and subgrouping of Loloish, (2) semantic development of RETURN—还 in Chinese, (3) semantic development of TAKE—把 in Chinese, (4) development of agentive passive markers in Mandarin, (5) definiteness and nominalization, relativization, and genitivization in Chinese, and (6) development of nominalization, relativization, and genitivization in Naxi.

My approach is a rather elaborate attempt to pursue a new framework for comparative reconstruction of historical linguistics. In my study, comparative analysis of historical linguistics focuses on reconstructing ancient patterns based on diachronic records and/or typological data from several languages or dialects in a language group. The ultimate aim of the comparative reconstruction is to demonstrate the historical process of language change. A historical linguist, like a competent detective, must possess acute vision and strong reasoning skills to be able to reconstruct the whole story of language change, and admissible evidence is of utmost importance. In order to discover the solution to the aforementioned linguistic puzzles, the linguist must rely on three key types of clues: typological evidence, historical evidence, and linguistic theories.

The basic assumption behind the comparative reconstruction is that the diverse synchronic, linguistic patterns in the same language group were diachronically derived from an identical origin. The common origin of these linguistic differences could be a sound, a meaning, a function word, a syntactic structure, etc., depending on the linguistic field in question. Between the origin and synchronic diversity is a series of diachronic processes. Therefore, the framework of the comparative reconstruction should consist of at least three basic elements: (1) synchronic diversity in a language group, (2) the original pattern or form of diversity, and (3) diachronic processes from the origin to the diversity.

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## ACKNOWLEDGMENTS

This work could not have been completed without the support of many people. To those people who were willing to spend their time and energy to help me complete this dissertation, my appreciation is beyond words.

I would especially like to express my deep appreciation to Scott DeLancey, chair of my committee, for his support of my work over a period of many years. Special thanks go to Eric Pederson, Cynthia Vakareliyska, and Zhuo Jing-Schmidt for serving on my committee and for their comments and probing questions on my research all along the way. Finally, I would like to extend a special note of thanks to my family for their patience, understanding, and willingness to encourage me to go on.

For  
Joshua Yichen Lu (吕奕辰)  
&  
Yuqing Yang (杨喻清)



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# CHAPTER I

## INTRODUCTION

It is not the purpose of this dissertation to discuss the mechanisms or causes which have been said to explain linguistic changes. The aim is rather to consider the diachronic development of the Chinese language and the Naxi language, focusing particularly upon six debatable linguistic puzzles that are likely to be associated with the various linguistic changes in most areas of the grammar, including sound/phonological changes, semantic/meaning changes, syntactic/sentence-structure changes, and contact-induced changes. These are historical mysteries that need to be resolved.

The dissertation's primary purpose is to provide new methods and perspectives through which to solve these puzzles on the basis of typological and diachronic evidence. The dissertation will analyze cross-linguistic data from Chinese and the Tibeto-Burman languages in order to reconstruct various diachronic developments in Chinese and Naxi. The main body of the dissertation from Chapter II to Chapter V will examine the six linguistic puzzles successively, as shown in the following (1) to (6):

- (1) Tonal splits in proto-checked syllables and subgrouping of Loloish,
- (2) Semantic development of RETURN—还 in Chinese,
- (3) Semantic development of TAKE—把 in Chinese,
- (4) Development of agentive passive markers in certain dialects of Chinese,
- (5) Definiteness and nominalization, relativization, and genitivization in Chinese,  
and
- (6) Development of nominalization, relativization, and genitivization in Naxi.

I will briefly introduce my methodology in Section 1.1, map the cross-linguistic data in Section 1.2, and provide an abstract for each puzzle and the organization of the dissertation in Section 1.3.

### **1.1. Methodology**

My approach is a rather elaborate attempt to pursue a new framework for comparative reconstruction of historical linguistics. In my study, comparative analysis of historical linguistics focuses on reconstructing ancient patterns based on diachronic records and/or typological data from several languages or dialects in a language group. My approach requires significant cross-linguistic observation and theoretical reasoning.

The ultimate aim of the comparative reconstruction is to demonstrate the historical process of language change. In most cases, it is more challenging to reveal why a language changed than to simply describe the outcome. Without support from a strong linguistic theory or reliable evidence from historical records, my study would have been impossible. The six linguistic puzzles mentioned above are used as linguistic cases to evaluate the feasibility of my methodology. With my approach, I believe more and more historical linguistic mysteries will be unraveled.

A historical linguist, like a competent detective, must possess acute vision and strong reasoning skills to be able to reconstruct the whole story of language change, and admissible evidence is of utmost importance. In order to discover the solution to the aforementioned linguistic puzzles, the linguist must rely on three key types of clues. The first one is typological evidence which is related to the synchronic typological comparison of languages. Fieldwork is necessary if the researched language is undocumented or less-documented. Without any support from historical evidence, the

original form must be reconstructed based on synchronic comparative reconstruction in a language group.

The second one is concerned with historical evidence. The original form in most languages has been lost in the mists of antiquity. In order to receive more support from historical records, I choose Chinese as a research language. Unlike most languages of the world, Chinese is retained in a large number of historical records written in Chinese characters. The unique writing system of Chinese has preserved plentiful linguistic information through the ages, and it makes diachronic documents readable. Even though their pronunciations may differ across various Chinese dialects, the written forms used in these dialects are normally identical.<sup>1</sup> It is very important to understand that Chinese characters were created after the colloquial/spoken forms. The origins of the colloquial forms are less-known and most of them were conventionalized before the creation of written forms. The Chinese writing system was used to record events and activities in a formal style; therefore, the written forms used in Old Chinese are not necessary the same as the spoken forms.

The third type of clue involves applying appropriate theories to the study of historical linguistics. The reference value of linguistic theories to a linguist is like that of criminal psychology or criminology to a detective. It should be noted that applying theories is the easiest way to narrow down possible hypotheses and conclusions, but it is never persuasive enough without evidence. Relying only on theory is like convicting a man of a crime based on criminology alone; fortunately, this never happens in court. A

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<sup>1</sup> Because they share a very similar writing system, different linguistic groups in China are defined as “dialects” rather than “languages” of Chinese.

historical linguist must piece together all the facts and available evidence to build up a theory that is indisputable.

The basic assumption behind the comparative reconstruction is that the diverse synchronic, linguistic patterns in the same language group were diachronically derived from an identical origin. The common origin of these linguistic differences could be a sound, a meaning, a function word, a syntactic structure, etc, depending on the linguistic field in question. Between the origin and synchronic diversity is a series of diachronic processes. Therefore, the framework of the comparative reconstruction should consist of at least three basic elements: (1) synchronic diversity in a language group, (2) the original pattern or form of diversity, and (3) diachronic processes from the origin to the diversity.

There has been historical evidence of language change. If it is available, a historical linguist must draw upon historical evidence to defend her theory. If it is unavailable, a historical linguist must piece together the whole story of language change from synchronic data of a language group. On the basis of available evidence, the diachronic process from the origin to diversity is the result of theoretical reasoning. A more plausible reconstruction of the origin of synchronic diversity will reveal more possible diachronic processes. With more plausible arguments about diachronic processes, it is easier to explain why synchronic diversity could have happened over time.

Literature summary is also an important part of my methodology. Most of the linguistic puzzles discussed in my dissertation are long overdue for a public debate. Linguists have been continually vexed by these puzzles, and have put forward various theories. This dissertation summarizes the findings of existing studies for the purpose of demonstrating different methods and perspectives. Previous studies by others also serve

as important sources of linguistic data, including both synchronic and diachronic examples.

## **1.2. Cross-linguistic data**

Cross-linguistic data in Chinese dialects and several Tibeto-Burman languages will be presented in this study. All of the Chinese dialects will be investigated. The rough geographic areas in which the dialects are most frequently encountered are provided in Map 1.1.<sup>2</sup> Note that Map 1.1 shows not only Chinese linguistic groups but also non-Chinese linguistic groups.

Chinese has been classified into seven mutually unintelligible dialect groups. (1) Mandarin (普通话), spoken by over seventy percent of all Chinese speakers, is used everywhere north of the Yangzi River, as well as in parts of the southwestern provinces of China, including Guangxi, Guizhou, Hunan, Sichuan, and Yunnan. (2) Min (闽语) is mainly spoken in Fujian, Taiwan, southern Zhejiang, and some coastal areas of Guangdong. (3) Hakka (also known as Kejia) (客家话) is spoken in eastern Guangdong and scattered areas of Fujian, Guangxi, Hunan, Jiangxi, Sichuan, and Taiwan. (4) Yue (also known as Cantonese) (粤语) is spoken in Guangdong, Hong Kong, as well as southeastern Guangxi. (5) Gan (赣语) is spoken in the province of Jiangxi. (6) Xiang (湘语) is spoken in the province of Hunan. (7) Wu (吴语) is spoken in southern Jiangsu and Zhejiang (Norman 2003:72-81 and Thurgood 2003:6).

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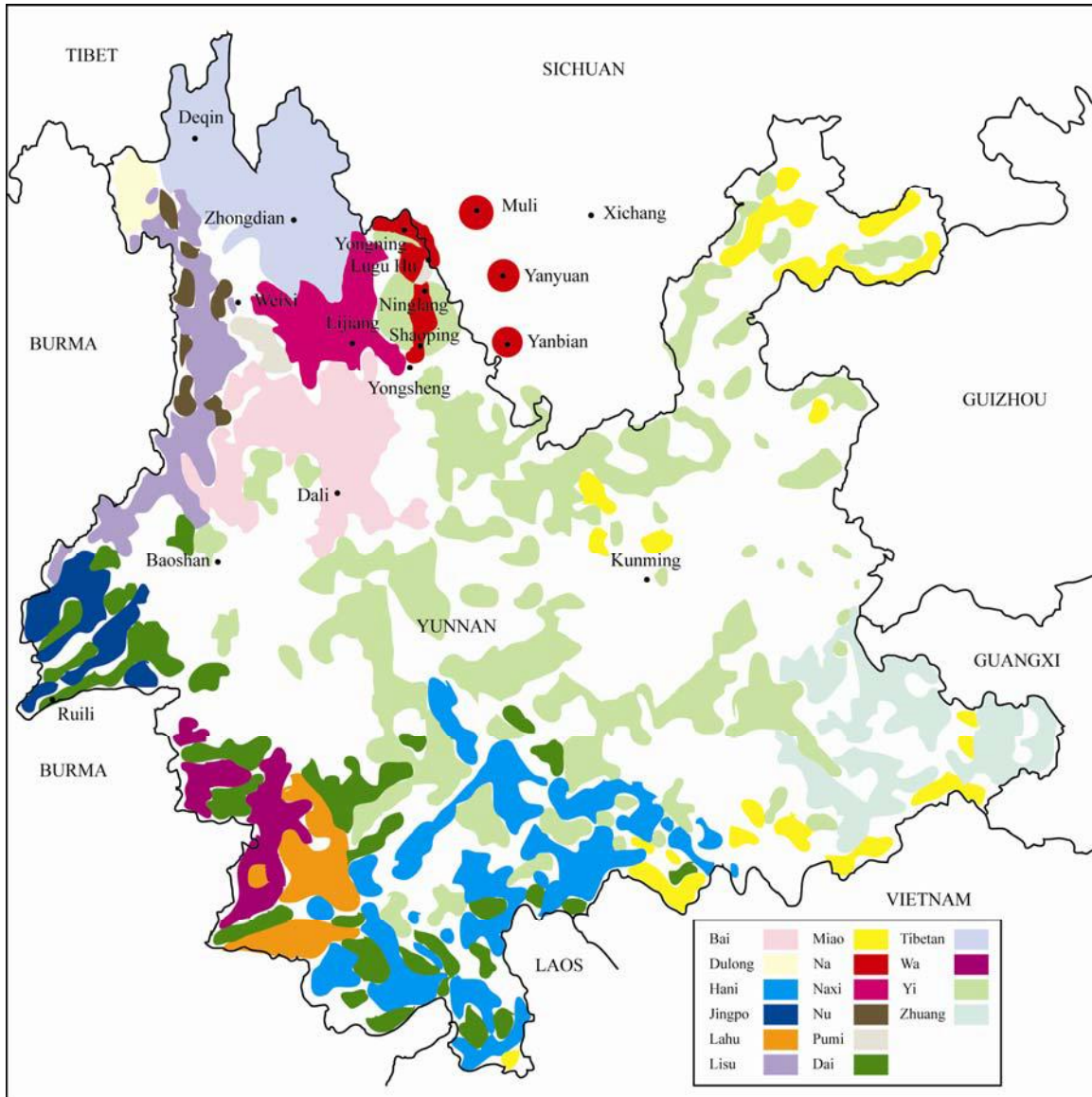
<sup>2</sup> Map 1.1 is downloaded from a website called Wikipedia, a free online encyclopedia. It is obvious that this map is made based on a collection of Chinese-version maps called *Zhongguoyuyandituji* (中国语言地图集) published by Langwen (朗文) in Hong Kong in 1987 and 1990.

Map 1.1. Linguistic groups in mainland China and Taiwan



Several Tibeto-Burman languages, such as Tibetan, Burmese, Naxi, Na/Mosuo, Lahu, Hani, Lisu, and Yi, spoken in the province of Yunnan (云南), will be discussed. Yunnan is located in southwestern China (see Map 1.1). The geographic areas of these Tibeto-Burman languages in Yunnan Province are provided in Map 1.2.<sup>3</sup>

**Map 1.2. Tibeto-Burman languages in Yunnan Province of China**



<sup>3</sup> Map 1.2 is taken from *A Descriptive Grammar of Yongning Na (Mosuo)* written by Liberty A. Lidz (2010:5).



Among these languages, Naxi and Mosuo must be introduced beforehand because they are less-known and they raise some important issues in Chapter II and Chapter V. The Mosuo and the Naxi people, mostly living in the Lijiang (丽江) Naxi Autonomous County in northwestern Yunnan, have been described in the Chinese historical records under the name “Moso” for centuries; however, neither the Mosuo nor the Naxi speak of themselves as “Moso”. Instead, both groups call themselves “Na” (Mathieu 2003:2). The Mosuo and the Naxi have divided by the Jinsha River for centuries. About 210,000 Naxi people are mostly settled on the western banks of the river in Lijiang County, in settlements such as Fengke (奉科), Baoshan (宝山), Yulong Snow Mountain (玉龙雪山), Lunan (鲁南), and Lijiang Ancient Town (shown as pink areas in Map 1.2).<sup>4</sup> About 30,000 Mosuo people live on the eastern banks of the river. Mosuo are the great majority inhabitants in the Yongning basin and the Lugu Lake (泸沽湖) regions including Muli (木里), Yongning, and Labo (拉伯) (shown as red areas in Map 1.2).<sup>5</sup>

In *Naxiyu Jianzhi* (A grammar of Naxi (纳西语简志)), He and Jiang (1985:104) classify “Mosuo” as the eastern dialect of the Naxi language group, and “Naxi” itself as the western dialect of the language group. Naxi and Mosuo are mutually unintelligible. The Naxi language encompasses three sub-groups, which are partially mutually intelligible: Dayanzhen, Lijiang, and Baoshan (1985:104). The Mosuo language also includes three sub-groups, which are mutually unintelligible: Yongning, Beiqu, and Guabie (1985:107).

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<sup>4</sup> This number is based on China’s 2000 census. The nationwide population of Naxi is listed as 308,839, and approximately seventy percent of the Naxi people live in the Lijiang region.

<sup>5</sup> This number is based on Mathieu’s (2003:1) personal report. In China’s 1990 census, the Yongning-Lugu Lake regions had about 15,000 Mosuo people. Today, their population may be closer to 40,000 nationwide.

The genetic classification of Mosuo has not yet been determined, but it is likely that Naxi and Mosuo can be classified in the same language branch. There exist various opinions about the genetic position of Naxi. It has been viewed as ungrouped within Tibeto-Burman (posed by Thurgood (2003:20)), excluded from Loloish (posed by Matisoff (1972:8)), included in Loloish (posed by Chen (1993:26)), excluded from Lolo-Burmese (posed by Bradley (1975:93)), and included in Lolo-Burmese (posed by Li (1999:25)).<sup>6</sup> Issues related to the genetic position of Naxi will be discussed in Chapter II. A contact-induced grammatical change that has occurred in Naxi will be explored in Chapter V.

### **1.3. Abstract and organization**

Each chapter from II to V focuses on one or two puzzles in one particular area of linguistic change. Chapter II deals with puzzle (1), and focuses on the diachronic phenomenon of tonal splits in checked syllables cross-linguistically. Chapter III deals with puzzles (2) and (3), emphasizing a cognitive effect of image schemas during semantic changes. Chapter IV deals with puzzle (4) and is relevant to a process of structural reanalysis. Chapter V deals with puzzles (5) and (6), discussing a borrowing of a structural feature from a contacted language.

**Chapter II** aims to investigate the relationship between “tonal splits of checked syllables in Proto-Loloish” and “subgrouping of the Loloish language branch”. Most of the linguists in the Tibeto-Burman field agree that there is a common phenomenon of the tonal split corresponding to the Proto-Loloish checked syllables conditioned by the

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<sup>6</sup> In Lidz’s dissertation entitled *A Descriptive Grammar of Yongning Na (Mosuo)*, the author mentions that the genetic position of Mosuo has been classified by Matisoff (1972), Bradley (1975), Thurgood (2003) and etc. This is misleading. Matisoff (1972), Bradley (1975) and Thurgood (2003) never analyze Mosuo; the language they tried to include in their research is Naxi, not Mosuo.

voicing and voicelessness of the root-initial consonants. A general phonological rule of this bipartite contrast is: voiced initial consonants in proto-checked syllables tend to develop lower-pitched tones, while voiceless initial consonants in proto-checked syllables tend to develop higher-pitched tones.

Typological evidence shows that the Loloish tonal split corresponding to Proto-Loloish checked syllables did not simply fall into a two-class contrast, which Matisoff has characterized as “low-checked” and “high-checked”. Most of the patterns of tonal splits, such as “regularity”, “flip-flop”, and “irregularity”, occurred in different dialects of Chinese and Yi (also known as ‘Lolo’, a part of Loloish). This fact shows that a language with an irregular pattern of tonal splits in proto-checked syllables can be categorized with patterns of “regularity” and “flip-flop” in the same language group. In addition, it seems that the behavior of the tonal split in checked syllables of the proto-language has nothing to do with the subgrouping of the modern languages because it often fails to establish a more reliable genetic relationship among languages. This is why I conclude that Matisoff’s methodology as used in *The Loloish tonal split revisited* (1972) is weak.

**Chapter III** proposes a cognitive principle in terms of ‘schematization’ on the semantic development of a motion verb RETURN—还 and an action verb TAKE—把 in Chinese. The chapter consists of two sections, Section 3.1 and 3.2.

In Section 3.1, I will claim that all of the versatile uses of 还 pronounced as /hai/ in Mandarin, such as “again (再)”, “still (仍然)”, “unexpectedly (竟然)”, “also (也)”, “or (或)” and “more (更加)” were conceptually abstracted from the prototypical image schema of RETURN. The meaning of the continuant sense (namely “still”) of 还 was not

derived from the repetitious sense (namely “again”); it originated directly from the rotative concept embedded in the image schema of RETURN. The opposite sense (namely “unexpectedly”) of 还 was abstracted from the retraversal trajectory of the image schema of RETURN, in that its direction is opposite of the presupposed, previously traversed path.

Section 3.2 is concerned with a diachronic problem related to the most studied construction—so-called BA sentences (把字句 [sentences with *ba* (把)]) or ‘disposal’ constructions (处置式) in Chinese. I will argue that the disposal function of 把 (represented as BA) pronounced as /ba/ in Mandarin was derived from an ‘instrumental causative event’ in which BA functions as a lexical verb meaning ‘to take’ or ‘to hold’. In order to understand the semantic development of the BA construction, it is necessary to realize how Chinese speakers have used the verb meaning “to take” or “to hold” (represented as TAKE) from ancient times. The written records of ancient Chinese show that the BA construction in Mandarin originated from four individual and independent serial verb events that involve TAKE; they are ‘thing-transferred event’, ‘thing-located event’, ‘thing-transformed event’, and ‘instrumental causative event’. In the instrumental causative event, the image schema of the verb TAKE inherently consists of two senses: “manipulativeness” and “affectedness”. The most-common grammatical meaning of BA functioning as a marker of the causee is conceptually abstracted from the sense of affectedness. The disposal construction, including the BA construction, is derived from the instrumental causative event due to the omission of the instrument.

**Chapter IV** focuses on a long-term puzzle concerning the agentive passive marker. It aims to provide a new perspective from which to explore the development of

the agentive passive marker in certain dialects of Chinese, such as Mandarin and Xiang. In these dialects, speakers use a single morpheme to function as not only the passive/agent marker but also the disposal/patient marker. In my hypothesis, it will be suggested that the development of agentive passive markers, such as *gei* (给) ‘to give’, *na* (拿) ‘to take’, *jiao* (教/叫) ‘to call’, and *rang* (让) ‘to let’, is a natural linguistic process. The agentive passive constructions arise from a causative construction, the configuration of which can be demonstrated as: [NP1<sub>primary causer</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V + NP3<sub>causee</sub>].<sup>7</sup> This causative-to-passive process involves three steps: (1) NP3<sub>causee</sub> is topicalized to the sentence-initial position, (2) NP1<sub>primary causer</sub> is omitted by the speaker, and (3) the final configuration [NP3<sub>causee</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V] is reanalyzed as a passive construction by the listener.

**Chapter V** proposes a possible explanation for the development of nominalization, relativization, and genitivization in Chinese and Naxi. From a synchronic point of view, most of the Chinese dialects and Naxi apply a single morpheme as a genitive marker, a relativizer, and a nominalizer; for example, Beijing Mandarin uses *de* (的) and Naxi uses *gə*. In order to account for the origin of Naxi *gə*, it is important to first consider and evaluate the pan-Chinese function of nominalization, relativization, and genitivization. This chapter consists of two sections, Sections 5.1 and 5.2.

In Section 5.1, typological and historical evidence will show that the functions of nominalization, relativization, and genitivization are united by a common value of definiteness in Chinese; this shared value is the primary explanation for why Chinese

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<sup>7</sup> NP refers to ‘noun phrase’ and V refers to ‘verb’. For an explanation of all abbreviations used in the text, please see Appendix A.

speakers use an identical morpheme as a nominalizer, a relativizer, and a genitive marker. Diachronically speaking, Cantonese *ge3*, Chaozhou Southern Min *kai*, Beijing Mandarin *de*, Kunming Mandarin *nə*, and Taiwanese *he* were derived from a common construction [that + CI] in which “CI” is usually the most general-purpose classifier.

Section 5.2 provides a possible explanation for the development of Naxi *gə*. The origin of Naxi *gə* is puzzling because it is clear that Labo Naxi, Mosuo, and Naxi were derived from the same ancestor—Proto-Na; however, they show divergent evolutions in their nominalization, genitivization, and relativization. Naxi *gə* is used as a genitive marker, a relativizer, and a nominalizer, but Labo Naxi and Mosuo use a cognate marker *i* for nominalization and relativization, and use other different markers *na* and *bu*<sup>33</sup> for genitivization, respectively. According to the historical records and typological dissimilarities, the development of Naxi *gə* is due to language contact with authoritative Chinese language in the forms of Late Medieval, Pre-Modern, and Modern Chinese (from 960 to 1900 A.D.); *gə* was a loanword borrowed from the most general-purpose classifier *gə* (个) in Mandarin.

The last chapter, **Chapter VI**, will not only contain brief concluding remarks for each chapter but also provide research sketches for several less-discussed topics. The present introductory chapter has provided an abstract for each puzzle. The organization of the rest of the dissertation will be provided as follows: Chapter II: ‘sound change: tonal split’; Chapter III: ‘semantic change: schematic effect’; Chapter IV: ‘syntactic change: structural reanalysis’; Chapter V: ‘contact-induced change: borrowing’; and Chapter VI: ‘conclusion’.

## CHAPTER II

### SOUND CHANGE: TONAL SPLIT

Since 2003 I have been working on the languages of the Lolo-Burmese (=Burmese-Lolo; hereafter LB) branch of the Tibeto-Burman (TB) family, especially Naxi (纳西) and Mosuo (摩梭). The genetic relationship between Loloish languages and Naxi or Mosuo is confusing, and has resulted in a long-term debate between Western and Chinese linguists.<sup>8</sup>

The Loloish languages of the LB branch, such as Lahu (拉祜), Hani (哈尼), Lisu (傣傣), etc., seem to have two well-split sets of tonal values corresponding to the checked (or stop-finalled) syllables of Proto-Loloish (hereafter \*L).<sup>9</sup> The voiced initial consonant of \*L checked syllables tend to develop lower-pitched tones in modern Loloish, while the voiceless initial consonant of \*L checked syllables tend to develop higher-pitched tones (please see Matisoff 1970, 1971, 1972, and 1973).<sup>10</sup>

Matisoff (1972) was the first TB linguist who grouped Loloish based on the above correspondences of Loloish tonal split. David Bradley (1975), who is the author of the book entitled *Proto-Loloish* (1978), has approved of Matisoff's methodology for subgroupings of the Loloish. According to their studies, Naxi has often been excluded

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<sup>8</sup> In this study, it is assumed that Naxi (纳西) and Mosuo (摩梭) have the same ancestor called "Proto-Na". The ethnic group of Proto-Na could have been a nomadic tribe living in the mountainous plateau of the northwest part of Sichuan Province, China. Naxi and Mosuo are mutually unintelligible in that they have considerable lexical and grammatical differences; however, it could be reasonably assumed that Naxi and Mosuo were derived from an ancient language called "Proto-Na" because Naxi and Mosuo are more similar to each other than either one is to any of the other Tibeto-Burman languages (Jiang 1993:43-48).

<sup>9</sup> The checked syllable is a syllable which ends in an unreleased voiceless stop, such as /-p/, /-t/, /-k/, or (in some variants represents a neutralized form) glottal stop /-ʔ/.

<sup>10</sup> An asterisk mark [\*] in a sentence indicates a proto-form. For example, a '\*stop-final syllable' means a 'proto-stop-final syllable'.

from the Loloish languages because of its large number of irregular patterns of tonal split corresponding to the checked syllables of \*L.<sup>11</sup>

However, post 1980s Chinese linguists have contributed to a growing body of literature on tonal splits, reconstruction of proto-tones, and subgroupings of Loloish. Chen (陈康) (1993:24-26) and Li (李永燧) (1996:16 and 2008:53) have proposed on identical grounds that Naxi has a two-way tonal contrast conditioned by a distinction between voiceless versus voiced syllable-initial consonants corresponding to the checked syllables in \*L. The higher-pitched tone [55] derived from \*L checked syllables with voiceless initial consonants, while the lower-pitched tone [31] derived from \*L checked syllables with voiced initial consonants.<sup>12</sup> This leads us to believe that Naxi is certainly a Loloish language since it follows Matisoff's pattern of Loloish tonal splits.

Given that we now have a great abundance of cross-linguistic data gathered through the dialect surveys available in the Chinese and Loloish languages, how could we still agree with Matisoff's monograph of Loloish tonal split without any suspicion about his methodology? In this study, I will do what Matisoff did in the book entitled *The Loloish tonal split revisited* (1972) using newer data to see if I can achieve the same result.

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<sup>11</sup> Due to the limited data, Matisoff (1972:5) makes a wrong statement in that Moso (sometimes called Nakhi) tends to involve an initial pre-nasalized stop in all checked syllables. In fact, the initial pre-nasalized stops in Naxi occur not only in the checked syllables but in the non-checked syllables, and the words with an initial pre-nasalized stop are only a small portion of all checked syllables. In addition, it is very important to understand that the initial pre-nasalized stops (such as /mb-/, /nd-/, or /ŋg -/) are only used in Naxi (纳西). The Mosuo (摩梭) language does not have any initial pre-nasalized stop in its contemporary sound system. Therefore, the language Matisoff discussed in 1972 is Naxi, not Mosuo, even though he called it "Moso".

<sup>12</sup> The pitch of tonal values follows a conventional five-point digital scale first introduced by Y-R Chao (1930:25). The numeral 5 represents the highest pitch and 1 represents the lowest pitch. A short tone is indicated by a single-digit number while a complex tone may be indicated by two or three digital numbers. For instance, [55] and [31] stand for a high-level and a mid-falling tone, respectively.



For the purpose of evaluating Matisoff's methodology, there are four typological terms that need to be defined. The rule of Matisoff's two-way tonal splits is a precondition in which voiced initial consonants of \*checked syllables tend to develop lower-pitched tones, while voiceless initial consonants of \*checked syllables tend to develop higher-pitched tones. When a language applies this rule in its tone system, it is defined as displaying a pattern of '**regularity**'. When a language applies a reverse condition of the rule, it is defined as displaying a pattern of '**flip-flop**'. When a language does not apply this rule or applies another rule (such as a three-way split), it is defined as having a pattern of '**irregularity**'. When a language maintains an un-split tone from \*checked syllables, it is defined as having a pattern of '**un-split**'. According to Matisoff's hypothesis in 1972, different tonal split patterns can reflect the genetic distribution of Lolo-Burmese. The group of "un-split" is distinct from the groups of "two-way contrast" and "irregularity" because it did not undergo tonal splits in \*checked syllables. The groups of "two-way contrast" and "irregularity", which have a closer genetic relationship due to a common feature in terms of the diachronic tonal splits, are siblings, equidistant to their common ancestor. The group of "two-way contrast" can be further subdivided into two smaller daughter-level groups: "regularity" and "flip-flop".

The typological evidence shows that the Loloish tonal split corresponding to \*L checked syllables did NOT simply fall into a two-class contrast, which Matisoff has characterized as "low-checked" and "high-checked". Most of the patterns of tonal splits, such as "regularity", "flip-flop", and "irregularity", occur in different dialects of Chinese

and Yi (also known as ‘Lolo’ which belongs to a part of Loloish).<sup>13</sup> This fact shows that a language with an irregular pattern of tonal splits in proto-checked syllables can be categorized with patterns of “regularity” and “flip-flop” in the same language group. In addition, it seems that the behavior of the tonal split in checked syllables of the proto-language has nothing to do with the subgrouping of the modern languages because it often fails to predicate a more reliable genetic relationship among languages. This is why I will conclude that Matisoff’s methodology as used in *The Loloish tonal split revisited* is weak.

The present chapter is organized as follows. First comes the typological discussion of tone splits in Chinese in Section 2.1, because the development of Chinese tonal splits in \*checked syllables, which is supported by historical records, is uncontroversial. Then, some introductory remarks on the methodology of previous studies about the genetic position of Naxi and subgroupings of Loloish or Lolo-Burmese from Matisoff (1971 and 1972), Bradley (1975), Chen (1993 and 1997), and Li (1996, 1999 and 2008) will be provided in Section 2.2. The typological evidence from Yi, and possible evidence from Loloish and Burmish will be provided to evaluate the utility of tone-split patterns for the establishment of genetic relationship among languages in Section 2.3. In Section 2.4, several questions will be discussed based on the typological evidence shown in Sections 2.1 and 2.3.

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<sup>13</sup> The term “flip-flop”, adopted from William S.-Y. Wang (1967:102), refers to the expression reversal of pitch value in which a higher pitch later developed into a lower pitch and vice versa in certain linguistic environments.

## 2.1. Tonal splits in Chinese \*checked syllables

Before Matisoff hypothesized the mechanism of tonogenesis in 1973, the synchronic phenomenon of the two-way tone contrast in Chinese had been observed for a long time. In Haudricourt's (1961:58) article, the author mentioned that as early as 1931, Roman Jakobson has reported the following terms concerning the two-way splitting of the tonal system in Chinese dialects:

“In certain Chinese dialects voiced and voiceless consonants have merged. The phonemic feature of voicing which distinguished one series of consonants from another series is replaced by the phonemic distinction of pitch level in the following vowels: low tone of the vowel is substituted for the voicing of the preceding consonant, high tone on the other hand corresponds to voicelessness of the consonant in question. The difference of pitch level, at first a [non-phonetic] combinatory variation, has become a phonetic feature which distinguishes two series of vowels.”

Because the tonal development is a diachronic phenomenon, in this section, I will aim to present various diachronic patterns of tonal splits in \*checked syllables rather than provide a plain synchronic description of tonal splits for Chinese dialects. These patterns will thus come from reconstructed forms of Archaic and Ancient Chinese. All of the Chinese dialects, including Mandarin, Min, Hakka, Yue, Gan, Xiang, and Wu, will be presented to validate my conclusion.

Looking at Chinese historically, there is evidence from the *Qieyun rhyme dictionary* (切韵) reflecting a stage of Middle Chinese (approximately from 200 to 900 A.D.) during which there were four tonal categories: Ping (平), Shang (上), Qu (去), and Ru (入).<sup>14</sup> The checked syllables (ending in -p, -t, and -k) belong to a category traditionally known as ‘entering tone (入)’ (Tone IV); other non-checked syllables belong

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<sup>14</sup> *Qieyun rhyme dictionary* (切韵), published in 601 A.D. during the Sui Dynasty, was edited by Fayan Lu (陸法言).

to any of the three other tone categories, called ‘level tone (平)’ (Tone I), ‘rising tone (上)’ (Tone II), or ‘departing tone (去)’ (Tone III), as shown in Table 2.1 (Chen 2000:5). Note that the Roman numerals (I, II, III, and IV) represent the four tones of Middle Chinese.

**Table 2.1. Middle Chinese tone categories (Chen 2000:5)**

Tone	Traditional Name	Gloss
I	Ping (平)	“level tone”
II	Shang (上)	“rising tone”
III	Qu (去)	“departing tone”
IV	Ru (入)	“entering tone”

There is also evidence from another rhyme book called *Zhongyuan Yinyun* (中原音韵) that reflects three phonological changes from Middle Chinese to Mandarin: (1) the disappearance of final stops, (2) the tonal split of Ping (平) tone (namely ‘level tone’), and (3) the regrouping of the tones.<sup>15</sup> The entering tone (入声字) with a checked ending -p, -t, or -k in Middle Chinese disappeared when developing into most of the Mandarin dialects. The Ping tone has divided into two groups: Yin-Ping (阴平) and Yang-Ping (阳平); this phenomenon is known in Chinese as ‘平分阴阳’. The Ru tone (namely ‘entering tone’) has been reassigned to the other three tones in Middle Chinese: Ping, Shang, and Qu; this phenomenon is known in Chinese as ‘入派三声’.

The two-way split of the Ping tone in Middle Chinese was conditioned by the distinction between voiceless and voiced initials. If the initial consonant had been “voiceless” (termed **Yin** (阴) in Chinese), the syllable now carries a higher-pitched tone.

<sup>15</sup> *Zhongyuan Yinyun* (中原音韵) edited by Qingde Zhou (周清德) was published in 1324 A.D. in the Yuan Dynasty.

If the initial consonant had been “voiced” (termed as **Yang** (阳) in Chinese), the syllable now carries a lower-pitched tone. For instance, in Mandarin the high level tone [55] is correspondent to \*Yin-Ping ‘level tone with voiceless initial’, while the high-rising tone [35] is correspondent to \*Yang-Ping ‘level tone with voiced initial’.

Based on this process, Wang (1967:95) proposes that each of the medieval tone categories has split into two contrasting tones; the tone in the Yin subgroup was conditioned by voiceless initials (清声) and the tone in the Yang subgroup was conditioned by voiced initials (浊声). Therefore, the ideally conventional eight-tone system in Chinese can be shown in Table 2.2. Note that the real situation of the development of each tone may involve a merger or a three-way diachronic tonal split.

**Table 2.2. Eight-tone system in Chinese**

Tone	Traditional Name	Gloss
I	Yin-Ping (阴平)	“level tone with voiceless initial”
II	Yang-Ping (阳平)	“level tone with voiced initial”
III	Yin-Shang (阴上)	“rising tone with voiceless initial”
IV	Yang-Shang (阳上)	“rising tone with voiced initial”
V	Yin-Qu (阴去)	“departing tone with voiceless initial”
VI	Yang-Qu (阳去)	“departing tone with voiced initial”
VII	Yin-Ru (阴入)	“entering tone with voiceless initial”
VIII	Yang-Ru (阳入)	“entering tone with voiced initial”

The following demonstration will only focus on entering syllables, Yin-Ru (阴入) and Yang-Ru (阳入), in Chinese.<sup>16</sup> In order to distinguish more actual situations concerning patterns of tonal split in \*checked syllables, three Chinese references are

<sup>16</sup> Again, the purpose of this chapter is to evaluate Matisoff’s methodology concerning subgrouping of Loloish. Since Matisoff only focuses on \*checked syllables, it is not necessary to discuss the other \*non-checked syllables.

scanned for data. (1) *Han zi gu jin yin hui* (汉字古今音汇—A Pronouncing Dictionary of Chinese Characters in Archaic & Ancient Chinese, Mandarin & Cantonese (Zhou 1973)), edited by Fagao Zhou (周法高), provides the phonetic interpretation of Archaic and Ancient Chinese reconstructed by Bernhard Karlgren (高本汉). (2) *Hanyu fangyan cihui* (汉语方言词汇—Lexicon of Chinese Dialects (Yuan 1964)), edited by the Department of Chinese Language and Literature at Peking University (北京大学), provides the common vocabularies for seven Chinese dialects. (3) *Jiangsusheng he Shanghai shi fangyan gaikuang* (江苏省和上海市方言概况—A Dialectal Survey in Province of Jiangsu and Shanghai City (1960)) provides lexicon for different dialects, particularly Wu, spoken in the Province of Jiangsu and Shanghai City.<sup>17</sup>

There are twenty words used to exemplify each pattern of tonal split in \*checked tones. Ten of these had been a checked syllable co-occurring with a voiced initial; they are ‘thin (薄), pull out (拔), butterfly (蝶), wax (腊), deer (鹿), stone (石), honey (蜜), wheat (麦), hot (热), and sun; day (日). The other ten had been a checked syllable co-occurring with a voiceless initial; they are pen (笔), peel (剥), pick (摘), bamboo (竹), color (色), snow (雪), rule (尺), holiday (节), pigeon (鸽), and horn (角). When selecting these words, different places and manners of articulation have been taken into consideration. The reconstruction of the ancient forms for these twenty words done by Karlgren and the source of references are provided in Appendices B and C.

The pattern of tonal ‘**regularity**’ has been purely preserved in the dialects of Wu. In the Wu dialect of Suzhou (苏州), the \*voiced root-initial syllables are under the low-

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<sup>17</sup> This book was edited by a group called ‘fang yan diao cha zhi dao zu’ (方言调查指导组).

checked tone [23]; the \*voiceless root-initial syllables are under the high-checked tone [4]. In the Wu dialect of both Wuxi (无锡) and Shanghai (上海), the \*voiced root-initial syllables are under the low-checked tone [2]; the \*voiceless root-initial syllables are under the high-checked tone [5]. In the Wu dialect of Wenzhou (温州), the \*voiced root-initial syllables are low-rising [12], and the \*voiceless root-initial syllables are mid-rising [23]. Please see Tables 2.3 and 2.4 for details.

Note that there is a basic division among the Wu dialects: the final stop (-p, -t, and -k) in Proto-Chinese (hereafter \*C) have merged to a single manifestation, interpreted as a glottal stop in certain Wu dialects, such as Suzhou, Wuxi, and Shanghai; the checked syllables in other Wu dialects, such as in Wenzhou dialect, have completely lost the final stop and have become an open syllable CV. The detailed phonetic descriptions for those cognate sets provided in Tables 2.3 and 2.4 below are available in Appendices D and E.

**Table 2.3. The \*checked syllable with voiced initial in dialects of Wu**

		Suzhou	Wuxi	Shanghai	Wenzhou
1	thin (薄)	23	2	2	12
2	pull out (拔)	23	2	2	12
3	butterfly (蝶)	23	2	2	12
4	wax (腊)	23	2	2	12
5	deer (鹿)	23	2	2	12
6	stone (石)	23	2	2	12
7	honey (蜜)	23	2	2	12
8	wheat (麦)	23	2	2	12
9	hot (热)	23	2	2	12
10	sun; day (日)	23	2	2	12

**Table 2.4. The \*checked syllable with voiceless initial in dialects of Wu**

		Suzhou	Wuxi	Shanghai	Wenzhou
1	pen (笔)	4	5	5	23
2	peel (剥)	4	5	5	23
3	pick (摘)	4	5	5	23
4	bamboo (竹)	4	5	5	23
5	color (色)	4	5	5	23
6	snow (雪)	4	5	5	23
7	rule (尺)	4	5	5	23
8	holiday (节)		5	5	
9	pigeon (鸽)	4	5	5	23
10	horn (角)	4	5	5	23

The pattern of tonal ‘**flip-flop**’ can be defined as “the expression reversal of pitch value for cases in which a higher pitch later developed into a lower pitch and vice versa (Yue-Hashimoto 1986:162)”. It is of special interest that the tonal flip-flop in Chinese dialects most often occurs with checked syllables (1986:169).

The pattern of tonal ‘flip-flop’ occurs in the dialects of Hakka and Min. In the Hakka dialect of Meixian (梅县), the \*voiced root-initial syllables are under the high-checked tone [4]; the \*voiceless root-initial syllables are under the low-falling checked tone [21].<sup>18</sup> In the Min dialect of Xiamen (厦门), the \*voiced root-initial syllables are under the high-checked tone [5]; the \*voiceless root-initial syllables are under the mid-falling checked tone [32]. In the Min dialect of Chaozhou (潮州), the \*voiced root-initial syllables are high-checked tone [4], and the \*voiceless root-initial syllables are low-

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<sup>18</sup> The word /nit21/ ‘sun/day’ in the Hakka dialect of Meixian represents an exception to tonal flip-flop, but this should not affect the statement.



falling checked tone [21]. In the Min dialect of Fuzhou (福州), the \*voiced root-initial syllables are high-checked tone [4], and the \*voiceless root-initial syllables are mid-rising checked tone [23]. Please see Tables 2.5 and 2.6 for details.

The development and mechanism of tonal flip-flop in Chinese dialects are puzzling. Although there have been a few articles concerning the linguistic nature of flip-flop, I will not provide any discussion about this issue since it is not relevant to the purpose of the current study. Some of the stop endings (-p, -t, and -k) in Hakka and Min dialects are intact, and some of them have decayed into a glottal stop /-ʔ/. The detailed phonetic descriptions for those cognate sets provided in Tables 2.5 and 2.6 below are available in Appendices F and G.

**Table 2.5. The \*checked syllable with voiced initial in dialects of Hakka and Min**

		Meixian	Xiamen	Chaozhou	Fuzhou
1	thin (薄)	4	5	4	4
2	pull out (拔)	44	5	4	4
3	butterfly (蝶)		5	4	4
4	wax (腊)	4	5	4	4
5	deer (鹿)	4	5	4	4
6	stone (石)	4	5	4	4
7	honey (蜜)	4	5	4	4
8	wheat (麦)	4	5	4	4
9	hot (热)	4	5		4
10	sun; day (日)	21	5	4	4

**Table 2.6. The \*checked syllable with voiceless initial in dialects of Hakka and Min**

		Meixian	Xiamen	Chaozhou	Fuzhou
1	pen (笔)	21	32	21	23
2	peel (剥)	21	32	21	23
3	pick (摘)	21	32	21	23
4	bamboo (竹)	21	32	21	23
5	color (色)	21	32	21	23
6	snow (雪)	21	32	21	23
7	rule (尺)	21	32	21	23
8	holiday (节)	21	32	21	
9	pigeon (鸽)	21	32		23
10	horn (角)	21	32	21	23

The voicing-triggered split of checked syllables into two tonal categories is not always symmetrical, especially in the dialects of Mandarin. The pattern of tonal ‘**irregularity**’ has been found in many dialects of Mandarin, which exhibit different subtypes in \*checked tones (without a two-way distinctive categories). The correspondence between Middle Chinese entering tone and its modern phonetic value in these dialects is not always predictable, particularly in the \*voiceless-initial subgroup. However, the entering tone with a \*voiced initial has commonly involved a phonological parameter conditioned by the contrast between sonorant (including liquid, nasal, and empty-initial) and obstruent initials (Chen 2000:8).

For example, in the Mandarin dialect of Beijing (北京), syllables with a \*voiced obstruent initial are under the high-rising tone [35]; syllables with a \*sonorant initial are under the sharp falling tone [51]; syllables with a \*voiceless initial are scattered unpredictably among all four tonal categories [35], [51], [214], and [55]. In the Mandarin

dialect of Shenyang (沈阳), syllables with a \*voiced obstruent initial are under the high-rising tone [35]; syllables with a \*sonorant initial are under the falling tone [41]; syllables with a \*voiceless initial are distributed into the tonal categories [35], [33], and [213] without any clear condition for the split.<sup>19</sup> These varieties of tones in the \*voiceless group are evidently not to be accounted for in terms of regular tonal splits. Please see Tables 2.7 and 2.8 for details.

Note that all of the \*checked syllables have lost their ending stop entirely in Mandarin dialects. The detailed phonetic descriptions for the twenty cognate sets provided in Tables 2.7 and 2.8 below are available in Appendices H and I.

**Table 2.7. The \*checked syllable with voiced initial in dialects of Mandarin**

		Karlgren (高本汉)	Beijing	Shenyang
1	thin (薄)	*buak	35	35
2	pull out (拔)	*buat	35	35
3	butterfly (蝶)	*diɛp	35	213
4	wax (腊)	*lap	51	41
5	deer (鹿)	*luk	51	41
6	stone (石)	*dziæk	35	35
7	honey (蜜)	*miɪt	51	41
8	wheat (麦)	*muək	51	41
9	hot (热)	*niæt	51	41
10	sun; day (日)	*niɪt	51	41

<sup>19</sup> The word ‘butterfly’ with tone [213] in the Mandarin dialect of Shenyang could be an exception. The tone [41] is absent in the Shenyang dialect, but it will probably be found if more data can be gathered.

**Table 2.8. The \*checked syllable with voiceless initial in dialects of Mandarin**

		Karlgren (高本汉)	Beijing	Shenyang
1	pen (笔)	*piuət	214	213
2	peel (剥)	*pok	55	33
3	pick (摘)	*t <sup>h</sup> iek	55	35
4	bamboo (竹)	*tiuk	35	35
5	color (色)	*siɿk	51	213
6	snow (雪)	*siuæt	214	213
7	rule (尺)	*ts <sup>h</sup> iæk	214	213
8	holiday (节)	*tsiæt	35	213
9	pigeon (鸽)	*kəp	55	33
10	horn (角)	*kok	214	33

Another pattern of tonal ‘**irregularity**’ has been found in other dialects of Mandarin. In this pattern, the conditioning factor, the voiced obstruent initial, only functions in the group of \*voiced initials; syllables with a \*voiceless initial seem maintain unchanged, as shown in Tables 2.9 and 2.10. Therefore, there are two different tonal values in the \*voiced-initial group, and only one tonal value in the \*voiceless-initial group.

For example, in the Mandarin dialect of Xi’an (西安), syllables with a \*voiced obstruent initial go to the mid-rising tone [24]; syllables with a \*sonorant initial and with a \*voiceless initial merge with the low-falling tone [21]. In the Mandarin dialect of Xuzhou (徐州) and Jinan (济南), syllables with a \*voiced obstruent initial go to the high-level tone [55]; syllables with a \*sonorant initial and with a \*voiceless initial merge with the falling-rising tone [313].

In the Mandarin dialect of Pixian (邳县), the tonal split seems to be conditioned by a three-way contrast between voiceless, sonorant, and voiced obstruent initials without any exception. Syllables with a \*voiced obstruent initial are found in the falling tone [42]; syllables with a \*sonorant initial are found in the low-falling tone [21], and syllables with a \*voiceless initial are found in the falling-rising tone [213]. Note that all \*voiced root-initial obstruents have all become voiceless initials in Mandarin dialects. The detailed phonetic descriptions for the twenty cognate sets provided in Tables 2.9 and 2.10 below are available in Appendices H and I.

**Table 2.9. The \*checked syllable with voiced initial in dialects of Mandarin**

		Xi'an	Xuzhou	Jinan	Pixian	Karlgren (高本汉)
1	thin (薄)	24	55	55	42	*buak
2	pull out (拔)	24	55	55	42	*buat
3	butterfly (蝶)		55	55	42	*diɛp
4	wax (腊)	21	313	313	21	*lap
5	deer (鹿)	21	313	313	21	*luk
6	stone (石)	24	55	55	42	*dziæk
7	honey (蜜)		313	313	21	*miɪt
8	wheat (麦)	21	313	313	21	*muæk
9	hot (热)	21	313	313	21	*niæt
10	sun; day (日)	21	313	313	21	*niɪt

**Table 2.10. The \*checked syllable with voiceless initial in dialects of Mandarin**

		Xi'an	Xuzhou	Jinan	Pixian	Karlgren (高本汉)
1	pen (笔)	21	313	313	213	*piuət
2	peel (剥)	21	313	313	213	*pok
3	pick (摘)	21	313	313	213	*t <sup>h</sup> iek
4	bamboo (竹)	21	313	313	213	*tiuk
5	color (色)	21	313	313	213	*siɪk
6	snow (雪)	21	313	313	213	*siuət
7	rule (尺)	21	313	313	213	*ts <sup>h</sup> iæk
8	holiday (节)	21	313	313	213	*tsiət
9	pigeon (鸽)	21	313	313		*kəp
10	horn (角)		313	313	213	*kok

The last example related to the pattern of tonal ‘**irregularity**’ has been found in the dialects of Cantonese, as shown in Tables 2.11 and 2.12. It has been argued that in the Cantonese dialect of Guangzhou (广州), the tonal values [2/22], [33] and [5] in the checked syllables are in complementary distribution. Syllables with a \*voiced initial are under the low-level tone [2/22]; syllables with a \*voiceless initial have separated and are conditioned by the contrast of vowel length (Yue-Hashimoto 1972:176). Therefore, syllables with a short vowel in the \*voiceless-initial group are under the high tone [5], while syllables with a long vowel in the same group are under the mid-level tone [33].

In the Cantonese dialect of Yangjiang (阳江), the situation is more obscure and unpredictable. Syllables with a \*voiced initial are under the rising-falling tone [454], but syllables with a \*voiceless initial are divided into the rising tone [24] and the low-falling tone [21] without any predictable conditioning factor.

Note that Cantonese dialects preserved the stop endings and change the voiced \*initial obstruents to their voiceless counterparts. The detailed phonetic descriptions for the twenty cognate sets provided in Tables 2.11 and 2.12 below are available in Appendices J and K.

**Table 2.11. The \*checked syllable with voiced initial in dialects of Cantonese**

		Karlgren (高本汉)	Yangjiang	Guangzhou
1	thin (薄)	*buak	454	33
2	Pull out (拔)	*buat		2
3	butterfly (蝶)	*diɛp	454	22
4	wax (腊)	*lap	454	22
5	deer (鹿)	*luk	454	2
6	stone (石)	*dziæk	454	22
7	honey (蜜)	*miɪt	454	2
8	wheat (麦)	*muək	454	2
9	hot (热)	*niæt	454	22
10	sun; day (日)	*niɪt	454	22

**Table 2.12. The \*checked syllable with voiceless initial in dialects of Cantonese**

		Karlgren (高本汉)	Yangjiang	Guangzhou
1	pen (笔)	*piuet	24	5
2	peel (剥)	*pok	24	33
3	pick (摘)	*t <sup>h</sup> iek		33
4	bamboo (竹)	*tiuk	24	5
5	color (色)	*siɪk	24	5
6	snow (雪)	*siuæt		33
7	rule (尺)	*ts <sup>h</sup> iæk	24	33
8	holiday (节)	*tsiæt	21	33

9	pigeon (鸽)	*kəp	21	33
10	horn (角)	*kok	21	33

The pattern of ‘**un-split**’ in the \*checked tone has been found in several dialects; this is the case with dialects of Mandarin, such as those of Yangzhou (扬州), Nanjing (南京), Chengdu (成都), and Kunming (昆明), Xiang and Gan, as shown in Tables 2.13 and 2.14. Their original checked tones did not experience any split and have merged with the other tone category, usually the Yang-Ping ‘level tone with voiced initial’. For example, in the Mandarin dialect of Yangzhou, Nanjing, Chengdu, and Kunming, the groups of \*voiced-initial and \*voiceless-initial share the common tonal value [4], [5], [31], and [31], respectively. In the Xiang dialect of Changsha (长沙), both groups maintain the same pitch value [24]. In the Gan dialect of Nanchang (南昌), both groups preserve the same pitch value [5].

Note that the Mandarin dialects of Yangzhou and Nanjing have no surviving original final stop, and the only syllable-final consonant is a glottal stop -ʔ which was neutralized from \*-p, \*-t, and \*-k. The original final stops in the Mandarin dialects of Chengdu and Kunming and the Xiang dialect of Changsha have disappeared altogether. The Gan dialect of Nanchang has preserved -t and -k from the origin final stops, but \*-p has been replaced by -t. The detailed phonetic descriptions for the twenty cognate sets provided in Tables 2.13 and 2.14 below are available in Appendices L and M.



**Table 2.13. The \*checked syllable with voiced initial in Mandarin, Xiang, & Gan**

		Yangzhou	Nanjing	Chengdu	Kunming	Changsha	Nanchang
1	thin (薄)	4	5	31	31	24	5
2	Pull out (拔)	4	5	31	31	24	5
3	butterfly(蝶)	4	5	31	31	24	5
4	wax (腊)	4	5	31	31	24	5
5	deer (鹿)	4	5	31	31	24	5
6	stone (石)	4	5	31	31	24	5
7	honey (蜜)	4	5		31	24	5
8	wheat (麦)	4	5	31	31	24	5
9	hot (热)	4	5	31	31	24	5
10	sun;day(日)	4	5	31	31	24	5

**Table 2.14. The \*checked syllable with voiceless initial in Mandarin, Xiang, & Gan**

		Yangzhou	Nanjing	Chengdu	Kunming	Changsha	Nanchang
1	pen (笔)	4	5	31	31	24	5
2	peel (剥)	4	5	31	31	24	5
3	pick (摘)	4	5	31	31	24	5
4	bamboo(竹)	4	5	31	31	24	5
5	color (色)	4	5	31	31	24	5
6	snow (雪)	4	5	31	31	24	5
7	rule (尺)	4	5	31	31	24	5
8	holiday (节)	4	5	31	31	24	
9	pigeon (鸽)	4	5	31	31	24	5
10	horn (角)	4	5	31	31	24	5

In summary, based on the discussion above, it is clear that all of the patterns of tonal splits including “regularity”, “flip-flop”, “irregularity”, and “un-split” occur in Chinese. The following sections provide other typological introductions to these tonal split patterns in the Lolo-Burmese language group.

## **2.2. Previous studies about subgroupings of Loloish**

The two-way or three-way splitting of the tonal development conditioned by the phonetic nature of the initial consonant in all syllable types seems to have occurred widely across Southeast Asia and the Far East some centuries ago (see Haudricourt (1961)).<sup>20</sup> In Chinese (which was discussed in the previous section), Loloish, Tai, Vietnamese, and Yi, for instance, a syllable came to be pronounced as a lower pitch with a voiced initial than with a voiceless one.

Let us start with introductory remarks on the methodology of previous studies about the genetic position of Naxi and subgroupings of Loloish or Lolo-Burmese. I would like to briefly outline the fundamental differences between Western and Chinese linguists’ hypotheses at the beginning.

Western linguists, like **Matisoff** and **Bradley**, argue:

- (1) Naxi should not be included within \*L,
- (2) tonal splits in the \*L checked syllable were conditioned by a voiced/voiceless distinction for its syllable-initial consonants, and all of the Loloish languages should share this two-way tonal contrast corresponding to the \*L checked syllables, and

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<sup>20</sup> Syllable types can be classified based on their ending elements, such as open vowel, nasal ending, and obstruent ending. Different languages have different types of syllables and different developments of syllable endings.

(3) Naxi does not show this two-way tonal split.<sup>21</sup>

Chinese linguists, like **Chen** and **Li**, argue:

- (1) Naxi is certainly a Loloish language (Chen 1993:26), or at least it must be included within Lolo-Burmese (Li 1999:25),
- (2) a ‘tense tone’ was developed when the Loloish languages dropped their root-final stopped consonant. Tonal splits from the \*tense tone were motivated by qualities of vocalic nucleus, such as ‘long’ vs. ‘short’, and/or the distinction between voiceless versus voiced syllable-initial consonants, and
- (3) Naxi does show a regular pattern of the two-way tonal split corresponding to the \*L checked syllables.

It appears that the Chinese linguists’ opinions are opposite those of the Western linguists (at UC-Berkeley). The following section will provide brief introductions to their specific hypotheses.

### **2.2.1. James A. Matisoff and David Bradley**

The mechanism of “tonogenesis” in Southeast Asia was developed by Matisoff between 1970 and 1973.<sup>22</sup> Based on his investigation of Lahu and its close relatives in the Loloish group, Matisoff (1972:3-4) assumes that tonogenesis was a compensatory mechanism used to introduce tonal contrasts into the sound systems, during which the

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<sup>21</sup> Matisoff (1972) calls Naxi “Moso” and Bradley (1975) calls Naxi “Nahsi”. No matter what they call Naxi, their studies have nothing to do with Mosuo.

<sup>22</sup> I will only focus on Matisoff’s argument related to subgrouping of Loloish. For more details about tonogenesis, please read the following references: “Glottal dissimilation and the Lahu high-rising tone (1970)”; “The tonal Split in Loloish checked syllables (1971)”; “*The Loloish tonal split revisited* (1972)”; and “Tonogenesis in Southeast Asia (1973)”.

rich variety of prefixes preceding the root along with most consonantal contrasts at the end of syllables in the proto-language gradually disappeared.<sup>23</sup>

The two-way tonal split in \*L checked syllables, which did not occur in other TB languages, was ultimately conditioned by the voiced vs. voiceless contrast of the root-initial consonants. In other words, tones in Loloish arise through the influence of syllable-initial consonants (including ‘stops and affricates’, ‘spirants’, ‘nasal’, and ‘resonants’ (1972:12-26)); the conditioning factor for the tonogenetic mechanism is that voiced initial syllables tend to join lower-pitched tones and voiceless initial syllables tend to join higher-pitched tones.

Based on the documentary support from Written Burmese, which shows no evidence of tonal distinctions in checked syllables at all, Matisoff assumes that there is no tonal contrast in checked syllables of \*LB, and that the Loloish branch had separated from \*LB due to certain phonetic conditioning factors operating to trigger a two-way tonal split in \*L (Matisoff 1972:3). Those languages that keep the two checked tone-classes distinction in checked syllables descending from \*L constitute the contemporary Loloish languages (Matisoff 1972:5), as shown in Figure 2.1.

Figure 2.1 below shows that \*LB, which involved no check tone-contrast, is the parent language of two subgroups: Proto-Burmish (\*B) and Proto-Loloid.<sup>24</sup> Neither of these subgroups developed tone-contrast in checked syllables. The Proto-Loloid can be subdivided into three language branches: Proto-Mosoid, Proto-Nasoid, and Proto-Lahoid.

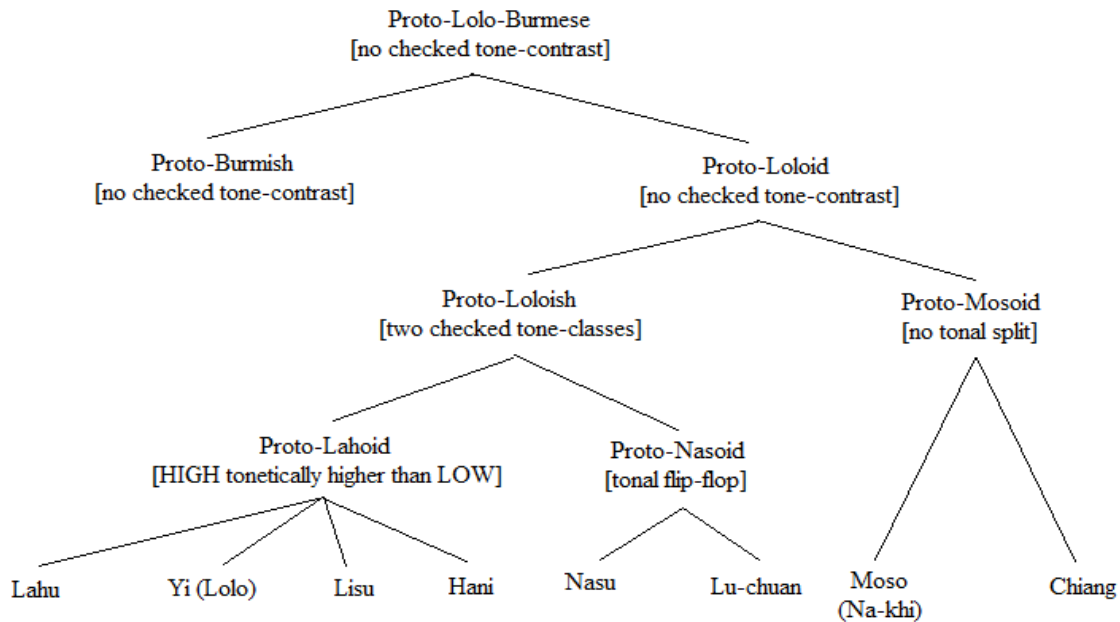
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<sup>23</sup> Note that the proto-languages of Southeast Asia had three significant types with regard to their syllables with final segments: (1) those ending in an open vowel or nasal, (2) those ending in voiceless spirants \*-s, and (3) those ending in some sort of stop (Matisoff 1973:74). Again, I will only focus on the third type in this study.

<sup>24</sup> There will be only brief discussion about Burmish in Section 2.3.2, since it does not have a tonal contrast in its \*checked syllables.

The languages in the Mosoid group, such as Nakhi (spelled ‘Naxi’ (纳西) in China) and Chiang (spelled ‘Qiang’ (羌语) in China), show “no tonal split” in checked syllables. It is very important to understand that the category “no tonal split” (in Matisoff’s terminology) does not reflect the real situation in Naxi or Mosuo. Based on my observation, the more appropriate term would be “no regular tonal split”. I will use “irregularity” to replace “no tonal split” in the rest of the chapter.

**Figure 2.1. From Proto-Lolo-Burmese to Proto-Lahoid (Matisoff 1972:8)**



Note that Chiang is excluded from the current study. I am uncertain if Chiang shows “no regular tonal split” in its \*checked syllables. I guess that Matisoff’s decision to put Nakhi and Chiang in the same language branch is due to the fact that some Chinese linguists have argued that the Ancient Chiang (古羌人) were the ancestors of the Nakhi (see Fang and He (1979:33-41)). But it is important to know that the Ancient Chiang was a collective name, in that it referred to hundreds of different ethnic groups in the past.

The contemporary Chiang is just one of the ethnic groups of the Ancient Chiang. Naxi/Mosuo and Qiang may not actually have a close genetic relationship.<sup>25</sup>

In Matisoff's analysis, the two-way tonal contrast in \*checked syllables can be placed at least as far back as the \*L period. Proto-Lahoid and Proto-Nasoid, which inherited the two checked-tone classes from \*L, show two kinds of tonal split patterns. The languages (including Lahu, Lisu, Hani, etc.) in the former group apply the regular rule of Matisoff's Loloish tonal splits in that the \*voiced initial syllables are lower-pitched, while the \*voiceless initial syllables are higher-pitched. The languages (including Nasu and the Yi dialect of Luchuan (spelled 'Luquan' in China)) in the latter group apply the tonal flip-flop, so that the \*voiceless initial syllables are lower-pitched than the \*voiced initial ones. Furthermore, Proto-Mosoid, the sibling language of Proto-Loloish, did not follow the rule; therefore, the two-way tonal contrast in \*checked syllables does not occur in Nakhi (Naxi) and Chiang. In addition, Proto-Burmish, which is the sibling language of Proto-Loloid, maintained an un-split tone from \*checked syllables.

According to Figure 2.1, Proto-Lahoid belongs to the pattern of regularity; Proto-Nasoid belongs to the pattern of flip-flop; Proto-Mosoid belongs to the pattern of irregularity; and Proto-Burmish belongs to the pattern of un-split. It is very obvious that Nakhi (Naxi) in the Mosoid group is coordinate with the Loloish group under the more inclusive Loloid family, but Naxi is definitely excluded from the Loloish branch.

In 1975, the genetic relationship between Naxi (spelled 'Naxi' (纳西) in China) and \*LB was discussed again by Bradley when he had almost completed his doctoral

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<sup>25</sup> Ge and Jiang (1990:71) point out that the percentage of words that are cognates between Mosuo and Qiang is about 26.9 percent when excluding loanwords.

thesis entitled “*Lahu dialects and Proto-Loloish*”. Having expertise in reconstructions of forms in \*L and \*LB, Bradley posed two viewpoints to support the idea that Nahsi should not be included within \*L.

Looking at the question from the Nahsi point of view:

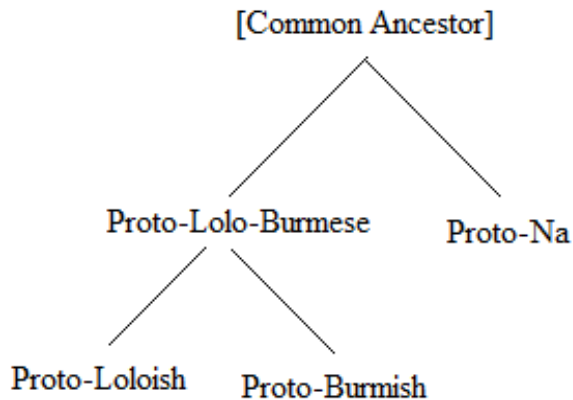
(i) there is a lack of adequate systematic correspondence when Nahsi forms are compared directly with the \*L and \*LB reconstructions based on their initials and prefixes. The limited examples of shared systematic regularity of correspondence, such as pre-nasalized stops /mb-/, /nd-/, or /ŋg-/, may be due to language contact (Bradley 1975:99), and

(ii) there is no clear conditioning factor for its tonal splits in \*stop-final syllables. It seems clear that the regular rule of Matisoff’s Loloish tonal splits is not reflected in Nahsi. The distribution of the high-level tone [55] is less predicable or even unpredictable, whether the syllable is stop-final or not (Bradley 1975:100).

Thus, there appears to be relatively little genetic relationship between Nahsi and \*L. Nahsi may be very close to \*LB within \*TB, but it is certainly not a Loloish language, and probably not a Burmish language either (Bradley 1975:99).

To demonstrate Bradley’s genetic relationship between Nahsi and \*L, it is necessary to define a language called “Proto-Na” (my terminology) which is the parent language of Naxi and Mosuo. As shown in Figure 2.2, the common ancestor of both \*LB and \*Na can be subdivided into three language branches: Proto-Loloish, Proto-Burmish, and Proto-Na. \*LB and \*Na are siblings, equidistant from their common ancestor. Therefore, the Naxi language, which was derived from Proto-Na, is excluded from not only Loloish but also Lolo-Burmese.

**Figure 2.2. Bradley’s genetic relationship between Naxi and \*L**



### 2.2.2. Kang Chen and Yongsui Li

The majority of TB linguists who graduated from the Department of Minority Language and Literatures at Minzu University of China (中央民族大学, formerly known as the Central University for Nationalities), including Kang Chen and Yongsui Li, have formed a consensus regarding the mechanism of tonogenesis in Loloish. Most of them agree that the primarily conditioning factor for the tonal split in \*L is the tense/lax contrast of vowels.<sup>26</sup> That is, the syllables have developed a ‘**tense tone** (紧调)’ when dropping their root-final **stopped** consonant, while a ‘**lax tone** (松调)’ was developed in syllables that formerly had a root-final **non-stopped** consonant or an open vowel. The \*lax tone descending from syllables with a non-stopped final consonant is distinctively lower in pitch than the \*tense one, which is derived from syllables with a stopped final consonant. After the first binary tonal split, other conditioning factors, such as the voiceless/voiced contrast in syllable-initial consonants and the distinction between short

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<sup>26</sup> The phonological contrasts between tense vowels and lax vowels can be principally described based on their different phonation types, namely the tense or lax states of the larynx. The tense vowel usually involves a [+stiff] or [-slack] vocal cords, while the lax vowel usually involves a [+slack] or [-stiff] vocal cords (Shi & Zhou 2005:60-63). Concerning phonetic and acoustic descriptions of tense vowel and lax vowel in Hani, Yi, Jingpho, and Wa, please read Maddieson and Ladefoged’s (1985:447) article.



vs. long vowels, began to trigger the secondary split from the \*lax and \*tense tone by doubling the number of tones from two to four or more (Chen 1991:27 and Li 1996:3).

Much detailed work postulating this two-step tonal split in Loloish has been done by Chen (1986, 1988, 1991, 1993, and 1997) and Li (1992, 1996, 1999, 2000, and 2008). Considering the tonal development of the \*L checked syllables (namely the \*tense tone in their terminology), there should be a fundamental difference between Chen's opinion and Li's. Chen argues that the two-way split of the \*tense tone was conditioned mainly by the voiced/voiceless contrast of the root-initial consonants (1993:24). However, Li argues that the \*tense tone was split through a combination of conditioning factors, either the voiced/voiceless contrast of the root-initial consonants and/or the short/long contrast of the vowels (1996:16 and 2008:53).

It is very important to understand that all of Chen and Li's research is not focused on the subgrouping of Loloish or Lolo-Burmese. It appears that those languages, which were defined as the Lolo-Burmese family by Li, or as the Loloish branch by Chen, rely completely on their lexical affinity. However, as far as I know, the researchers did not explain their methodologies regarding lexical affinity among those languages and usually did not provide overall cognate sets to support their hypotheses.

But it is not difficult to ascertain their attitudes concerning the genetic relationship between Naxi and \*L. Chen (1993:26) points out that Naxi is certainly a Loloish language (cf. Matisoff 1972). Li (1999:25) argues that Naxi must be included within Lolo-Burmese (cf. Bradley 1975). Both of Chen and Li agree that Naxi underwent a regular two-way tonal split corresponding to the \*checked syllables.

In the following, I will introduce a few examples selected from a possible Loloish group based on Li's conclusions (1996:16 and 2008:53).

Table 2.15 below shows that the two-way tonal split corresponding to the \*checked syllables in Hani, Jinuo (基诺), Northern Yi (北彝), Eastern Yi (东彝), Western Yi (西彝), and Southern Yi (南彝) was conditioned by the short/long contrast of the vowel. For example, the long vowel in \*checked syllables has developed into a mid-level tone [33], while the short vowel in \*checked syllables has developed into a falling tone [31] in modern Hani. It is obvious that, according to Li's analysis, the rule of Matisoff's Loloish tonal split did not hold true in these languages.

However, in the case of Hani, it appears that a reverse pattern exists because a syllable with a short vowel is more likely to involve a higher pitch than one with a long vowel. In addition, based on my observation, Hani (no matter whether spoken in Luchun or Mojiang) could have applied a 'regular' tonal pattern corresponding to its \*checked syllables in which its tonal split seems to be conditioned by the rule of Matisoff's Loloish tonal split perfectly. The details will be demonstrated when discussing the tonal split of Hani in Section 2.3.2.

**Table 2.15. The short/long contrast of \*vowel**

	Conditioning Factors for the Tonal Splits	
	*Long Vowel	*Short Vowel
Hani	33	31
Jinno	42	55
Northern Yi	33	55
Eastern Yi	33	13
Western Yi	33	21
Southern Yi	33	21

Table 2.16 below shows that the two-step split corresponding to the \*checked syllables in Lisu was affected by a combination of conditioning factors. The primary conditioning factor is the short/long contrast of the vowel; the secondary one is the voiced/voiceless contrast of the root-initial consonant. Therefore, the long vowel with a voiceless initial in \*checked syllables has developed into a high-rising tone [35]; the long vowel with a voiced initial in \*checked syllables has developed into a level tone [44]; the short vowel with a voiceless initial in \*checked syllables has developed into a high-level tone [55]; and the short vowel with a voiced initial in \*checked syllables has developed into a falling tone [42] in modern Lisu. Note that, based on my observation, Lisu could have applied a ‘regular’ tonal pattern corresponding to its \*checked syllables. The details will be demonstrated when discussing the tonal split of Lisu in Section 2.3.2.

**Table 2.16. A combination of conditioning factors**

					Conditioning Factors for the Tonal Splits				
					*Long Vowel		*Short Vowel		
					*Voiceless initial	*Voiced initial	*Voiceless initial	*Voiced initial	
Lisu					35	44	55	42	

Table 2.17 below shows that the tonal split corresponding to the \*checked syllables in Lahu, Central Yi (中彝), and Sani Yi (撒尼彝) involved a combination of conditioning factors. The primary conditioning factor is the short/long contrast of the vowel; the secondary one is the voiced/voiceless contrast of the root-initial consonant, which was only applied to the \*short vowel. In Lahu, for example, the long vowel in \*checked syllables has developed into a falling tone [54]; the short vowel with a voiceless initial in \*checked syllables has developed into a high-rising tone [35]; and the

short vowel with a voiced initial in \*checked syllables has developed into a low-falling tone [21].

Matisoff (1970:13-44) has posed a possible diachronic explanation for the development of Lahu high-rising tone (the same as tone [35] in Li’s transcription) in which it descends by “glottal dissimilation” from a “glottal-incident” syllable with a voiced glottalized or voiceless sibilant initial and a final stop in \*LB. I will explain Matisoff’s idea of glottal dissimilation when discussing the tonal split of Lahu in Section 2.3.2. Unlike Li, Matisoff never accepts that the trigger of the tonogenetic phenomena can be related to any feature of vocalic nucleus.

It is necessary to point out that Central Yi could have applied an ‘irregular’ tonal pattern corresponding to its \*checked syllables, in that its tonal split seems to be conditioned by a three-way contrast between voiceless, C-prefixed voiced, and non-C-prefixed voiced initials (when applying Bradley’s reconstruction of \*L). The details will be demonstrated when discussing the tonal split of the Central Yi dialect of Nanhua in Section 2.3.1.

**Table 2.17. Secondary split in \*short vowel**

	Conditioning Factors for the Tonal Splits		
	*Long Vowel	*Short Vowel	
		*Voiceless initial	*Voiced initial
Lahu	54	35	21
Central Yi	33	55	21
Sani Yi	44	55	2

Table 2.18 below shows that the two-way split corresponding to the \*checked syllables in Naxi was regularly conditioned by the voiced/voiceless contrast of the root-

initial consonant. Therefore, the voiceless initial in \*checked syllables has developed into a high-level tone [55]; and the voiced initial in \*checked syllables has developed into a mid-falling tone [31] in modern Naxi. However, based on my analysis, Naxi could have applied a ‘flip-flop’ pattern corresponding to its \*checked syllables. The details will be outlined when discussing the tonal split of Naxi in Section 2.3.2.

**Table 2.18. The voiced/voiceless contrast of the root-initial consonant**

	Conditioning Factors for the Tonal Splits	
	*Voiceless initial	*Voiced initial
Naxi	55	31

So far, I have provided summaries for several previous studies about the theory of tonal splits in Loloish and the genetic identification of the Naxi language. Clearly, on this issue, agreement between Western and Chinese linguists is rare. The Naxi language has been variously influenced in its phonology and syntactic structure by prolonged contact with Chinese; therefore, attempting to subgroup Naxi is not easy to achieve.

Although Thurgood (2003:19-20) states that the genetic position of Naxi is still ungrouped within Tibeto-Burman, it is reasonable to believe that there are several possibilities for the genetic position of Naxi, which are as follows:

- (i) Naxi is **excluded** from Loloish (posed by Matisoff),
- (ii) Naxi is **included** in Loloish (posed by Chen),
- (iii) Naxi is **excluded** from Lolo-Burmese (posed by Bradley), and
- (iv) Naxi is **included** in Lolo-Burmese (posed by Li).

Any of the above possibilities could be correct, but I will not make any conclusions regarding the genetic position of Naxi in this study.<sup>27</sup> The following section will focus on my disagreement with Matisoff's methodology, which often fails to predicate a more reliable genetic relationship among languages. I will argue that the tonal split in checked syllables of the proto-language may have nothing to do with the subgrouping of the modern languages. Moreover, newer data could prove that Bradley's conclusion is less likely to be true.

Before doing that, I want to explain why I refrain from discussing Chen and Li's research assumptions. There are two reasons: (i) uncertainty regarding their methodologies in subgrouping languages; for instance, I have no idea how they include those languages in the subgroup of Loloish or Lolo-Burmese;<sup>28</sup> and (ii) uncertainty regarding their theoretical understanding of tonal splits; for instance, I am wondering how the distinction between long and short vowel can interact with tone in \*checked syllables and whether this process the same as the tonal split in Cantonese. Even though their conclusions about the genetic position of Naxi could be right, it is very difficult for me to agree or disagree with them because of those uncertainties.

### **2.3. Tonal splits in Lolo-Burmese \*checked syllables**

In this section, the data will show that all of the patterns of tonal splits including “regularity”, “flip-flop”, “irregularity”, and “un-split” occur in Lolo-Burmese. The patterns, such as “regularity”, “flip-flop”, and “irregularity” are found in Yi and Loloish.

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<sup>27</sup> The genetic position of Naxi is a perfect topic for the further research. I could probably present my own solution for this when the evidence I need is sufficient.

<sup>28</sup> Chinese linguists particularly like to form a ‘consensus,’ an accumulative achievement of several generations of research, even though those achievements might not be made on the same theoretical ground.

Note that the Yi language is a part of Loloish. The Loloish language does not involve the pattern of “un-split” because languages maintaining an un-split tone in their \*checked syllables are often categorized as Burmish. The data will also show that Lolo-Burmese, like Chinese, applies not only a two-way but also a three-way tonal split in \*checked syllables. In the following, I will explore the tonal split in Yi \*checked syllables in Section 2.3.1, and I will observe the tonal split in possible Loloish and Burmish \*checked syllables in Section 2.3.2.

### **2.3.1. Tonal splits in Yi (Lolo) \*checked syllables**

Before investigating the pattern of tonal splits in \*L checked syllables, it would be more desirable to observe the behavior of tonal splits in the largest group of the Loloish—Yi (also known as ‘Lolo’ (彝语)). Historically, ‘Lolo’ is a derogatory name used by the Chinese to refer to various mountain groups in Sichuan and Yunnan. Several Yi languages that have been reported and classified as Loloish by Bradley (1979), Chen (1993 and 1997), and Matisoff (1972) will be selected and discussed in this section. I hope that eliciting the pattern of tonal splits in Yi \*checked syllable can help us understand the pattern of tonal splits in \*L checked syllables, as the Yi language is absolutely a part of Loloish.

Within the Yi language spoken in China, dialects can be approximately divided into six mutually unintelligible subgroups as follows (Huang 1992:664): (1) ‘Northern Yi’, spoken by about 1.8 million people in the mountainous region of southern Sichuan and adjoining parts of northern Yunnan and Western Guizhou; (2) ‘Western Yi’, spoken by about 900,000 people in western Yunnan; (3) ‘Central Yi’, spoken by about 500,000 people in southern and central Yunnan; (4) ‘Eastern Yi’ (traditionally called ‘Black

Yi'/'Black Lolo') spoken by about 1.5 million people scattered throughout northeastern Yunnan, southern Sichuan, western Guizhou, and western Guangxi; (5) 'Southeastern Yi', spoken by about 400,000 people in southeastern Yunnan; and (6) 'Southern Yi', spoken by about 800,000 people in southern Yunnan.

Note that each dialect of Yi spoken in China has an alternative "native name" which may appear in other literature.<sup>29</sup> For example, the native name used to refer to Northern Yi is 'Nuosu'; Western Yi is 'Lalo'; Central Yi is 'Lolopo'; Southern Yi is 'Nisu'; Southeastern Yi is 'Wusa', and Eastern Yi is 'Nasu'.

My argument would be better supported if data from the six dialects of the Yi languages could be found, but no data from Southern Yi is available to me. Furthermore, other groups called 'White Lolo' or 'Tonkin Lolo', who live in Vietnam (as reported by Bradley (1979:52)), are not included due to the shortage of data at hand. Therefore, I will provide comparative data for five dialects of Yi: the Northern Yi dialect of Xide (喜德); the Western Yi dialect of Weishan (巍山); the Central Yi dialect of Nanhua (南华); the Eastern Yi dialect of Wuding (武定), Luquan (禄劝); and the Southeastern Yi dialect of Sani (撒尼), Mile (弥勒) and Lunan (路南).

There are thirty-four words used to exemplify each pattern of tonal splits in \*checked syllables for each Yi dialect, twenty-one of which had been a checked syllable with a \*voiced initial, as shown in Table 2.19. The additional thirteen words had been a checked syllable with a \*voiceless initial, as shown in Table 2.20. The reconstructed proto-forms of these words rely on two sources. The forms of \*LB were reconstructed by Matisoff (1972), and the reconstructed forms of \*L were done by Bradley (1978), as

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<sup>29</sup> The native name usually indicates what the different Yi groups call themselves in their mother tongues.



shown in Appendices M and N. Because the purpose of this study is to evaluate Matisoff's theory, I will apply Matisoff's reconstruction in all cases. Bradley's reconstruction will be used only when Matisoff's reconstructed form is inapplicable or when Bradley's reconstruction can bring about a different result.

The sources of these words are also provided in Appendices N and O. The IPA transcriptions for the words in Xide, Weishan, Nanhua, Wuding, and Sani are taken from *The Tibeto-Burman Lexicon* (Huang 1992 (藏缅语族语言词汇)), published by Minzu University of China (中央民族大学). It collects the largest amount of lexical material for Tibeto-Burman languages spoken in China. The IPA transcriptions for the words in Luquan, Mile, and Lunan are taken from Chen's 1986, 1988, 1991, 1993, and 1997 articles. I believe their transcriptions, including tonal values, can be trusted because all of the providers had been trained as professional linguistic fieldworkers in the Department of Minority Language and Literatures at Minzu University of China. The detailed phonetic descriptions of the thirty-four cognate sets of the five Yi dialects are available in Appendices P and Q. Note that the names of dialects of Yi mentioned above are abbreviated in Tables 2.19 and 2.20 as follows: WS refers to Weishan; SN refers to Sani; ML refers to Mile; LN refers to Lunan; XD refers to Xide; WD refers to Wuding; LQ refers to Luquan, and NH refers to Nanhua.

**Table 2.19. The \*checked syllable with voiced initial in Yi dialects**

		WS	SN	ML	LN	XD	WD	LQ	NH
1	hand	21	2	2	2	55	55	55	21
2	pig	21	2	2	2	55	55	55	21
3	year	21	3	2	2	55	55	55	55
4	enough	21	2	2	2	55	55	55	21
5	six	21	2	2	2	55	55	55	55
6	waist	21	2	2	2	55	55	55	21
7	lick	21	2	2	2	55	55	55	21
8	vomit	21	2	2	2	55	55	55	55
9	needle	21	2	2	2	55	55	55	21
10	sleep	21	2			55	55		21
11	goat	21	2			55	55	55	55
12	bite	21	2			55	55	55	55
13	hungry	21	2			55	55	55	21
14	brain	21	44	2	2	55	55	55	21
15	stand	21	2	2	2	55	55	55	21
16	thirsty	21	2			55	55	55	55
17	eight	21	2			55	55	55	55
18	new		2			55	55		55
19	boil	21	55			55	55		55
20	kill	21				55			55
21	sew	21	2			55	55		21

**Table 2.20. The \*checked syllable with voiceless initial in Yi dialects**

		WS	SN	ML	LN	XD	WD	LQ	NH
1	chicken	33	44	33	4	33	2	2	33
2	black	33	44	33	4	33	2	2	33
3	bean	33	44	33	4	33	2	2	33
4	come out	33	44	33	4	33	2	2	33
5	be afraid	33	44	33	4	33	2	2	55
6	shoot	33	44	33	4	33	2	2	33
7	eye	33	44			33	2		33
8	blow	33	44			33	2		33
9	ascend/ go up	33	44	33	4	33	2	2	33
10	cold	33	44			33	2		33
11	sharp	55	44	33	4	33	2	2	33
12	tree	33	44	33	4	33	2	2	33
13	bird	33	33			33	2		33

Based on tonal values shown in Tables 2.19 and 2.20 above, three patterns can be found from these Yi dialects.

The pattern of tonal ‘**regularity**’ has been preserved in Western Yi and Southeastern Yi. In the Western Yi dialect of Weishan, the \*voiced root-initial checked syllables are under the low-falling tone [21]; the \*voiceless root-initial checked syllables are under the mid-level tone [33]. In the Southeastern Yi dialect of Sani, Mile and Lunan, the \*voiced root-initial checked syllables are under the low tone [2]; the \*voiceless root-initial checked syllables are under the middle or high tone [44], [33], and [4], respectively.<sup>30</sup>

<sup>30</sup> There could be four exceptions here: ‘brain’ and ‘boil’ from Sani; ‘sharp’ from Weishan and ‘bird’ from Sani. They are small in number and should not affect tonal pattern results.

The pattern of tonal ‘**flip-flop**’ has been found in Northern Yi and Eastern Yi. In the Northern Yi dialect of Xide, the \*voiced root-initial checked syllables are under the high-level tone [55]; the \*voiceless root-initial checked syllables are under the mid-level tone [33]. In the Eastern Yi dialect of Wuding and Luquan, the \*voiced root-initial checked syllables are under the high-level tone [55]; the \*voiceless root-initial checked syllables are under the low tone [2].

The pattern of tonal ‘**irregularity**’ occurs in Central Yi. In the Central Yi dialect of Nanhua, checked syllables with a \*voiceless initial are found in the mid-level tone [33], but checked syllables with a \*voiced initial are divided into the high-level tone [55] and the low-falling tone [21] without any predictable conditioning factor. Note that this result is based on Matisoff’s reconstruction of \*LB.

However, when using Bradley’s (1978) reconstruction of \*L, the tonal split in Nanhua seems to be conditioned by the three-way contrast between voiceless, voiced C-prefixed, and voiced non-C-prefixed initials. Therefore, checked syllables with a \*voiced C-prefixed initial are found in the high-level tone [55]; checked syllables with a \*voiced non-C-prefixed initial are found in the low-falling tone [21], and checked syllables with a \*voiceless initial are found in the mid-level tone [33].<sup>31</sup> Note that \*C-prefix is a cover-symbol used by Matisoff (1972:14) which indicates voiced \*b, \*d, \*g, \*r, and \*l prefixes in \*TB. It is amazing that Bradley’s reconstruction can show the distinction between \*voiced C-prefixed initial and \*voiced non-C-prefixed initial, which reflects the two-way tonal split of the \*voiced group in the Yi dialect of Nanhua.

The pattern of tonal ‘**un-split**’ has not been found in the Yi language. It is uncertain if Southern Yi, White Lolo or other dialects of Yi could be of this type.

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<sup>31</sup> The word ‘be afraid’ in the Central Yi dialect of Nanhua could be an exception.

### **2.3.2. Tonal splits in possible Loloish and Burmish \*checked syllables**

The subgrouping of Loloish languages has not been completely accepted due to several disagreements between Chinese and Western linguists; however, there are four languages which are most likely to be Loloish because they show numerous lexical similarities. They are:

- (1) **Yi (Lolo)**, Chen's main research language, was investigated in the previous section. The Yi language presents three kinds of tonal split patterns in the \*checked syllables, including 'regularity', 'flip-flop', and 'irregularity'.
- (2) **Lahu**, Bradley and Matisoff's main research language, is one of the best-documented and most widespread languages in Loloish.
- (3) **Hani**, Li's main research language, is one of the Akha dialects spoken in Yunnan, China.
- (4) **Lisu**, one of the best-recorded languages, has been defined as a Loloish language by Bradley, Chen, Li, Matisoff, and Xu, Mu, and Ge (1986:1).

In addition to these four languages, I would like to evaluate **Naxi**, **Mosuo**, and **Jinuo** (基诺) because they have been classified as Loloish languages by several authors. Before Chen, Dai (1981:65) and He & Jiang (1985:3) argued that Naxi is a Loloish language. In He and Jiang's *Naxiyu Jianzhi (A grammar of Naxi 纳西语简志)*, it is claimed that the Mosuo language belongs to the Eastern dialect of the Naxi language; in other words, Naxi and Mosuo have a sibling relationship and are derived from the same ancestor. Ge (1982:227 and 1986:2) has pointed out that Jinuo lies within the Loloish branch. In addition, Thurgood (2003:8) has posited that Jinuo belongs to the Central Loloish branch of Loloish.

In addition to the seven languages mentioned above, it is necessary to evaluate languages that did not involve tonal splits in their \*checked syllables. Matisoff (1972:3) mentions that “the most striking points of divergence between the Burmish and Loloish branches of the Lolo-Burmese is the fact that Burmese checked (or stop-finalled) syllables are all under the same tone”. Thus, I will also examine **Written Burmese**, **Modern Burmese**, and **Achang** in this study. The Achang language has been classified as a Burmish language by Dai & Cui (1985:1) and Thurgood (2003:8).

In order to maintain consistency, the words that were used to evaluate the Yi dialects in the previous section will be used again for the possible Loloish and Burmish languages in this section. Twenty-one had been a checked syllable with a \*voiced initial, as shown in Tables 2.21 and 2.23. The other thirteen words had been a checked syllable with a \*voiceless initial, as shown in Tables 2.22 and 2.24. The reconstructed forms for these words are mainly taken from Matisoff (1972). The phonetic transcriptions for the words from Lahu, Hani (Luchun), Hani (Mojiang), Lisu, Jinuo, Written Burmese, Burmese (Yangon), and Achang are taken from the same source—*The Tibeto-Burman Lexicon* (Huang 1992). The sources of these words are provided in Appendices N and O. The phonetic transcriptions for the words from Naxi and Mosuo are mainly taken from *Naxiyu Jianzhi (A grammar of Naxi)* (He and Jiang 1986), *The Tibeto-Burman Lexicon* (Huang 1992), and *A Descriptive Grammar of Yongning Na (Mosuo)* (Lidz 2010). The sources of the words from Naxi and Mosuo are provided in Appendices R and S. The detailed phonetic descriptions of the thirty-four cognate sets of these languages are available in Appendices T and U.

**Table 2.21. The \*checked syllable with voiced initial in possible Loloish**

		Lahu	Hani (Luchun)	Hani (Mojiang)	Lisu	Jinuo	Naxi	Mosuo
1	hand	21	31	31	31	55	31	31
2	pig	21	31	31	31	55	31	13
3	year	21	31	31	31		55	13
4	enough	21	31	31	31	55	31	31
5	six	21	31	31	31	44	55	13
6	waist	21	31	31	31	55	55	13
7	lick	21	31	31	31	55		
8	vomit	21				55	55	13
9	needle	21	31	31		55	31	13
10	sleep	21	31	31		55	55	13
11	goat	21	31	31	31	55	55	13
12	bite	21	31	31	31	55	55	13
13	hungry	21	31	31	31	55		
14	brain	21	31	31	55	55		13
15	stand	35	31	31	31	55	55	13
16	thirsty	35		31	31	55		
17	eight	35	31	31	31	44	55	13
18	new	35	31	31	31	55	55	13
19	boil	35	31	31	55	55	55	13
20	kill		31	31	31	55	55	13
21	sew		31	31	31	55		

**Table 2.22. The \*checked syllable with voiceless initial in possible Loloish**

		Lahu	Hani (Luchun)	Hani (Mojiang)	Lisu	Jinuo	Naxi	Mosuo
1	chicken	54	33	33	33	42	31	13
2	black	54	33	33	33	42	31	13
3	bean	54	33	33	33		31	31
4	come out	54	33	33	33	42	33	
5	be afraid	54	33	33	33	33	33	13
6	shoot	54	33	33	33	42		
7	eye	54	33	33	33	42	31	31
8	blow	54	33		33		31	13
9	ascend/go up	54	33	33	33	42	33	33
10	cold	54	33	33				
11	sharp	54	33	33	35	42	55	13
12	tree	54			35	44		33
13	bird	54			35	42		

Based on tonal values shown in Tables 2.21 and 2.22 above, three patterns can be found in the possible language group of Loloish.

The pattern of tonal ‘**regularity**’ has been found in Hani, Lisu, and Lahu. In the Hani dialect of both Luchun (绿春) and Mojiang (墨江), the \*voiced root-initial checked syllables are under the mid-falling tone [31]; the \*voiceless root-initial checked syllables are under the mid-level tone [33].

In Lisu, the \*voiced root-initial checked syllables are under the mid-falling tone [31]; the \*voiceless root-initial checked syllables are under the mid-level tone [33].<sup>32</sup>

There are a few exceptions with a high-rising tone [35] in the group of \*voiceless-initials,

<sup>32</sup> The Lisu words ‘brain’ and ‘boil’ could be exceptions. These should not affect the result of the type of tonal patterns.



as shown in Table 2.22 (no.11-13). Matisoff (1970:15) mentions that the checked syllable with a high tone in Lisu has suffered a further split; it became either [33] or [35], according to whether the \*initial consonant was ‘non-aspirated’ or ‘aspirated and sibilant’, respectively. Unlike Matisoff, I can not find any possible conditioning factor for the two-way split of [33] and [35] based on the words provided in Table 2.22. The words ‘sharp’, ‘tree’, and ‘bird’ with [35] are still treated as exceptions.

In Lahu, the \*voiced root-initial checked syllables are under the low-falling tone [21]; the \*voiceless root-initial checked syllables are under the high-falling tone [54]. However, the high-rising tone [35] does not follow the regular rule because it occurs with the \*voiced root-initial syllable, as shown in Table 2.21 (no.15-19). To explain this irregularity, Matisoff (1970) argues that the Lahu high-rising tone in the \*checked syllable had been a causative form, which could have involved a root-initial glottalized consonant.<sup>33</sup> The initial glottal stop /\*ʔ-/ , which functions as a causative prefix, tends to influence the pitch value in the checked syllable (in which \*-p, \*-t, or \*-k has neutralized into a root-final \*-ʔ). In other words, the Lahu high-rising tone arose in a phonetic environment that both began and ended with a glottal stop /ʔ/. Note that this environment “ʔ\_ʔ” is called two “glottal incidents” in Matisoff’s terminology. Therefore, the simplex form with tonal value [21] in the checked syllable became [35] when it was used in the causative context.<sup>34</sup>

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<sup>33</sup> Matisoff (1970:18) points out that causativization was optionally marked by a sibilant prefix reconstructed as \*s- or \*sə- in a verb-root in \*TB; however, the causative prefix in \*LB had fused with the initial consonant and had become a glottalized consonant.

<sup>34</sup> If Matisoff’s solution for the Lahu high-rising tone in the \*checked syllable is correct, the Lahu word ‘eight’ with [35] should be an exception. It is hard to believe that the numeral ‘eight’ can have its causative form at the \*L stage.

The pattern of tonal ‘**flip-flop**’ has been found in Jinuo and Naxi. In Jinuo, the \*voiced root-initial checked syllables are under the high-level tone [55] or [44]; the \*voiceless root-initial checked syllables are under the mid-falling tone [42].<sup>35</sup> In Naxi, the \*voiced root-initial syllables are under the high-level tone [55]; the \*voiceless root-initial checked syllables are under the falling tone [31].<sup>36</sup> Note that the tonal value of the words ‘come out’, ‘be afraid’, and ‘ascend’ with mid-level tone [33] in the \*voiceless-initial group could be a heritage succeeding from their corresponding \*causative forms, because all of their reconstructed forms involve a \*voiceless root-initial glottalized consonant. In other words, the simplex form with tonal value [31] became [33] when it involved a root-initial glottal stop -ʔ in order to constitute a causative form. Since causativization (in terms of \*-ʔ) is an optional causative prefix in the proto-language, the occurrence of tone [33] is a secondary process.

The pattern of tonal ‘**irregularity**’ has been found in Mosuo. In Mosuo, checked syllables with a \*voiced initial are under the mid-rising tone [13]; checked syllables with a \*voiceless initial are scattered unpredictably among three tonal categories [13], [31], and [33].<sup>37</sup>

In the final part of this section, it is necessary to demonstrate the ‘**un-split**’ pattern in \*checked syllables, which has been defined as a fundamental tonal feature of Burmish, as shown in Tables 2.23 and 2.24.

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<sup>35</sup> In Jinuo, the very small amount of tone [44] in the \*voiced-initial group could be a derivative from the original tone value [55]. The words ‘be afraid’ and ‘tree’ in the \*voiceless-initial group could be exceptions.

<sup>36</sup> In Naxi, the words ‘hand’, ‘pig’, ‘enough’ and ‘needle’ with tone [31] in the \*voiced-initial group could be exceptions. The word ‘sharp’ with tone [55] in the \*voiceless-initial group could be an exception, too. These should not affect the result of the type of tonal patterns.

<sup>37</sup> In Mosuo, the words ‘hand’ and ‘enough’ with tone [31] in the \*voiced-initial group could be exceptions. These should not affect the result of the type of tonal patterns.

**Table 2.23. The \*checked syllable with voiced initial in possible Burmish**

		Written Burmese	Burmese (Yangon)	Achang
1	hand	4	4	55
2	pig	4	4	55
3	year	4	4	55
4	enough	4	4	
5	six	4	4	55
6	waist			
7	lick	4	4	55
8	vomit			
9	needle	4	4	55
10	sleep	4	4	
11	goat	4	4	55
12	bite	4	4	
13	hungry			55
14	brain	4	4	31
15	stand	4	4	55
16	thirsty	4	4	55
17	eight	4	4	55
18	new	4	4	55
19	boil	4	4	
20	kill	4	4	55
21	sew	4	4	55

**Table 2.24. The \*checked syllable with voiceless initial in possible Burmish**

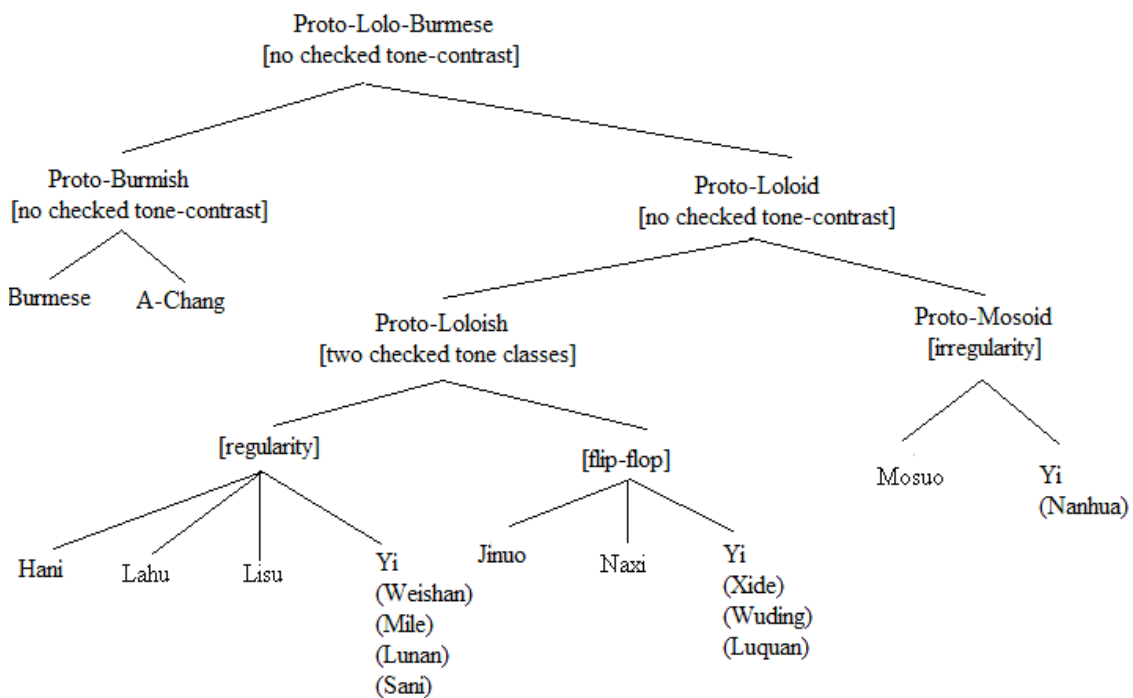
		Written Burmese	Burmese (Yangon)	Achang
1	chicken	4	4	55
2	black	4	4	55
3	bean			31
4	come out	4	4	55
5	be afraid	4	4	55
6	shoot	4	4	55
7	eye	4	4	55
8	blow	4	4	55
9	ascend/go up	4	4	35
10	cold			55
11	sharp	4	4	55
12	tree	4	4	
13	bird	4	4	55

Table 2.23 and Table 2.24 show that Written Burmese, Burmese dialect of Yangon, and Achang do not undergo tonal splits in their \*checked syllables. For example, the groups of \*voiced-initial and \*voiceless-initial share the common tonal value [4] in Written Burmese and Burmese (Yangon). In Achang, both groups maintain the same pitch value [55].<sup>38</sup>

<sup>38</sup> In Achang, the word ‘brain’ with tone [31] in the \*voiced-initial group could be an exception. Moreover, the words ‘bean’ with tone [31] and ‘ascend’ with tone [35] could be exceptions, too. These should not affect the result of the type of tonal patterns.

Based on the discussion in Sections 2.3.1 and 2.3.2, the development of tonal splits in the \* checked syllable from \*LB to modern languages can be illustrated in Figure 2.3. Comparing Figure 2.1 with Figure 2.3, the crucial difference is that I put Naxi in the subgroup of flip-flop, while Matisoff put it in the subgroup of irregularity. In addition, Mosuo, which was not included in Matisoff's study in 1972, is put in the subgroup of irregularity.

**Figure 2.3. Tonal splits in the \*checked syllable from \*LB**



Furthermore, with a better understanding about the way Matisoff subgrouped the Loloish languages in 1972, the development of tonal splits in the \* checked syllable of Chinese can be illustrated in Figure 2.4. Figure 2.4 is established based on the discussion provided in Section 2.1.

**Figure 2.4. Tonal splits in the \*checked syllable from \*C**

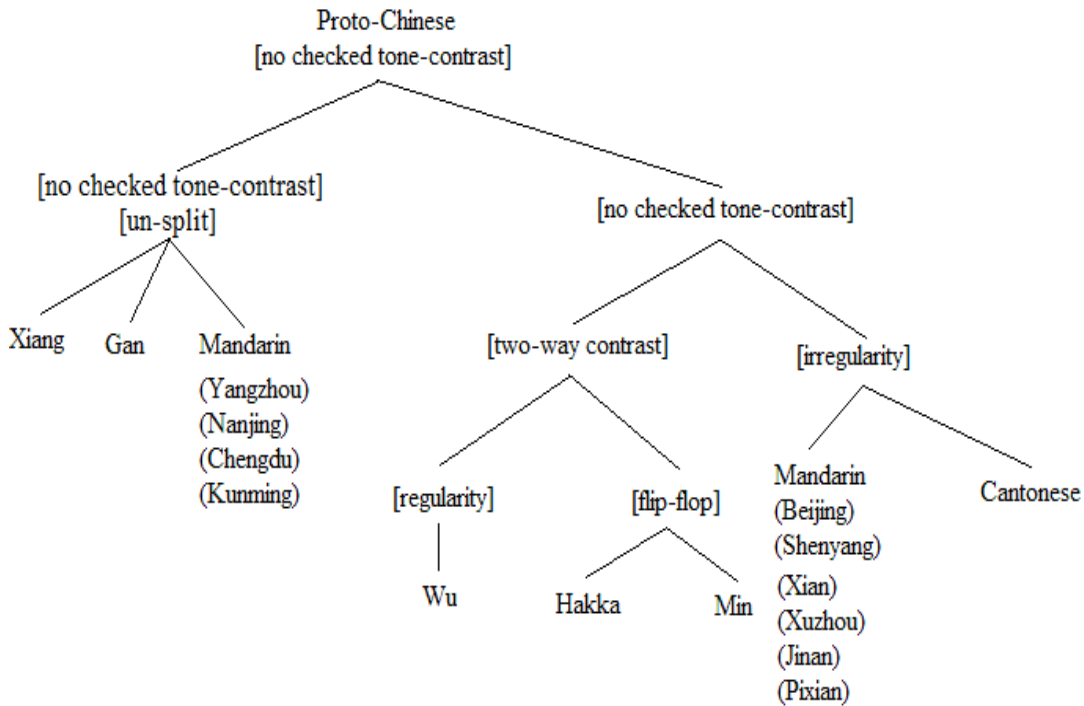


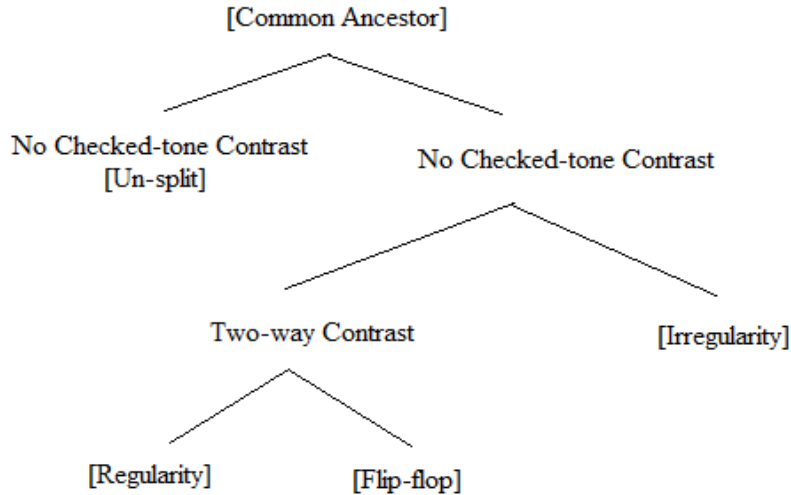
Figure 2.4 shows that \*C, which has not involved any contrast in the \*checked tone, is the parent language of two groups. One group includes languages that have never experienced any tone change in their \*checked syllables and belong to the “un-split” pattern. The other one includes languages that have experienced tonal splits in their \*checked syllables and can be divided into three subgroups in terms of “regularity”, “flip-flop”, and “irregularity”. The groups of “regularity” and “flip-flop” show two-way tonal contrast in \*checked syllables, but the group of “irregularity” does not.

## **2.4. Discussion**

One of Matisoff's (1972) great contributions is the way in which his analysis can show four patterns of tonal splits in \*checked syllables from several proto-languages within \*LB: "regularity", "flip-flop", "irregularity", and "un-split". The pattern of "un-split" maintains one tonal value from its \*checked syllables; in other words, it did not involve any tone contrast in \*checked syllables. The patterns of "regularity", "flip-flop", and "irregularity" present at least two or more tonal values in their \*checked syllables; among these patterns, the patterns of "regularity" and "flip-flop" are restricted to a "two-way tonal contrast" in \*checked syllables.

Matisoff's other great contribution is the genetic distribution of these patterns as shown in a tree diagram. If the methodology Matisoff applied is valid, the only reasonable way to assign the genetic position for languages that apply these four patterns is shown in Figure 2.5. The group of "un-split" is distinct from the groups of "two-way contrast" and "irregularity" because it did not undergo tonal splits in \*checked syllables. The groups of "two-way contrast" and "irregularity", which have a closer genetic relationship due to a common feature in terms of the diachronic tonal splits, are siblings equidistant from their common ancestor. This common ancestor, in Matisoff's treatment, did not display tonal splits. The group of "two-way contrast" can be further subdivided into two smaller daughter-level groups: "regularity" and "flip-flop", which are placed in the lowest level of the tree diagram.

**Figure 2.5. Genetic distribution based on patterns of tonal splits**



Matisoff’s findings and analyses seem invincible if the patterns of tonal splits in the \*checked syllables can really be used as a judgment by which to subgroup languages. However, there are several proofs showing that his methodology is misleading.

First, Matisoff’s method cannot be applied across all languages. For instance, the Chinese languages cannot be subgrouped based on the patterns of tonal splits in \*checked syllables. It is very obvious that the dialects of Mandarin are divided into two groups. One group belongs to the pattern of “irregularity” and includes the Mandarin dialects of Beijing, Shenyang, Xi’an, Xuzhou, Pixian, and Jinan; the other belongs to the pattern of “un-split” and includes the Mandarin dialects of Yangzhou, Nanjing, Chengdu, and Kunming, as shown in Table 2.25 below. Table 2.25 is built based on data discussed in the previous sections. This division of Mandarin is unacceptable because it groups some Mandarin dialects with Yue and others with Xiang and Gan, and we know on other grounds that all Mandarin dialects have a common ancestor that was more recent than their common ancestor with any of the other Sinitic languages. The dialects of Mandarin cannot be placed in two groups that exhibit a less-relevant genetic relationship. In his



study, Matisoff did not explain why the universal phonetic mechanism of tonogenesis is unique to Loloish.

**Table 2.25. Matrix of tonal split patterns in languages**

	Regularity	Flip-flop	Irregularity	Un-split
Chinese	<b>Wu:</b> Suzhou (苏州); Wuxi (无锡); Shanghai (上海); Wenzhou (温州)	<b>Hakka:</b> (Meixian (梅 县)); <b>Min:</b> Xiamen (厦门); Chaozhou (潮 州); Fuzhou (福 州)	<b>Yue:</b> (Yangjiang (阳 江); Guangzhou (广州) <b>Mandarin:</b> Beijing (北京); Shenyang (沈阳); Xi'an (西安); Xuzhou (徐州); Pixian (邳县); Jinan (济南)	<b>Xiang:</b> Changsha (长沙); <b>Gan:</b> Nanchang (南昌); <b>Mandarin:</b> Yangzhou (扬州); Nanjing (南京); Chengdu (成都); Kunming (昆明)
Loloish	<b>Hani</b> <b>Lahu</b> <b>Lisu</b> <b>Yi:</b> Weishan (巍山); Mile (弥勒); Lunan (路南); Sani (撒尼)	<b>Jinuo</b> <b>Naxi</b> <b>Yi:</b> Xide (喜德); Wuding (武定); Luquan (禄劝)	<b>Mosuo</b> <b>Yi:</b> Nanhua (南华)	
Burmish				<b>Burmese</b> <b>Achang</b>

Second, Matisoff's method fails to establish a more reliable genetic relationship among languages. For instance, the most problematic situation is found in the Yi dialect of Nanhua, which belongs to the pattern of "irregularity", as shown in Table 2.25 above. Table 2.25 shows that the Central Yi dialect of Nanhua and Mosuo are categorized in the same subgroup. It is very difficult to believe that the genetic relationship between Nanhua and Mosuo is closer than that between Nanhua and Xide, even though the tonal splits in

the \*checked syllables of the Yi dialects of Nanhua and Xide were two parallel, independent developments. It is also very difficult to believe that the genetic relationship between Nanhua and Mosuo is closer than that between Naxi and Mosuo. Ge and Jiang (1990:67, 73) point out that the percentage of words which are cognates between Naxi and Mosuo is over sixty percent when excluding loanwords. Clearly, Naxi and Mosuo should be put in the same language branch within \*LB.

Now let us return to the arguments about Naxi posed by Bradley (1975:99). Bradley claims that the source of pre-nasalized stops, such as /mb-/, /nd-/, or /ŋg-/, in Naxi may be due to language contact. It is necessary to make clear that the majority of the Naxi dialects do not involve pre-nasalized stops in their consonant systems. Only about ten percent of the Naxi speakers, particularly those living in the Lijiang Ancient Town, use pre-nasalized stops. In other words, the Naxi language is losing its pre-nasalized stops diachronically. In addition, Mosuo, which is a sibling language of Naxi, does not have pre-nasalized stops.

Furthermore, it is very difficult to locate the donor that has given those pre-nasalized stops to Naxi. According to Dai (1992:42), the pre-nasalized stops in Naxi correspond to the [f] and [m] initials in Written Tibetan; thus, those pre-nasalized stops in Naxi could be an inherited characteristic rather than a borrowed one. It should be noticed that pre-nasalized stops are also found in the Northern Yi dialect of Xide, and the Eastern Yi dialects of Wuding, Luquan, and Dafang (大方) (Dai 1992:42).<sup>39</sup> These dialects of Yi, like Naxi, are subcategorized in the tonal-split group of flip-flop.

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<sup>39</sup> The Yi dialect of Dafang is spoken in Guizhou Province.

This could be a shared diachronic tendency in Tibeto-Burman. The same thing happens in Tibetan languages; most of them are losing or have lost prenasalized stops. This is not surprising. Prenasalized stops are typologically unusual, and languages that have them often lose them.<sup>40</sup> Furthermore, there is no evidence to prove that prenasalized stops in Naxi were borrowed because the Mosuo language spoken in the area between Naxi, Eastern Yi, and Northern Yi does not have pre-nasalized stops.

Ge and Jiang (1990:73) point out that the percentage of words that are cognates between Mosuo and the Northern Yi dialect of Xide is about forty percent when excluding loanwords; therefore, the genetic relationship between Mosuo, Naxi and Northern Yi could not be too distant. Bradley (1975:100) also points out that the distribution of the high-level tone [55] in Naxi is less predictable or even unpredictable in stop-final syllables. However, according to Tables 2.20 and 2.21 above, the tone [55] in Naxi is predicable because most of the words with tone [55] occur in the \*voiced-initial checked syllable. These facts give us little reason to believe Bradley's supposition in that Naxi is excluded from the \*LB.

Let us focus on what the comparative reconstruction in this chapter shows. First of all, the synchronic tonal values corresponding to the \*checked tone can be classified into four patterns: 'regularity', 'flip-flop', 'irregularity', and 'un-split'. This classification is based on the universal phonetic mechanism of tonogenesis posed by Matisoff. Secondly, the origin form of the \*checked syllable was a single tonal value. The supporting evidence can be found in Chinese historical documents. Finally, the diachronic development from the \*checked tone to the four synchronic patterns is

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<sup>40</sup> Information about Tibetan and the universal idea were provided by Scott DeLancey via an in-text comment.

uncertain. The languages that exhibit the regular pattern are a very small group among all of the Sino-Tibetan languages. The issues about the patterns of ‘flip-flop’, ‘irregularity’ and ‘un-split’ that are used by the most speakers of the Sino-Tibetan languages are less-discussed.

### CHAPTER III

#### SEMANTIC CHANGE: SCHEMATIC EFFECT

An image schema is a cognitive representation that can reflect why a speaker uses a word or a sentence and how a listener understands it. When an expression is used by a speaker to convey an abstract concept, the image schema's conceptual representation reflects the speaker's cognition. The image schema also helps the speaker switch meaning from a concrete domain to an abstract domain. If a miscommunication does not occur after the first use of the abstract expression, this means that the listener can process the image schema based on his cognition. Essentially, a successful semantic change requires a shared image schema between the speaker and the listener. This cognitive interaction is the focus of this chapter. Specifically, I will discuss a schematic effect during the semantic change.

The image schema of RETURN in Chinese is a typical example that can be used to explain semantic extensions. The motion verb “to return” is not a simple concept because it requires both a retraversal path and an unmarked path-traversed portion. The most interesting question is how a Chinese speaker chooses a sound to express the meaning of “to return”. Speakers use the sound /huan/ to indicate “to return” because it can be conceptualized as an image schema which is similar to the refresh symbol . Based on the shared understanding of the schema  between the speaker and the listener, the sound /huan/ (written as (还) in Modern Chinese and as (环) meaning ‘a circle’ in Ancient Chinese) was adopted as the verb ‘to return’ to profile a returning movement. I will provide a related discussion about the semantic extension from the image schema of RETURN in Section 3.1.

The image schema of TAKE in Chinese is unique because it barely occurs on its own. The action verb “to take” normally co-occurs with another verb to constitute a serial verb event. There exist image schemata that can conceptualize several serial verb events with the verb “to take”, such as ‘thing-transferred event’, ‘thing-located event’, ‘thing-transformed event’, and ‘instrumental causative event’. The image schemata of these events will be discussed in Section 3.2. I will claim that the so-called “disposal construction” was derived from the ‘instrumental causative event’ because they share common senses in terms of “manipulativeness” and “affectedness” in their image schemata.

### **3.1. The motion verb RETURN—还**

The Chinese character 还 in Mandarin has polysemous functions. When used as a lexical verb, it is pronounced /huan/ with a raising tone [35], meaning “to return”; in its other non-verbal senses, such as “again” or “still”, it is pronounced /hai/ with a raising tone [35].

There are two different bodies of literature concerning the diachronic development of 还 from /huan/ to /hai/. Yeh (1998:236-280) argues that the meaning of “again” for *hai* was grammaticalized from the meaning of “to return” for *huan* around the 5-6th century; the meaning of “still” for *hai* was further derived from the meaning of “again” in the 8th century. However, Yang (2004:207-216) argues that both of the meanings of “still” and “again” for *hai* were derived from the meaning of “to return” for *huan* around the 5-6 century. I will briefly introduce the two studies concerning 还 in the succeeding sections, from Sections 3.1.1 to 3.1.2. Several questions about 还 will be

posed in Section 3.1.3. My personal hypothesis, which accounts for the image schema of RETURN, will be discussed in Section 3.1.4.

### 3.1.1. Yeh's argument on *hai* 还

Yeh (1998:242) points out that *huan* (还) 'to return' was originally a verb, meaning "to go/come back" and its meaning is extended to "to return an object". The Chinese character 还 had begun to involve a motion event indicating "to return/come back home" or "to return an object" by the 3rd century B.C., as shown in (1).

(1) 《庄子》 *Zhuang Zi* 369-286 B.C. (Yeh 1998:242)

相与还而观之

*xiang yu huan er guan zhi*

together with come-back and look it

'**Come back/return** together and take a look at it.'

In addition, Yeh argues that the historical changes of 还 from *huan* to *hai* consist of several stages. In the first stage, the sense of repetition—"to go back to a previous situation" or "to go to a previous state again"—had been fully developed from the original verbal meaning "to return home" by the 6th century (1998:244), as shown in (2).

(2) 徐陵《长相思》 *Chang Xiang Si* 507-583 A.D. (Yeh 1998:244)

柳絮飞还聚，游丝断复结

*liu xu fei huan ju, you si duan fu jie*

willow catkins fly again gather, wondering spider-web break again connected

'The willow catkins float away and come together **again**; the spider web breaks and is connected again.'

In the second stage, two grammatical meanings had been separately derived from the repetitious sense (namely "again") by the 8th century (1998:246). One is a textual connective/cohesive marker, meaning "also" or "moreover"; the other implies temporal continuation ("still") and describes a durative situation internally. Examples are shown in (3) and (4), respectively.

- (3) 魏征《述怀》 *Shu Huai* 580-643 A.D. (Yeh 1998:245)  
 既伤千里目，还惊九折魂  
 ji shang qian li mu, hai jing jiu zhe hun  
 as-well-as hurt thousand mile eye, also frighten nine turn soul  
 ‘Not just the view of the long trail makes you sad, the winding turns **also** frighten you.’
- (4) 杜甫《秋兴》 *Qiu Xing* 712-770 A.D. (Yeh 1998:247)  
 信宿渔人还泛泛  
 xin-su yu-ren hai fan-fan  
 stay-two-night fishermen still float  
 ‘The fishermen stayed over two nights; their boats are **still** anchored on the river.’

In the final stage, the continuant meaning (namely “still”), which functions as a scalar operator, was extended to account for the newer uses in Middle Mandarin around the 10th-16th century, such as *haishi* (还是), the indication of expectation contradiction (namely “unexpectedly”), the comparative use, and the moderate sense (1998:249-252).<sup>41</sup> Based on Yeh’s treatment, all of the extended uses derived from the continuant sense can be translated as “still”, as shown from (5) to (8). Yeh (1998:250) also mentions that *hai* in examples (6) and (7) not only expresses a continuing situation, but also indicates an “expectation contradiction”.<sup>42</sup> Note that the development of *hai* (还) and *haishi* (还是) could be independent; therefore, I will not discuss the latter in the study.

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<sup>41</sup> The morpheme *shi* (是) is a copula in Chinese. The compound *haishi* (还是) can express the meaning, such as “or” or “still”, depending on the context. Yang (2004:215) mentions that the earliest example of *hai* (还) meaning “or” is found in *Zu Tang Ji* 《祖堂集》 (952 A.D.), as shown in the following. The example is adopted from Mei (1978, 2000).

只划得这个，还划得那个摩？  
 Zhi hua de zhe ge, hai hua de nei ge mo?  
 only mow de this Cl., or mow de that Cl. Ques.  
 ‘Will you only mow this one, or mow that one?’

<sup>42</sup> It is also very odd for Yeh to argue that *hai* in example (6) can express both a continuing situation and an expectation contradiction, because there are no ancient people alive to judge this sentence.



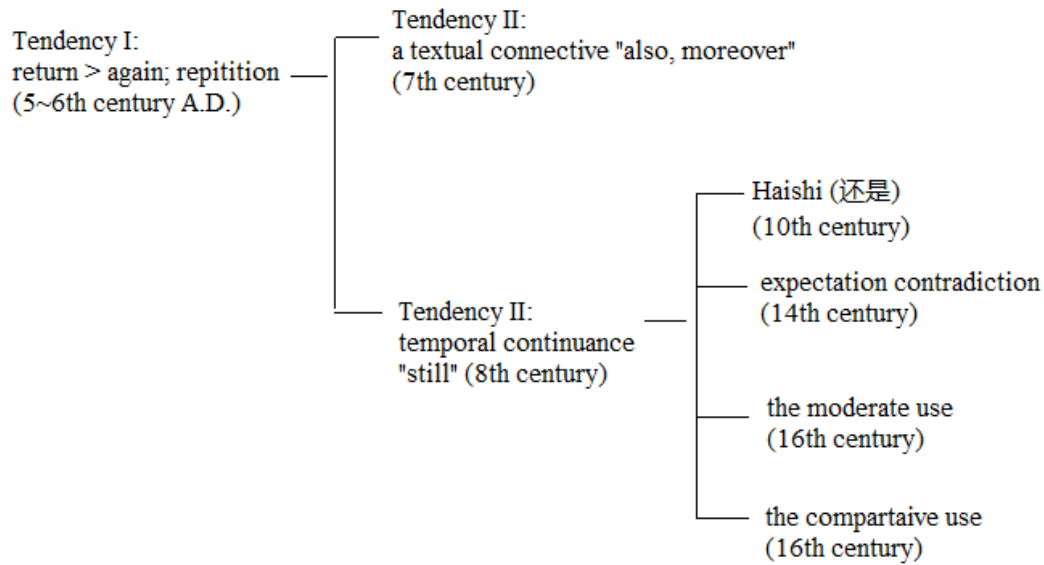
- (5) 张先 《一从花》 *Yi Cong Hua* 990-1078 A.D. (Yeh 1998:249)  
 ...黄昏后，又**还是**，新月帘拢，沉恨细思  
 huang-hun hou, you hai shi, xin yue lian long, chen hen xi si  
 sun-setting after, again still shi, new moon curtain window, deep regret sensitive thought  
 ‘After sunset, it is **still** the scene that the new moon is outside the curtain window, I am thinking with deep regret.’
- (6) 《水浒传》 *Shui Hu Chuan* (Yeh 1998:249)  
 还敢应口  
 hai gan ying-kou  
 still dare talk-back  
 ‘Dare you **still** talk back!’
- (7) 《西游记》 *Xi You Ji* (Yeh 1998:250)  
 这场祸比天**还**大  
 zhe chang huo bi tian hai da  
 this CI disaster compare sky hai big  
 ‘This disaster is **still** bigger than the sky.’<sup>43</sup>
- (8) 《西游记》 *Xi You Ji* (Yeh 1998:250)  
 你**还**像个人样，那三个丑的断然是怪  
 ni hai xing ge ren yang, na san ge chou-de duan-ran shi guai  
 you still resemble CI human look, that three CI ugly definitely copula monster  
 ‘You **still** look like a human being, but those three are definitely monsters.’<sup>44</sup>

The development of *hai* (还) can be demonstrated in Figure 3.1 (Yeh 1998:251):

<sup>43</sup> It is very odd to gloss *hai* as ‘still’ in (7). The more appropriate gloss for this would be ‘more’.

<sup>44</sup> Yeh incorrectly translates *guai* (怪) as an adjective meaning ‘odd’. I have made a correction in that *guai* (怪) should be a noun meaning ‘monster’.

**Figure 3.1. The historical changes of RETURN (还)**



### 3.1.2. Yang's argument on *hai* 还

In order to show the diachronic development of grammatical meanings derived from the motion verb *huan* (还), Yang (2004) uses the following examples to support her arguments.<sup>45</sup>

First, the original meaning of *huan* (还) is “to return”, as shown in (9).

(9) 《诗 小雅 何人斯》 *Shi Jing* 1100-771 B.C. (Yang 2004:209)

尔还而入。

er huan er ru

you return then enter

‘if you **return** and enter my house’

Second, the meanings of “still” and “again” of *hai* (还) occurred in *Qi Ming Yao Shu* 《齐民要术》 around the 5-6 century, as shown in (10) and (11), respectively. Based

<sup>45</sup> The main purpose of Yang's paper is to explore the semantic developments of *ku* (故) in Min dialects. She argues that the adverbial usages of “still” and “once more” of *ku* (故) in Min dialects came from Old Chinese *ku* (故) which originally meant “because”. In the paper, she also investigates the words *fu* (复) and *huan* (还) in Chinese; I only cite examples from this section (2004:207-216).

on these findings in *Qi Ming Yao Shu*, Yang (2004:209) argues that both of the meanings of “still” and “again” for *hai* (还) were directly derived from the meaning of “to return” for *huan* (还); there is no logical prerequisite needed when talking about the diachronic development from “again” to “still” in Chinese.

(10) 《齐民要术卷七》 *Qi Ming Yao Shu Vol.7* 534-550 A.D. (Yang 2004:210)

唯以渐加米，还得满瓮。

wei yi jian jia mi, hai de man weng

only use gradually add rice, again get full urn

‘Only by adding rice gradually will you get a full urn of wine **again**.’

(11) 《齐民要术卷四》 *Qi Ming Yao Shu Vol.4* 534-550 AD (Yang 2004:210)

阳中者还种阳地，阴中者还种阴地。

yang-zhong-zhe hai zhong yang di, yin-zhong-zhe hai zhong jin di

sun-loving-plant still plant sunny place, shade-grown-plant still plant shade place

‘The sun-loving-plant is **still** planted in a sunny place; the shade-grown-plant is **still** planted in a shaded place.’

In addition to the meanings of “again” and “still” of *hai*, Yang further exemplifies several ‘more-grammaticalized’ meanings of *hai*, such as “more”, “selective marker (还是)”, and “unexpected situation (竟然)”, as shown from (12) to (14), respectively. Note that the function of *hai* in (12) is the same as that in (7); however, it is clear that Yang and Yeh have different interpretations; Yeh translates it as “still” but Yang uses “more” for the gloss of 还 in (12).

(12) “more” (更加) in Mandarin (Yang 2004:214)

张三比李四还啰唆。

Zhang-san bi Li-si hai luo-suo

NAME compare NAME more talkative

‘Zhang-san is **more** talkative than Li-si.’

It is worth noting that *haishi* (还是) in example (5) carries the meaning of “still”; it differs from *haishi* (还是) in example (13), which involves a selection in the question sentence. Yeh does not provide any discussion about the latter *haishi*.

(13) selective marker “or” *haishi* (还是) in Mandarin (Yang 2004:214)

你是去**还是**不去?  
ni shi qu hai-shi bu qu  
you copula go or not go  
‘Will you go **or** not?’

It should be noticed that Yang’s “unexpected sense” of *hai* in (14) is the same as Yeh’s terminology—‘expectation contradiction’, as shown in (6) and (7) above.

(14) “unexpected situation” (竟然) in Mandarin (Yang 2004:215)

这样的菜**还**卖得出去!  
zhe yang de cai hai mai de chu qu  
this kind de vegetable hai sell de come out  
‘**It is unexpected** that this kind of vegetable can be sold out!’

### 3.1.3. Unsolved questions on *hai* (还)

According to Yeh and Yang’s investigations, it can be concluded that there are at least six grammaticalized meanings of *hai* (还) derived from the verb *huan* (还); they are ‘again’, ‘still’, ‘also’, ‘unexpectedly’, ‘more’, and ‘or’, as shown in the following:

1. again (再) (Yeh 1998:244) (Yang 2004:210)
2. still (仍然) (Yeh 1998:247) (Yang 2004:210)
3. also (也) (Yeh 1998:245)
4. unexpectedly (竟然) (Yeh 1998:249) (Yang 2004:215)
5. more (更加) (Yang 2004:214)
6. or (或) (Yang 2004:214)

Yeh’s discussion does not include the meaning of “more” and “or” for *hai*, and Yang’s examples do not involve the meaning of “also” for *hai*. In addition, there are several points that need to be considered.

First, Yeh (1998:250) mentions that *hai* in (6) and (7) not only expresses a continuing situation, but also indicates an “expectation contradiction”; however, it is obvious that the use of the continuant sense of *hai*—“still” in (6) and (7) may be inappropriate. In addition, it is unnecessary for the continuant sense and the unexpected

sense of *hai* to coexist in a sentence. Obviously, we do not have access to ancient people who could judge these sentences. However, in my opinion, example (6) may only carry the sense of “expectation contradiction”, while example (7) may only carry the sense of “more”. The sense of “expectation contradiction” may not originate from the continuant sense of *hai* (cf. Yeh 1998:251).

Second, although Yang has pointed out that the meaning of “still” for *hai* was not derived from the meaning of “again” for *hai* because both of the meanings occurred in *Qi Ming Yao Shu* 《齐民要术》 around the 5-6 century. It would be more sound to apply theoretical evidence to prove that both of the meanings of “still” and “again” for *hai* (还) were derived from the meaning of “to return” for *huan* (还).

Third, both Yang and Yeh provide a text-based explanation for the historical development of the grammaticalized meanings of *hai* (还), such as “still”, “again”, “also”, “unexpectedly”, “more”, and “or”. However, they stand for different arguments based on the different classical documents from Ancient Chinese. The sequence of the occurrence of *hai* in classical Chinese might not correspond to the process of grammaticalization of *hai*. The way in which these meaning shifts developed through the ages is still unclear.

From the following sections, I will try to apply the theoretical concept of image schema as a possible solution to the questions. I will argue that all of the versatile meanings of *hai* (还) mentioned by Yeh (1998) and Yang (2004), such as “to return”, “again”, “still”, “also”, “unexpectedly”, “more”, and “or”, originate from the prototypical image schema of RETURN (see Section 3.1.4). The etymological meaning of *huan* (还) “to return” involves an inherent circulative or rotative concept (see Section 3.1.4.1). All of the meaning shifts from *huan* 还 can be abstracted via metaphorical extensions from

the source of the repetitious sense, opposite sense, sequential sense, or continuant sense embedded in the prototypical image schema of RETURN (see Sections 3.1.4.2-3.1.4.6).

#### **3.1.4. Image schema of RETURN**

An image schema, which can reveal how the world is perceived, is a simple and abstract cognitive structure derived from our daily experiences (Lakoff 1987:275). Our understanding of motion events is based on an abstract image schema which originally includes a starting point, or “source”, a given trajectory, or “path”, an endpoint, or “goal”, and a certain “direction” as its structural elements. The image schema provides a conceptual basis for the metaphorical mapping process; through the conceptual metaphor, a schematic mapping from the source concept onto another target concept is generated and a new metaphorical meaning will thus be derived.

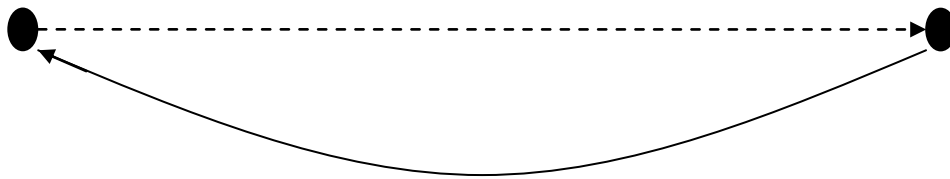
Before depicting an image schema for RETURN, I would like to review a part of Sweetser’s (1988:398-399) article concerning the image-schematic structure of AGAIN in modern English, which is relevant to that of RETURN. She proposes that there is a diachronic development of the current sense of AGAIN that can account for its metaphorical extensions.

First, she takes Traugott’s (1982:250-251) examples and provides a linear semantic development for AGAIN, as shown in the following: “against, facing, opposite to” → “in response to, reply” → “return an object” → “repetition, again”.

Second, she suggests that “an image-schematic treatment can readily bring out regularities in this development (1988:398)”; in other words, all the senses of AGAIN, including opposing, replying, returning an object, and repetition, share an identical image-schematic structure.

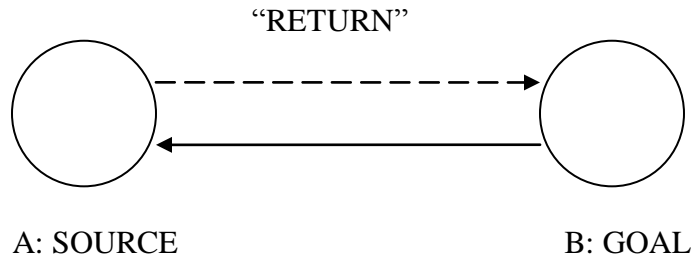
Finally, she provides an image-schematic structure of AGAIN, as shown in Figure 3.2, and use the verb “to reply” to map into this image schema. She mentions that “the relevant image-schematic structure of a *reply* is traversal of a path between Speaker and Hearer, with the presupposition of previous traversal of a path from Hearer to Speaker”. In this sequence, the action of reply “carries with it the understanding (shown in Figure 3.2 as a dotted line) that a previous utterance has gone the opposite direction in the speech world”; in addition, the motion event of reply (the solid line) is “aligned *relative* to that previous utterance”.

**Figure 3.2. Sweetser’s image schema of AGAIN**



Following Sweetser’s assumption, it could be suggested that the prototypical image schema of the motion verb RETURN should be similar to her image-schematic structure of AGAIN, as shown in Figure 3.3. In Figure 3.3, the circle A and B indicate source and goal, respectively. A previously traversed path (from A to B) is represented by a dotted line, and the retraversal path (from B to A) is depicted as a solid line. The profiled portion of RETURN is the returning movement including source and the retraversal path in the motion event. The path-traversed portion and the goal, which carry the presupposition of the previous motion event, are usually unmarked in the speech act.

**Figure 3.3. Prototypical image schema of RETURN**



The etymological meaning of *huan* (还) in Chinese is a combined concept which employs the prototypical image schema of RETURN. Mei (1992:328) mentions that *huan* (还) expresses a concept that is identical to the Chinese idioms “*zhou er fu shi* (周而复始)” and “*wu ji bi fan* (物极必反)”. The phrase “*zhou er fu shi*” means “to make a circle and start again from the original starting point, then repeat this process again and again”. The phrase “*wu ji bi fan*” means “a thing turns into its opposite when it reaches the extreme”. The former idiom implies the sense of continuance and repetition; the latter implies the sense of opposition and sequence. Based on Mei’s explanation, it can be understood that all of the senses (including the repetitious sense, opposite sense, sequential sense, and continuant sense) abstracted from the prototypical image schema of RETURN are conceptually embedded in the original meaning of *huan* (还) in Chinese.

#### **3.1.4.1. An inherent rotative concept in RETURN—*huan* (还)**

The inherently conceptual understanding of RETURN—*huan* (还) in Chinese crucially involves the concept of circulation or rotation. Evidence can be found from Chinese characters and Taiwanese, as follows:

First, concerning the traditional Chinese character *huan* written as 還, the left-side of 還 is “辶” indicating a movement; the right-side of 還 is “農” meaning a ‘circle’.



Therefore, *huan* is used to indicate a turn-round action. Considering that most of the Chinese characters involving “環”, such as 環 ‘jade ring’, 纆 ‘noose’, 鑲 ‘metal ring’, and 圓 ‘circle’, have a circulative sense; these words could be paronymous (Mei 1992:328).

Second, another word indicating the meaning of RETURN is *hui* (回). The Chinese character *hui* (回) ‘to return’, 回 was one of the hieroglyphs that depicts the rotative shape of vortices. It is possible that two circles rather than two squares were intended to be drawn, but circles were more difficult to carve on the oracle bones and bamboo strips. An example of *hui* ‘to return (home)’ in Mandarin is shown in (15a). Based on its etymology, it is possible that the Chinese character *hui* involves a sense of rotation.

(15a) RETURN in Mandarin

Ta	<b>hui</b>	jia	qu	le.
他	回	家	去	了
3S	return	home	go	Asp
‘He returned home.’				

It should be noticed that the other counterpart used to express the meaning of ‘to return’ in Chinese is *fan* (返) ‘to return’ which is synonymous with *huan* (还) ‘to return’, as shown in (15b). The etymology of *fan* ‘to return’ is a noun, *fan* (反), meaning a ‘reverse side’. Its image schema is very similar to the recessive symbol ← which only profiles an opposite sense.

(15b) RETURN in Mandarin

Ta	<b>fan</b>	xiang	qu	le.
他	返	乡	去	了
3S	return	hometown	go	Asp
‘He returned to his hometown.’				


Third, the word used for “to return (home)” in Taiwanese is *dəŋ* (转). Example (16a) shows that the original meaning of *dəŋ* is ‘to rotate’. The word *dəŋ* can be used in (16b) to mean ‘to return’. This shows that the meaning of RETURN in Taiwanese involves the concept of rotation.

(16a) *dəŋ* ‘to rotate’ in Taiwanese

giu	de	<b>dəŋ</b>
ball	Prog	rotate
‘the ball is rotating’		

(16b) *dəŋ* ‘to return’ in Taiwanese

i	<b>dəŋ</b>	khi	tshu	ɑ.
伊	<b>转</b>	去	厝	啊
3S	rotate	go	home	Prt
‘He returned home.’				

The way we understand the recycling symbol  on the recycle bin is very similar to what Chinese people would understand from the image schema of RETURN in Figure 3.3 above. There are two major temporal senses that can be schematized from the image schema of RETURN—*huan* (还): (1) sequential sense: event A follows event B to constitute a complete movement, and (2) continuant sense: the same movement (or state) occurs again and again. I will exemplify these temporal senses in Sections 3.1.4.5 and 3.1.4.6, respectively.

Supporting evidence can be found in a Tibeto-Burman language. Mei (1992:328) mentions that there are two cognate Tibetan words—*khor/skor* and *gor/sgor*—which originated from the same etymon meaning “circle”, “to return”, and “to turn round”, as shown in (17). Note that the prefix *s-* in *skor* and *sgor* denotes the syntactic functions, such as causativization, denominative, or directive (Mei 1992:328). There could be a

parallel development of grammaticalization between the morphemes *kor/gor* in Tibetan and *huan* in Chinese, because both involve the concept of rotation.

(17) Tibetan (Mei 1992:328)

'khor	<b>circle</b> , circumference
'khor-ba	to <b>turn round</b> , to go around in a circle
skor	circle, <b>repetition</b>
skor-ba	to surround, encircle, to <b>return</b>
skyor-ba	to <b>repeat</b> , enclosure, fence
gor-gor	round, <b>circle</b>
gor-ma	round, <b>circle</b>
sgor	to <b>turn</b> on a lathe
sgor-ma	round, a <b>circle</b> , a globe

In addition to Tibetan, the rotative sense of RETURN can also be found in other Tibeto-Burman languages, such as Labo Naxi and Labo Mosuo.<sup>46</sup> In Labo Mosuo and Labo Naxi, *le*<sup>33</sup>, *le*<sup>13</sup>, or *le*<sup>33</sup>*u*<sup>13</sup> is a lexical verb meaning “to return” or “to turn around”.<sup>47</sup> Examples from Labo Mosuo are provided in (18) and (19), respectively.

(18) tʃhu<sup>33</sup>ld<sup>31</sup>      o<sup>33</sup>bu<sup>33</sup>ne<sup>33</sup>      le<sup>33</sup>u<sup>13</sup>      xə<sup>31</sup>.  
 3P                  oneself          return          go (Perf)  
 ‘They returned (home) by themselves.’

(19) ɲɑ<sup>33</sup>      u<sup>31</sup>ly<sup>33</sup>      le<sup>33</sup>u<sup>13</sup>      li<sup>33</sup>,      tʃhu<sup>33</sup> thi<sup>33</sup>      mə<sup>33</sup>      dju<sup>31</sup>      ze<sup>31</sup>.  
 1S      head      turn around      look      3S      Pref      Neg      exist      Prt  
 ‘When turning around my head and looking, (I found) he had disappeared.’

From an etymological perspective, the lexical verb \**le*<sup>33</sup> in Proto-Na has its original concept meaning “to turn around” or “to turn to a different direction”; it was usually used in a specific context where a person was turning around a horse when riding on its back. In Labo Mosuo and Labo Naxi, when speakers “*le*<sup>33</sup>” a horse, they turn the

<sup>46</sup> Labo (拉伯) is an isolated mountainous area where the Naxi people and the Mosuo people are in contact. The language spoken by the Naxi people in Labo is defined as Labo Naxi; when spoken by the Mosuo people, it is defined as Labo Mosuo.

<sup>47</sup> The lexical compound *le33u33* “to return” in Labo Naxi or *le33u13* in Labo Mosuo was a suffixation derived from the root *le33* “to turn around”. It is not clear when the compound *le33u33* was created; the suffix *u33* meaning “self” was attached to *le33* to form a more precise meaning of RETURN in that *u33* “self” indicates the previous position mapping onto the “source” of the image schema of RETURN.

horse in the opposite direction; meanwhile, they feel a physical rotation when riding on the horse's back.<sup>48</sup> In what follows, I will show how metaphorical extension occurs via the image-schematic structure of RETURN in Mandarin, Labo Mosuo, and Labo Naxi.

### **3.1.4.2. Metaphorical extensions of RETURN**

The image-schematic structure of RETURN provides the conceptual foundation for all of its meaning shifts. Starting with a cognitive basis, humans tend to understand the image schema of RETURN in terms of “Figure”, “Ground”, and the figure's “trajectory” in the spatial movement. The trajectory of the motion verb RETURN involves a retraversal path; and the Figure, a moving object, moves toward the Ground, referring to the previous location of starting point.

Given the assumption that metaphorical mapping of the image schema of RETURN can structure semantic changes, it can be concluded that the meaning of “again” is derived from its repetitious sense (see Section 3.1.4.3), the meaning of “on the contrary” or “unexpectedly” is derived from its opposite sense (see Section 3.1.4.4), the meaning of “next”, “also”, “or”, “moreover”, or “more” is derived from its sequential sense (see Section 3.1.4.5), and the meaning of “still” is derived from its continuant/rotative sense (see Section 3.1.4.6). I will use both Mandarin *hai* (还) and Labo Mosuo and Labo Naxi *le*<sup>33</sup> to exemplify these points in the following sections.

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<sup>48</sup> I received the information about the etymology of \**le*<sup>33</sup> in Proto-Na via a personal conversation with Jiren He (和即仁) in 2003. He is one of the authors of *Naxiyu Jianzhi* (*A grammar of Naxi 纳西语简志* (1985)).

### 3.1.4.3. Repetitious sense—“again”

The repetitious sense (namely “again”) in the image schema of RETURN is abstracted from the re-arrival at a previous location of starting point. The newly derived meaning has replaced the sense of a physical motion with a sense of repetition, and starts to carry the sense of “a return to the previous location/status”. An example from Mandarin is shown in (20).

(20) *hai* “again” in Mandarin

他明年还要来。

ta ming-nian hai yao lai

he next year again want come

‘He wants to come **again** next year.’

In Labo Mosuo, the new meaning can also carry the sense of “redoing the ever-done action”, as shown in (21).

(21) *le*<sup>13</sup> “again” in Labo Mosuo

tʃhu<sup>33</sup> le<sup>13</sup> le<sup>33</sup> mu<sup>33</sup>su<sup>33</sup> ze<sup>33</sup>.

3S again Pref sleep Prt

‘He falls asleep **again**.’

### 3.1.4.4. Opposite sense—“unexpectedly”, “on the contrary”

The opposite sense (namely “on the contrary”, or “unexpectedly”) is abstracted from the retraversal trajectory of RETURN in that its direction is opposite of the presupposed previously traversed path in the image schema of RETURN. When mapping the opposite sense onto the target domain, the new meaning, which is similar to “on the contrary”, usually indicates an unexpected, contradictory, or contrary condition. An example of *hai* from Mandarin is shown in (22).

(22) *hai* “unexpectedly” in Mandarin

他信用差还能借到钱!

ta xin-yong cha hai neng jie-dao qian

he credit bad unexpectedly can borrow money

‘It is **unexpected** that he can borrow money even though his credit is bad.’

In Labo Naxi, when *le*<sup>33</sup> occurs in sentences, such as (23) and (24), it indicates a contradictory condition in which the reality is in opposition to the speaker’s presupposition. In (23), *le*<sup>33</sup> “on the contrary” implies that the teacher only teaches a few things, but gives many written assignments. In (24), *le*<sup>33</sup> “on the contrary” implies that the eldest son is supposed to come rather than the second-born son.

(23) *le*<sup>33</sup> “on the contrary” in Labo Naxi

so<sup>33</sup> i<sup>33</sup> mbi<sup>31</sup> mə<sup>33</sup> tʂw<sup>33</sup>, pər<sup>33</sup> i<sup>33</sup> le<sup>33</sup> mə<sup>33</sup> nu<sup>33</sup>.

learn Nml many Neg count write Nml on the contrary Neg few

‘There are only a few teachings; **however**, there are many writing assignments.’

(24) *le*<sup>33</sup> “on the contrary” in Labo Naxi

tʂhu<sup>33</sup> na<sup>31</sup> zo<sup>33</sup> ndu<sup>33</sup> mə<sup>33</sup> tʂhu<sup>31</sup>; zo<sup>33</sup> ly<sup>31</sup> le<sup>33</sup>

3S Gen son big Neg come (Perf) son secondary on the contrary

pa<sup>55</sup> tʂhu<sup>31</sup> ia<sup>55</sup>.

arrive come (Perf) Prt

‘His eldest son did not come; **on the contrary**, the second-born son came.’

#### 3.1.4.5. Sequential sense—“also/in addition”, “more”, “or”, “next”, “moreover”

The sequential sense (namely “also”, “next”, “or”, “moreover”, or “more”) in the image schema of RETURN is abstracted from the two sequent events in which they constitute a complete movement of RETURN. The presupposed previous motion event is followed by the retraversal motion event. Examples that involve sequential senses usually have two independent clauses (or arguments) indicating two required and different events. The new derived meaning from the sequential sense can be translated

into “in addition” or “also”, as shown in (25) and (26) from Mandarin and Labo Mosuo, respectively.

(25) *hai* “also” in Mandarin

他会弹琴还会修电脑

ta hai tan qin hai hui xiu dian-nao

he can play piano **also** can repair computer

‘He can play piano; **in addition**, he can repair a computer.’

(26) *le*<sup>13</sup> “also” in Labo Mosuo

tʂhu<sup>33</sup> zu<sup>33</sup> tʂu<sup>33</sup> gə<sup>13</sup> le<sup>13</sup> ba<sup>13</sup> le<sup>13</sup> tʂho<sup>33</sup>.  
 3S grass ground up also run also jump

‘He is running and (**also**) jumping on the grassland.’

The new derived meaning can carry the meaning of “more” in a two-argument comparative construction. An example of *hai* from Mandarin is shown in (27). Note that the function of *hai* (还) in the comparative construction is very similar to *geng* (更) meaning “more”, but the former cannot be used in a sentence that involves more than two arguments (Shen 2001:483).<sup>49</sup>

(27) *hai* “more” in Mandarin

煮面比煮饭还方便

zhu mian bi zhu fan hai fang-bian

cook noodle compare cook rice more convenient

‘Cooking noodles is **more** convenient than cooking rice.’

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<sup>49</sup> When Shen introduces Lu’s (1980:191) arguments about the difference between *hai* ‘more’ (还) and *geng* ‘more’ (更); he mentions that *geng* can be used in a three-argument comparative construction, while *hai* cannot. Examples:

a. 长江比黄河长，比淮河就更长了。

Chang-jiang bi huang-he chang, bi hai-he jiu geng chang le

Chang-jiang compare Huang-he long, compare Hai-he JIU more long Asp.

‘Chang-jiang is longer than Huang-he, and it is even longer than Hai-he.’

b. 长江比黄河长，比淮河就还长了。

Chang-jiang bi huang-he chang, bi hai-he jiu hai chang le

Chang-jiang compare Huang-he long, compare Hai-he JIU more long Asp.

‘Chang-jiang is longer than Huang-he, and it is even longer than Hai-he.’

In Labo Mosuo, the new derived meaning of  $le^{33}u^{13}$  from the sequential sense can denote a meaning which is similar to the temporal concept of “next”, as shown in (28) and (29). The occurrence of the second event is preceded by the first event.

(28)  $le^{33}u^{13}$  “next” in Labo Mosuo  
 tʂhu<sup>33</sup>    ʂu<sup>31</sup>    tʂhu<sup>33</sup>    tʂha<sup>33</sup>;    **le<sup>33</sup>u<sup>13</sup>**    thu<sup>33</sup>    ʂu<sup>31</sup>    ɲa<sup>33</sup>    tʂha<sup>33</sup>    bi<sup>33</sup>.  
 this    time    3S    wash    next    that    time    1S    wash    go (Impfv)  
 ‘He washes it this time; I will wash it **next** time.’

(29)  $le^{33}u^{13}$  “next” in Labo Mosuo  
 ɲa<sup>33</sup>    tʂu<sup>33</sup>    pu<sup>13</sup>    mə<sup>33</sup>    ly<sup>13</sup>,    **le<sup>33</sup>u<sup>13</sup>**    thu<sup>33</sup>    ʂu<sup>31</sup>  
 1S    money    carry    Neg    enough    next    that    time  
  
 xua<sup>33</sup>    tsa<sup>55</sup>    ɲi<sup>33</sup>.  
 buy    could    Cop  
 ‘I didn’t bring enough money; we could buy it **next** time.’

The new derived meaning from the sequential sense can function as a temporal connective meaning “after (that)” or “moreover”, as shown in (30) and (31) from Labo Mosuo  $le^{33}u^{13}$  and Mandarin *hai*, respectively. The occurrence of the first event is followed by the second event.

(30)  $e^{33}u^{13}$  “moreover” in Labo Mosuo  
 da<sup>33</sup> dju<sup>33</sup>    du<sup>33</sup>    se<sup>31</sup>    **le<sup>33</sup>u<sup>13</sup>**    du<sup>13</sup>    ly<sup>31</sup>ly<sup>33</sup>.  
 flood    occur    finish    **moreover**    earth    shake  
 ‘After flooding subsided, the earth shook.’

(31) *hai* “moreover” in Mandarin  
 他杀了人还焚尸。  
 ta sha le ren hai fen shi  
 he kill Asp. people moreover burn corpse  
 ‘He killed the man; **moreover**, he burned the corpse.’



### 3.1.4.6. Continuant sense—“still”

The continuant sense (namely “still”) in the image schema of RETURN is abstracted from the circulative or rotative path. The grammatical meaning derived from the continuant sense in Mandarin *hai* can be translated as “still”, as shown in (32).

(32) *hai* “still” in Mandarin

都三点了你们还不睡觉

dou san dian le ni men hai bu shui-jiao

already three o'clock Perf. you Pl still not sleep

‘It is 3 o’clock and you **still** do not want to go to bed.’

In Labo Mosuo, *le*<sup>13</sup> “still” is used to describe a maintained status or a repeating action, as shown in (33) and (34).

(33) *le*<sup>13</sup> “still” in Labo Mosuo

ŋɑ<sup>33</sup> le<sup>33</sup>u<sup>13</sup> le<sup>33</sup> su<sup>33</sup>du<sup>33</sup> la<sup>31</sup> le<sup>13</sup> su<sup>33</sup>du<sup>33</sup> mə<sup>33</sup> thu<sup>33</sup>.

1S again Pref think even still think Neg arrive

‘Even though I have thought about it over and over again, I **still** cannot think of it.’

(34) *le*<sup>13</sup> “still” in Labo Mosuo

ŋɑ<sup>33</sup> le<sup>33</sup>u<sup>13</sup> le<sup>33</sup> q̣<sup>33</sup> la<sup>31</sup> le<sup>13</sup> q̣<sup>33</sup> mə<sup>33</sup> do<sup>31</sup>.

1S again Pref search even still search Neg see

‘Even though I have searched for it over and over again, I **still** cannot find it.’

### 3.1.5. Discussion


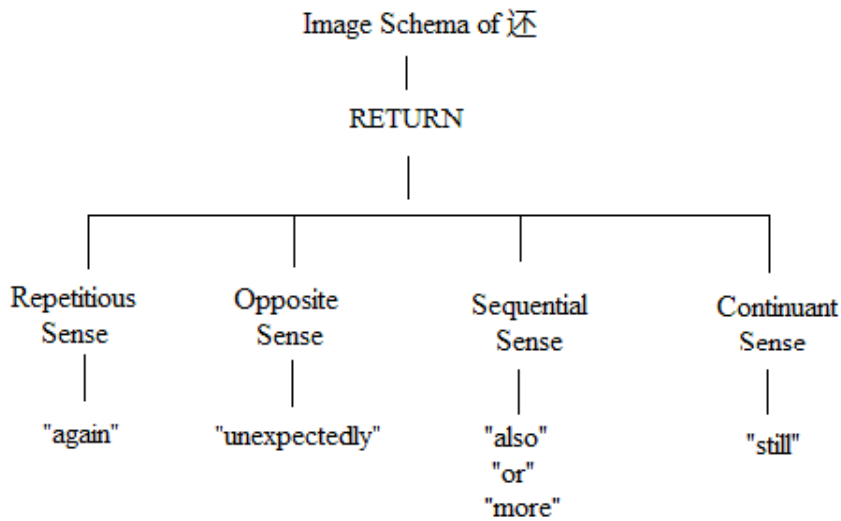
Based on the discussion above, the image schema of 还 is very similar to that of the refresh symbol . It was originally applied to the motion verb “to return” in Ancient Chinese; therefore I use “the image schema of RETURN” to represent the image schema of 还. The image schema of RETURN consists of four senses: the repetitious sense, opposite sense, sequential sense, and continuant sense, as shown in Figure 3.4.

Figure 3.4. Semantic extensions from the image schema of 还



All of the synchronic uses of 还 in Mandarin, such as “to return (回)”, “again (再)”, “still (仍然)”, “unexpectedly (竟然)”, “also (也)”, “or (或)” and “more (更加)” could have been conceptually abstracted from the prototypical image schema of RETURN. The meaning of “again” is derived from the repetitious sense; the meaning of “unexpectedly” is derived from the opposite sense; the meaning of “also”, “or” or “more” is derived from the sequential sense; and the meaning of “still” is derived from the continuant sense. Diachronically speaking, the order of appearance of these four senses is still unknown, but the occurrence of the verbal meaning “to return” was likely earlier than the four grammatical senses.

Note that there is a synonym for *huan* (还) in Chinese—*fan* (返) ‘to return’. The etymology of *fan* ‘to return’ is a noun *fan* (反), meaning a ‘reverse side’.<sup>50</sup> The verbal function of *fan* ‘to return’ derived from the noun meaning a ‘reverse side’ (written as 反) due to a metaphorical extension. Unlike *huan* ‘to return’, *fan* ‘to return’ was never used

<sup>50</sup> The Chinese character *fan* (返) ‘to return’ is a new form. It should be written as 反, which is identical to *fan* ‘reverse side’ in Old Chinese.

to convey the senses of repetition, sequence, and continuance, because its image schema, which is very similar to the recessive symbol ←, only profiles an opposite sense.

Although they share a synonymous meaning, ‘to return’, they exhibit different outcomes after semantic extensions, because *fan* ‘to return’ and *huan* ‘to return’ originated from two different etyma.

### **3.2. The disposal marker BA—把**

Section 3.2 is concerned with problems related to the most studied construction—so-called BA sentences (把字句) or ‘disposal’ constructions (处置式) in the Chinese language. The concept of ‘disposal’ (*chuzhi* (处置) in Chinese) is introduced in a context involving certain disposal verbs in relation to the use of BA (把) before certain preverbal objects in Chinese. The structure of ‘disposal’ in Contemporary Chinese can be represented as “NP1-Agent+BA+NP2-Patient+VP”. Wang (1947:161) first described the notion of the disposal form in the following way: “The disposal form states how a person is handled, manipulated, or dealt with; how something is disposed of, or how an affair is conducted. Since it is specifically designed for disposing, the disposal form cannot be used unless the action possesses the quality of disposal”.<sup>51</sup>

This section attempts to analyze the origin and evolution of this construction from a cognitive perspective. It starts out by introducing previous treatments contributing to the evolution of the BA construction. Then, I will point out inadequacies of previous studies and provide possible solutions. Among hundreds of articles related to the BA construction, Wu’s (2003) investigation is most interesting. He combined advantageous

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<sup>51</sup> English translation is taken from Y-C Li (1974:200). The original texts are: 处置式是把人怎样安排, 怎样支使, 怎样对付, 或把物怎样处理, 或把事情怎样进行。它既然专为处置而设, 如果行为不带处置性质, 就不能用处置式。

findings from several previous studies into a refined **grammaticalization process**, as shown in Figure 3.5 below.

**Figure 3.5. Wu’s grammaticalization process of BA construction**

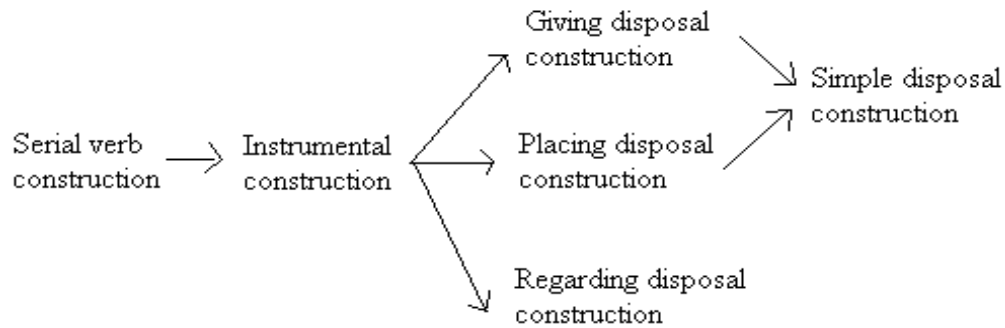


Figure 3.5 shows that Wu’s grammaticalization process can be divided into three consequent steps: (1) from a serial verb construction to an instrumental construction, (2) from an instrumental construction to ‘giving disposal’, ‘placing disposal’, and ‘regarding disposal’ constructions, and (3) from ‘giving disposal’ and ‘placing disposal’ constructions to the ‘simple disposal’ construction.

The partial idea in the first step may be adopted from Zhu (1957:17), Wang (1958:410-412), Bennett (1981:65), or especially Peyraube (1988:619-627; 1996). Peyraube (1996:168-170) hypothesizes a categorical change that would grammaticalize BA into an instrumental or an object marker from serial verb constructions. He argues that BA (把) meaning ‘**to take, to hold**’ was a verb in Archaic Chinese; in the Early Medieval period, it was used as the first verb (represented as V1) in two different serial verb constructions: ‘V1+O1+V2+ (O2)’ and ‘V1+O+V2’. Then, the V1 in terms of BA was grammaticalized and became a preposition (Prep. BA) in an instrumental construction and a disposal construction between the 7th and the 9th centuries. Thus, two different diachronic changes can be demonstrated. Due to the process of

grammaticalization, one of the processes turns BA from a verb into an instrumental preposition, as shown in (i), and the other turns BA from a verb into an object marker, as shown in (ii).

(i) V1-BA+O1+V2 (+O2) > Prep. BA+O1 +V (+O2) [instrumental construction]

(ii) V1-BA +O+V2 > Prep. BA+O+V [disposal construction]

It is reasonable to believe that the first process in Peyraube's treatment was adapted by Wu in his approach. Generally speaking, the linguist who agrees that BA was grammaticalized from a verb meaning 'to take, to hold' accepts that the BA construction was derived from a serial verb construction. Note that it is very hard to agree with Peyraube's grammaticalization process because he mixes up different types of BA constructions with each other when providing examples for the two grammatical processes. I will provide suitable examples for each type later. However, I do believe that the grammaticalized functions of BA were derived from not just one or two but four types of serial verb constructions individually and independently (please see Table 3.1 below for details).

The partial idea in the second step may be adopted from Ye (1988:56) or particularly Mei (1990 and 2000b). Significantly, Mei (2000b:192-199) first divides those BA constructions used in the Late Medieval period into four categories: the 'simple disposal' construction, the 'giving disposal' construction, the 'placing disposal' construction, and the 'regarding disposal' construction.<sup>52</sup> The four BA constructions are apparent in Mandarin.

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<sup>52</sup> In Wu's (2003:4-5) terminology, the 'giving disposal', 'placing disposal', and 'regarding disposal' constructions are defined as "broad-sense" disposal construction (广义处置式). The 'simple disposal' construction is defined as "narrow-sense" disposal construction (狭义处置式).

The ‘simple disposal’ involving an object with a final-verb occurs in the ‘(S)+BA+O+V’ construction. For example:

(37a) Simple disposal construction in Mandarin

老板把我炒了。

Laoban	<b>ba</b>	wo	chao	le.
boss	BA	I	fire	Perf.
		O	V	

‘My boss has fired me.’

The ‘giving disposal’, ‘placing disposal’, and ‘regarding disposal’ under the label of ‘double-object disposals’ must occur in the ‘(S)+BA+O1+V+O2’ construction which involves two objects. For example:

(37b) Giving disposal construction in Mandarin

我把钱还老板了。

Wo	<b>ba</b>	qian	huan	laoban	le.
I	BA	money	return	boss	Perf.
		O1	V	O2	

‘I have returned money to my boss.’

(37c) Placing disposal construction in Mandarin

我把钱放在老板桌上了。

Wo	<b>ba</b>	qian	fang	zai	laoban	zhuoshang	le.
I	BA	money	put	on	boss	desk	Perf.
		O1	V		O2		

‘I have put the money on my boss’ desk.’

(37d) Regarding disposal construction in Mandarin

老板把我看作外人。

Laoban	<b>ba</b>	wo	kanzuo	wairen.
Boss	BA	I	look-as	outsider
		O1	V	O2

‘My boss viewed me as an outsider.’

Note that Mei has not concentrated his investigation only on BA (把), but also looks at other disposal forms, such as JIANG (将) and YI (以), which have ultimately become extinct. The fundamental difference between the theories of Wu and Mei is that Mei does not agree that grammaticalization is the right reason for the evolution of BA;

instead, he argues that certain BA used in the ‘giving disposal’, ‘placing disposal’, and ‘regarding disposal’ construction during the Tang Dynasty (619-907 A.D.) were all inheritors of YI, which had already essentially become JIANG during the Sui Dynasty (581-619 A.D.).<sup>53</sup> Therefore, his basic assumption for the emergence of the BA construction in Middle Chinese is that the oldest disposal form YI was replaced by JIANG; then the newer form BA replaced JIANG via a process of **lexical replacement**.

The mechanism of lexical replacement in the BA construction has many advocates, such as Chen (1983:201-205) and Her (1990:277). The linguist who believes that the emergence of BA was derived from the process of lexical replacement is more unlikely to accept grammaticalization.<sup>54</sup>

I believe that the process of lexical replacement is possible and the oldest disposal form YI may play an important role in the establishment of BA forms. However, Mei’s analyses are misleading. I will make corrections later. Considering the second step of Wu’s grammaticalization process, the development from the instrumental construction to the ‘giving disposal’, ‘placing disposal’, and ‘regarding disposal’ constructions seems to be an innovation. However, the following discussions will also show that such a process is problematic.

The partial idea in the third step may be adopted from Ding (2001:102-128). Exploring the relation between the ‘giving disposal’, ‘placing disposal’, and ‘simple

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<sup>53</sup> Based on his observation of ancient documents during the 5th and 6th centuries, Mei (2000b:205) argues that certain disposal forms were added to patient-subject sentences *shoushi zhuyu ju* (受事主語句) to obtain disposal expression. In other words, a correspondent patient-subject sentence is the prerequisite for the origin of BA disposal forms.

<sup>54</sup> There are a few exceptions. Bennett (1981:63-65) hypothesizes that the YI-instrumental and YI-disposal constructions may have served as the source for the grammaticalization of JIANG. Huang (1986:43) proposes that BA came from JIANG by a process of lexical replacement, however, prepositional JIANG derived from the verb via grammaticalization in serial verb constructions.

disposal’, Ding points out that the ‘giving disposal’ and ‘placing disposal’ correspond well with the semantic extension and semantic shift of ‘verb-final BA sentence’ (‘simple disposal’ in Mei’s terminology) in that “the act of giving something to somebody or placing something in some place typically involves the holding of a concrete object” and “the whole situation itself represents some sort of manipulation, with the transfer of ownership or the change of locus for existence (2001:114).” In other words, the development from ‘giving disposal’ and ‘placing disposal’ to ‘simple disposal’ is simply a process of metaphorical extension. The sense of manipulating a concrete object transfers to the sense of an act of disposal. However, Ding did not explain why the three-argument sentence, such as the ‘giving disposal’ and ‘placing disposal’ constructions, can become a two-argument sentence in terms of the ‘simple disposal’ construction via a metaphorical process. Furthermore, there is a significant difference between the ‘giving disposal’ and the ‘placing disposal’ and ‘simple disposal’ in that the ‘simple disposal’ construction often involves a malefactive causee. Where does the sense of malefactive come from? I will provide solutions to these problems in Section 3.2.4.

Let us consider the third step of Wu’s grammaticalization process again. There is another crucial factor that makes Wu put the ‘simple disposal’ construction at the end of the grammaticalization model.<sup>55</sup> Based on the diachronic documents from ancient Chinese, many linguists, such as Zhu (1957), Wang (1958), and Peyraube (1989), claim that the ‘simple disposal’ in BA started to emerge about time of the Tang Dynasty (618-907 A.D.). However, the ‘giving disposal’ and the ‘regarding disposal’ in YI can be dated to the period of Archaic Chinese (770-249 B.C.) and the emergence of the ‘placing

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<sup>55</sup> Note that Wu (2003) also points out a divergent development in which the “causative disposal” construction is derived from ‘simple disposal’, ‘giving disposal’, ‘placing disposal’, and ‘regarding disposal’ constructions via a syntactic extension.



disposal' in YI can be dated to the Han Dynasty (206 B.C.-220 A.D.). Therefore, the expression of the 'giving disposal', 'placing disposal', and 'regarding disposal' should develop before the expression of the 'simple disposal'.

It appears that the third step in Wu's grammaticalization process is theoretically and historically possible. However, although it is acceptable that the structure of the 'simple disposal' in BA did not appear until the Tang Dynasty, I will argue against the third step of Wu's grammaticalization process in that it involves both semantic illogicality and syntactic impossibilities.

Wu's renewed grammaticalization pattern generates several problems that are worth further discussion. First of all, the whole process itself is semantically illogical. The instrumental construction (in the first step) normally involves a disposal and/or causative sense. In addition, the 'giving disposal (see (37b))', 'placing disposal (see (37c))', and 'regarding disposal (see (37d))' constructions (in the second step) involve a very weak causative sense or even have nothing to do with the disposal sense. Furthermore, most of the 'simple disposal (see (37a))' construction (in the third step) undoubtedly carries a disposal and/or causative sense. Therefore, I am wondering why the development of the disposal expression in Chinese necessarily underwent the process from "disposal sense" to "non-disposal sense", then from "non-disposal sense" to "disposal sense" in Wu's treatment. It is clear that the semantic change of the BA construction cannot follow the process "**disposal** → **non-disposal** → **disposal**" because this is redundant.

Secondly, syntactic observations show that the 'giving disposal', 'placing disposal', and 'regarding disposal' constructions (in the second step) structurally involve

three arguments (including a subject and two objects), while the ‘simple disposal’ construction (in the third step) only involves two arguments (including a subject and an object). Wu’s treatment is not tenable because he fails to explain why the three-argument sentence can become a two-argument sentence via grammaticalization. It is unlikely that the ‘giving disposal’, ‘placing disposal’, and ‘regarding disposal’ constructions can develop and gain an additional disposal sense (especially the malefactive sense) while losing an argument.

Finally, several questions concerning the most troublesome construction, the ‘regarding disposal’ construction, remain unanswered. The ‘regarding disposal’ construction, as exemplified in (37d), is essentially a ‘non-disposal’ three-argument constitution, even though its terminology involves ‘disposal’. In my treatment, the ‘regarding disposal’ cannot originate from the instrumental construction. Although Ding (2001:114) ambiguously points out that “the metaphoric use of BA in Middle Chinese appears in the ‘regarding disposal’ form, in which BA may take a person as its object”, I am still uncertain of exact metaphorical process from the ‘regarding disposal’ to the ‘simple disposal’ in his argument.

After a fifty-five-year debate, there is still no convincing explanation for the emergence of the ‘regarding disposal’ construction. In fact, most of the linguists who have written articles about the BA construction unavoidably excluded the examples of the ‘regarding disposal’ construction from their research. Furthermore, I do not see any theory that can be said to come close to accounting for all of the examples of the BA construction. Many different theories have been proposed, and a comprehensive review is beyond the scope of this section. I believe that a linguist who wants to use one theory to

explain all of the phenomena of the BA construction will never reach his goal because the synchronic BA construction is a diachronic polymer derived from multiplex sources.

As discussed above, many previous research projects bring up important questions and contribute to our understanding of the nature of the BA construction. However, none of them seems to be able to provide an adequate solution to all the remaining problems. The purpose of the following sections is to give an alternative approach that can both overcome these unanswered problems and give a better explanation for the evolution of the BA construction.

In order to understand the semantics of the BA construction, it is necessary to realize how Chinese speakers use the verb meaning “to take” or “to hold” (represented as TAKE, hereafter) diachronically. It should be noticed that I will not only concentrate on BA (把) but will also look at other words, such as YI (以), JIANG (将), ZHOU (捉), CHI (持), QU (取), and NA (拿), because all of these words have been used as a verb meaning TAKE throughout the history of Chinese.<sup>56</sup>

I argue that the BA construction in Mandarin originates from four individual and independent serial verb constructions involving TAKE. It is well-known that in Sino-Tibetan languages, verb serialization is one of the preferred syntactic constructions or even preconditions for the process of grammaticalization. Considering the stages of grammaticalization, DeLancey (2004:1595) mentions that the pathway of grammaticalization “from **clause-chaining** through **verb serialization** to **auxiliarization**” is widely attested. I will demonstrate how the grammaticalized functions

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<sup>56</sup> Note that in certain dialects of Chinese, such as Mandarin and Xiang, speakers use *gei* (给) ‘to give’, *jiao* (教/叫) ‘to call’, and *rang* (让) ‘to let’ as the disposal marker. The development of these words may differ from that of TAKE discussed here. I will discuss related issues in Chapters IV and VI.

of TAKE emerge via metaphorical extensions in serial verb constructions in the following sections.

The neutral representation of the serial verb construction with the verb TAKE (including YI (以), BA (把), JIANG (将), ZHOU (捉), CHI (持), QU (取), and NA (拿)) in Chinese can be generally characterized as “NP1+V1\_(TAKE)+NP2+V2+NP3”, as shown in Table 3.1. NP1 is the subject of the serial verb construction. The first event consists of two constituents: V1\_(TAKE) and NP2. The second event involves two components: V2 and NP3. There are four types of serial verb events that can use TAKE as their first verb (V1). The second verb (V2, which occurs in the second event, requires a specific class of verbs, such as transferring verbs, placing verbs, treating verbs, and disposal verbs.

Different types of serial verb events assign different thematic roles to their nominals: NP1, NP2, and NP3. The first type (type 1) which is defined as a ‘**thing-transferred event**’ involves a giver, a thing, and a recipient. The second type (type 2) which is defined as a ‘**thing-located event**’ involves an agent, a thing, and a location. The third type (type 3) which is defined as a ‘**thing-transformed event**’ involves an agent, a thing, and an instrument. The fourth type (type 4) which is defined as an ‘**instrumental causative event**’ involves a causer, an instrument, and a causee.

**Table 3.1. Serial verb constructions with the verb TAKE**

		Serial verb construction			
		First event		Second event	
	NP1	V1_(TAKE)	NP2	V2	NP3
Type 1	giver	yi (以)	thing	transferring verb	recipient
Type 2	agent	ba (把)		placing verb	location
Type 3		jiang (将)		treating verb	instrument
Type 4	causer	zhou (捉)	instrument	disposal verb	causee
		chi (持)			
		qu (取)			
		na (拿)			

In comparing Wu’s grammaticalization model (provided in Figure 3.4) with Table 3.1, it is very important to note that examples that qualify as a ‘thing-transferred event’ are equivalent to those in Wu’s ‘giving disposal’ construction. Examples used in the ‘thing-located event’ are equivalent to those in his ‘placing disposal’ construction. Examples used in the ‘thing-transformed event’ are equivalent to those in his ‘regarding disposal’ construction. Examples used in the ‘instrumental causative event’ are equivalent to those in his ‘instrumental’ construction.

Note that the ‘instrumental’, ‘giving disposal’, ‘placing disposal’, and ‘regarding disposal’ constructions in Wu’s treatment are undergoing the grammaticalization process; in other words, the morpheme TAKE in these constructions is no longer a lexical verb. However, in my study, TAKE in the four types of serial verb constructions in Table 3.1 is still a lexical verb in the first event. Contrary to Wu’s supposition that the BA construction originated from one serial verb construction, the present study argues that the nature of the evolution of TAKE (including BA) is derived from four different types

of serial verb events, as shown in Table 3.1 above, no matter which form of TAKE is used diachronically.

Because the disposal marker BA (把) in Modern Chinese cannot occur as the predicate of a simple sentence, I use NA (拿) meaning ‘to take’ to exemplify the four types of serial verb events in Mandarin, as shown in examples (38a-d). It should be feasible to use NA as an example, because the Wu dialect (吳語) of Chinese uses NA instead of BA as its disposal construction.

(38) Four types of serial verb events in Mandarin

a. Thing-transferred event

他拿弓给张三。

Ta na gong gei Zhangsan.

**giver thing recipient**

he TAKE bow give NAME

‘He took a bow and gave it to Zhangsan.’

b. Thing-located event

他拿弓挂在背上。

Ta na gong gua zai bei shang.

**agent thing location**

he TAKE bow hang at back top

‘He took a bow and carried it on his back.’

c. Thing-transformed event

他拿弓当作钓竿。

Ta na gong dang zuo diaogan

**agent thing instrument**

he TAKE bow as use fishing pole

‘He took a bow and used it as a fishing pole.’

d. Instrumental causative event

他拿弓打张三。

Ta na gong da Zhangsan

**causer instrument causee**

he TAKE bow hit NAME

‘He took a bow to hit Zhangsan.’

The four types of serial verb events can be found in both Modern Chinese and Archaic Chinese, as illustrated in examples (39a-d), which involve an old form, YI (以). This shows that the variety of uses in the verb TAKE were fully developed by more than two thousand years ago. Indeed, I cannot find any syntactic and semantic change from these serial verb events when comparing example (38) with (39). Note that sentences in example (39) are selected from ancient written documents; therefore, the subject in these sentences is often omitted. Also note that most of the examples selected from ancient Chinese are from Mei (1990; 2000b) and Wang (1947). However, I have provided most of the translations and interpretations for these sentences.

(39) Four types of serial verb events in Archaic Chinese

a. Thing-transferred event

以物与人。 (in *Zhuangzi* 庄子 (369-286 B.C.))

Yi wu yu ren.

**thing**            **recipient**

TAKE thing give people

‘Took extra belongings and gave them to other people.’

b. Thing-located event

以弟子一人投河中。 (in *Shiji* 史記 (104 B.C.))

Yi dizi yi ren tou he zhong.

**thing**            **location**

TAKE disciple one CI throw river middle

‘Took a disciple and threw him into the river’

c. Thing-transformed event

以其頭為飲器。 (in *Shiji* 史記 (104 B.C.))

Yi qi tou wei yinqi.

**thing**            **instrument**

TAKE his head as drinking container

‘Took his head and used it as a drinking container.’

d. Instrumental causative event

以戈逐子犯。 (in *Zuozhuan* 左傳 (300-400 B.C.))

Yi ge zhu Zifan.

**instrument** **causee**

TAKE halberd evict NAME

‘(Someone) took a halberd to evict Zifan.’

According to the examples selected from both Modern and Archaic Chinese, it is clear that the serial verb construction typically contains two or more verb phrases without any overt connective element. The serial verb expression involving two or more sequential actions is common in various language families scattered around the world. The semantic change of disposal meaning from the verb TAKE is attributed to the capability of humans to take an object in their hands (in the first event) and to control it at will (in the second event). To interact with the environment, humans use their hand to hold weapons or instruments, to give something to somebody, to place something in some place, or to use something to function as a tool. It is conceivable that the expression of the four serial verb events essentially requires the act of holding some objects. These kinds of activities are basic and common in daily life no matter whether they are in the past or the present.

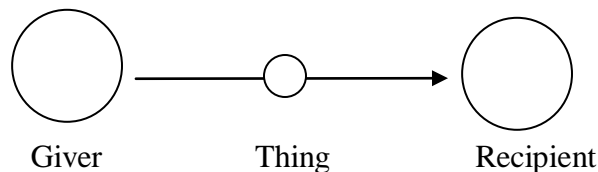
Taking the trend of semantic shift from concrete domains to abstract domains into consideration, it is proposed that the meaning of TAKE has been grammaticalized from ‘to take/hold a concrete thing in hand’ in a serial verb event to ‘to indicate any manipulatable thing’ in a single event. In the following, I will begin by describing the mechanism of the metaphorical extension in each type of serial verb events (Sections 3.2.1-3.2.4). Particularly, in Section 3.2.4 I will claim that the ‘instrumental causative event’ is independently responsible for developing the two-argument ‘simple disposal’ construction which occurred plentifully after the Tang Dynasty.



### **3.2.1. Type 1: thing-transferred event**

In the thing-transferred event, the second event is more salient than the first event; therefore, there are three profiled entities, GIVER, THING, and RECIPIENT, in its image schema, as shown in Figure 3.6.<sup>57</sup> The profiled portion of the thing-transferred event includes the circles representing the persons giving and receiving and the object being passed.

**Figure 3.6. Image schema of the thing-transferred event**



In Figure 3.6, the two bigger circles indicate the GIVER and the RECIPIENT, and the smaller circle in the middle indicates the THING. A traversed path indicating a motion from GIVER to RECIPIENT is represented by a solid line. The event begins with the GIVER, who is understood as the initiator of the event and controls the thing transferred. The RECIPIENT receiving the thing completes the act of transference. The THING is positioned on the intermediate point of the solid line, indicating that it is involved in a motion event. The arrow indicates the direction of the movement. Note that the giving verb used in the second event of this type may give rise to an idea with respect to the transference of possession; therefore, the RECIPIENT involved in some cases can be referred to as a BENEFACTIVE.

Since the act of ‘taking’ in the thing-transferred event is not profiled, the image schema of the first type is equivalent to the typical act of giving. More examples of this

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<sup>57</sup> Peyraube (1996:169) points out that the second verb (V2) is probably more important than the first verb (V1) in the serial verb construction; therefore, the first verb meaning TAKE is often bleached. It loses its full meanings and becomes a marker when grammaticalization begins.

type from historical records of Mandarin are provided from examples (40) to (43). In these examples, the various forms of TAKE including BA (把), JIANG (将), CHI (持), and NA (拿) are still lexical verbs.

(40) BA\_TAKE in thing-transferred event

把米与鸡...。 (in *Luoyangqielanji* 洛阳伽蓝记 (534-550 A.D.))

Ba mi yu ji...

TAKE rice give chicken

‘(Someone) took rice and gave it to the chickens.’

(41) JIANG\_TAKE in thing-transferred event

将一大牛...卖与此城中人。 (in *Foshuoshuiniujing* 佛说水牛经 (265-317 A.D.))

Jiang yi da niu...mai yu ci cheng zhong ren

TAKE one big buffalo...sell to this city inside people

‘(Someone) took a big buffalo and sold it to the people in the city.’

(42) CHI\_TAKE in thing-transferred event

复自破骨,持髓与之。 (in *Daoxingbanruojing* 道行般若经 (150-250 A.D.))

Fu zi po gu, chi sui yu zhi.

then self break bone, TAKE marrow give him

‘(He) broke the bone by himself, then took the marrow and gave it to (somebody).’

(43) NA\_TAKE in thing-transferred event in Mandarin

我拿球棒递给张三。

Wo na qiubang di gei Zhangsan.

I TAKE bat hand-over to NAME

‘I took a bat and handed it over to Zhangsan.’

In order to reflect more human experiences, humans start to conceptualize the linguistic use from concrete domains in abstract domains. For instance, when the transferring THING is not a concrete entity in the thing-transferred event, the original concrete meaning of the verb TAKE has to be grammaticalized into a thing-marker, as shown in examples (44)-(47), selected from historical records or Mandarin. These examples involve various grammatical forms of TAKE, including YI (以), BA (把), and JIANG (将) to signify the effect of the abstract THING.

(44) YI in metaphorical thing-transferred event

a. 楚子以灭舒鸠赏子木。 (in *Zuozhuan* 左传 (300-400 B.C.))

Chuzi yi mie Shujiu shang Zimu.

NAME YI ruin NAME award NAME

‘Chuzi promised an award to Zimu for conquering the kingdom of Shujiu.’

b. 尧以天下与舜。 (in *Mengzi* 孟子 (385-304 B.C.))

Yao yi tianxia yu shun

NAME YI world give NAME

‘Yao gave the world to Shun.’

(45) BA in metaphorical thing-transferred event

应把清风遗子孙。 (in *Fangganshi* 方干诗 (809-888 A.D.))

Ying ba qing feng yi zi sun

should BA fresh breeze bequeath son grandson

‘One should bequeath (such a) fresh breeze to one’s posterity.’

(46) JIANG in metaphorical thing-transferred event

将佛言语传闻维摩。 (in *Bianwen* 变文 (400-900 A.D.))

Jiang fo yanyu chuanwen Weimo.

JIANG Buddha words deliver NAME

‘(Someone) delivered Buddha’s words to Weimo.’

(47) BA in metaphorical thing-transferred event in Mandarin

张三把好运带给了大家。

Zhangsan ba hao yun dai gei le dajia.

NAME BA good luck bring to Asp everybody

‘Zhangsan brought good luck to everybody.’

### **3.2.2. Type 2: thing-located event**

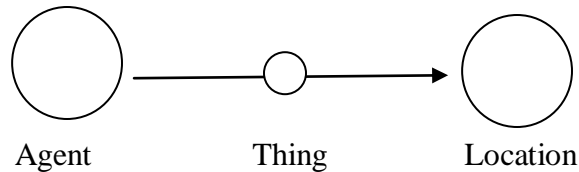
The image schema of the second type, the thing-located event, is somewhat compatible with that of the thing-transferred event if we treat AGENT as the GIVER, and LOCATION as an inanimate RECEIVER. The second event of this type is still more salient than the first event; therefore, it is not necessary to profile the first taking event.

There are three profiled entities: AGENT, THING, and LOCATION, as shown in Figure

3.7.

Figure 3.7 is a representation of an act of thing-locating. The two bigger circles indicate the AGENT and the LOCATION, and the smaller circle in the middle indicates the THING. A traversed path indicating a movement from AGENT to LOCATION is represented by a solid line. The serial event begins with the AGENT, who is understood as the carrier of the event and controls the thing-locating. The LOCATION is the end point of the act of thing-locating. The THING is at the intermediate point of the solid line indicating that it is involved in a movement. The arrow indicates the direction of the movement.

**Figure 3.7. Image schema of the thing-located event**



The act of taking something and locating it somewhere is common. Examples can be shown in (48)-(51), which are selected from historical records or Mandarin. The THING object in these sentences can be held and/or operated in the hands; therefore, it is accurate to interpret YI (以), BA (把), JIANG (将), and NA (拿) as the lexical verb TAKE. The placing verbs used in the thing-located event are not necessarily verbs meaning ‘to put’, ‘to place’, or ‘to locate’. They can be any action verb that involves a sense of thing-locating, such as *suan* ‘to hang’ in (49), *cha* ‘to insert’ in (50), or *tie* ‘to paste’ in (51).

(48) YI\_TAKE in thing-located event

家人常以琴置灵床上。 (in *Shishuoxinyu* 世说新语 (420-479 A.D.))

Jia ren chang yi qin zhi ling chuang shang.

house person often TAKE lute place holy bed on

‘The family members often took the lute and placed it on the bier.’

(49) BA\_TAKE in thing-located event

把舜子头发悬在中庭树地。 (in *Bianwen* 变文 (400-900 A.D.))

Ba Shunzi toufa suan zai zhong ting shu di.

TAKE NAME hair hang on central courtyard tree place

‘(He) took Shunzi’s hair and hung it on the tree in the central courtyard.’

(50) JIANG\_TAKE in thing-located event

将尼拘陀树一枝插于地上。 (in *Fobenxingjijing* 佛本行集经 (587-591 A.D.))

Jiang nijutuo shu yi zhi cha yu di shang.

TAKE NAME tree one CI insert at ground top

‘(He) took a stick of Nijutuo Tree and inserted it into the ground.’

(51) NA\_TAKE in thing-located event in Mandarin

他拿先发名单贴在门上。

Ta na xianfa mingdan tie zai men shang.

he TAKE lineup list paste on door top

‘He took the lineup list and pasted it on the door.’

When the interaction between the AGENT and the THING is irrelevant to the act of taking, the verb TAKE must be grammaticalized into a marker to indicate the THING, as shown in examples (52)-(55) selected from historical records or Mandarin. These examples involve various grammatical forms of TAKE, including JIANG (将), CHI (持), QU (取), and BA (把), respectively. Since the act of taking has been bleached out, the THING object in these sentences does not have to be a concrete entity, as shown in (55).

(52) JIANG in metaphorical thing-located event

汝将我子置彼林内。 (in *Fobenxingjijing* 佛本行集经 (587-591 A.D.))

Ru jiang wo zi zhi pi lin nei.

you JIANG my son locate that forest inside

‘You put my son in the forest.’

(53) CHI in metaphorical thing-located event

持手着阿难肩上。 (in *Daoxingbanruojing* 道行般若经 (179 A.D.))

Chi shou zhuo Aji jian shang.

CHI hand on NAME shoulder top

‘(He) put a hand on Aji’s shoulder.’

- (54) QU in metaphorical thing-located event  
 取父王闭在牢狱。 (in *Zengyiahanjing* 增壹阿含经 (500-599 A.D.))  
 Qu fuwang bi zai laoyu.  
 Qu father imprison in jail  
 ‘(He) imprisoned his father in jail.’
- (55) BA in metaphorical thing-located event in Mandarin  
 所有人把目光放在投手身上。  
 Suoyou ren ba muguang fang zai toudou shen shang  
 every people BA gaze put on pitcher body top  
 ‘Everyone gazes at the pitcher.’

It is obvious a very similar schema has been used in the first type and second type. Both the thing-transferred event and the thing-located event denote a general notion of ‘change of spatial orientation of the THING’. The THING object immediately after TAKE is obligatory and cannot be omitted from the image schema. In other words, the schematic structure must involve three arguments even though the co-referential AGENT or GIVER is not necessarily overt in all contexts.

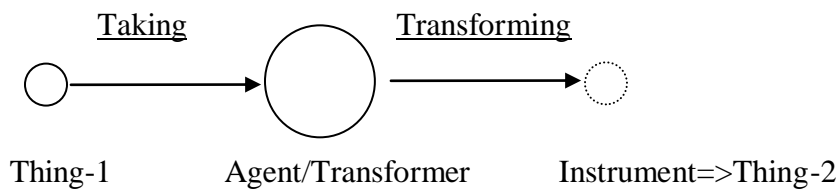
In addition, it is important to notice that the receiver (no matter whether an animate RECIPIENT or inanimate LOCATION) perceived as the end point of the action cannot be moved in front of the THING whenever before or after the process of metaphorical extension. Fronting the RECIPIENT or LOCATION will give rise to ungrammatical expressions. In other words, the word order in the first type and second type cannot be changed.

When the metaphorical extension is completed in the first type and second type, the target domain is allowed to accept an intangible THING, as shown in examples (47) and (55). The animacy is no longer a restriction in LOCATION, as shown in example (55). The verb TAKE has moved towards the grammatical function indicating the THING object.

### 3.2.3. Type 3: thing-transformed event:

The image schema of the thing-transformed event involves three profiled entities: AGENT, THING, and INSTRUMENT, as shown in Figure 3.8. The large middle circle representing the person who is doing the act of taking represents the AGENT. The smaller solid circle representing the object being taken and used refers to the THING. The smaller dotted circle representing a conceptual entity transformed from the THING refers to the INSTRUMENT. Since the AGENT controls the thing-transformed process from one thing to another, it can also be referred to as a TRANSFORMER. The arrows indicate the direction of the process.

**Figure 3.8. Image schema of the thing-transformed event**



Unlike the first type and second type, the thing-transformed event profiles the first event (referring to the act of taking) as well as the second event (referring to the act of transforming). The act of taking, represented by the first solid line, involves the hands of the AGENT; the movement is initiated by the AGENT; and the THING ends up in the hands of the AGENT. The act of transforming represented by the second solid line begins with holding the THING (namely ‘Thing-1’) in the hands; then using the THING as another conceptualized instrumental THING (namely ‘Thing-2’). There is a close relationship between the manipulable THING and the instrumental THING in that both are associated with a shared function to some extent. Examples are shown in (56-57),

which are selected from historical records or Mandarin. These examples involve various forms of TAKE, including JIANG (将), and NA (拿), respectively.

(56) JIANG\_TAKE in thing-transformed event

将此茶芽为信。 (in *Lidaifabaoji* 历代法宝记 (700-800 A.D.))

Jiang ci cha ya wei xin.

TAKE this tea bud to-make token

‘(He) took this tea bud and used it as a token.’

(57) NA\_TAKE in thing-transformed event

他拿球帽当作手套。

Ta na qiумao dang zuo shoutao.

he TAKE ball cap treat as glove

‘He took a baseball cap and used it as a baseball glove.’

When ‘Thing-1’ is not a concrete entity, the meaning of TAKE starts to lose its verbal content and becomes a marker referring to the THING via a metaphorical extension. The treating verb used in this type is usually *wei* (为) ‘to use as’, *zuo* (作) ‘to use as’, or *cheng* (成) ‘~ as’. Examples are shown in (58-61), which are selected from historical records or Mandarin. These examples involve various grammatical forms of TAKE, including YI (以), BA (把), and CHI (持).

(58) YI in metaphorical thing-transformed event

a. 文王以民力为台。 (in *Mengzi* 孟子 (385-304 B.C.))

Wen wang yi min li wei tai.

NAME Lord YI people strength as tower

‘Lord Wen used people’s strength as (his) tower.’

b. 吾必以仲子为巨擘焉。 (in *Mengzi* 孟子 (385-304 B.C.))

Wu bi yi Zhongzi wei jubo yan.

I must YI NAME as authority SFP

‘I will definitely treat Zhongzi as the authority.’

(59) BA in metaphorical thing-transformed event

a. 有人把椿树唤作白旃檀。 (in *Hanshanshi* 寒山诗 ((691-793 A.D.))

You ren ba Chunshu huan zuo Baizhantan.

have people BA NAME call as NAME

‘Some people called Chunshu Baizhantan.’



b. 莫把边地比京都。 (in *Wangjinshi* 王缙诗 (700-781 A.D.))

Mo ba biandi bi jingdu.

Don't BA frontier treat-as capital

'Don't treat the frontier as the capital.'

(60) CHI in metaphorical thing-transformed event

持无常作有常。 (in *Foshuoyirimonibaojing* 佛说遗日摩尼宝经 (220-265 A.D.))

Chi wuchang zuo youchang.

CHI uncertainty treat-as certainty

'Treat uncertainty as certainty.'

(61) BA in metaphorical thing-transformed event in Mandarin

主审把全垒打看成界外球。

Zhushen ba quanleida kan cheng jiewaiqiu.

umpire BA home-run look as foul-ball

'The home plate umpire viewed a home run as a foul ball.'

The image schema of the thing-transformed event is quite different from those of the former two types. The first type and second type only profile the second event, while the Type 3 profiles both the first event and the second event. The transformed THING is not a perceptible entity in all cases. But there are similarities; for instance, the metaphorical extension applied in all types is allowed to involve an abstract THING. All of the elements in the schema are obligatory.

Based on the discussion in Sections 3.2.1, 3.2.2, and 3.2.3, it is obvious that the semantic nature of the THING being transferred, located, or transformed triggers the process of metaphorical extension. The meaning of TAKE can expand from holding a tangible entity to an intangible object. When the THING is not a concrete object held in the hands, the first verb TAKE in the serial verb event develops an abstract meaning, functioning as a marker of the THING object. The serial verb event has become a single event after metaphorical extension.

I have pointed out three different serial verb events involving a lexical verb TAKE (such as the following examples (i-iii)), and three different signal events which involve a metaphorical TAKE (such as the following examples (iv-vi)).

- (i) Lexical verb TAKE in thing-transferred event (i.e., (38a), (39a), (40-43))
- (ii) Lexical verb TAKE in thing-located event (i.e., (38b), (39b), (48-51))
- (iii) Lexical verb TAKE in thing-transformed event (i.e., (38c), (39c), (56-57))
- (iv) Metaphorical TAKE in thing-transferred event (i.e., (44-47))
- (v) Metaphorical TAKE in thing-located event (i.e., (52-55))
- (vi) Metaphorical TAKE in thing-transformed event (i.e., (58-61))

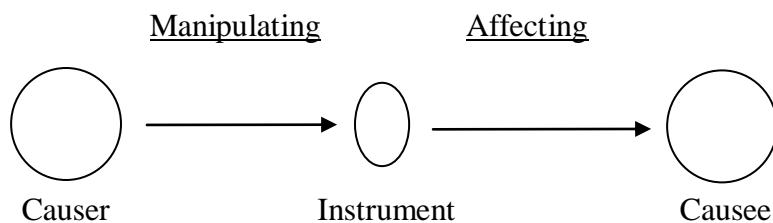
The instrumental causative event will be discussed in the following sections. None of these examples above can originate from an instrumental construction because the instrumental causative event always involves the sense of “manipulativeness” and “affectedness”. The affected entity in terms of CAUSEE in the instrumental causative event is more likely to be a malefactive rather than a benefactive. In addition, there is no evidence to show that the two-argument disposal event is derived from the first type, the second type, and the third type. All of the three arguments in the image schema of the first type, the second type, and the third type are restricted and obligatory. Removing the THING from their image schemata will cause semantic insufficiency and syntactic ungrammaticality.

#### **3.2.4. Type 4: instrumental causative event**

The instrumental causative event is a causative force-transferring event that involves an instrument held in the hands. When completing an action with an instrument in hand, the causative force is transferred from the causer to the causee via the instrument.

In this sequence, the second event is more salient than the first event; therefore, there are three profiled entities, CAUSER, INSTRUMENT, and CAUSEE, in the image schema, as shown in Figure 3.9. The two bigger circles indicate the CAUSER and the CAUSEE, and the smaller circle in the middle indicates the INSTRUMENT. The two separated paths indicating a forceful movement from CAUSER to CAUSEE via INSTRUMENT are represented by two solid lines. The arrows indicate the direction of the movement.

**Figure 3.9. Image schema of the instrumental causative event**



The instrumental causative event involves the sense of “manipulativeness” and “affectedness”. The act of Manipulating represented by the first solid line involves a CAUSER who manipulates the INSTRUMENT. The act of affecting represented by the second solid line involves a CAUSEE who is affected by the CAUSER via the INSTRUMENT. Examples are shown in (62-66), which are selected from historical records or Mandarin. These examples involve various forms of TAKE including BA (把), JIANG (将), ZHOU (捉), CHI (持), QU (取), and NA (拿), respectively.

(62) BA TAKE in instrumental causative event

a. 汤自把钺以伐昆吴。 (in *Shiji* 史记 (104 B.C.))

Tang zi ba yue yi fa Kunwu.

NAME self TAKE axe use-to fight NAME

‘Tang himself took an axe to fight Kunwu.’

b. 便把被衫揩拭面。 (in *Bianwen* 变文 (400-900 A.D.))

Bian ba pishan kaishi mian.

then TAKE mantle wipe face

‘(Someone) then took a mantle to wipe the face.’

- (63) JIANG\_TAKE in instrumental causative event  
 将暖水浴菩萨身体。 (in *Foben 佛本行集经* (587-591 A.D.))  
 Jiang nuan shui yu pusa shenti.  
 TAKE warm water bathe Buddha body  
 ‘(Someone) took warm water to bathe Buddha’s body.’
- (64) JIANG\_TAKE in instrumental causative event  
 伊便能捉杖打人。 (in *Shishuoxinyu 世说新语* (420-479 A.D.))  
 Yi bian neng zhuo zhang da ren.  
 he thus can TAKE staff hit people  
 ‘He can thus take a staff to hit people.’
- (64) CHI\_TAKE in instrumental causative event  
 右手持匕首堪之。 (in *Zhanguoce 战国策* (452-216 B.C.))  
 You shou chi bishou zhen zhi.  
 right hand TAKE dagger stab him  
 ‘(Someone) took a dagger in the right hand to stab him.’
- (65) QU\_TAKE in instrumental causative event  
 广行取儿弓射杀追骑。 (in *Hanshu 汉书* (20-90 A.D.))  
 Guang xing qu ergong she sha zhui ji.  
 NAME xing TAKE bow shoot kill chase rider  
 ‘Guang took a bow to shoot and kill the chasers.’
- (66) NA\_TAKE in instrumental causative event in Mandarin  
 拿刀杀牛。  
 Na dao sha niu.  
 TAKE knife kill cow  
 ‘(Someone) took a knife to kill a cow.’

It is found that the instrumental causative constructions used two thousand years ago, such as in (39d), (62a), (64), and (65), tend to involve a MALEFACTIVE. This tendency is probably the origin of the sense of “affectedness” because MALEFACTIVE is a kind of CAUSEE. It is also found that the lexical verbs (namely ‘disposal verbs’) used in the instrumental causative constructions normally involve the sense of both “manipulativeness” and “affectedness”. Even though the INSTRUMENT has been omitted from the sentences, they still carry the sense of “manipulativeness” and “affectedness”, as shown in (67). Examples (67a-g) are sentences that have removed the

INSTRUMENT from examples (62-66). Without an overt INSTRUMENT, the derived two-argument sentences in (67) maintain grammaticality.<sup>58</sup> However, the word order has been changed in that all of these sentences involve a fronting of CAUSEE located at the previous position of INSTRUMENT after it is omitted.

(67) Disposal construction

- a. 汤把昆吴伐  
Tang ba Kunwu fa  
NAME TAKE NAME fight  
'Tang fought against Kunwu'
  
- b. 便把面揩拭  
Bian ba mian kaishi  
then TAKE face wipe  
'(someone) then wiped the face'
  
- c. 将菩萨身体浴  
Jiang pusa shenti yu.  
TAKE Buddha body bath  
'(someone) gave a bath to Buddha's body'
  
- d. 伊便能捉人打  
Yi bian neng zhuo ren da  
he thus can TAKE people hit  
'He can thus hit people'
  
- e. 右手持之堪  
You shou chi zhi zhen  
right hand TAKE him stab  
'(someone) stabbed him with right hand'
  
- f. 广取追骑射杀  
Guang qu zhui ji she sha  
NAME TAKE chase rider shoot kill  
'Guang shot and killed the pursuants'
  
- g. 拿牛杀  
Na niu sha.  
TAKE cow kill  
'kill a cow'

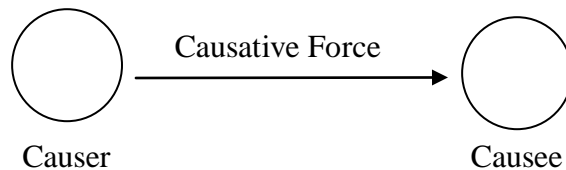
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<sup>58</sup> Examples in (67) are Old Chinese which has not been found in historical records yet. But as far as I can judge, these sentences are grammatical.

Therefore, the syntactic representation of the so called “disposal construction” shares at least this common structure: “NP1+Grammatical\_(TAKE)+NP2+V”. NP1 is the subject and NP2 is the direct object. The grammatical TAKE, including BA (把), JIANG (将), ZHOU (捉), CHI (持), QU (取), or NA (拿), functions as a marker of the direct object. The lexical verb, which can be applicable to the disposal construction, is called the “disposal verb”; its direct object (NP2) is depicted as having been affected by the CAUSER to some extent.

The image schema of the disposal event represents a transfer of causative force from an ‘energy initiator’—causer to an ‘energy receiver’—causee, as shown in Figure 3.10. In Figure 3.10, the two circles indicate the CAUSER and the CAUSEE. The causative force from CAUSER to CAUSEE is represented by a solid line. The arrow indicates the direction of the energy flow.

**Figure 3.10. Image schema of the disposal event**



The disposal construction was rarely found until the Tang Dynasty (618-907 A.D.), since the change of word order from the instrumental causative construction to the disposal construction was a gradual process. More examples can be seen in (68). Once the use of the disposal construction became full-developed, then the door was wide open for Mandarin sentence like (69). Example (69) normally involves a complement after the disposal verb to specify how the CAUSEE has been affected.

(68) BA\_TAKE in disposal event

a. 仰山便把茶树摇。 (in *Zutangji 祖堂集* (952 A.D.))

Yangshan bian ba cha shu yao.

NAME then TAKE tea tree shake

‘Yangshan then shook the tea tree.’

b. 把契丹墓坟、宫室、庙像一齐烧了。 (in *Sanchaobeimonghuibian 三朝北盟会编*

Ba Qidan mufen gongshi miaoxiang yiqi shao le.

(1194 A.D.))

TAKE Qidan grave palace temple together burn Perf.

‘(Someone) burnt the Qidan grave, palace, and temple.’

(69) BA\_TAKE in disposal event in Mandarin

a. 那粒界外球把一位观众打晕了。

Na li jiewaiqiu ba yi wei guanzhong da yun le.

that Cl foul-ball TAKE one Cl audience hit faint Perf.

‘That foul ball hit an audience member and made him faint.’

b. 这场球赛把我累坏了。

Zhe chang qiusai ba wo lei huai le.

this Cl game TAKE I tired badly Pref.

‘This game really tired me out.’

c. 张三把球打得很远。

Zhangsan ba qiu da de hen yuan.

NAME TAKE ball hit DE very far

‘Zhangsan hit the ball very far.’

Without an INSTRUMENT, it makes little sense for the newly-derived disposal event to keep a full sense of “manipulativeness”. In other words, the form TAKE cannot be interpreted as ‘to hold’ or ‘to take’ after losing the INSTRUMENT. In this consequence, the CAUSER in the disposal event is not necessary an animate entity, as shown in (69a); it is allowed to be an immaterial object, as shown in (69b). However, the sense of “affectedness” is needed to be maintained in the disposal event. The CAUSEE is not necessarily animate either, but it must be a concrete object which can receive the causative force, as shown in (68) and (69c). The grammatical form of TAKE (namely *ba* (把)) in (68) and (69) is simply the marker of CAUSEE.

The disposal event considered so far involves two arguments—a CAUSER and a CAUSEE—used in the structure of “NP1+Grammatical\_(TAKE)+NP2+V/VP” with the obligate sense of “affectedness”. However, the major problem in Mandarin is that there are abundant examples that use the same structure but involve an intangible NP2, as shown in (70). The sense of “affectedness” becomes futile when the NP2 is not a concrete entity.

(70) BA TAKE in “agent-patient” event in Mandarin

a. 洋基队把气势打出来了。

Yangjidui ba qishi da chulai le.

Yankees TAKE vigor hit come Asp

‘The Yankees played the game with vigor.’

b. 洋基队把比分追平了。

Yangjidui ba bifeng zhui ping le.

Yankees TAKE score chase even Asp

‘The Yankees has evened the score.’

Because the intangible NP2 cannot be affected physically, the image schema of a disposal event cannot be applied properly to example (70). Without transferring of a causative force, the grammatical form of TAKE in (70) has nothing to do with the marker of CAUSEE. Example (70) demonstrates a derived event, which involves an AGENT and a PATIENT (represented as an “agent-patient” event). The grammatical form of TAKE in (70) is a marker of PATIENT. Because the “agent-patient” event in Mandarin is very common and it is normally used in the SVO structure, the word order of (70) can be changed into SVO without any significant change to the cognitive meaning, as shown in (71). Note that examples (71a-b) demonstrate a transitive construction in Mandarin, which need not involve any marker for NPs.



(71) Agent-patient event in Mandarin

a. 洋基队打出气势来了。

Yangjidui da chu qishi lai le.

Yankees hit out vigor come Asp

‘The Yankees played the game with vigor.’

b. 洋基队追平比分了。

Yangjidui zhui ping bifeng le.

Yankees chase even score Asp

‘The Yankees has evened the score.’

The fundamental difference between the disposal event (such as (69)) and the “agent-patient” event (such as (70)) is that the former cannot change its word order into SVO. When the word order of (69) is switched into SVO, the sentences become ungrammatical, as shown in (72). This shows that the marker of CAUSEE in the disposal event is obligatory.

(72) Ungrammatical word order in disposal event in Mandarin

\*a. 那粒界外球打晕一位观众了。

Na li jiewaiqiu da yun yi wei guanzhong le.

that Cl foul-ball hit faint one Cl audience Asp

‘That foul ball hit an audience member and made him faint.’

\*b. 这场球赛累坏我了。

Zhe chang qiusai lei huai wo lei.

this Cl game tired badly I Asp

‘This game really tired me out.’

\*c. 张三打球得很远。

Zhangsan da qiu de hen yuan.

NAME hit ball DE very far

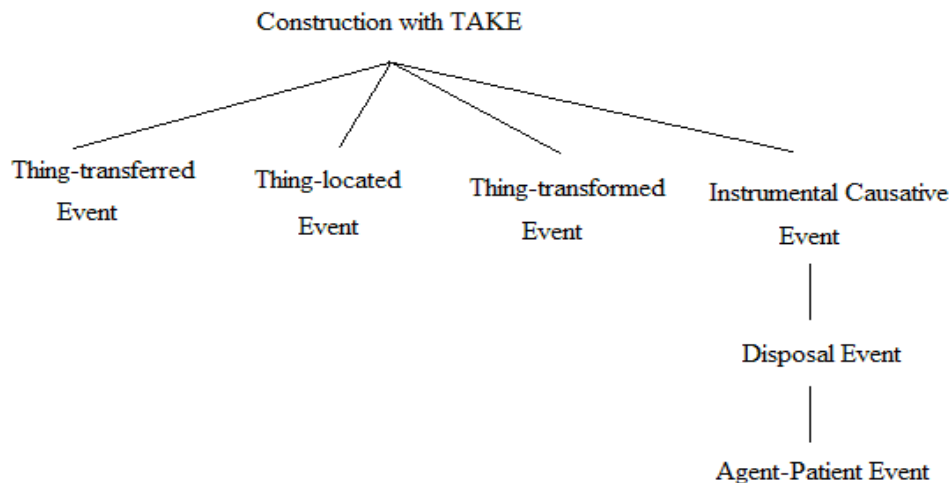
‘Zhangsan hit the ball very far.’

### **3.2.5. Discussion**

Based on the discussion of image schemata above, the construction with TAKE in Ancient Chinese was composed of four independent serial events in terms of the “thing-transferred event”, the “thing-located event”, the “thing-transformed event”, and the

“instrumental causative event”. However, the construction with TAKE in Modern Chinese consists of at least six basic events: the thing-transferred event, the thing-located event, the thing-transformed event, the instrumental causative event, the disposal event, and the agent-patient event, as shown in Figure 3.11. The latter two are only used in a single event.

**Figure 3.11. Development of constructions with TAKE**



The disposal event is a new form that was derived from the instrumental causative event by the Tang Dynasty due to the omission of the INSTRUMENT. The semantic relationship between the disposal event and the instrument causative event is very close because both events contain the senses of “manipulativeness” and “affectedness” in their image schemata, event though the serial event has become a single event. The other new form is the “agent-patient event” which was derived from the disposal event when the nominal argument in the event is not a tangible object. The agent-patient event and the disposal event share the same syntactic structure, but they differ completely in semantics because TAKE is used to mark the PATIENT in the former but marks the CAUSEE in the latter.

Each event can involve a metaphorical function when the object in the event becomes abstract. The verb “to take” becomes a marker of the THING object after metaphorical extension. Therefore, the construction with TAKE in Modern Chinese has numerous forms after the diachronic development.

The origin of the puzzle of the disposal construction in terms of the BA construction is due to its complicated diachronic evolution in semantics as well as syntax. Therefore, before creating a theory to explain the disposal construction, it is necessary to understand its diachronic development. It is impossible to adopt only one theory in order to analyze all types of constructions with TAKE.

## CHAPTER IV

### SYNTACTIC CHANGE: STRUCTURAL REANALYSIS

As a native speaker of Taiwanese Southern Min, the use of Mandarin *gei* ‘to give’ has confused me since I was young. When my classmate complained to our teacher by using the Mandarin sentence ‘*ta gei wo da*’, which means ‘he beat me’, I always laughed. For me, this sentence can only be interpreted as ‘he let me beat him’ or ‘he was beaten by me’, because Taiwanese *ho* ‘to give’ used in the same sentence can only indicate a causative or passive expression.<sup>59</sup> As a young child, it was impossible for me to accept that Mandarin *gei* ‘to give’ can express a disposal meaning.<sup>60</sup> Even now, I still cannot easily accept it.

My classmate’s utterance reflects how he understood the use of *gei* ‘to give’ in Mandarin. The use of Mandarin *gei* ‘to give’ functions as a disposal/patient marker and is nothing but a natural metaphorical extension. On the contrary, the use of ‘to give’ functioning as an agentive passive marker in Mandarin and Taiwanese conflicts the metaphorical process, because the motion of ‘to give’ that involves a dative can be associated with a patient, not an agent. Why is it that I can accept an abnormal ‘passive’ meaning but cannot accept a normal ‘disposal’ meaning?

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<sup>59</sup> Although I gloss *ho* of Taiwanese as ‘to give’ here, the etymology of *ho* in Taiwanese must be reconstructed carefully. The sound *ho* written as 互 in Taiwanese may not have meant ‘to give’ during the ancient stage. The study of GIVE in Taiwanese requires collecting GIVE-sentences from all of the dialects of Southern Min.

<sup>60</sup> The idea of the disposal construction (处置式) (known as the BA construction (把字句)) has been discussed in Chapter III. It was first proposed by Wang Li (1945; 1984:119-121). The construction ‘X *ba* Y Z’ denotes ‘X disposes of Y in the way described by Z’.

In Chinese, the agentive passive markers *gei* (给) and *jiao* (教/叫) are puzzling in that they are used to mark both a patient in the disposal construction and an agent in the passive construction.

Why do two markers that seem to have opposite functions employ the identical form? This distinctive phenomenon has attracted the attention of several linguists interested in the grammar of Chinese, e.g., Bennett (1981), Jiang (2002, 2009), Newman (1996), Shi & Wang (2009), Wu (1999), Xing (2006), and Yap & Iwasaki (2003). It is necessary to provide a brief introduction to some of these works (see Sections 4.1.1-4.1.5 and Section 4.2.1) before proposing my personal hypothesis.

According to Shi & Wang (2009) and Wu's (1999) cross-dialectal presentation of disposal and passive markers in dialects of Mandarin and Xiang, there are at least four types of lexical verbs that can serve as a single source of the passive and the disposal marker.<sup>61</sup> They are 'GIVE type', 'TAKE type', 'CALL type', and 'ALLOW type', as shown in Table 4.1. Table 4.1 provides some locations where speakers use a single morpheme for the passive and the disposal marker. It also includes the pronunciation and written characters of the morphemes in each dialect of Mandarin or Xiang (if applicable).

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<sup>61</sup> Xiang is one of the Chinese dialects spoken in Hunan Province.

**Table 4.1. A shared form of the passive/disposal marker in certain Chinese dialects**

	Location	Pronunciation	Character
<b>GIVE</b> type	Beijing (北京)	/gei/	给
	Ningyuan, Hunan (湖南宁远)	/ɛ/	挨
	Linwu, Hunan (湖南临武)	/a/	阿
	Changning, Hunan (湖南长宁)	/te/	得
	Changsha, Hunan (湖南长沙)	/pa/	把
	Jiaocheng, Shanxi (山西交城)	/kuvʔ/	给
	Xiuning, Anhui (安徽休宁)	/te/	提
	Susong, Anhui (安徽宿松)	/ma/	
<b>TAKE</b> type	Lengshuijiang, Hunan (湖南冷水江)	/la/	拿
	Shaodong, Hunan (湖南邵东)	/pa/	把 <sup>62</sup>
	Rucheng, Hunan (湖南汝城)	/no/	拿
<b>CALL</b> type	Yexian, Henan (河南叶县)	/tɕiau/	叫
	Xinjiang, Shanxi (山西新绛)	/tʂao/	招 <sup>63</sup>
	Tancheng, Shandong (山东鄒城)		叫
<b>ALLOW</b> type	Xuchang, Henan (河南许昌)		让

Take Beijing Mandarin as an example. Its verb *gei*, meaning “to give”, can be used as a disposal marker as well as a passive marker, as shown in (1) and (2), respectively. Therefore, Beijing Mandarin belongs to the GIVE type.

(1) *gei* “to give” in the disposal construction (Shi & Wang 2009:43)

我给电视机修好了。

Wo **gei** dianshiji xiu hao le.

I give television repair good Asp

‘I have repaired the television.’

<sup>62</sup> Note that the sound /pa/ spoken in Hunan Shaodong has two meanings: one is ‘to give’; the other is ‘to take/to hold’.

<sup>63</sup> Shi and Wang (2009) do not classify the word /tʂao/ written as 招. Based on its pronunciation, I put it in the CALL type.

(2) *gei* “to give” in the passive construction

花瓶给张三摔破了。

Huaping **gei** Zhangsan shuaipo le.

vase give NAME fall break-down Asp

‘The vase was broken by Zhangsan.’

In addition to basic information provided in Table 4.1, there are certain points that should be noted.

First, the majority of Chinese dialects and their distributive locations use one morpheme as a disposal marker and the other as a passive marker. Based on previous studies (Shi & Wang 2009, and Wu 1999), I conclude that there are only approximately sixty locations where speakers employ the same morpheme for both the disposal marker and the passive marker. In other words, this puzzling phenomenon developed in the sixty locations does not represent an overwhelming tendency; it occurs sporadically in a few dispersive areas with small groups of speakers. Among these locations, over eighty-five percent apply the GIVE type.

Second, in Table 4.1 several characters do not match their lexical meaning, especially in the GIVE type. It should be noted that many of the Chinese characters in dialects are created via a strategy of sound borrowing because most Chinese dialects are colloquial and did not have their own written forms until modern times. When a dialect speaker wanted to record colloquial sounds, he borrowed the existent characters from Standard Chinese or available written forms into his dialect based on identical or similar pronunciations. For example, the sound /te/ in Changning is written as 得 meaning “to receive”, while in Xiuning it is written as 提 meaning “to carry”. It is more likely that the sound /te/ could have nothing to do with the meaning “to receive” or “to carry” because

these written forms were created via a sound borrowing. The etymological meaning of /te/ should be “to give”.

The other example is /pa/ written as 把 in Changsha, as shown in the GIVE-type. The Chinese character 把 which means “to take” in Classical Chinese has an opposite meaning from the lexical verb “to give”. The sound /pa/ spoken in Changsha could have nothing to do with “to take”; its etymological meaning could be “to give”. It is not surprising that Chinese dialects have taken a *p*-initial or *t*-initial sound like /pa/ or /te/ meaning “to give” from the Proto-Sino-Tibetan language. According to Matisoff’s (2003:652) reconstruction of the verb “to give” in Proto-Tibeto-Burman, both \*bəy and \*ter are possible sounds. Therefore, the lexical meaning of *de* and *pa* used in Changning and Xiuning, and Changsha Xiang, respectively, is “to give”. They belong to the GIVE type.

#### **4.1. Previous studies**

To provide a starting point for the current study, I am going to introduce certain previous studies, which can be divided into two categories. The argument which does not support a “causative-to-passive” development (posed by Bennett (1981), Newman (1996), Shi & Wang (2009), Wu (1999), or Xing (2006)) will be discussed in Sections 4.1.1-4.1.5, while the argument which supports the “causative-to-passive” development (posed by Jiang (1997) and Yap & Iwasaki (2003)) will be provided in Section 4.2. Several questions concerning these previous arguments will be discussed in Section 4.3.



#### 4.1.1. Bennett's (1981) observations

In 1981, Bennett noticed a surprising phenomenon in Chinese: *gei* (给) ‘to give’ in Mandarin can be used as a lexical verb, a dative marker, as well as a passive marker; in some Chinese dialects it can even be used as a disposal marker (1981:80-82). He mentions that the derivation of the dative preposition *gei* from the lexical verb meaning ‘to give’ is a natural process via syntactic reanalysis, which occurs commonly and cross-linguistically. However, it is certainly striking that Mandarin also uses *gei* as a passive marker indicating an agent because the development of *gei* ‘to give’ into an agent marker in the passive construction is unexpected and represents a dramatic reversal. For example, “John **gave** me a beating” should mean “John beat me” rather than “John was beaten by me”.

It is hard to see exactly how the syntactic reanalysis could have occurred such that Mandarin *gei* ‘to give’ developed from a verb to a passive marker; therefore, Bennett suggests using different kinds of explanations for this unusual phenomenon called “verb-to-preposition shift” (his terminology). Moreover, he suggests that the process of “verb-to-preposition shift” requires reference to specific Chinese facts in that there is a very close relationship between passive and disposal constructions in some Chinese dialects and this apparently applies to some speakers when using *gei* in Mandarin.

Note that it is very difficult to understand Bennett’s statement because it is hard to find examples to prove that there is really a very close relationship between the passive and the disposal construction. In fact, the relationship between the passive and the causative construction in Chinese is very close because a GIVE-type passive always has a corresponding causative expression, which can cause an ambiguity of meaning. However,

the relationship between the passive and the disposal construction is distant because these two expressions are opposite in all dialects of Chinese.

#### **4.1.2. Newman's (1996) considerations**

In 1996, Newman mentions the same puzzle, where *gei* (给) 'to give' (represented as GEI) is used as a marker of the agent in a passive construction in Mandarin, and he suggests a number of factors that motivate this intriguing use of GEI (1996:196-198). Newman stresses that, in order to understand the existence of this construction, more than one factor needs to be considered in accounting for the GEI-passive in Mandarin.

First, *gei* 'to give' can be used in contexts involving an enablement sense. The enablement sense attached to GEI helps to motivate the agentive marking function in that the noun phrase to the right of GEI, which functions as a trajector with respect to the following predicate.

Secondly, there has been a general trend in the history of Mandarin syntax involving a word order shift from SVO to SOV, and this historical fact is surely relevant in accounting for the agentive marker GEI in the passive construction.<sup>64</sup>

Thirdly, in a topic-comment language such as Mandarin, there is a certain slipperiness to the semantic role played by a noun phrase at the beginning of a sentence, and it is possible for initial noun phrases to be interpreted as either the trajector or the landmark of the following verbal predicate. This variability in the semantic function of the initial noun phrase would obviously help to smooth the way for the development of

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<sup>64</sup> The word order shift from SVO to SOV in Chinese is usually associated with the occurrence of disposal constructions. I have provided my own explanation in Chapter III. In my opinion, it is the omission of an instrument from the instrumental causative construction that brings about the word order change.

the GEI-passive construction in which the initial noun phrase would function like a patient rather than an agent.

Finally, in Mandarin, there is a benefactive prepositional use of GEI “for the benefit of” whereby the benefactive phrase is typically also the motivation for an act. The NP in the benefactive phrase (*gei* + NP) refers to a person who not only benefits from some act but is also the cause of the act. In other words, the benefactive sense attached to GEI makes the benefactive NP comparable to the agentive sense, since both of the agent of an act and the person for whose benefit an act is carried out play a part in setting the act in motion.

Note that none of the factors mentioned above can be reasonably illustrated, except the first one. Newman’s “enablement sense” is equivalent to the sense of “permissive causative” (in my terminology). I will define this term in Section 4.4.1.1.

#### **4.1.3. Wu’s (1999) “stages of grammaticalization”**

In 1999, Wu tried to solve the puzzle concerning the GIVE-passive construction based on her investigation of certain dialects of Xiang spoken in Hunan Province. She points out that the disposal and the passive markers are derived from a pair of synonyms meaning “to give” or “to take” in some dialects of Xiang. She mentions that a single form used in both the disposal and passive markers is unnatural because, in Xiang, the disposal marker is used to introduce the patient and the passive marker is used to introduce the agent. It is obvious that the two markers have opposite functions.

Wu proposes that the word *pa* meaning “to give” used in both the disposal and the passive construction in Xiang dialects has experienced several stages of grammaticalization (1999:110).

In the first stage, *pa* ‘to give’ is used in a serial verb construction, which involves two *pa* ‘to give’, as shown in (a).

(a) S (agent) + **verb ‘to give’** + indirect O (patient) + **V (to give)** + direct O

In the second stage, the first lexical verb *pa* “to give” in (a) has been syntactically reanalyzed into a preposition introducing the relationship between subject (agent) and indirect object (patient), as shown in (b).

(b) S (agent) + **prep ‘to give’** + indirect O (patient) + V (to give) + direct O

In the third stage, the preposition *pa* is used to express an adverse situation in that it turns to introduce the relationship between subject (patient) and object (agent), and *pa* becomes an agentive marker in the passive construction, as shown in (c).

(c) S (patient) + **prep ‘to give’** + O (agent) + V (an **adverse situation** only)

In the fourth stage, the preposition *pa* is used in the disposal construction to introduce the relationship between the subject (agent) and the object (patient), as shown in (d).

(d) S (agent) + **prep ‘to give’** + O (patient) + V

Wu finally concludes that the lexical meaning of *pa* ‘to give’ has become weaker and weaker through the above four stages: “lexical verb → dative marker → passive marker → disposal marker”.<sup>65</sup>

Note that Wu’s four stages of grammaticalization in *pa* ‘to give’ are inexplicable because her analysis does not include the causative meaning. The term “adverse situation” needs to be explained. She mentions that the passive construction in the

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<sup>65</sup> Wu (1999:109) mentions that when both disposal and passive constructions share the same marker, a sentence like [Zhang San + disposal/passive + Li Si + to beat + Comp] is definitely regarded as a passive sentence in the Xiang dialects. It cannot be used as a disposal sentence. In this sequence, she suggests that the disposal construction developed later than the passive construction.

dialects of Xiang can only be used for an adverse situation; in this sequence, she claims that the passive construction occurs when people want to express an adverse situation. In my opinion, when people use a passive construction (for instance, with a passive marker *jian* (见) or *bei* (被)) in Ancient Chinese), it normally involves a malefactive. Therefore, the passive form was conventionalized so as to be associated with an adverse situation. This process of conventionalization could have occurred in several dialects of Chinese, including Taiwanese Southern Min.

#### **4.1.4. Xing's (2006) "subjectification"**

In 2006, Xing uses a new approach to solve the same puzzle concerning the *gei*-passive and the *jiao*-passive construction in Chinese. In her study, "subjectification" relies primarily on "the listener/reader's subjective understanding or interpretation of the intended meaning and is deducible from discourse, pragmatic, social and cultural context (2006:471)".

She points out that the causative verb *jiao* 'to call' (教/叫) and the dative verb *gei* 'to give' (给) can be used to express a passive meaning (2006:472-473). Between the 7th and 9th centuries A.D., *jiao* was not only commonly used as a causative verb meaning "to ask somebody to do something", but also to introduce an agent expressing a passive meaning, as shown in (3). In sentence (3a), *jiao* 'to call' carries an ambiguous meaning in that it may be interpreted as having either the causative meaning "to let somebody do something" or the passive meaning "something done by somebody". In sentence (3b), it only conveys the passive meaning with its agent in the subsequent position.

(3) *jiao* in 9th century (*A complete collection of Tang poems*) (Xing 2006:472)

a. 莫教人笑汝。

mo **jiao** ren xiao ru

not is-let people laugh-at you

‘Don’t let people laugh at you.’

Or ‘(You) should not be laughed at by people.’

b. 春思翻教阿母疑。

chunsi fan **jiao** ‘amu yi

spring-thinking turn-around pass mother suspect

‘Thoughts of love were nevertheless suspected by mother.’

During the 17th century, *gei* ‘to give’ developed its passive meaning, as shown in

(4). In sentence (4a), *gei* is a dative verb meaning “to give somebody something”, while

in (4b), it introduces an agent, yielding a passive meaning.

(4) *gei* in 17th Century (*Honglou meng*) (Xing 2006:472)

a. 我给他带了许多好东西来了。

wo **gei** ta dai le xuduo hao dongxi lai le.

1sg give 3sg bring asp lot good stuff come part

‘I brought him a lot of good stuff.’

b. 就是天也是给气运使唤着。

jiushi tian ye shi **gei** qi yun shihuan zhe

even sky also is pass air use stat

‘Even the sky is used by air.’

Her argument is that the unmarked feature of Chinese nouns and verbs opens a window for speakers or listeners to rearrange the word order or interpret *jiao* and *gei* based on their subjective understanding of the surrounding entities. For example, it is not always clear to the listener whether the grammatical marker *jiao* in (3) is causative or passive; therefore, subjectification is at work, depending on the listener’s subjective understanding of the discourse when determining or interpreting *jiao* as either causative or passive.

Note that although Xing provides historical records to support the idea of ‘subjectification’, her solution has nothing to do with the diachronic development of the

agentive passive markers. The fundamental problem is that the interpretation of (3a) relies completely on Xing's personal judgment. Without any historical evidence, it is impossible to say that ancient people can interpret *jiao* as either causative or passive in (3a). The ambiguity between the causative expression and the passive expression is a synchronic fact of existence. Xing's 'subjectification' only touches on a synchronic issue.

#### **4.1.5. Shi & Wang's (2009) arguments**

In 2009, Shi and Wang attempted to explore why some Chinese dialects employ the same marker for both their disposal and passive constructions. They are concerned with the same puzzle in which the marked constituents in the disposal and passive construction in Chinese are exact opposites, where the former is a patient but the latter is an agent. To solve this puzzle, they argue that both *jiao* (叫) and *gei* (给) are potential candidates to be used as both the disposal and passive marker due to their multi-vocal meanings in syntactic environments.

Using *gei* 'to give' as an example, they argue that *gei* 'to give' has a bidirectional meaning. In both (5) and (6), the NP *Laowang* 'NAME' can be interpreted as a giver or a recipient depending on the context. If the omitted NP is a giver, then *Laowang* (NAME) is a recipient; if the omitted NP is a recipient, then *Laowang* 'NAME' is a giver. Note that the patient *liwu* 'gift' in (5) is topicalized, in the initial position of the sentence.

(5) *gei* in topicalized and NP-omitted sentences (Shi & Wang 2009:50)

(礼物,) 老王已经给了。

Liwu, Laowang yijing gei le.

gift, NAME already give Asp

'(Speaking of the gift,) Laowang has given it (to someone).'

'(Speaking of the gift,) (someone) has given it to Laowang.'

(6) *gei* in NP-omitted sentences (Shi & Wang 2009:50)

老王已经给了礼物啦。

Laowang yijing *gei* le liwu la.

NAME already give Asp gift Prt

‘Laowang has given the gift (to someone).’

‘(Someone) has given the gift to Laowang.’

Therefore, *gei* ‘to give’ can be understood as “to give” or “to receive” in a sentence.

#### **4.2. Previous studies: causative-to-passive development**

The “causative-to-passive” development of *gei* ‘to give’ (给) and *jiao* ‘to call’ (叫/教) has been explored by a few linguists. Shaoyu Jiang (1997) mentions that *jiao* ‘to call’ was originally used in the causative construction, and the passive function of *jiao* is derived from the causative *jiao*. The agentless construction of *jiao* brings about ambiguous meanings, which can trigger the semantic extension of the passive function (1997:302). In 2002, Jiang further argues that the passive *gei* is also derived from the causative *gei*, and the causative *gei* is grammaticalized from the lexical *gei* meaning “to give” (2002:159). In 2009, Jiang points out that the causative functions of *jiao* ‘to teach’ (教) and *jiao* ‘to call’ (叫) developed individually from their lexical meanings. The “causative-to-passive” development of *jiao* (教) occurred several hundreds of years earlier than that of *jiao* (叫) (2009:87-89).

Basically speaking, Jiang’s claims for the causative-to-passive development of *gei* and *jiao* are based on his observations from historical documents in Classical Chinese. He does not provide a detailed procedure for these diachronic developments based on a theoretical ground.



The main purpose of this study is to find a possible linguistic process for explaining the development of agentive passive markers in Chinese. Before explaining my hypothesis, I would like to introduce the interesting idea of a grammaticalization pathway involved in the causative-to-passive development posed by Yap and Iwasaki (2003).

#### **4.2.1. Yap & Iwasaki's (2003) grammaticalization pathway**

In 2003, Yap and Iwasaki propose a diachronic view for a possible development of *give*-passive constructions, which they support through cross-linguistic comparisons. First, they claim that the emergence of give-passive from give-causative is a natural and fairly robust phenomenon, and this development is generally mediated in the permissive and reflexive environment, as shown in the following grammaticalization pathway:

**Lexical 'give' → permissive causative 'give' → reflexive 'give' → passive 'give'**

In Mandarin, for example, *gei* meaning 'to give' can be used to indicate the permissive causative (X lets Y do Z), which emerges in the non-coercive context, as shown in example (7).

(7) *gei* in permissive causative (Yap and Iwasaki 2003:421)

我给你猜个谜语。

Wo **gei** ni cai ge miyu.

I GIVE you guess C1 riddle

'I (will) let you guess a riddle.'

The reflexive-causative use of *gei* (X gives self to be perceived by Y) can be seen in example (8).

(8) *gei* in reflexive-causative (Yap and Iwasaki 2003:422)

李四给张三看见了。  
Lisi **gei** Zhangsan kanjian-le.  
Lisi GIVE Zhangsan see-Asp  
lit. 'Lisi gave Zhangsan see (him).'  
= 'Lisi was seen by Zhangsan.'

The ordinary passive *gei* can specify an overt agent, as shown in (9a); it can also be used in an agentless construction, as shown in (9b).

(9) *gei* in passive (Yap and Iwasaki 2003:422)

- a. 房子给土匪烧了。  
Fangzi **gei** tufei shao le.  
House GIVE hooligan burn Asp  
'The house was burned down by the hooligans.'
- b. 房子给烧了。  
Fangzi **gei** shao le.  
House GIVE burn Asp  
'The house was burned down.'

Secondly, their comparative perspective shows differential degrees of grammaticalization for the “causative-to-passive” development, in that give-passives are most common in languages such as Mandarin and Cantonese, where the subject-agency can be weakened or lost. However, in languages such as Thai, Khmer, and Vietnamese, which lack of this “causative-to-passive” phenomenon, the give-involved constructions strongly favor a highly agentive and volitional subject and tend to block the emergence of give-passive interpretations (2003:431).

Third, their study shows that the ‘let’-type morpheme *rang* ‘to let’ (让), which is used in the passive construction in Mandarin, has evolved through an identical “causative-to-passive” development. Mandarin *rang* means ‘allow, permit, let’; it can be used in a permissive causative construction, as shown in (10).

(10) *rang* in permissive causative (Yap and Iwasaki 2003:434)

你让我再想想。

Ni **rang** wo zai xiang xiang.

You ALLOW me again think think

‘Let me think it over.’

The reflexive-causative use of *rang* can be illustrated in (10).

(11) *rang* in reflexive causative (Yap and Iwasaki 2003:434)

我让你吓坏了。

Wo **rang** ni xia huai le.

I ALLOW you have-a-fright ruin Asp

‘I let you give me a terrible fright.’<sup>66</sup>

= ‘I really got a fright from you.’

The ordinary passive *rang* can be exemplified in (12).

(12) *rang* in passive (Yap and Iwasaki 2003:434)

房子让水冲走了。

Fangzi **rang** shui chong zhou le.

House ALLOW water wash go Asp

‘The house was washed away by the water.’

Fourth, considering the other causative morpheme *jiao* derived from a verb meaning “to call, holler, yell”, Yap and Iwasaki (2003:438) argue that *jiao* cannot readily extend its reflexive-causative constructions into reflexive-passive contexts where subject agentivity and volitionality are low. Therefore, the “causative-to-passive” development of *jiao* ‘to call’ has probably evolved without the direct mediation or facilitation of reflexive contexts. The following schema shows that the “causative-to-passive” development of *gei* ‘to give’ and *rang* ‘to let’ follows the same pathway: lexical → permissive causative → reflexive causative → reflexive passive → passive, but *jiao* ‘to call’ does not.

(a). *gei* ‘to give’ and *rang* ‘to let’ in Mandarin:

lexical → permissive causative → reflexive causative → **reflexive passive** → passive

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<sup>66</sup> The first translation provided here is very odd. The causative meaning seems inapplicable in (11).

(b). *jiao* ‘to call’ in Mandarin:

lexical → permissive causative → reflexive causative → **(not available)** → passive

Since *jiao* ‘to call’ does not follow the grammaticalization pathway above, Yap and Iwasaki claim that *jiao* ‘to call’ may have acquired passive functions via analogy with other causative morphemes like *gei* ‘to give’ and *rang* ‘to let’.

Considering Yap and Iwasaki’s assumption, there are two important terms, “reflexive causative” and “reflexive passive”, which need to be discussed here. At the beginning of this chapter, I mentioned the sentence *ta gei wo da*, as shown in (13), which can be understood as ‘he beat me’, ‘he let me beat him’, and ‘he was beaten by me’ by the native speaker of Mandarin; however, the expression of ‘he beat me’ cannot be accepted by the native speaker of Taiwanese. This is because, in Taiwanese, the equivalent sentence *i ho ua pha* cannot express the disposal meaning, as shown in (14). The disposal meaning in Taiwanese requires a “comitative marker” *ka/kã* (Chappell 2000:277, and 2006:12-14), as shown in (15).<sup>67</sup>

(13) *gei* ‘to give’ in Mandarin

他给我打  
ta gei wo da  
he GIVE me beat  
‘he beat me’ (disposal expression)  
‘he let me beat him’ (causative expressive)  
‘he was beaten by me’ (passive expressive)

(14) *ho* ‘to give’ in Taiwanese

伊互我打  
i ho ua pha  
he GIVE me beat  
\*‘he beat me’ (disposal expression)  
‘he let me beat him’ (causative expressive)  
‘he was beaten by me’ (passive expressive)

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<sup>67</sup> Chappell (2000:277) defines *ka/kã* written as 共, as a comitative marker because its lexical meaning is very similar to English “with”.

(15) Comitative marker *ka/kā* in disposal

伊共我打

i ka ua pha

he KA me beat

‘he beat me’ (disposal expression)

\*‘he let me beat him’ (causative expressive)

\*‘he was beaten by me’ (passive expressive)

The causative expression ‘he let me beat him’ in (13) and (14) does involve a reflexive sense because the agent is also the patient; it is reasonable for Yap and Iwasaki to call this “reflexive causative”. However, I cannot find any suitable example for the expression of “reflexive passive”. Note that Chinese tends to involve a malefactive (or an ‘adverse situation’ in Wu’s (1999) terminology) in the passive construction. It is very odd to see a reflexive expression co-occur with a malefactive in Chinese.

### 4.3. Questions on previous studies

All of the previous studies more or less try to explain why two markers (namely “passive marker” vs. “disposal marker” or “agentive marker” vs. “dative marker”) seem to have opposite functions but employ an identical form, such as *gei* ‘to give’, *jiao* ‘to call’, *rang* ‘to let’, or *na* ‘to take’. So far, I have discussed Wu’s (1999) argument on **adverse** situation in passive constructions, Shi and Wang’s (2009) idea of **bidirectional** meaning, and Yap and Iwasaki’s (2003) opinion about the mediation of **reflexive** contexts.

However, there are several inadequacies that need to be reconsidered. First, most of the aforementioned studies focus on the GIVE type (namely *gei*) and/or the CALL type (namely *jiao*). Only Yap and Iwasaki (2003) provide discussion of the ALLOW type (namely *rang*). None of the studies proposed any solution to the TAKE type (namely *na* or *pa/ba*), even though Wu (1999:107) has mentioned that “the lexical source of the disposal and the passive markers is either ‘to give’ or ‘to take’”.

Secondly, those linguists who do not support the “causative-to-passive” development should explain why their analyses exclude the causative function of “give”. In fact, the use of the morpheme “to give” to express causative functions is a pan-Chinese phenomenon. Although Newman (1996:196) mentions that *gei* ‘to give’ can be used in contexts involving an enablement sense that can help *gei* motivate the agentive marking function, he does not believe that the passive *gei* can emerge straight from the causative *gei*.

Third, regarding linguists who use a grammaticalization pathway as a solution (e.g., Wu’s four stages: lexical verb → dative marker → passive marker → disposal marker, and Yap and Iwasaki’s causative-to-passive pathway: lexical ‘give’ → permissive causative ‘give’ → reflexive ‘give’ → passive ‘give’), it appears that the examples these researchers provide for each stage are individual and independent. In fact, it is unlikely that the disposal marker evolved from the passive marker (cf. Wu (1999)). In addition, the reflexive-passive construction seems semantically impossible in Chinese; I cannot even find a grammatical example of it. How can the “reflexive-passive” construction be treated as the mediation during the “causative-to-passive” development (cf. Yap and Iwasaki (2003))?

Fourth, *gei* ‘to give’, *jiao* ‘to call’, *rang* ‘to let’, and *na* ‘to take’ could not carry a bidirectional meaning. It is semantically illogical that *gei* ‘to give’ can be understood as “to give” and “to receive” in a sentence (cf. Shi and Wang (2009)). In fact, from examples (5) and (6) above, it is clear that the bidirectional sense happens when the sentence structure changes. It is the omission of the NP in sentences that causes the ambiguity of the construction.

Fifth, there is no evidence that can prove that the causative-to-passive development of *gei* ‘to give’, *jiao* ‘to call’, *rang* ‘to let’, or *na* ‘to take’ underwent different processes. It may be inappropriate to use “analogy” as a solution until it is clear that no internal factor from the language can be found. In fact, the morphemes may acquire the passive function via the same process (cf. Yap and Iwasaki (2003)).

In the next section, I will begin to explain my personal hypothesis. I claim that the agentive passive marker arises from three types of causative constructions; their configurations can be demonstrated as [NP1<sub>primary causer</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V + NP3<sub>causee</sub>] (see Section 4.4.1). This “causative-to-passive” process involves three steps: (1) NP3<sub>causee</sub> is topicalized to the sentence-initial position (see Section 4.4.2), (2) NP1<sub>primary causer</sub> is omitted by the speaker (see Section 4.4.3), and (3) the final configuration [NP3<sub>causee</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V] is reanalyzed as a passive construction by the listener (see Section 4.4.4).

#### **4.4. Development of agentive passive markers**

In order to solve the puzzle of the agentive passive marker used in Chinese, it is necessary to understand what kind of sentences may have served as input for developing agentive passive constructions. The input is the causative construction.

Let us get started by looking at John Newman’s (1996:196) example, as shown in (16). In (16), *mao* ‘cat’ is understood as the entity which did the eating. Although the passive sentence “the goldfish was eaten by the cat” is grammatical, its semantics are insufficient. It appears that the ‘cat’, being a creature which fears touching water, could not successfully eat the goldfish by itself. There should be a primary causer making the cat do the eating. Without the primary causer, the event of eating will never happen.

In a common speech act, the primary causer can be elided when it is already known to both the speaker and the listener. In natural discourse, a logical meaning of (16) could be “the goldfish, I let the cat eat it” in which the ‘goldfish’ is a topicalized causee, and ‘I’ is the omitted primary causer. In comparison with the primary causer, the ‘cat’ is defined as a secondary causer because it is not the chief entity which controls and causes the entire event.

(16) Agentive marker *gei* in passive (Newman 1996:196)

金鱼给猫吃了。

Jinyu **gei** mao chi-le.

Goldfish give cat was eaten-Asp

‘The goldfish was eaten by the cat.’

Based on the observation above, I suggest that the process in the development of agentive passive markers involves three thematic roles (primary causer, secondary causer, and causee) in three types of causative constructions: **permissive causative**, **instrumental causative**, and **manipulative causative** construction. This classification is established completely based on typological observation of Chinese, since I have no historical evidence for it so far. Details are provided in the following sections. Note that in most cases, I will use Mandarin to furnish examples.

#### **4.4.1. Three types of causativity**

All of the agentive passive markers used in Mandarin, such as *gei*, *jiao*, *rang*, and *na*, can also be used in causative constructions. They can be categorized into three causative types: permissive causative, instrumental causative, and manipulative causative. *Gei* ‘to give’ and *rang* ‘to let’ occur in the permissive causative construction (see Section 4.4.1.1); *na* ‘to take’ occurs in the instrumental causative construction (see Section



4.4.1.2); *jiao* ‘to call’ occurs in the manipulative causative construction (see Section 4.4.1.3).

It is very important to realize that all of the three causative types share an identical position class, as shown in Table 4.2. The word order can be represented as [NP1 + *gei/ na/ jiao/ rang* + NP2 + V + NP3]. The sentence that involves this word order has served as input for developing agentive passive constructions.

**Table 4.2. Position class in causativity of *gei, jiao, rang, or na***

NP1	<i>gei</i> (给) <i>rang</i> (让) <i>na</i> (拿) <i>jiao</i> (叫)	NP2	V	NP3
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It is also important to understand the thematic role assigned to each constituent in Table 4.2. Table 4.3 shows that NP1 is assigned as the primary causer, NP2 is the secondary causer (not restricted to humans or animates), and NP3 is associated with the causee (not restricted to humans or animates). The order of thematic roles in the construction can be represented as: [primary causer + *gei/ na/ jiao/ rang* + secondary causer + V + causee]. Note that in the clause [secondary causer + V + causee], as shown in (16) above, the secondary causer is also an agent, and the causee is also a patient. In order to stress the sense of causativity and to prevent confusion, I will use causer and causee rather than agent and patient.

**Table 4.3. Thematic roles in causativity of *gei*, *jiao*, *rang*, or *na***

Primary Causer	<i>gei</i> (给) <i>rang</i> (让) <i>na</i> (拿) <i>jiao</i> (叫)	Secondary Causer	V	Causee
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According to the position class and thematic roles provided above, a concrete representation for the three types of causative constructions can be determined: [NP1<sub>primary causer</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V + NP3<sub>causee</sub>]. Examples of each type are given in the following sections.

#### **4.4.1.1. Permissive causative**

Causativity is a complex notion that can at least be simplistically understood as a) event X causes event Y, b) person A causes event Y, c) person A causes some entity B (animate or inanimate) to change, or d) person A causes person B to do Y (Newman 1996:172).

Conceptualizing the ‘giver’ as a ‘causer’ is a common metaphorical extension based on similarities between the giver and the causer. In particular, the sense of causativity is often ascribed to the meaning of lexical ‘to give’ because the ‘giver’ is said to be the entity which **causes** a situation in which the recipient comes to have the theme object (1996:172). Therefore, *gei* ‘to give’ (给) can be used in the causative construction cross-linguistically. Mandarin sentences that involve causative *gei* are considered permissive causative, denoting “person A enables person/animate B to do something”. Examples are shown in (17).

(17) *gei* in a permissive causative construction

a. 我给猫咪吃掉了那尾金鱼。

Wo **gei** maomi chidiao le na wei jinyu.

1S give kitty eat-off Asp that Cl goldfish

‘I **let** the kitty eat that goldfish.’

b. 我给张三预支了下个月的薪水。

Wo **gei** Zhangsan yuzhi le xia ge yue de xinshui.

1S give Name draw-in-advance Asp next Cl month de salary

‘I **let** Zhangsan draw next month’s salary in advance.’

The Mandarin causative marker *rang* (让) meaning ‘to let’ originates from its etymological meaning ‘to yield’ via a metaphorical extension. Its function in the permissive causative is no different from that of the causative *gei* in (17). Indeed, *gei* and *rang* can be interchanged, as shown in (18). In (18), all of the components are the same as those in (17) except for the causative markers, *gei* and *rang*.

(18) *rang* in a permissive causative construction

a. 我让猫咪吃掉了那尾金鱼。

Wo **rang** maomi chi diao le na wei jinyu.

1S let kitty eat-off Asp that Cl goldfish

‘I **let** the kitty eat that goldfish.’

b. 我让张三预支了下个月的薪水。

Wo **rang** Zhangsan yuzhi le xia ge yue de xinshui.

1S let Name draw-in-advance Asp next Cl month de salary

‘I **let** Zhangsan draw next month’s salary in advance.’

In (17a) and (18a), for example, the first NP *wo* ‘I’ is associated with the primary causer, the second NP *maomi* ‘kitty’ is associated with the secondary causer, and the third NP *jinyu* ‘goldfish’ is the causee.

#### **4.4.1.2. Instrumental causative**

The instrumental causative involving *na* ‘to take’ (拿) can serve to express the notion of ‘person A causes event X with an instrument (where ‘event’ is usually referred

to action, process, or change of state)”. The instrumental causative is a causative construction that involves an instrument. When completing an action with an instrument in hand, the causative force is transferred from the primary causer to the causee via the instrument. In this case, the instrument in terms of secondary causer controlled by the primary causer is also a contributing factor imposing the force on the causee in the later event X. Examples of the instrumental causative are shown in (19).

(19) *na* in an instrumental causative construction

- a. 我拿石头堵死了那个老鼠洞。  
Wo **na** shitou dusi le na ge laoshu dong.  
1S take stone block Asp that CI rat's hole  
'I **took** a stone to block the rat's hole.'
- b. 我拿手枪吓跑了那群土匪。  
Wo **na** shouqiang xiapao le na qun tufei.  
1S take pistol scare-away Asp that CI bandit  
'I **took** a pistol to scare those bandits away.'

In (19b), for example, the first NP *wo* 'I' is associated with the primary causer, the second instrumental NP *shouqiang* 'pistol' is associated with the secondary causer, and the third NP *tufei* 'brigand' is the causee.

#### **4.4.1.3. Manipulative causative**

The manipulative causative involves the manipulation of another person in order to have that person to do something. This sense, represented as “have someone to do something”, can be carried by *jiao* ‘to call’ (叫) in Mandarin.<sup>68</sup> Manipulative causative can serve to express the interpersonal causative action of “person A causes/asks person B to do something”. Examples are shown in (20).

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<sup>68</sup> Note that the causative *jiao* could originate from its etymological meaning ‘to yell’ via metaphorical extension.

(20) *jiao* in a manipulative causative construction

a. 我叫工人拆掉了墙上的挂钟。

Wo **jiao** gongren chaidiao le qiangshang de guazhong.

1S call worker remove Asp wall-on Gen wall-clock

'I **called** the worker to remove the wall clock.'

b. 我叫张三修好了那台电视机。

Wo **jiao** Zhangsang xiuhao le na tai dianshiji.

1S call Zhangsang fix Asp that CI television

'I **called** Zhangsang to fix the television.'

In (20a), for example, the first NP *wo* 'I' is associated with the primary causer, the second NP *gongren* 'worker' is associated with the secondary causer, and the third NP *guazhong* 'wall-clock' is the causee.

In the following sections (Sections 4.4.2-4.4.4), the "causative-to-passive" process will be shown to involve three steps, **topicalization**, **omission of primary causer**, and **structural reanalysis**, in all types of causativity.

#### **4.4.2. Topicalization**

The development of agentive passive markers in Mandarin involves two stages of structural change and one stage of structural reanalysis. The first step is to topicalize the causee from sentences (17-20).

The sentence-initial NP in a topic-comment language like Chinese is, as expected, a topic. The property of the topic in the three causative constructions is semantically a causee; it is always definite since it represents part of the presupposed information, and it can be separated from the rest of the sentence in which it overtly occurs preceding a pause particle. The later NPs are primary and secondary causers. In the following I will illustrate the topicalized causee, as shown from (21) to (24). The constituent order after

topicalization in all of these examples can be represented as [NP3<sub>causee</sub>, NP1<sub>primary causer</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V], as shown in Table 4.4.

**Table 4.4. Position class after topicalization of NP3**

causee,  (NP3,)	primary causer  (NP1)	<i>gei</i> (给) <i>rang</i> (让) <i>na</i> (拿) <i>jiao</i> (叫)	secondary causer  (NP2)	V
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Example (21) shows the topicalized causee in the permissive causative construction with *gei*. The causee in sentence (17) above is fronted, in the sentence-initial position.

(21) Topicalized causee from *gei* causative

- a. 那尾金鱼，我给猫咪吃掉了。  
Na wei jinyu, wo **gei** maomi chidiao le.  
that CI goldfish, 1S give kitty eat-off Asp  
'Speaking of that goldfish, I **let** the kitty eat (it).'
- b. 下个月的薪水，我给张三预支了。  
Xia ge yue de xinshui, wo **gei** Zhangsan yuzhi le.  
next CI month de salary, 1S give Zhangsan draw-in-advance Asp  
'Speaking of next month's salary, I **let** Zhangsan draw (it) in advance.'

Example (22) shows the topicalized causee in the permissive causative construction with *rang*. The causee in sentence (18) above is fronted, in the sentence-initial position.

(22) Topicalized causee from *rang* causative

- a. 那尾金鱼，我让猫咪吃掉了。  
Na wei jinyu, wo **rang** maomi chi diao le.  
that CI goldfish, 1S let kitty eat-off Asp  
'Speaking of that goldfish, I **let** the kitty eat (it).'
- b. 下个月的薪水，我让张三预支了。  
Xia ge yue de xinshui, wo **rang** Zhangsan yuzhi le.  
next CI month de salary, 1S let Zhangsan draw-in-advance Asp  
'Speaking of next month's salary, I **let** Zhangsan draw (it) in advance.'

Example (23) shows the topicalized causee in the instrumental causative construction with *na*. The causee in the sentence (19) is fronted, in the sentence-initial position.

(23) Topicalized causee from *na* causative

a. 那个老鼠洞，我拿石头堵死了。

Na ge laoshu dong, wo **na** shitou dushi le.

that CI rat's hole, 1S take stone block Asp

'Speaking of that rat's hole, I **took** a stone to block (it).'

b. 那群土匪，我拿手枪吓跑了。

Na qun tufei, wo **na** shouqiang xia pao le.

that CI bandit, 1S take pistol scare-away Asp

'Speaking of those bandits, I **took** a pistol to scare (them) away.'

Example (24) shows the topicalized causee in the manipulative causative construction with *jiao*. The causee in the sentence (20) is fronted, in the sentence-initial position.

(24) Topicalized causee from *jiao* causative

a. 墙上的挂钟，我叫工人拆掉了。

Qiangshang de guazhong, wo **jiao** gongren chaidiao le.

wall-on Gen wall-clock, 1S call worker remove Asp

'Speaking of the wall clock, I **called** the worker to remove (it).'

b. 那台电视机，我叫张三修好了。

Na tai dianshiji, wo **jiao** Zhangsan xiuhao le.

that CI television, 1S call Zhangsan fix Asp

'Speaking of the television, I **called** Zhangsan to fix (it).'

#### **4.4.3. Omission of primary causer**

The second step of the development of agentive passive markers is the omission of the co-referential NP that is semantically a primary causer, as shown in (25-28).

Without breaking the topic continuity, the speaker is allowed to omit any co-referential noun phrase in natural discourse. The constituent order after the omission of the NP1 in

all the following examples can be represented as [NP3<sub>causee</sub> + *gei/ na/ jiao/ rang* + NP2  
secondary causer + V], as shown in Table 4.5.

**Table 4.5. Position class after omission of NP1**

Causee,  (NP3,)	∅  (empty)	<i>gei</i> (给) <i>rang</i> (让) <i>na</i> (拿) <i>jiao</i> (叫)	secondary causer  (NP2)	V
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Example (25) shows the sentence after the omission of the primary causer from the permissive causative construction with *gei*. The primary causer is omitted from the topicalized example (21) above.

(25) Omission of primary causer in *gei* causative

- a. 那尾金鱼，给猫咪吃掉了。  
Na wei jinyu, **gei** maomi chidiao le.  
that CI goldfish, give kitty eat-off Asp  
'That goldfish, (I) **let** the kitty eat (it).'
- b. 下个月的薪水，给张三预支了。  
Xia ge yue de xinshui, **gei** Zhangsan yuzhi le.  
next CI month de salary, give Zhangsan draw-in-advance Asp  
'Next month's salary, (I) **let** Zhangsan draw (it) in advance.'

Example (26) shows the sentence after the omission of the primary causer from the permissive causative construction with *rang*. The primary causer is omitted from the topicalized example (22) above.

(26) Omission of primary causer in *rang* causative

- a. 那尾金鱼，让猫咪吃掉了。  
Na wei jinyu, **rang** maomi chi diao le.  
that CI goldfish, let kitty eat-off Asp  
'That goldfish, (I) **let** the kitty eat (it).'
- b. 下个月的薪水，让张三预支了。  
Xia ge yue de xinshui, **rang** Zhangsan yuzhi le.  
next CI month de salary, let Zhangsan draw-in-advance Asp  
'Next month's salary, (I) **let** Zhangsan draw (it) in advance.'



Example (27) shows the sentence after the omission of the first primary causer from the instrumental causative construction with *na*. The primary causer is omitted from the topicalized example (23) above.

(27) Omission of primary causer in *na* causative

- a. 那个老鼠洞，**拿**石头堵死了。  
 Na ge laoshu dong, **na** shitou dushi le.  
 that CI rat's hole, take stone block Asp  
 'That rat's hole, (I) **took** a stone to block (it).'
- b. 那群土匪，**拿**手枪吓跑了。  
 Na qun tufei, **na** shouqiang xia pao le.  
 that CI bandit, take pistol scare-away Asp  
 'Those bandits, (I) **took** a pistol to scare (them) away.'

Example (28) shows the sentence after the omission of the primary causer in the manipulative causative construction with *jiao*. The primary causer is omitted from the topicalized example (24) above.

(28) Omission of primary causer in *jiao* causative

- a. 墙上的挂钟，**叫**工人拆掉了。  
 Qiangshang de guazhong, **jiao** gongren chaidiao le.  
 wall-on Gen wall-clock, call worker remove Asp  
 'The wall clock, (I) **called** the worker to remove (it).'
- b. 那台电视机，**叫**张三修好了。  
 Na tai dianshiji, **jiao** Zhangsan xiuhao le.  
 that CI television, call Zhangsan fix Asp  
 'That television, (I) **called** Zhangsan to fix (it).'

#### 4.4.4. Structural reanalysis

The final step of the development of agentive passive markers is a structural reanalysis due to neglect of the pause particle by listeners. The neglect of the pause particle makes the final configuration [NP3<sub>causee</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V] carry a passive reading, as shown in Table 4.6.

The secondary causer can be understood as a “causer” after the construction has been reanalyzed from causative to passive by the listener. Note that without any historical evidence, it is uncertain if ambiguity between causative and passive readings as interpreted by the listener arose during this stage.

All of the agentive passive markers (including *gei*, *jiao*, *rang*, and *na*) can be replaced by *bei* (被), the most common passive marker in Mandarin, without any significant change of cognitive meaning. The passive marker *bei* always occurs in the configuration [causee + *bei* + causer + V], in which it completely matches the semantic pattern provided in Table 4.6. Once the passive sense of *gei*, *jiao*, *rang*, and *na* becomes possible with sentences like (29-32), then the door is wide open for any productive passive sentence that employs *gei*, *jiao*, *rang*, or *na* as a passive marker.

**Table 4.6. Position class in passive constructions**

<b>causee</b>  (NP3)	<i>gei</i> (给) <i>rang</i> (让) <i>na</i> (拿) <i>jiao</i> (叫)	(secondary) <b>causer</b>  (NP2)	V
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Example (29) is a *gei* passive construction. It is reanalyzed from example (25) via the neglect of the pause particle by listeners.

(29) Passive *gei*

- a. 那尾金鱼给猫咪吃掉了。  
Na wei jinyu **gei** maomi chidiao le.  
that Cl goldfish give kitty eat-off Asp  
‘That goldfish was eaten by the kitty.’
  
- b. 下个月的薪水给张三预支了。  
Xia ge yue de xinshui **gei** Zhangsan yuzhi le.  
next Cl month de salary give Zhangsan draw-in-advance Asp  
‘Next month’s salary was drawn in advance by Zhangsan.’

Example (30) is a *rang* passive construction. It is reanalyzed from example (26) via the neglect of the pause particle by listeners.

(30) Passive *rang*

- a. 那尾金鱼让猫咪吃掉了。  
Na wei jinyu **rang** maomi chi diao le.  
that Cl goldfish let kitty eat-off Asp  
'That goldfish was eaten by the kitty.'
  
- b. 下个月的薪水让张三预支了。  
Xia ge yue de xinshui **rang** Zhangsan yuzhi le.  
next Cl month de salary let Zhangsan draw-in-advance Asp  
'Next month's salary was drawn in advance by Zhangsan.'

Example (31) is a *na* passive construction. It is reanalyzed from example (27) via the neglect of the pause particle by listeners. Note that examples (31a-b) with passive reading are not acceptable sentences in standard Mandarin (Beijing Mandarin), but could be grammatical in other dialects of Mandarin. According to Wu (1999), the *na* passive construction occurs in a few dialects of Xiang, such as those of Lengshuijiang and Rucheng, spoken in Hunan Province, as mentioned in Table 4.1 above.

(31) Passive *na*

- a. 那个老鼠洞拿石头堵死了。  
Na ge laoshu dong **na** shitou dusi le.  
that Cl rat hole take stone block Asp  
'That rat's hole was blocked by the stone.'
  
- b. 那群土匪拿手枪吓跑了。  
Na qun tufei **na** shouqiang xia pao le.  
that Cl bandit, take pistol scare-away Asp  
'Those bandits were scared away due to the pistol.'

Example (32) is a *jiao* passive construction. It is reanalyzed from example (28) via the neglect of the pause particle by listeners.

(32) Passive *jiao*

- a. 墙上的挂钟叫工人拆掉了。  
Qiangshang de guazhong **jiao** gongren chaidiao le.  
wall-on GEN wall-clock call worker remove ASP  
'The wall clock was removed by the worker.'
- b. 那台电视机叫张三修好了。  
Na tai dianshiji **jiao** Zhangsan xiuhao le.  
that CL television call Zhangsan fix ASP  
'That television was fixed by Zhangsan.'

In summary, although the speaker wants to express the causative meaning, as in sentences (25-28), the listener will interpret those causative sentences as passive due to the neglect of the pause particle. The syntactic and semantic features in sentences (29-32) satisfy the structure of the typical passive pattern of Chinese. This fact may help the use of the agentive passive markers develop.

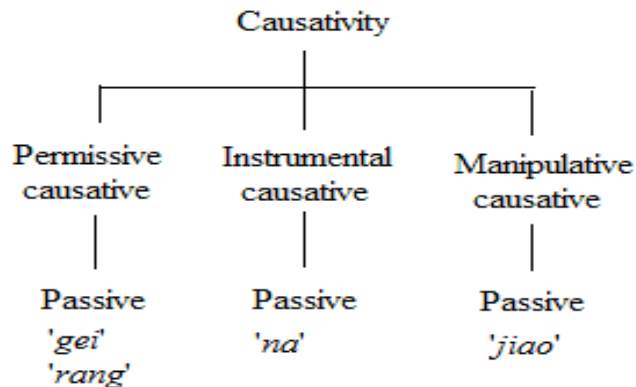
#### 4.5. Discussion

This chapter has pointed out several inadequacies in the previous studies on the development of agentive passive markers in certain Chinese dialects. I have tried to give an alternative that can overcome these inadequacies and give a better explanation for why the two markers, passive versus disposal, seem to have opposite functions but employ an identical form.

The development of agentive passive markers, such as *gei* (给), *na* (拿), *jiao* (教/叫), and *rang* (让), is a natural causative-to-passive process, as shown in Figure 4.1 below. Diachronically speaking, these markers were used in causative constructions. *Gei* 'to give' and *rang* 'to let' occurred in the permissive causative construction; *na* 'to take' occurred in the instrumental causative construction; and *jiao* 'to call' occurred in the manipulative causative construction.

The passive meanings were derived from the three causative constructions. The “causative-to-passive” process involves three steps, “topicalization”, “omission of primary causer”, and “structural reanalysis”; when the process is completed, the passive meaning starts to be conventionalized as a fixed passive construction in a few dialects of Mandarin and Xiang.

**Figure 4.1. Causative-to-passive process of *gei*, *rang*, *na*, and *jiao***



The passive and disposal markers employ the same morpheme due to a mismatch of interpretation between the speaker and the listener. The speaker wants to express a causative meaning, but the sentence is understood as a passive construction by the listener. However, it should be noticed that this mismatch does not bring about any misunderstanding during the conversation. Both the speaker and the listener focus on the affected causee. The notion of ‘causee is affected by something/someone’ as understood by the listener is very similar to the notion of ‘a person causes the causee being affected by something/someone’ as expressed by the speaker when the primary causer ‘a person’ is omitted.

## CHAPTER V

### CONTACT-INDUCED CHANGE: BORROWING

This chapter proposes a possible explanation for the development of nominalization, relativization, and genitivization in Chinese and Naxi. Most of the Chinese dialects and Naxi apply a single morpheme as a genitive marker, a relativizer, and a nominalizer; for example, Beijing Mandarin uses *de* (的) and Naxi uses *gə*. In order to account for the origin of Naxi *gə*, we should first consider and evaluate the pan-Chinese function of nominalization, relativization, and genitivization.

I will show that the functions of nominalization, relativization, and genitivization are united by a common value of definiteness in Chinese; this shared value is the primary explanation for why Chinese speakers use an identical morpheme as a nominalizer, a relativizer, and a genitive marker. Diachronically speaking, Cantonese *ge3*, Chaozhou Southern Min *kai*, Beijing Mandarin *de*, Kunming Mandarin *nə*, and Taiwanese *he* were derived from a common construction [that + CI] in which “CI” is usually the most general-purpose classifier. Details will be provided in Section 5.1.

I will then provide a possible explanation for the development of Naxi *gə*. The origin of Naxi *gə* is puzzling because it is clear that Labo Naxi, Mosuo, and Naxi were derived from the same ancestor—Proto-Na; however, they show divergent evolution in their nominalization, genitivization, and relativization. Naxi *gə* is used as a genitive marker, a relativizer, and a nominalizer, but Labo Naxi and Mosuo use a cognate marker *i* for nominalization and relativization and use different markers *na* and *bu*<sup>33</sup> for genitivization, respectively. Evidently, the development of Naxi *gə* is due to contact with

the authoritative Chinese language in its Late Medieval, Pre-Modern, and Modern forms (from 960 to 1900 AD); *gə* is a loanword borrowed from the most general-purpose classifier *gə* (个) in Mandarin. Details will be discussed in Section 5.2.

### **5.1. Definiteness and nominalization, relativization, and genitivization in Chinese**

Contemporary Chinese languages use an identical morpheme as a nominalizer, a relativizer, and a genitive marker; Beijing Mandarin uses *de* (的), Chaozhou (潮州) Southern Min uses *kai*, and Cantonese uses *ge3*. There has been extensive discussion in the literature concerning the development of Beijing Mandarin *de* (Feng 1990, 1992; Liu 2006; Lu 1943, 1984; Mei 1988; Shi & Li 1998, 2002; Wang 1958, 1980; Yap, Choi & Cheung 2007; Yap & Matthews 2008; Yap, Matthews & Horie 2004; Zhang 1915, and Zhu 1982), Chaozhou Min *kai* (Xu & Matthews (in press), and Yap & Matthews 2008), and Cantonese *ge3* (Yap & Matthews 2008, and Sio 2009). I will briefly introduce these previous studies in the succeeding section.

#### **5.1.1. Development of *di* (底) / *de* (的) in Mandarin**

The emergence of the present-day nominalizer *de* (的) in Mandarin is commonly linked to the lexical noun *di* (底) with the sense of ‘origin’, ‘foundation’, or ‘bottom’ (Yap, Choi & Cheung 2007:1).<sup>69</sup> There are at least nine hypotheses about the origin and development of *di* (底) / *de* (的). Note that (1-6) below are adopted from Shi and Li (1998:165-167) and Jiang (1999:83-85).

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<sup>69</sup> *Di* written as 底 originated in the Tang Dynasty (618-907 AD); after Yuan Dynasty (1206-1370 AD), *di* was written as 的 in the literature (Shi & Li 1998:165; Liu 2006:59).

- (1) Binglin Zhang 章炳麟 (1915) argues that the non-clause final *di* (底) (functioning as a relativizer and a genitive marker) was derived from *zhi* (之) via phonological changes, while the clause final *di* (底) (functioning as a nominalizer) was derived from *zhe* (者) via phonological changes.<sup>70</sup>
- (2) Shuxiang Lu 吕叔湘 (1943, 1984) points out that phonological change is not a convincing argument for the development of *di* (底). Based on numerous structural correspondences between *zhe* (者) and *di* (底), *di* was derived from *zhe*.
- (3) Li Wang 王力 (1958, 1980) argues that *di* (底) located in all positions was derived from *zhi* (之) via phonological changes.
- (4) Minche Zhu 祝敏彻 (1982) points out that *di* (底) was derived from both *zhi* (之) and *zhe* (者) because of their similarities in syntactic function.
- (5) Tsulin Mei 梅祖麟 (1988) argues that *zhi* (之) became *di* (底) via phonological changes in colloquialism, then the clause-final *di* originated from the clause-final *zhe* (者) via a structural analogy.
- (6) Chuntian Feng 冯春田 (1990, 1992) argues that *di* (底) adopted its syntactic function from *zhe* (者) via a structural analogy; then, the function of *zhe* was replaced by *di*. The etymology of *di* could be a demonstrative pronoun.
- (7) Yuzhi Shi 石毓智 and Charles N. Li 李讷 (1998:179) mention that *di* (底), *zhi* (之) and *zhe* (者) do not have any etymological or cognate relationship. *Di* (底) developed

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<sup>70</sup> *Zhi* (之) is a demonstrative used in the texts of Old and Middle Chinese and it had evolved various adnominal functions such as genitive and relativizer (Yap, Choi and Cheung 2007:1). *Zhe* (者), which is usually located in the clause-final position, is a nominalizer used in the texts of Old and Middle Chinese.

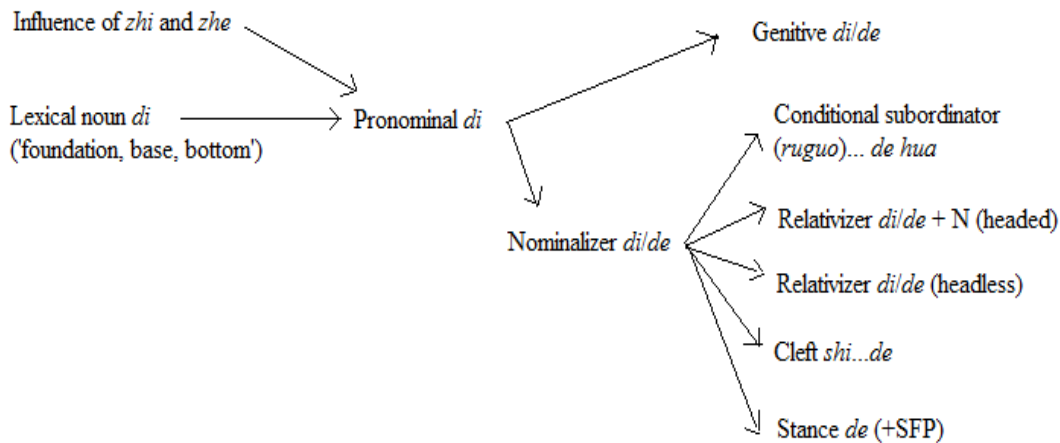


independently and it was originally a demonstrative/interrogative pronoun. Shi and Li (2002:14) further argue that the grammaticalization of *de* (的) was triggered by the structural analogy as an “optimization process”.

(8) Lansheng Jiang 江蓝生 (1999:91) argues that the etymology of *di* (底) was the locative *di* (底/地). The locative *di* succeeded the genitive function from locative nouns, such as *suo* (所) and *xu* (许), via a structural analogy.

(9) Yap and Matthews (2008:327) point out a diachronic sketch of the grammaticalization pathway of Mandarin *di* (底)/*de* (的), as shown in Figure 5.1. *Di* was derived from the lexical noun *di* (底) via grammaticalization and it was influenced by *zhi* (之) and *zhe* (者). The pronominal function of *di* gave rise to the development of the genitive marker *di/de* and the nominalizer *di/de*. The nominalizer *di/de* further grammaticalized into a conditional subordinator *de hua* (的话), relativizer, cleft, and stance marker.

**Figure 5.1. Grammaticalization pathways of Mandarin *di* (底)/*de* (的) (taken from Yap and Matthews 2008:327)**



To sum up the nine hypotheses above, there are five possible origins of *di* (底): (1) *di* was derived from *zhi* (之) (e.g. Mei 1988; Wang 1958, 1980; Zhang 1915, and Zhu 1982); (2) *di* was derived from *zhe* (者) (e.g. Lu 1943,1984; Mei 1988; Zhang 1915, and Zhu 1982); (3) *di* originated from the locative *di* (底) (e.g. Jiang 1999); (4) *di* was originally a demonstrative pronoun (e.g. Feng 1990, 1992, and Shi and Li 1998, 2002); and (5) *di* originated from the lexical noun *di* (底) (e.g. Yap & Matthews 2008).

Considering the linguistic mechanism used in the nine hypotheses above, there are three theories used for explaining the diachronic development of *di* (底):

- (1) **Sound change:** Before 1950s, Chinese linguists generally agree that the occurrence of *di* (底) is due to the phonological change from *zhi* (之) and/or *zhe* (者) (e.g. Wang 1958, and Zhang 1915).
- (2) **Structural/functional analogy:** After the 1950s, more and more Chinese linguists found that sound change cannot explain many of the examples of *di* (底) in Classical Chinese; their arguments thus focused on a structural/functional analogy between *di* and other morphemes, such as *zhi* (之), *zhe* (者), *suo* (所), *xu* (许), *di* (地), *ge* (个), etc. The shared functions in the same structure and its analogy with the other morphemes paved the way for the occurrence of *di* (e.g. Feng 1990, 1992; Jiang 1999; Lu 1943; and Zhu 1982). After lexicon competition and replacement, *di* replaced the others.
- (3) **Grammaticalization:** More recent studies have been influenced by the theory of grammaticalization in western linguistics. Shi and Li (2002:8) argue that *di* (底) was grammaticalized from a demonstrative/interrogative pronoun; after *di* was grammaticalized around the 13th century, its graphic form was replaced by 的

pronounced /də/ with a neutral tone. Yap, Choi, and Cheung (2007:15) conclude that the grammaticalization of *di* (底)/*de* (的) was from a locative noun written as 底 meaning ‘bottom’. It grammaticalized into a nominalizer and further grammaticalized from a nominalizer into a speaker mood marker, a stance marker or a sentence final particle.

It is worth noting that not all of the Chinese linguists adopt only one theory for explaining the development of *di* (底). Mei (1988), for example, combines contributions of sound change (from Wang 1958) and structural/functional analogy (from Lu 1943). Shi and Li (2002:2) argue that analogy is responsible for motivating the grammaticalization of *di* (底)/*de* (的) and that there are optimal structures serving as models, triggering grammaticalization via analogy.

As have been shown above, many studies have been done on Mandarin *di* (底)/*de* (的); however, only a few Chinese linguists have conducted research on Chaozhou Southern Min *kai* and Cantonese *ge3*. In more recent work, Yap and Matthews (2008:322-326) suggest that the classifier grammaticalized into the genitive/pronominal marker and further into the nominalizer and relativizer in these languages. In her 2009 work, Joanna Ut-Seong Sio (manuscript) points out that there are similarities of discourse property in Cantonese versatile *ge3*. All of the versatile functions of Cantonese *ge3* have the features of [+matching] and [+contrastive]. I will discuss these studies in the following two sections, Sections 5.1.1.1 and 5.1.1.2.

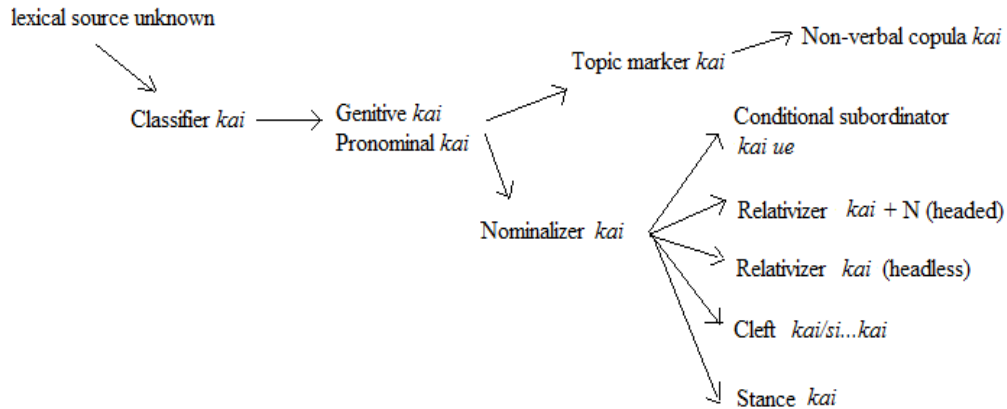
### **5.1.1.1. Development of *kai* in Chaozhou Southern Min**

Xu and Matthews (in press) mention that *kai* in Chaozhou Southern Min can appear in a wide range of syntactic positions and can function as a classifier, adnominal (i.e. genitive, associative, and relativizer), pronominal, nominalizer, as well as sentence final particle. Concerning the etymology of *kai*, Xu and Matthews pointed out that “*kai* is first and foremost a general-purpose numeral classifier in the Chaozhou dialect, and is a cognate of the modern Mandarin general classifier 个 (/g ə/), which has its origin from a Classical Chinese specific classifier for ‘bamboo’”. Evidence for this assumption can be found in the Northwestern Mandarin dialect of Shangzhou (商州). In the urban area of Shangzhou, the general-purpose classifier 个 is pronounced as /kə<sup>55</sup>/; in the countryside, it is pronounced as /kuo<sup>55</sup>/, and its vernacular pronunciation is /kai/ with a neutral tone (Zhang 2007:159). Therefore, 个 (/g ə/) and *kai* are classifiers that originate from the same etymon. Concerning the grammaticalization of *kai*, Xu and Matthews hypothesize the following relationships between the versatile functions of *kai* as follows:

**classifier *kai* → adnominal → pronominal → nominalization → stance marking**

In an earlier study in 2008 (323-326), Yap and Matthews provided a sketch of the grammaticalization pathway of Chaozhou *kai*, as shown in Figure 5.2. The genitive and pronominal *kai* that originated from the classifier give rise to the development of the topic marker and the nominalizer. The topic marker *kai* further grammaticalized into the non-verbal copula. The nominalizer *kai* further grammaticalized into a conditional subordinator *kai ue*, relativizer, cleft, and sentence final stance marker.

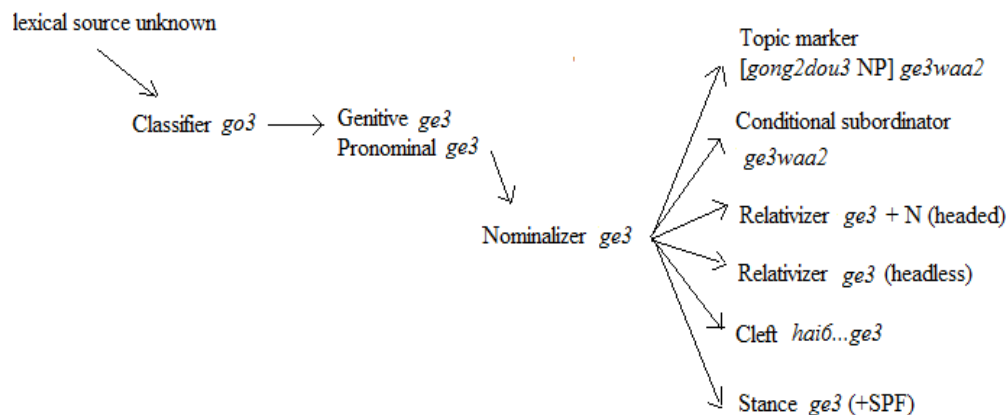
**Figure 5.2. Grammaticalization pathways of Chaozhou *kai* (taken from Yap and Matthews 2008:326)**



### 5.1.1.2. Development of *ge3* in Cantonese

Like Mandarin *di/de* and Chaozhou *kai*, Cantonese *ge3* is used both adnominally and in sentence-final position. Following the same approach used in Figure 5.1 and Figure 5.2, Yap and Matthews (2008:327) also provide a sketch of the grammaticalization pathway of Cantonese *ge3*, as shown in Figure 5.3. The genitive and pronominal *ge3* were originally derived from the classifier *go3*. Then they were used as the nominalizer *ge3*. The nominalizer *ge3* further grammaticalized into a topic marker, conditional subordinator *ge3 waa2*, relativizer, cleft, and stance marker.

**Figure 5.3. Grammaticalization pathways of Cantonese *ge3* (taken from Yap and Matthews 2008:327)**



In her 2009 study, Joanna Ut-Seong Sio (manuscript) provides a new perspective, which differs from Yap and Matthews' grammaticalization pathway of Cantonese *ge3*. I find that Sio's conclusion is very similar to my idea about definiteness of nominalization, relativization, and genitivization in Chinese in that she argues that all of the versatile functions of Cantonese *ge3* have discourse features of [+matching] and [+contrastive]. In other words, all of the uses of the versatile *ge3* carry the sense of definiteness to some degree. In the following section, Section 5.1.2, I will illustrate the sense of definiteness of nominalization, relativization, and genitivization in Chinese. In Section 5.1.3, I will discuss the sense of definiteness applied to the conditional subordinator, cleft, and sentence-final marker in Mandarin.

### **5.1.2. Definiteness**

The majority of the Chinese languages use a single morpheme to function as a nominalizer, a relativizer, and a genitive marker, as shown in Table 5.1.<sup>71</sup> Table 1 presents three of the so called “dialects of Sinitic language (汉语方言)”: Mandarin (官话), Min (闽), and Yue (粤). Mandarin includes Northern Mandarin of Beijing (北京) and Southwestern Mandarin of Kunming (昆明); Min includes Southern Min of Chaozhou (潮州) and Taiwanese; and Yue is Cantonese. All of the morphemes provided in Table 5.1 are not cognates; Beijing Mandarin uses *de*; Kunming Mandarin uses *nə*; Taiwanese uses *he*; Chaozhou Min uses *kai*; and Cantonese uses *ge3*.

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<sup>71</sup> The references from Chaozhou Southern Min and Cantonese in Table 5.1 are based on Yap and Matthews (2008:326-327).

**Table 5.1. Nominalizer, genitive marker, and relativizer in Chinese**

	Sinitic languages				
	Mandarin (官话)		Min (闽)		Yue (粤)
	Beijing	Kunming	Taiwanese	Chaozhou	Cantonese
Nominalizer	di (底)/ de (的)	nə	he	kai	ge3
Gen. marker	di (底)/ de (的)	nə	he	kai	ge3
Relativizer	di (底)/ de (的)	nə	he	kai	ge3
Etymology	that		[that + Classifier]	Classifier	

According to the hypothesis provided by Yap and Matthews (2008), it can be concluded that there is a common developmental pathway constituting “classifier → genitive & pronominal → nominalizer → relativizer” in Chaozhou Southern Min and Cantonese, as shown in Figures 5.2 and 5.3 above. This pathway is a process of grammaticalization. However, in the authors’ paper, there is no explanation for why a bound classifier morpheme (such as *kai* in Chaozhou Southern Min or *go3* in Cantonese) can exist alone without co-occurrence with a demonstrative or a numeral after grammaticalization. It is clear that a bare classifier, whether in old Chinese or modern Mandarin, is uncommon and must occur in one of the following patterns of classifier constructions: (1) Numeral + Classifier; (2) Demonstrative + Classifier; and (3) Demonstrative + Numeral + Classifier.

Based on Zhang’s (2007:159) study on the Northwestern Mandarin dialect of Shangzhou (mentioned above), evidence supports that the etymology of Chaozhou *kai* is the same as Mandarin *ge* (个) pronounced as /g ə/, and also Cantonese *ge3*. These are all general-purpose numeral classifiers. However, in Table 5.1, Taiwanese *he* was formed by a phonological fusion in which the demonstrative *hit* ‘that’ has coalesced with the

classifier *e*; furthermore, Beijing Mandarin *di* (底)/*de* (的) pronounced as /dǎ/ and Kunming Mandarin *nə* may be simply accounted for as the demonstrative—that. Based on the data available in Chinese, I find that there is a simple theory to explain these etymological divergences; that is “definiteness”.

### **5.1.2.1. The first definiteness type: “that + classifier”**

In most of the languages I investigate, the use of nominalization, genitivization, and relativization applies only one robust function in terms of “definiteness” among all of the dialects of Chinese. The sense of definiteness in nominalization, genitivization, and relativization may even be pan-Chinese. The definiteness sense is carried by a constituent “that + classifier” in three constructions, as shown in Table 5.2.

Table 5.2 provides position classes for Chinese genitive/associate phrases (in Li and Thompson’s (1981:113) terminology), relative clause, and nominalized clause.<sup>72</sup> All of the constructions involve “that + classifier” in the second slot to express the sense of definiteness. In order to demonstrate the use of definiteness, I will take Beijing Mandarin *nei*<sup>51</sup> *ge* ‘that (one)’ as an example shown in (1); the demonstrative *nei*<sup>51</sup> (那) means ‘that’ and *ge* (个) with the neutral tone is the most general-purpose classifier.

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<sup>72</sup> Li and Thompson (1981:113) define the associate phrase as a phrase that involves two NPs in which “two noun phrases are “associated” or “connected” in some way; the precise meaning of the association or connection is determined entirely by the meaning of the two noun phrases involved”.



**Table 5.2. Definiteness in Chinese genitive marker, relativizer, and nominalizer**

Slot 1	Slot 2	Slot 3	
Noun	that + classifier	Noun	→ genitive / associate phrase
Verb/Adjective	that + classifier	Noun	→ relative clause
Verb/Adjective	that + classifier	(empty)	→ nominalized clause
<b>Definiteness</b>			

In Beijing Mandarin, the construction “Noun + *nei*<sup>51</sup> *ge* + Noun” is equivalent to the genitive phrase and associate phrase, as shown in (1a) and (1b), respectively.

(1) a. genitive phrase in Beijing Mandarin

wo<sup>214</sup>    nei<sup>51</sup>    ge    di<sup>51</sup>di    zai<sup>51</sup>    du<sup>35</sup>    da<sup>51</sup>xue<sup>35</sup>.  
 我      那      个      弟弟      在      读      大学  
 1S      that    Cl      little brother    Prog    study    college  
 ‘My little brother is studying at the college.’

b. associate phrase in Beijing Mandarin

zuo<sup>35</sup>tian<sup>55</sup>    nei<sup>51</sup>    ge    di<sup>51</sup>zhen<sup>51</sup>    hao<sup>214</sup>    kong<sup>214</sup>bu<sup>51</sup>.  
 昨天          那      个      地震          好          恐怖  
 yesterday    that    Cl      earthquake    very      terrible  
 ‘Yesterday’s earthquake was very terrible.’

The construction “Verb + *nei*<sup>51</sup> *ge* + Noun” is equivalent to the agentive relative clause, as shown in (1c).

c. relative clause in Beijing Mandarin

tiao<sup>51</sup>wu<sup>214</sup>    nei<sup>51</sup>    ge    xiao<sup>214</sup>    gu<sup>55</sup>niang<sup>35</sup>    shi<sup>51</sup>    wo<sup>214</sup>    mei<sup>51</sup>mei.  
 跳舞          那      个      小          姑娘          是      我      妹妹  
 dance          that    Cl      little      girl          Cop    1S      little sister  
 ‘The little girl who is dancing is my little sister.’

The construction “Adjective + *nei*<sup>51</sup> *ge* + Noun” is equivalent to the relative clause, as shown in (1d).

d. relative clause in Beijing Mandarin

pang<sup>51</sup>du<sup>55</sup>du<sup>55</sup>    nei<sup>51</sup>    ge    xiao<sup>214</sup>hai<sup>35</sup>    mei<sup>35</sup>    qian<sup>35</sup>    mai<sup>214</sup>    shu<sup>55</sup>.  
 胖嘟嘟          那      个      小孩          没      钱      买      书  
 fat                  that    Cl      child          Neg    money    buy      book  
 ‘The child who is very fat does not have money to buy books.’

The construction “Verb + *nei*<sup>51</sup> *ge*” is equivalent to the headless nominalized clause, as shown in (1e).

e. nominalized clause in Beijing Mandarin

tiao <sup>51</sup>	wu <sup>214</sup>	<b>nei</b> <sup>51</sup>	<b>ge</b>	shi <sup>51</sup>	wo <sup>214</sup>	mei <sup>51</sup>	mei.
跳舞		那	个	是	我	妹妹	
dance		that	Cl	Cop	1S	little sister	

‘That dancing person is my little sister.’

The construction “Adjective + *nei*<sup>51</sup> *ge*” is also equivalent to the headless nominalized clause, as shown in (1f).

f. nominalized clause in Beijing Mandarin

pang <sup>51</sup>	du <sup>55</sup>	du <sup>55</sup>	<b>nei</b> <sup>51</sup>	<b>ge</b>	mei <sup>35</sup>	qian <sup>35</sup>	mai <sup>214</sup>	shu <sup>55</sup> .
胖	嘟嘟		那	个	没	钱	买	书
fat			that	Cl	Neg	money	buy	book

‘That fat person does not have money to buy books.’

All of the examples in (1a-f) are common in Beijing Mandarin. I find that when *nei*<sup>51</sup> *ge* ‘that (one)’ is used in nominalization, genitivization, and relativization, it does not have versatile functions. Its function is simply an expression of definiteness. Chinese speakers use an identical phrase *nei*<sup>51</sup> *ge* ‘that (one)’ to modify three different constructions for a very straightforward reason; that is, the single function of *nei*<sup>51</sup> *ge* ‘that (one)’ is semantically compatible in the three constructions. Note that *de* (的) with the neutral tone has long been known as the marker in nominalization, genitivization, and relativization in Beijing Mandarin. In example (1), *nei*<sup>51</sup> *ge* ‘that (one)’ can be replaced by *de* (的) without changing the meaning. The etymology of *de* (的)/*di* (底) will be discussed later.

Shi and Li (1998:171; 2002:9-11) have mentioned that the emergence of the classifier system in the new syntactic numeral phrase “Numeral + Classifier + Noun” (during 1200-1400 A.D.) played a significant role in the rise of *de/di*. They argue that

there are two major aspects supporting that the development of *de* is parallel to that of classifiers: “First, *de* began to appear as a morphosyntactic particle at the point when the new form ‘number + classifier + head’ became predominant. Second, in the 15th century, both of the diachronic processes, ‘number + classifier +noun’ replacing ‘number + noun’ and ‘VP + *de* + noun’, reached completion” (2002:10-11). In other words, the highly frequent use of classifiers in Mid-Modern Chinese matured the “Numeral + Classifier + Noun” pattern, which served as an optimal structure to trigger grammaticalization via analogy (2002:1). The morpheme *de* (的)/*di* (底) is the winner after analogization and lexicon replacement.<sup>73</sup>

My hypothesis contradicts Shi and Li’s diachronic assumption. Cross-linguistic investigation of the synchronic dialects of Chinese have shown that there are four types of constituents used for the expression of definiteness in nominalization, genitivization, and relativization, as shown in Table 5.3. The first definiteness type “that + classifier” has been demonstrated in (1) in Section 5.1.2.1. Speakers of all of the Chinese dialects can apply the first type in colloquial conversation. Types 2-4 will be discussed in the following sections, from Sections 5.1.2.2 to 5.1.2.4.

**Table 5.3. Four types of constituents for the expression of definiteness**

Type 1	that + classifier	Pan-Chinese
Type 2	fusion of [that + classifier]	Taiwanese (Southern Min) <i>he</i>
Type 3	that	Mandarin (Beijing <i>di/de</i> , Kunming <i>nə</i> ) Literary Cantonese <i>de</i> ʔ
Type 4	classifier	Chaozhou (Southern Min) <i>kai</i> ; Cantonese <i>ge</i> ʔ

<sup>73</sup> More detailed discussion about Shi and Li’s optimal structure will be provided in Section 5.1.2.3.

### 5.1.2.2. The second definiteness type: phonological fusion of [that + classifier]

The second type involving “phonological fusion of [that + classifier]” located in the Slot 2 of Table 5.2 occurs in Taiwanese. The demonstrative *hit* ‘that’ has phonologically coalesced with the most general-purpose classifier *e* to form a new form *he*, as shown in (2). The constituent [that + classifier] *hit e* in (2a) can be replaced by *he* ‘that (one)’ without changing the meaning, as shown in (2b). Note that phonological fusion is very common in Taiwanese. For example: *sio* ‘mutual’ + *kaŋ* ‘same’ → *siaŋ* ‘the same’; *si* ‘four’ + *tsah* ‘ten’ → *siah* ‘forty’; *hit* ‘that’ + *e* ‘classifier’ → *he* ‘that (one)’; *di* ‘exist’ + *e* ‘particle’ → *de* ‘progressive marker’.

(2) a. that + classifier: *hit e*

<b>hit</b>	<b>e</b>	mai	tsiaʔ.
that	Cl	Neg	eat
‘Don’t eat that (one).’			

b. fusion of [that + classifier]: *he*

<b>he</b>	mai	tsiaʔ.
that (one)	Neg	eat
‘Don’t eat that (one).’		

The following examples (3a-f) show that the first type [*hit e*] “that + classifier” is, like Beijing Mandarin, very common in Taiwanese. Note that examples (1a-f) used in Beijing Mandarin are equivalent to Taiwanese examples (3a-f). In addition, [*hit e*] ‘that + classifier’ can be replaced by the coalesced form *he* ‘that (one)’ without changing the meaning.

In Taiwanese, the construction “Noun + [*hit e*] + Noun” or “Noun + [*he*] + Noun” is equivalent to the genitive phrase and associate phrase, as shown in (3a) and (3b), respectively.

(3) a. genitive phrase in Taiwanese

ua [hit e] di-di de thak dai-hak.  
1S that CI little brother Prog study college  
'My little brother is studying at the college.'

b. associate phrase in Taiwanese

tsang [hit e] de-dang tsiok khiong-bo.  
yesterday that CI earthquake very terrible  
'Yesterday's earthquake was very terrible.'

The construction "Verb + [*hit e*] + Noun" or "Verb + [*he*] + Noun" is equivalent to the agentive relative clause, as shown in (3c).

c. relative clause in Taiwanese

thiao-bu [hit e] siə ko-nũ-ŋã si uan me-me.  
dance that CI little girl Cop my little sister  
'The little girl who is dancing is my little sister.'

The construction "Adjective + [*hit e*] + Noun" or "Adjective + [*he*] + Noun" is equivalent to the relative clause, as shown in (3d).

d. relative clause in Taiwanese

bui-tsut-tsut [hit e] ŋĩ-na bə tsĩ me tsheʔ.  
fat that CI child Neg money buy book  
'The child who is very fat does not have money to buy books.'

The construction "Verb + [*hit e*]" or "Verb + [*he*]" is equivalent to the headless nominalized clause, as shown in (3e).

e. nominalized clause in Taiwanese

thiao-bu [hit e] si uan me-me.  
dance that CI Cop my little sister  
'That dancing person is my little sister.'

The construction "Adjective + [*hit e*]" or "Adjective + [*he*]" is also equivalent to the headless nominalized clause, as shown in (3f).

f. nominalized clause in Taiwanese

bui-tsut-tsut [hit e] bə tsĩ me tsheʔ.  
fat that CI Neg money buy book  
'That fat person does not have money to buy books.'

### 5.1.2.3. The third definiteness type: a bare “that”

The third type of expression of definiteness in nominalization, genitivation, and relativization involves a bare demonstrative “that” in the Slot 2 of Table 5.2. The typical examples can be found in Kunming Mandarin *nə* ‘that’, as shown in (4). Note that examples (4a-f) of Kunming Mandarin are equivalent to Beijing Mandarin examples (1a-f) and Taiwanese example (3).

Examples (4a-f) show that the first definiteness type “that + classifier” (*nə* + *gə*) in Kunming Mandarin can be used in nominalization, genitivation, and relativization. In addition, *nə gə* ‘that (one)’ can be replaced by the bare demonstrative *nə* ‘that’ without changing the meaning. It is possible that *nə* ‘that’ occurring in Slot 2 is derived via an omission of *gə* from *nə gə* ‘that (one)’. Otherwise, the original tone of ‘that’ in Kunming Mandarin involves a falling tone, which is pronounced *nə*<sup>51</sup>; when functioning as a single marker of definiteness without accompanying the classifier in (4a-f), *nə*<sup>51</sup> ‘that’ is pronounced as *nə*<sup>33</sup> with mid-level tone. Therefore, it is also possible that *nə*<sup>33</sup> is a phonological fusion of *nə*<sup>51</sup> ‘that’ and *gə*<sup>33</sup> ‘classifier’. Note that phonological fusion can be found in Kunming Mandarin; for instance, *bu* ‘no’ + *xuyao* ‘need’ → *bu xao* ‘no need’.

In Kunming Mandarin, the construction “Noun + *nə gə* + Noun” or “Noun + *nə* + Noun” is equivalent to the genitive phrase and associate phrase, as shown in (4a) and (4b), respectively.

(4) a. genitive phrase in Kunming Mandarin

wo	<b>nə</b>	<b>(gə)</b>	di-di	zai	du	da-xio.
1S	that	Cl	little brother	Prog	study	college
‘My little brother is studying at the college.’						

b. associate phrase in Kunming Mandarin

zuo-tian nə (gə) di-zhen tai kong-bu.  
yesterday that Cl earthquake very terrible  
'Yesterday's earthquake was very terrible.'

The construction "Verb + *nə gə* + Noun" or "Verb + *nə* + Noun" is equivalent to the agentive relative clause, as shown in (4c).

c. relative clause in Kunming Mandarin

tiao-wu nə (gə) xiao gu-niang shi wo mei-mei.  
dance that Cl little girl Cop 1S little sister  
'The little girl who is dancing is my little sister.'

The construction "Adjective + *nə gə* + Noun" or "Adjective + *nə* + Noun" is equivalent to the relative clause, as shown in (4d).

d. relative clause in Kunming Mandarin

pang-du-du nə (gə) ua-ua mə də qian mai shu.  
fat that Cl child Neg have money buy book  
'The child who is very fat does not have money to buy books.'

The construction "Verb + *nə gə*" or "Verb + *nə*" is equivalent to the headless nominalized clause, as shown in (4e).

e. nominalized clause in Kunming Mandarin

tiao-wu nə (gə) shi wo mei-mei.  
dance that Cl Cop 1S little sister  
'That dancing person is my little sister.'

The construction "Adjective + *nə gə*" or "Adjective + *nə*" is also equivalent to the headless nominalized clause, as shown in (4f).

f. nominalized clause in Kunming Mandarin

pang-du-du nə (gə) mə də qian mai shu.  
fat that Cl Neg have money buy book  
'That fat person does not have money to buy books.'

The way the speakers of Kunming Mandarin understand *nə* 'that' in nominalization, genitivization, and relativization seems completely identical to the use of Beijing Mandarin *de* (的) because the etymological form of *de* (的) may be *di* (底),

which functioned as a demonstrative “that” in Middle Modern Chinese, as shown in (5). Shi and Li (2002:8) point out that “*di*<sup>214</sup>, which is pronounced with the third tone 底 in Modern Chinese, is the origin of the particle *de* with a neutral tone. After having been grammaticalized, the graphic form was replaced by 的 around the 13th century.” I find that this etymological assumption can be proven through analysis of the Hefei (合肥) dialect of Mandarin. In Hefei Mandarin, the demonstrative “that” is pronounced as /ti<sup>53</sup>/ which is cognate with *di* (底) (Meng 1997:297). Therefore, *di* (底) could be the demonstrative ‘that’.

(5) *di* “that” in Tang Dynasty (Shi & Li 2002:8)

**Di** shi cang chun chu  
**that** be store Spring place  
 “That/this is a warm and pleasant place.”  
 (*Mo shan xi ci*, c. 900A.D.)

The Chinese character written as 底 indicates a lexical noun meaning “bottom”; however, the demonstrative sense of “that” has nothing to do with the “bottom”. The people speaking Middle Modern Chinese may have borrowed the existent written character 底 for the meaning of “that” under the following conditions: (1) the sound of 底 was the same as or similar to “that” in that period; (2) the colloquial “that” which had existed in a Chinese dialect did not have a written form; (3) a writer who spoke a dialect wanted to record the colloquial “that”; and (4) the writer borrowed the existent character 底 to express “that” because of their identical or similar pronunciations. Therefore, it could be understood that the reason why the colloquial demonstrative “that” was written as 底 is a strategy of sound borrowing. This kind of borrowing was very common in the documents of Classical Chinese, especially in the *Dunhuang Pianwen* (敦煌变文).



The sound of 底 in Middle Modern Chinese could have been pronounced as /de/ with a falling tone. Its pronunciation could be very similar to 底 in literary Taiwanese because literary Taiwanese has preserved the sound of Middle Modern Chinese. It is worth noting that *deʔ* in literary Cantonese is used in nominalization, genitivization, and relativization. Its function is identical to *ge3*, which has long been known as the marker used for the genitive/associate phrase, the relative clause, and the nominalized clause in colloquial Cantonese. Cantonese speakers have lost the etymology of *deʔ*, which could be related to the demonstrative ‘that’ because *deʔ* was a loanword from 底 in Middle Modern Chinese. I am uncertain why literary Cantonese *deʔ* involves a checked tone. The sound of ‘that’ in the Proto-Sino-Tibetan should not involve a checked syllable.<sup>74</sup>

In order to explain the diachronic development from *di* (底) to *de* (的), Shi & Li (2002:13) pose an “optimal structure”, which can serve as a model to trigger **grammaticalization** via analogy, as shown in the following:

Step I: **Lexical collocation**: [relative clause + [*di*<sub>demonstrative</sub> + N]]

Step II: **Reanalysis**: [[relative clause-*de*] + N]

The authors explain that “step II involves the **phonological reduction** of *di* into *de* without a tone and the boundary loss between the relative clause and *de*. Accordingly, the constituent hierarchy also changed: *de* forms a constituent with N in step I, but it forms a constituent with the preceding relative clause in step II (2002:13).” There are several points that need to be considered:

First, the combination of the demonstrative and the classifier expressed as ‘that+Cl’ is the most common candidate to express the sense of definiteness in Chinese

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<sup>74</sup> The form ‘that’ in Proto-Tibeto-Burman is reconstructed as \*day by Matisoff (2003:671).

and may even be pan-Chinese. Examples (1), (3), and (4) above have shown that there is only one function in terms of “definiteness” applied in Chinese nominalization, genitivation, and relativization. Therefore, Beijing Mandarin *de* (的), like Kunming Mandarin *nə* ‘that’, must maintain the function of definiteness.

Second, it is also possible that *de* (的) with a neutral tone is derived from a phonological fusion of [*de*<sup>51</sup> + *gə*<sup>33</sup>] in which *de*<sup>51</sup> (底) could be the demonstrative “that” in Middle Modern Chinese,<sup>75</sup> and the *gə*<sup>33</sup> (个) with a mid-level tone was the most general-purpose classifier in the same period.<sup>76</sup> It is clear that *de*<sup>51</sup> with a sharp falling tone is more unlikely to become /*də*/ with a neutral tone directly, while the new form /*də*<sup>33</sup>/ with a mid-level tone is most likely to survive. In addition, the pattern [*de*<sup>51</sup> + *gə*<sup>33</sup>] in terms of [that + classifier] is the most common colloquial form used in nominalization, genitivation, and relativization in that period. The genesis of the sound change usually occurs from the most high-frequency patterns. In short, the new form /*də*/ (的) may be a phonological fusion of *de*<sup>51</sup> (底) and *gə*<sup>33</sup> (个).

#### **5.1.2.4. The fourth definiteness type: a bare classifier**

The fourth type of expression of definiteness in nominalization, genitivation, and relativization involves a bare classifier, as shown in Slot 2 of Table 5.2. The most

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<sup>75</sup> The sound of 底 in Middle Modern Chinese is reconstructed based on *Guangyun* (广韵): 都礼切. Note that when doing “Fanqie” (反切) to reconstruct old sounds, scholars should use a dialect, such as Min (Taiwanese) or Yue (Cantonese), which have a stopped/checked tone (入声). “Fanqie” is a method to determine the pronunciation of a character by using two other characters where the initial consonant is taken from the first character and the vowel is taken from the second character.

<sup>76</sup> The word *gə*<sup>33</sup> (箇), the most general-purpose classifier, is written as 个/个 in Modern Chinese. The sound of *gə*<sup>33</sup> (箇) in the Middle Modern Chinese is reconstructed based on *Tangyun* (唐韵): 古贺切. The original lexical meaning of 箇 is “bamboo stalk”.

general-purpose classifier is the most likely candidate to be used in this type; it can modify several distinct nouns, including people, inanimate objects, and so on.

Typical examples can be found in Chaozhou Southern Min, as shown in (6). In example (6), *kai* is used as a classifier, as shown in (6a), a genitive marker, as shown in (6b), a relative clause marker, as shown in (6c), and a nominalizer in a headless relative clause, as shown in (6d). Note that the first type of expression indicating “that + classifier” (*tsi kai*) should be compatible in Chaozhou Southern Min nominalization, genitivization, and relativization because Taiwanese Southern Min applies the first type, as shown in (3) above.

(6) a. classifier *kai* in Chaozhou (from Yap & Matthews 2008:323)

ĩu tã i ai tsi **kai** me?  
 2S say 3S like this Cl Ques  
 ‘Do you think she will like this (one)?’

b. genitive phrase in Chaozhou (from Yap & Matthews 2008:323)

i **kai** ha?-sẽn  
 3S Gen student  
 ‘his/her student’

c. relative clause in Chaozhou (from Yap & Matthews 2008:323)

lai tsio pha?-kaŋ **kai** naŋ loŋ si gua-sẽn kiã  
 come here work Rel people all Cop outside province worker  
 ‘Those people who came here to work are all from other provinces.’

d. nominalized clause in Chaozhou (from Yap & Matthews 2008:323)

lai tsio pha?-kaŋ **kai** loŋ si gua-sẽn kiã  
 come here work Nml all Cop outside province worker  
 ‘Those people who came here to work are all from other provinces.’

Note that both Taiwanese and Chaozhou belong to the Southern Min dialect of Chinese, and they are partially mutually intelligible. As mentioned above, Taiwanese applies the second type of expression in which the demonstrative *hit* ‘that’ has coalesced with the classifier *e*. I am uncertain about the diachronic developmental pathways of

Chaozhou *kai*. However, the mono-syllabified process seems pervasive in Chinese dialects as with in Taiwanese *he* (via a phonological fusion) and Kunming Mandarin *nə* ‘that’ (via a deletion or a phonological fusion). It is possible that Chaozhou *kai* has replaced the definiteness function from ‘that+CI’ via the mono-syllabified process.

The use of “classifier-as-demonstrative” is attested. In other words, the concept of definiteness could be carried by a classifier. Taking Cantonese as an example, Wu and Bodomo (2009:495) point out that a [CI-N] phrase in Cantonese “can appear in subject position and receive a definite interpretation”, as shown in (7).<sup>77</sup>

(7) a. classifier-as-definiteness in Cantonese (from Wu & Bodomo 2009:495)

**gaa** ce zo-zyu go ceothau.  
 CI car block-Cont CI exit  
 ‘The car is blocking the exit.’

b. **go** leotsi jiu hou lek sin dak.  
 CI lawyer need very smart only-okay  
 ‘The lawyer had better be very smart.’

In 2009, Wu and Bodomo (495) pose several contextual-effect conditions for “classifier-as-determiner”; they mention that example (7) “might lead one to conclude that classifiers in Cantonese are inherently definite, like the definite article the in English, and hence can indicate definiteness regardless of context. However, this is not true.” Wu and Bodomo further point out that there are two contextual conditions for the definite interpretation from a classifier phrase which “arises (a) when the referent has already been mentioned in the discourse context (note that this is the typical case of anaphoric reference); (b) if not, the referent must be close by, so that the hearer can easily identify the referent” (2009:496).

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<sup>77</sup> Note that example (7) used by Wu and Bodomo is taken from Matthews and Yip (1994:89).

In my opinion, it is difficult to prove that the use of classifier-as-definiteness in Cantonese expresses definiteness in a way dissimilar from the use of the definite determiner ‘the’ or the demonstrative ‘that’ in English. The definiteness of the classifier in Cantonese is inherited from the most common definite pattern “demonstrative + classifier”, as shown in (8). Concerning examples (8a) and (8b), Wu and Bodomo (2009:495-498) mention that “[CI-N] phrases with a definite interpretation have been found to have the same distribution as [Dem-CI-N] phrases and have been considered to be instances of omitting the demonstrative.” Therefore, example (7a) is derived from example (8a); example (7b) is derived from example (8b).

(8) a. that + classifier-as-definiteness in Cantonese (from Wu & Bodomo 2009:495)

**(Go)** gaa ce zo-zyu go ceothau.  
**that** CI car block-Cont CI exit  
 ‘The car is blocking the exit.’

b. **(Ni)** go leotsi jiu hou lek sin dak.  
**this** CI lawyer need very smart only-okay  
 ‘The lawyer had better be very smart.’

In short, the [CI-N] phrases carrying the sense of definiteness in Chaozhou Min and Cantonese is due to the omission of demonstrative, ‘this’ or ‘that’, from [Dem-CI-N] phrases. In other words, the bare classifier could be the mono-syllabified form from “that + classifier”.

### **5.1.3. Definiteness of conditional subordinator, cleft, and sentence-final marker**

In Section 5.1.2, I have examined how the colloquial pattern in the structure of “demonstrative + classifier” expresses “definiteness” of nominalization, genitivization, and relativization in several dialects of Chinese. In this section, I will demonstrate that Mandarin conditional subordinator (*de hua*), cleft (*shi~de*), and the sentence-final marker

(*de*) in Figure 5.1 posed by Yap and Matthews (2008:327) are semantically related to the sense of definiteness.

Unlike nominalization, genitivization, and relativization, *de* (的) functioning as a conditional subordinator, cleft, and sentence-final marker cannot be replaced by the pattern “demonstrative + classifier” (*nei ge* (那个)). This fact shows that *de* has carried a more abstract meaning of definiteness via grammaticalization. The work of Jiang (2004:388-393) and Yap, Matthews, and Horie (2004:163) shows that the emergence of the conditional subordinator (*de hua*), cleft (*shi~de*), and sentence-final marker (*de*) was very late in Chinese history, occurring during the Qing Dynasty (1644-1911 A.D.), and all of these elements were only used in colloquial conversation. Since colloquialism was not intensively documented until the Yuan Dynasty (1206-1370 A.D.), it is difficult to understand the diachronic development of Mandarin *de*.

Based on discussion provided in Section 5.1.2 above, the use of nominalization, genitivization, and relativization was derived from the colloquial pattern “demonstrative + classifier” via the process of mono-syllabification. The demonstrative used in “demonstrative + classifier” is definite and/or contrastive. In my treatment, the concept of definiteness of demonstratives involves broad pragmatic features including those that are “contrastive”, “assertive”, “focus”, and “topical”. The current study does not attempt to give a pragmatic account explaining the function of Mandarin *de*; therefore, I will still use the terminology “definiteness” to indicate the abstract function of *de*. All of the contiguous and diachronic development of *de* is based on the semantic nature of definiteness. All of the functions shown in Figures 5.1, 5.2 and 5.3 carry the sense of definiteness. Joanna Ut-Seong Sio (2009, manuscript) has argued that all of the versatile

functions of Cantonese *ge3* have the features of [+matching] and [+contrastive]. In the following sections, I will further examine Mandarin *de*.

### 5.1.3.1. Definiteness of conditional subordinator *de hua*/的话

Concerning the Mandarin conditional subordination (*de hua*/的话), Jiang (2004:395) claims that Xu and Liu's (1998:243) argument is credible in that *de hua* is related to "topic". In other words, *de hua* involves definiteness in a condition.

Mandarin *de hua* is used in a subordinate clause, as shown in (9b). Example (9b) is the response sentence to the question (9a). The compound *de hua* combining *de* (which expresses definiteness) with *hua* (which shows that this is a conditional sentence) functions as the conditional subordinator. Note that originally *hua* (话) is a lexical noun meaning 'word' or 'speech'.

Since *hua* (话) is a noun, the phrase 'suppose that it is raining' constituting [VP + *de* + *hua*] (as shown in (9b)) is the same as the construction in the relative clause [VP + *de* + Noun]. We have proved that *de* (的) in the relative clause involves definiteness; therefore, *de* in the conditional subordinator *de hua* also carries the sense of definiteness. It can be interpreted as the demonstrative 'that'.

#### (9) a. Question

Ni	qu	bu	qu	ne?
你	去	不	去	呢
2S	go	Neg	go	Ques

'Are you going or not?'

#### b. Definiteness of conditional subordinator

Xia	yu	<b>de</b>	<b>hua</b>	wo	jiu	bu	qu	le.
下	雨	的	话	我	就	不	去	了
fall	rain	Def	saying	1S	then	Neg	go	Prt

'If it is raining, I won't go.'

### 5.1.3.2. Definiteness of sentence-final marker *de*

Most Chinese linguists give the Mandarin sentence final *de* a variety of definitions based on the different approaches they use. For example, the sentence-final *de* can function as a stance/pragmatic marker (e.g. Yap & Matthews 2008:327, and Yap, Matthews & Horie 2004:150), an evidential marker (e.g. Li, Thompson & Zhang 1998:96), or a focus marker (Yuan 2003:5).

I find that sentences containing the sentence final *de* involve a strong topical, definite reading, as shown in (10b). Example (10b) is the response sentence to the question (10a). The sentence final *de* (的) in (10b) refers to the action *kan dianying* ‘to see a movie’. It can be interpreted as the demonstrative ‘that’.

(10) a. Question

Wo	qing	ni	kan	dianying	keyi	ma?
我	请	你	看	电影	可以	吗
1S	invite	2S	see	movie	can	Ques

‘I’ll invite you to see a movie, is that ok?’

b. Definiteness on sentence final marking *de*

Keyi	<b>de.</b>
可以	的
can	Def

‘That’s ok!’

### 5.1.3.3. Definiteness of cleft *shi~de/是~的*

The sentence-final *de* can co-occur with a non-final copula *shi* (是) in forming a cleft construction, as shown in (11b). Example (11b) is the response sentence to the question (11a). The non-final copula *shi* (是) commonly serves as a topic or focus marker; when it combines with the sentence-final *de*, it gives rise to a sentence with a strong definite and assertive mood. The cleft construction *shi~de* can be interpreted as ‘that’s



it/that’. The morpheme *de* in the cleft construction carries the sense of definiteness in that it refers to the event *ganhuo* ‘to work’.

(11) a. Question

Ni	mei	qu	tian	li	ganhuo	ma?
你	没	去	田	里	干活	吗
2S	Neg	go	rice field	inside	work	Ques

‘Didn’t you go to the rice field to work?’

b. Definiteness on cleft *de*

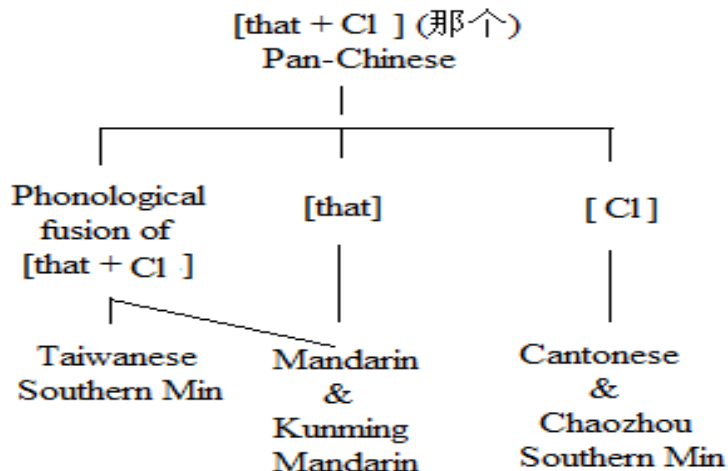
Wo	<b>shi</b>	gan	wan	huo	cai	hui	lai	<b>de.</b>
我	是	干	完	活	才	回	来	的
1S	Cop	do	finish	job	until	return	come	Def

‘I did not come back until I finished the work, (that’s it!).’

#### 5.1.4. Discussion

Based on the discussion above, it can be concluded that three possible monosyllabified processes form the expression of definiteness in the frame [that + CI], in which [CI] is usually the most general-purpose classifier in Chinese. Via the monosyllabified process, the expression of definiteness in the frame [that + CI] has been replaced by a monosyllabic morpheme, which functions diachronically as a marker of nominalization, relativization, and genitivization, as shown in Figure 5.4.

**Figure 5.4. Mono-syllabified process of [that + CI]**



The first type involves a phonological fusion of the frame [that + Cl]. For instance, the demonstrative *hit* ‘that’ has phonologically coalesced with the most general-purpose classifier *e* to form a new form *he* in Taiwanese Southern Min. The second type involves a bare demonstrative ‘that’, as with Beijing Mandarin *də* and Kunming Mandarin *nə*. The third type involves a bare classifier, as with Cantonese *ge3* and Chaozhou Southern Min *kai*. It should be noted that Beijing Mandarin *də* and Kunming Mandarin *nə* could also be phonological fusions from [that + Cl].

## **5.2. Development of nominalization, relativization, and genitivation in Naxi**

As in previous research in Tibeto-Burman linguistics on Lahu *ve*, the purpose of Section 5.2 is to provide a possible explanation for the development of Naxi *gə*. I will claim that the development of Naxi *gə* is due to contact with the authoritative Chinese language during its Late Medieval, Pre-Modern, and Modern periods (from 960 to 1900 AD); *gə* was a loanword borrowed from the most general-purpose classifier *gə* (个) in Mandarin.

### **5.2.1. Nominalization, Relativization, and Genitivation in possible Loloish**

Many linguists working on nominalization and/or relativization in Tibeto-Burman languages have referred to the same problem with regard to a polysemous morpheme *ve* in Lahu (Matisoff 1972:237-258). According to Lahuassois’s examples, the Lahu *ve* functions as at least three things: a genitive marker, a relativizer, and a nominalizer. These functions are shown in (12).

(12) Nominalization, relativization, and genitivization in Lahu

a. genitive phrase in Lahu (from Lahaussais 2002)

ŋà **ve** m íchɔ  
 I **Gen** shoulder-bag  
 ‘my shoulder-bag’

b. relative clause in Lahu (from Lahaussais 2002)

V ǎʔ qhe chu **ve** P ɕhɔ-pa ô te v â  
 pig as fat **Rel** Shan that one person  
 ‘That Shan over there who’s fat as a pig’

c. nominalized clause in Lahu (from Lahaussais 2002)

ɔ-ši tɔʔ la **ve** th ǎʔ nɔ mâ va mɔ l â  
 blood emerge come **Nml** Acc you Neg get see Ques  
 ‘Didn’t you see that blood was coming out?’

In searching available literature on Tibeto-Burman linguistics, I find that this type of phenomenon is only reported in three languages: Hani, Lahu, and Naxi. Based on the classification of most Chinese linguists, the three languages could belong to the Loloish language branch within the Tibeto-Burman language family (see Chapter II). The rest of the possible Loloish languages, such as Jinuo, Labo Naxi, Lisu, Mosuo, and Yi, do not apply a single morpheme as a marker of nominalization, relativization, and genitivization, as shown in Table 5.4.

**Table 5.4. Nominalizer, genitive marker, and relativizer in possible Loloish languages**

Loloish languages								
	Jinuo	Mosuo	Labo Naxi	Naxi	Lahu	Hani	Yi	Lisu
Nominalizer	mɣ <sup>44</sup>	i <sup>33</sup>	i <sup>33</sup>	gə <sup>33</sup>	ve <sup>33</sup>	və <sup>33</sup>	su <sup>33</sup>	mɑ <sup>44</sup>
Gen. marker	ɛ <sup>33</sup>	bu <sup>33</sup>	na <sup>31</sup>	gə <sup>33</sup>	ve <sup>33</sup>	və <sup>33</sup>	(none)	(none)
Relativizer	mɣ <sup>44</sup>	i <sup>33</sup>	i <sup>33</sup> ~(na <sup>31</sup> )	gə <sup>33</sup>	ve <sup>33</sup>	və <sup>33</sup>	su <sup>33</sup>	mɑ <sup>44</sup>
Cognate ancestor: Proto-Na								

Comparisons in Table 5.4 above shows that Naxi *gə<sup>33</sup>* and Hani *və<sup>33</sup>*, like Lahu *ve<sup>33</sup>*, can function as nominalizers, relativizers, and genitive markers, while Jinuo, Lisu,

Labo Naxi, Mosuo, and Yi employ a strategy of “syncretism (terminology adopted from DeLancey (1986:3)) in which speakers use an identical morpheme as a marker of nominalization and relativization, and use the other morpheme to mark the genitive case (if applicable). It is quite obvious that the developments of Naxi  $gə^{33}$ , Hani  $və^{33}$ , and Lahu  $ve^{33}$  are extremely sporadic and regional among Tibeto-Burman languages. My hypothesis will claim that the Naxi  $gə^{33}$  was a loanword borrowed from the most general-purpose classifier  $gə$  (个) in Mandarin.<sup>78</sup>

Table 5.4 also shows that although Mosuo, Labo Naxi, and Naxi were derived from the same ancestor (called Proto-Na), they show divergent evolutions through their nominalization, genitivization, and relativization. In the following sections, I will demonstrate that my claim about the development of Naxi  $gə^{33}$  can be substantiated. I will provide a brief history of migration and events of language contact in Mosuo and Naxi in Section 5.2.2. In Section 5.2.3, I will first discuss the development of nominalization, genitivization, and relativization typologically, then try to explain why Naxi applies a unique pattern that differs from those of Labo Naxi and Mosuo.

### **5.2.2. Migration and language contact**

Lincan Li (李霖灿) has suggested that the ancestors of the Naxi people (“Proto-Na” in my terminology) migrated from northern Sichuan Province to the south and first settled in Muli. Then, the Proto-Na formed two branches; one branch settled down around the Lugu Lake region, and the other branch gradually migrated across the Jinsha River to the Lijiang plain, where they invented the Dongba manuscript (Mathieu

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<sup>78</sup>  $gə$  (个) in Hanyu Pinyin (汉语拼音) is Romanized as  $gə$ . It is important to show the difference between /ə/ and /e/ when doing the cross-linguistic comparison and reconstruction of the proto-language; therefore in this section I will use IPA instead of Hanyu Pinyin for demonstratives and classifiers.

2003:152).<sup>79</sup> Li argues that the absence of Dongba pictographic scripts among the Mosuo proves that the Mosuo are an older branch of the Proto-Na and that they settled in Muli and Yongning a very long time ago (Mathieu 2003:154).

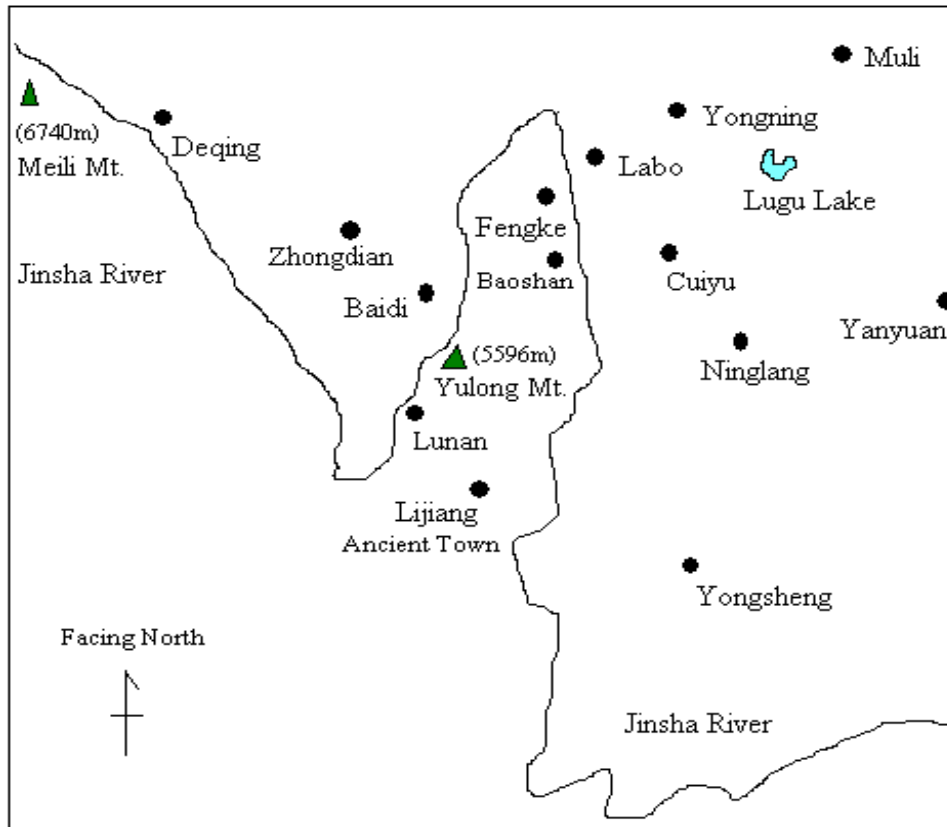
The Mosuo and the Naxi people have been divided by the Jinsha River for centuries.<sup>80</sup> The Naxi people are mostly settled on the western banks of the river in Lijiang County in settlements such as Fengke, Baoshan, Yulong Snow Mountain, Lunan, and Lijiang Ancient Town. The Mosuo people live on the eastern banks of the river and mostly inhabit the Yongning basin and the Lugu Lake regions, including Muli, Yongning, and Labo. The main toponyms of the Mosuo and Naxi regions are marked in Map 5.1 below.

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<sup>79</sup> Dongba manuscript (東巴經) is an ancient written record of the Naxi. Its name refers to its use in the Dongba Religion. The Dongba manuscript consists of about 1400 characters which are known as one of the world's few living pictographic scripts.

<sup>80</sup> The Jinsha River (金沙江) travels through the basic mountain chains of the Lijiang region and feeds into the ten-thousand-mile Yangtze River.

**Map 5.1. The Mosuo and the Naxi regions**



The Mosuo language is more likely affected by Tibetan due to speakers' Tibetan Buddhist religious beliefs. Male teenage Mosuo learn Tibetan when studying Tibetan lamaism. Mosuo speakers begin to memorize Tibetan Buddhist sutras from childhood, even though they may not understand the sutras' meanings. However, there does not seem to be significant Tibetan influence on the Mosuo grammar. Overall, language contact with Tibetan does not induce significant linguistic changes in Mosuo.

The language of Labo Naxi appeared intact until the 1950s, when the China government required the Labo children to learn Mandarin at school. Some Labo children acquire Mosuo because most of their playmates and classmates are Mosuo children. However, the Mosuo and the Labo Naxi still maintain the self-sufficient living style they had when they presided over their own territories and civilizations. Contact-induced

changes seem not to have occurred. Note that the Labo Naxi language is an important link for reconstructing Proto-Na, because it is a Mosuo-like Naxi language.

On the other hand, the Naxi language has been affected by Han Chinese for centuries. The Ancient Town of Lijiang was built at the beginning of the Yuan Dynasty (1279AD); it was the administrative region of the Mu lineage (木氏), the hereditary governor of the Naxi. The Mu lineage reigned over the Lijiang region for about 470 years, through the Yuan, Ming and Qing Dynasties.<sup>81</sup> McKhann mentions that “Han artisans and scholars were welcomed by the royal Mu lineage, whose position in Naxi society at that time was a product of their close relations with the Chinese authorities” (1995:50). The Naxi vocabulary used in the Ancient Town of Lijiang and its surrounding areas includes a greater proportion of Chinese loanwords (McKhann 1995:50).

In summary, it is probable to postulate that the Naxi, Labo Naxi, and Mosuo have the same ancestor—Proto-Na—based on their migrational history. The Naxi language has been influenced by Chinese since the 10th century. Since the 13th century, the Naxi lexicon has included many loanwords from Chinese, particularly Southwestern Mandarin.

### **5.2.3. Nominalization, genitivization, and relativization in Naxi, Labo, and Mosuo**

There are at least two distinct pathways for developing nominalization, genitivization, and relativization in the Sino-Tibetan languages: (1) all of the nominalization, genitivization, and relativization are simply an expression of definiteness; and (2) nominalization and relativization, which are not relevant to genitivization, are formed via grammaticalization in which both of the nominalizer and the relativizer were

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<sup>81</sup> Yuan Dynasty was established by Mongols who conquered and ruled China from 1279 to 1368 A.D. Qing Dynasty was established by Manchus who conquered and ruled China from 1644 to 1911 A.D.

derived from an identical morpheme, usually a noun referring to a “place”, “thing”, or especially “people”.

The former pathway is a pan-Chinese phenomenon where the majority of the Chinese-speaking people use an identical morpheme as a nominalizer, a relativizer, and a genitive marker (see Section 5.1). The latter pathway featuring “nominalization-relativization syncretism” is more likely to occur in certain Tibeto-Burman languages, such as Qiang (LaPolla & Huang 2003:226), Labo Naxi, Mosuo, and Yi (Hu 2002:138), as shown in Table 5.5.<sup>82</sup>

**Table 5.5. Nominalization-relativization syncretism**

	Tibeto-Burman languages			
	Qiang	Labo Mosuo	Labo Naxi	Yi
Nominalizer	-m	i <sup>33</sup>	i <sup>33</sup>	su <sup>33</sup>
Gen. marker	-tɕə	bu <sup>33</sup>	na <sup>31</sup>	(none)
Relativizer	-m	i <sup>33</sup>	i <sup>33</sup> + (na <sup>31</sup> )	su <sup>33</sup>
Ety. of syn.	people			

### **5.2.3.1 Nominalization-relativization syncretism**

Syntactically, nominalization-relativization syncretism uses an identical marker for nominalization and relativization, and a different marker for genitivation. Table 5.5 above also shows that the shared etymological meaning of nominalizer and relativizer in those languages is “people”. The evolution of the nominalization-relativization syncretism is easy to trace because in the case of nominal combinations such as [N(P) +

<sup>82</sup> The idea of “nominalization-relativization syncretism” is first posed by DeLancey. According to his investigation of Classical Tibetan and contemporary Lhasa Tibetan, “the nominalization function is chronologically and systemically prior to relativization, which is merely one specialized function of nominalization” (1986:1).



N] in Sino-Tibetan languages, the preceding noun or noun phrase always modifies the following noun. This “nominal modifying relationship” is a well-established function in Proto-Sino-Tibetan. In Mosuo or Labo Naxi, for example, the constituent of [V(P)-Nominalizer + N] in relativization is equivalent to the nominal constituent of [N(P) + N]. Because of the inherent modifying relationship between the preceding element [V(P)-Nominalizer] and the following noun [N], the nominalizer in the pattern [V(P)-Nominalizer + N] can be structurally defined as a relativizer since it requires an attributive head noun.

It is clear that  $\dot{q}^{33}$  ‘people’ in Naxi and  $x\dot{i}^{33}$  ‘people’ in Labo Naxi can be used as nominalizers for phrases referring to occupations, as shown in (13a-b).

- (13) a.  $\dot{q}^{33}$  ‘people’ in **Naxi**  
 $lu^{33}$        $tu^{31}$        $\dot{q}^{33}$   
 rice field    plant(v)    people  
 ‘farmer’
- b.  $x\dot{i}^{33}$  ‘people’ in **Labo Naxi**  
 $lu^{33}$        $tu^{31}$        $x\dot{i}^{33}$   
 rice field    plant(v)    people  
 ‘farmer’

Furthermore,  $\dot{q}^{33}$  ‘people’ in Naxi usually corresponds to the nominalizer  $i^{33}$  in Labo Naxi, as shown in (14). The occupationally nominal phrase ‘vegetable planter’ in Naxi is  $xo^{33} phe^{55} tu^{31} \dot{q}^{33}$ , as shown in (14a).<sup>83</sup> In Labo Naxi, ‘vegetable planter’ is expressed as  $a^{33} t\dot{s}he^{13} tu^{31} i^{33}$ , as shown in (14b). The position of the nominalization is shared by  $\dot{q}^{33}$  ‘people’ in Naxi and  $i^{33}$  in Labo Naxi. Thus it is possible to deduce that the nominalizer  $i^{33}$  is derived from a noun meaning ‘people’.

<sup>83</sup> Note that [ne31 gə33] ‘that (one)’ in (14a) was borrowed from Southwestern Mandarin, and it must be removed when reconstructing the proto-language.

(14) a.  $\dot{a}^{33}$  ‘people’ in **Naxi**  
 tʂhu<sup>33</sup> xo<sup>33</sup> phe<sup>55</sup> tu<sup>31</sup> [ne<sup>31</sup> gə<sup>33</sup>]  $\dot{q}^{33}$  mə<sup>31</sup>.  
 3S vegetable plant(v) that Cl people Cop  
 ‘He is a vegetable planter.’

b.  $i^{33}$  ‘nominalizer’ in **Labo Naxi**  
 tʂhu<sup>33</sup> a<sup>33</sup> tshe<sup>13</sup> tu<sup>31</sup>/phu<sup>31</sup>  $i^{33}$  ŋə<sup>31</sup>.  
 3S vegetable plant(v) Nml Cop  
 ‘He is a vegetable planter.’

Regarding nominalization-relativization syncretism, I would like to begin by looking at some examples from Labo Mosuo, then go on to examine equivalent examples from Labo Naxi. Labo Mosuo applies “nominalization-relativization syncretism” in that it uses an identical marker  $i^{33}$  to function as a nominalizer, as shown in (15), and as a relativizer, as shown in (16). Nominalization is a grammatical process in which a verb, a verb phrase, or an adjectival followed by the nominalizer  $i^{33}$  can function as a noun phrase. In (15a) and (15b), the nominalized verb phrases are activities  $tʂu^{33}$  mə<sup>33</sup> ku<sup>33</sup> “not giving money” and  $xə^{33}$  ‘leaving’, respectively. In (15c) and (15d), the adjectivals  $na^1$   $kha^{33}$   $tʂu^{33}$  ‘black’ and  $dər^{33}$  ‘wrong’ followed by the marker  $i^{33}$  are nominalized, respectively.

(15) Nominalizer  $i^{33}$  in Labo **Mosuo**

a. xī<sup>33</sup> du<sup>33</sup> tɑ<sup>13</sup> u<sup>33</sup> tʂu<sup>33</sup> mə<sup>33</sup> ku<sup>33</sup>  $i^{33}$  mə<sup>33</sup> dju<sup>31</sup>.  
 people all Adv money Neg give Nml Neg have  
 ‘Among all people, there is no person who does not give money.’

b. ɲɑ<sup>33</sup> tʂhu<sup>33</sup> xə<sup>33</sup>  $i^{33}$  mu<sup>33</sup>.  
 1S 3S go Nml hear  
 ‘I hear his leaving.’

c. tʂhu<sup>33</sup> na<sup>1</sup> kha<sup>33</sup> tʂu<sup>33</sup>  $i^{33}$  mə<sup>33</sup> ɲi<sup>33</sup> tʂu<sup>31</sup>.  
 3S black Nml Neg want Evid  
 ‘He doesn’t want the black (one).’

d. tʂhu<sup>33</sup> tʂhu<sup>33</sup> dər<sup>33</sup> i<sup>33</sup> nər<sup>33</sup>.  
 3S 3S wrong Nml know  
 ‘He knows he is wrong.’

A relative clause is simply an attributive nominalization in which the nominalized phrase serves as a modifier to modify the following head noun. The difference between the nominalized phrase and the relative clause in Labo Mosuo is that the relative clause requires an attributive head noun, but the nominalized phrase does not. For example, the head nouns *mu*<sup>13</sup> *dzu*<sup>13</sup> ‘girl’, *xi*<sup>33</sup> ‘people’, and *a*<sup>33</sup> *bu*<sup>33</sup> *a*<sup>33</sup> *mi*<sup>33</sup> ‘parents’ need to occur right after the relativizer in (16a), (16b), and (16c), respectively.

(16) Relativizer *i*<sup>33</sup> in Labo Mosuo

a. de<sup>31</sup> dja<sup>31</sup> tʂho<sup>33</sup> i<sup>33</sup> mu<sup>13</sup> dzu<sup>13</sup> tʂhu<sup>13</sup> u<sup>33</sup> gu<sup>33</sup> mu<sup>33</sup> dja<sup>13</sup> ʂuɑ<sup>33</sup>.  
 that dance Rel girl that Cl body very tall  
 ‘That girl who is dancing is very tall.’

b. no<sup>33</sup> ɑ<sup>33</sup> ɲi<sup>33</sup> pi<sup>33</sup> i<sup>33</sup> xi<sup>33</sup> tʂhu<sup>33</sup> u<sup>33</sup> tʂhu<sup>33</sup> ɲi<sup>31</sup> mə<sup>33</sup> tʂhu<sup>31</sup>.  
 2S yesterday tell Rel people this Cl today Neg come  
 ‘The people who you mentioned yesterday didn’t come today.’

c. tʂhu<sup>33</sup> ɔ̃<sup>13</sup> zu<sup>31</sup> i<sup>33</sup> ɑ<sup>33</sup> bu<sup>33</sup> ɑ<sup>33</sup> mi<sup>33</sup> lu<sup>31</sup> mə<sup>33</sup> li<sup>31</sup>.  
 3S self bear Rel parents even Neg look  
 ‘He doesn’t even look at his parents who bore him.’

Labo Naxi uses the same marker *i*<sup>33</sup> as a nominalizer, as shown in (17a-d). Examples (17a-d) are equivalent to Mosuo examples (15a-d) above. Also, unlike the relativizer which requires an attributive head noun, the nominalizer *i*<sup>33</sup> cannot be followed by any modified noun.

(17) Nominalizer *i*<sup>33</sup> in Labo Naxi

a. xi<sup>33</sup> du<sup>33</sup> ta<sup>31</sup> u<sup>33</sup> tɕ<sup>33</sup> mə<sup>33</sup> ɪɑ<sup>31</sup> i<sup>33</sup> mə<sup>33</sup> ndju<sup>31</sup>.  
 people all Adv money Neg give Nml Neg have  
 ‘Among all people, there is no person who does not give money.’

b. tʂhu<sup>33</sup> xə<sup>33</sup> i<sup>33</sup> ɲə<sup>33</sup> mi<sup>33</sup>.  
 3S go Nml 1S hear  
 ‘I hear his leaving.’

c. tʃhu<sup>33</sup> na<sup>31</sup> i<sup>33</sup> mə<sup>33</sup> ɟi<sup>33</sup> tsə<sup>33</sup>.  
 3S black Nml Neg want Evid  
 ‘He doesn’t want black (one).’

d. tʃhu<sup>33</sup> mə<sup>33</sup> xo<sup>31</sup> i<sup>33</sup> nə<sup>33</sup> tsə<sup>33</sup>.  
 3S Neg right Nml know Evid  
 ‘He knows he is not right.’

Labo Naxi also uses *i*<sup>33</sup> as a relativizer. In addition, it uses an extended form *i*<sup>33</sup> + *na*<sup>31</sup> as a relativizer, as shown in (18). Examples (18a-c) are equivalent to Mosuo examples (16a-c) above. The construction of [*i*<sup>33</sup> + *na*<sup>31</sup>] is a combination of the nominalizer *i*<sup>33</sup> and the genitive marker *na*<sup>31</sup>. It should be noticed that the absence of the genitive marker *na*<sup>31</sup> from (18) is acceptable.

(18) Relativizer *i*<sup>33</sup> *na*<sup>31</sup> in Labo Naxi

a. de<sup>31</sup> dja<sup>31</sup>tʃho<sup>33</sup> i<sup>33</sup> na<sup>31</sup> mi<sup>33</sup>dzu<sup>13</sup> tʃha<sup>13</sup> gu<sup>33</sup>mu<sup>33</sup> dja<sup>13</sup> ʃua<sup>31</sup> ia<sup>55</sup>.  
 that dance Nml Gen girl one+Cl body very tall Prt  
 ‘That girl who is dancing is very tall.’

b. nu<sup>33</sup> a<sup>33</sup>ɟi<sup>33</sup> pe<sup>55</sup> i<sup>33</sup> na<sup>31</sup> xi<sup>33</sup> tʃha<sup>13</sup> tʃhu<sup>33</sup>ɟi<sup>33</sup> mə<sup>33</sup> tʃhu<sup>33</sup>.  
 2S yesterday tell Nml Gen people one+Cl today Neg come  
 ‘The people you mentioned yesterday didn’t come today.’

c. tʃhu<sup>33</sup> u<sup>13</sup> zu<sup>33</sup> i<sup>33</sup> na<sup>31</sup> a<sup>33</sup>di<sup>33</sup>a<sup>33</sup>me<sup>33</sup> lu<sup>31</sup> mə<sup>33</sup> ly<sup>31</sup>.  
 3S self bear Rel Gen parents even Neg look  
 ‘He doesn’t even look at his parents who bore him.’

The nominalizer-plus-genitive combination also occurs in Gurung (Noonan 1997:382) and Tibetan (DeLancey 1982). DeLancey (1986:2) argues that in Lhasa Tibetan “there is a straightforward syntactic explanation for the use of the genitive postposition as a relative marker; since the modifying clause is in fact syntactically an NP, it is marked with the same morpheme as any other dependent NP;” however, the relative clause of Classical Tibetan is simply a nominalization without the genitive marker. The

diachronic pattern found in Lhasa Tibetan and Classical Tibetan is correspondent to that in Labo Naxi and Mosuo.

Beyer (1992:316) mentions that the genitive in Classical Tibetan “is used with nominalizations functioning as attributives when the nominalization precedes the head; when it follows the head, the genitive is not used.”<sup>84</sup> Indeed, the use of the genitive marker in the relative clause is a structural analogy in that the genitive marker always requires an apparently modified noun. This would mean that the genitive phrase [N + Genitive + N] and the relative clause [V(P)-Nominalizer + Genitive + N] share an identical construction.

So far numerous examples have been provided where the nominalizer and relativizer in Labo Naxi and Mosuo share the same form *i*<sup>33</sup>. In what follows, I will demonstrate some sentences that involve the genitive marker in Labo Naxi and Mosuo. In the case of the possessive construction in Labo Naxi, a genitive marker *na*<sup>31</sup> is used, as shown in (19a). The marker *na*<sup>31</sup> can be omitted because of the inherent modifying relationship between two nominals mentioned above. However, the associative phrase usually requires an overt genitive marker *na*<sup>31</sup>, as shown in (19b). It is not surprising that the possessive and associative phrase involve the same marker, because the semantic connection in the associative phrase is derived from the concept of possession via conceptual metaphor.

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<sup>84</sup> Beyer’s examples adopted from Noonan (1997:382) are shown as follows:

a. bla-ma-s    btul-ba-i    bgegs  
    lama-Erg    tame-Nom-Gen    demon  
    ‘the demon which the lama tamed’

b. bgegs    bla-ma-s    btul-ba  
    demon    lama-Erg    tame-Nom  
    ‘the demon which the lama tamed’

(19) a. genitive marker in possessive of Labo Naxi  
 ɲə<sup>33</sup> zu<sup>31</sup> tʂhu<sup>33</sup> tʂhu<sup>33</sup> (na<sup>31</sup>) a<sup>33</sup> di<sup>33</sup> a<sup>33</sup> me<sup>33</sup> ɲə<sup>31</sup>.  
 1D Subj 3S Gen parents Cop  
 ‘We two are his parents.’

b. genitive marker in associative of Labo Naxi  
 tʂhu<sup>33</sup> be<sup>33</sup> na<sup>31</sup> li<sup>31</sup> tsw<sup>33</sup> a<sup>31</sup> be<sup>33</sup> u<sup>33</sup> to<sup>33</sup> ndur<sup>33</sup>.  
 this year Gen plum last year Cmpr big  
 ‘This year’s plums are bigger than last year’s.’

Labo Mosuo uses *bu*<sup>33</sup> as the genitive and associative marker, as shown in (20).

Examples (20a-b) are equivalent to the Labo Naxi examples (19a-b) above.

(20) a. genitive marker in possessive of Mosuo  
 ɲa<sup>33</sup> zu<sup>31</sup> tʂhu<sup>33</sup> (bu<sup>33</sup>) a<sup>33</sup> bu<sup>33</sup> a<sup>33</sup> mi<sup>33</sup> ɲi<sup>31</sup>.  
 1D 3S Gen parents Cop  
 ‘We two are his parents.’

b. genitive marker in associative of Mosuo  
 tʂhu<sup>33;31</sup> bu<sup>33</sup> li<sup>31</sup> tsw<sup>31</sup> a<sup>33;33</sup> u<sup>33</sup> to<sup>31</sup> dur<sup>31</sup>.  
 this year Gen plum last year Cmpr big  
 ‘This year’s plums are bigger than last year’s.’

With examples (15-20) in mind, it is possible to explain the case of Naxi *gə*<sup>33</sup>. The main puzzle concerning Naxi *gə*<sup>33</sup> in Table 5.4 is how it could have a genitive function along with its relativization and nominalization functions. It is more difficult to believe that genitivization was derived from nominalization or relativization.

Because Labo Naxi and Mosuo apply syncretism in nominalizers and relativizers (see Section 5.2.3.1), I claim that Proto-Na should employ nominalization-relativization syncretism in which it uses an identical marker *i*<sup>33</sup> to function as both a nominalizer and a relativizer; the relative clause requires an attributive head noun, but the nominalized

phrase does not. In addition, Proto-Na might not have a genitive marker because the genitive markers used in Loloish languages are barely cognates.<sup>85</sup>

Labo Naxi and Mosuo developed their own genitive markers after the Naxi people migrated across the Jisha River. Their individual genitive markers are optional in the possessive construction but remain overt in the associative phrase. Labo Naxi further applies the genitive marker to form an extended nominalizer-plus-genitive combination in the relative clause via structural analogization.

### **5.2.3.2 Contact-induced change in Naxi $gə^{33}$**

Evidently, Naxi  $gə^{33}$  is a loanword borrowed from one of the elements in Southwestern Mandarin  $nei^{51}gə$  (那个) ‘that (one)’ in which  $gə$  with a neutral tone is the most general-purpose classifier.<sup>86</sup>

Here, I would like to claim that Naxi  $gə^{33}$  was formed through the following steps: (1) Naxi was in contact with Chinese languages, and it was especially influenced by Southwestern Mandarin for a long time; (2) Naxi adopted  $nei^{51}gə$  (那个) ‘that (one)’ from Southwestern Mandarin into its relativization and pronounced it as  $nei^{51}gə^{33}$ ; its original relativizer  $i^{33}$  was gradually replaced by  $nei^{51}gə^{33}$  ‘that (one)’ through the ages; (3) meanwhile, the phrase  $nei^{51}gə^{33}$  in relativization was functionalized into a monosyllable marker  $gə^{33}$ ; and (4) the relativizer  $gə^{33}$  could have easily extended into nominalization and genitivation via analogy with  $nə^{33}$  in Southwestern Mandarin.

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<sup>85</sup> Most Tibeto-Burman linguists (including DeLancey (1984) and Matisoff (2003)) believe that there should be a genitive particle *\*ki* or *\*gi* in Proto-Tibeto-Burman.

<sup>86</sup> The Chinese characters 那个 in Southwest Mandarin pronounced as [nə31 g ə33], whether [nei51 g e] or [nə31 g ə33], must be pronounced as [ne31 g ə33] when borrowed by Naxi.

Therefore, Naxi and Chinese finally share the same structural pattern in nominalization, genitivization, and relativization. In the following sections, I will provide examples to demonstrate the contact-induced change of Naxi  $gə^{33}$ .

Unlike Labo Naxi and Mosuo, Naxi uses a single morpheme  $gə^{33}$  as a nominalizer, a relativizer, and a genitive marker, as shown in examples (21-23), respectively.

Examples (21a & b) are equivalent to Labo Mosuo examples (15a-b) and Labo Naxi examples (17a-b) above. Comparing these correspondent sentences, I find that they share all of the grammar except the nominalizer. Naxi has changed the original nominalizer from  $i^{33}$  into  $gə^{33}$ , as shown in (21).

(21) Nominalizer in Naxi

a.  $q̣^{33}$      $ndu^{33}$   $xə^{33}$      $mbe^{33}$      $t\var�^{55}$      $mə^{33}$      $iə^{55}$      $gə^{33}$      $mə^{33}$      $ndjy^{31}$ .  
 people all            Adv money Neg give Nml Neg have  
 ‘Among all people, there is no person who does not give money.’

b.  $tʂhu^{33}$      $na^{31}$      $gə^{33}$      $mə^{33}$      $ji^{33}$ .  
 3S black Nml Neg want  
 ‘He doesn’t want the black (one).’

In addition, Naxi has changed the marker of the relative clause from  $i^{33}$  or  $i^{33} na^{31}$  to  $gə^{33}$ , as shown in (22). Examples (22a-b) are equivalent to Labo Mosuo examples (16a-b) and Labo Naxi examples (18a-b) above.

(22) Relativizer in Naxi

a.  $ndzər^{33}$   $tʂho^{33}$      $ne^{31}$      $gə^{33}$      $mi^{33}$      $tʂhu^{33}$      $ku^{55}$      $ŋgu^{33}$   $mu^{33}$      $dja^{13}$      $ʂuɑ^{31}$ .  
 dance            Prog Rel girl that Cl body very tall  
 ‘That girl who is dancing is very tall.’

b.  $nu^{33}$      $nu^{33}$      $ɑ^{31}$   $ji^{33}$      $ʂə^{55}$      $gə^{33}$      $ɑ^{33}$   $tʂhu^{33}$      $ku^{55}$      $tʂhu^{33}$   $ji^{33}$      $mə^{33}$      $tʂhu^{31}$ .  
 2S Subj yesterday say Rel that Cl today Neg come  
 ‘The people you mentioned yesterday didn’t come today.’

Dongba characters prove that until the 11th century, the Naxi people still used  $na^{31}$  as the genitive marker. For example, in an associative phrase like  $tu^{31}$   $zu^{33}$   $na^{31}$   $khɑ^{33}$



*dzu*<sup>33</sup> ‘a big city of thousands of streets’ in Dongba, *na*<sup>31</sup> is used as the genitive marker to connect *tu*<sup>31</sup> *zu*<sup>33</sup> ‘thousands of streets’ and *kha*<sup>33</sup> *dzu*<sup>33</sup> ‘big city’.<sup>87</sup> However, Naxi has changed the genitive marker from *na*<sup>31</sup> into *gə*<sup>33</sup>, as shown in (23). Examples (23a-b) are equivalent to Labo Naxi examples (19a-b) and Labo Mosuo examples (20a-b) above.

(23) a. genitive marker in possessive of Naxi

<i>ŋa</i> <sup>33</sup>	<i>ji</i> <sup>33</sup>	<i>ku</i> <sup>55</sup>	<i>tʂhu</i> <sup>33</sup>	<i>tʂhu</i> <sup>33</sup>	<i>gə</i> <sup>33</sup>	<i>a</i> <sup>33</sup>	<i>ba</i> <sup>33</sup>	<i>me</i> <sup>33</sup>	<i>ua</i> <sup>31</sup> .
1D	Subj	3S	Gen	parents	Cop				

‘We two are his parents.’

b. genitive marker in associative of Naxi

<i>tʂhu</i> <sup>33</sup>	<i>mbe</i> <sup>33</sup>	<i>gə</i> <sup>33</sup>	<i>se</i> <sup>33</sup>	<i>li</i> <sup>31</sup>	<i>a</i> <sup>33</sup>	<i>mbe</i> <sup>33</sup>	<i>t</i> <sup>31</sup>	<i>ca</i> <sup>31</sup>	<i>ndu</i> <sup>31</sup>	<i>mu</i> <sup>33</sup>	<i>su</i> <sup>33</sup> .
this year	Gen	plum	last year	Cmpr	big	rather					

‘This year’s plums are bigger than last year’s.’

The Chinese language with which Naxi has been in contact is Southwestern Mandarin, such as Kunming Mandarin. Kunming Mandarin uses “that + classifier” (*na* + *gə*) in its nominalization, relativization, and genitivization, as shown in (4) in Section 5.1.2.3 above. In addition, *na gə* ‘that (one)’ can be replaced by a monosyllable marker *na*<sup>33</sup> without changing the meaning. Naxi borrowed this “that + classifier” pattern in its relative clauses, as shown in (24). In examples (24 a-c), *ne*<sup>31</sup> *gə*<sup>33</sup> ‘that (one)’ is used as an expression of definiteness for the modified head noun *q̣*<sup>33</sup> ‘people’.

(24) *ne*<sup>31</sup> *gə*<sup>33</sup> in Naxi

a. <i>tʂhu</i> <sup>33</sup>	<i>tʂhu</i> <sup>33</sup>	<i>lu</i> <sup>33</sup>	<i>tu</i> <sup>31</sup>	<i>ne</i> <sup>31</sup>	<i>gə</i> <sup>33</sup>	<i>q̣</i> <sup>33</sup> .
3S	Subj	rice field	plough	that	Cl	people

‘He is a farmer.’

b. <i>tʂhu</i> <sup>33</sup>	<i>ji</i> <sup>33</sup>	<i>ndzə</i> <sup>31</sup>	<i>ne</i> <sup>31</sup>	<i>gə</i> <sup>33</sup>	<i>q̣</i> <sup>33</sup>	( <i>ua</i> <sup>31</sup> ).
3S	fish	catch	that	Cl	people	copula

‘He is a fishman.’

<sup>87</sup> This example is based on a dictionary entitled *Naxizu Xiangxing Biaoyinwenzi Zidian* (纳西族象形标音文字字典) edited by Lincan Li (李霖灿) and published in 2001.

c. tʂhu<sup>33</sup> the<sup>33</sup> yu<sup>33</sup> so<sup>31</sup> ne<sup>31</sup> gə<sup>33</sup> ɕi<sup>33</sup> ta<sup>55</sup> mə<sup>31</sup> su<sup>33</sup>.  
 3S book learn that Cl people only Neg still  
 ‘He is still a student.’

The loaned classifier *gə*<sup>33</sup> finally functionalized as a marker of definiteness without accompanying the demonstrative *ne*<sup>31</sup> ‘that’, as shown in (25 a-c). This monosyllabified process of the marker is very common in nominalization, relativization, and genitivization in Chinese dialects; for example, Taiwanese *he*, Kunming Mandarin *nə*, Beijing Mandarin *də*, Chaozhou Southern Min *kai*, and Cantonese *ge*<sup>3</sup> (see Section 5.1).

(25) *gə*<sup>33</sup> in Naxi

a. tʂhu<sup>33</sup> tʂhu<sup>33</sup> lu<sup>33</sup> tu<sup>31</sup> gə<sup>33</sup> ɕi<sup>33</sup>.  
 3S Subj rice field plough Rel people  
 ‘He is a person who works in the rice field.’

b. tʂhu<sup>33</sup> ɲi<sup>33</sup> ndzə<sup>31</sup> gə<sup>33</sup> ɕi<sup>33</sup> (ua<sup>31</sup>).  
 3S fish catch Rel people copula  
 ‘He is a person who catches fishes.’

c. tʂhu<sup>33</sup> the<sup>33</sup> yu<sup>33</sup> so<sup>31</sup> gə<sup>33</sup> ɕi<sup>33</sup> ta<sup>55</sup> mə<sup>31</sup> su<sup>33</sup>.  
 3S book learn Rel people only Neg still  
 ‘He is still a person who is studying.’

It is reasonable to believe that Naxi relativizer *gə*<sup>33</sup> has extended to its nominalization and genitivization via analogy with *nə*<sup>33</sup> from Southwestern Mandarin.

#### **5.2.4. Discussion**

The argument concerning a contact-induced change in nominalization, relativization, and genitivization of Naxi can be established because evidence exists showing that the development of Naxi *gə* is due to language contact with Chinese, particularly Southwestern Mandarin, from the Late Medieval Chinese period (from 960 A.D.).

Typologically speaking, only Chinese languages involve a single morpheme that functions as a genitive marker, a relativizer, and a nominalizer. The ancestor of Naxi, Proto-Na, applies the “nominalization-relativization syncretism” which uses an identical marker *i*<sup>33</sup> as a relativizer and a nominalizer. Naxi *gə* was a loanword borrowed from the most general-purpose classifier *gə* (个) in Mandarin.

## CHAPTER VI

### CONCLUSION

This dissertation primarily exists to provide new perspectives from which to solve six puzzles regarding linguistic changes on the basis of typological and diachronic evidence. These linguistic puzzles have arisen due to diachronic developments. Tackling such challenging puzzles requires expertise in the field of historical linguistics.

**Chapter II** aims to investigate the relationship between “tonal splits of checked syllables in \*L” and “subgrouping of the Loloish language branch”. The current work has attempted to compare tonal patterns cross-linguistically in different dialects of Chinese, different dialects of Yi (Lolo), and possible Lolo-Burmese languages based on the assumption that they had a single \*checked syllable in earlier times, and that they later underwent tonal splits conditioned by the rule of Matisoff’s two-way tonal splits. That is, the voiced initial consonant of \*checked syllables tend to develop lower-pitched tones in modern languages, while the voiceless initial consonant of \*checked syllables tend to develop higher-pitched tones.

After several comparative studies in different dialects of Chinese, different dialects of Yi (Lolo), and possible Lolo-Burmese languages, the typological evidence shows that the Loloish tonal split corresponding to \*L checked syllables did not simply fall into the two-class contrast that Matisoff has characterized as “low-checked” and “high-checked”. Most of the patterns of tonal splits, such as “regularity”, “flip-flop”, and “irregularity”, occur in different dialects of Chinese and Yi (Lolo). This fact shows that a language with an irregular pattern of tonal splits in \*checked syllables can be categorized with patterns of “regularity” and “flip-flop” in the same language group. In addition, the

behavior of the tonal split in checked syllables of the proto-language has nothing to do with the subgrouping of the modern languages because it often fails to predicate a more reliable genetic relationship between languages. Since Matisoff's methodology is weak when used in subgroupings of Loloish, it is not necessary or prudent to accept the genetic position of Naxi Matisoff proposed in 1972, even though it may be correct.

Concerning the puzzle of the genetic position of Naxi, the current problem that faces us is that Naxi and Mosuo show two different patterns of tonal splits corresponding to \*checked syllables, as shown in Figure 2.3. Based on my investigation, Naxi belongs to the subgroup of flip-flop, while Matisoff put it in the subgroup of irregularity.

Moreover, Mosuo, which was not included in Matisoff's study, belongs to the subgroup of irregularity. I have suggested that Naxi and Mosuo have a common ancestor called Proto-Na; it is assumed that at an earlier period, the two contemporary languages shared the same tonal system, but that variation developed at a later stage. But what is the tonal system of Proto-Na? Reconstructions of tonal changes in the period from Proto-Na to Naxi and Mosuo are necessary before it is possible to locate the genetic position of Naxi. In order to successfully reconstruct the tonal system of Proto-Na, all of the subgroups of Naxi (including Dayanzhen, Lijiang, and Baoshan) and Mosuo (including Yongning, Beiqu, and Guabie) must be studied further.

Concerning the comparative, cross-linguistic studies, the phenomenon of tonal splits conditioned by the phonetic nature of the syllable-initial consonants seems to be scattered throughout many countries of Southeast Asia; languages spoken in these areas, such as Thai and Vietnamese, may be affected. What exactly are the patterns of tonal splits corresponding to \*checked syllables in Thai, Vietnamese, etc.? Do all of these

languages, like Chinese and Lolo-Burmese, demonstrate different patterns of tonal splits in \*checked syllables, such as ‘regularity’, ‘flip-flop’, ‘irregularity’, and ‘un-split’? The phonology of the proto-languages of Thai and Vietnamese have been reconstructed via the comparative method.<sup>88</sup> I believe these unsolved questions would be good topics for future research.

Concerning the biggest problem about the conditioning features of tonal splits, the languages that involve the regular pattern in \*checked syllable represent a very small group among all of the Sino-Tibetan languages. The issues about the patterns of ‘flip-flop’, ‘irregularity’ and ‘un-split’, which are used by the most speakers of the Sino-Tibetan languages, are less-discussed. In addition, the mysteries surrounding the conditioning features of tonal splits that brought about the pattern of ‘flip-flop’ remain unresolved.<sup>89</sup> Furthermore, the research on the diachronic development of the pattern of ‘irregularity’ is currently in a state of chaos.

**Chapter III** proposes a cognitive principle, ‘schematization’, to explain semantic development of the motion verb RETURN—还 and the action verb TAKE—把 in Chinese. The image schemata of RETURN and TAKE are used to demonstrate how Chinese speakers use and understand RETURN and TAKE diachronically.


In Section 3.1, I investigate the motion verb meaning “to return” in Chinese. I re-examine the development of RETURN *huan/hai* (还) from a diachronic viewpoint.

RETURN is not a simple concept because it requires both a retraversal path and an unmarked path-traversed portion. According to the etymological evidence from ancient

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<sup>88</sup> Please see the related references: Fang-kuei Li (李方桂) (1977), Pittayaporn (2009), and Thompson (1976:1113-1203).

<sup>89</sup> Since the pattern of flip-flop violates the universal phonetic mechanism of tonogenesis. Wang (1967) and Yue-Hashimoto (1986) argue that the pattern of flip-flop derived from the pattern of regularity.

Chinese and typological evidence from Tibetan and Labo Mosuo, the image schema of RETURN *huan/hai* (还) is similar to the refresh symbol .

Regarding synchronically versatile uses of *huan/hai* (还), the prototypical image schema of RETURN is shown to consist of four conceptual senses: (1) repetitious sense, (2) opposite sense, (3) sequential sense, and (4) continuant sense. All of the versatile uses of RETURN are conceptually abstracted from the individual senses of the image schema of RETURN. The meaning of “again” is derived from its repetitious sense; the meaning of “unexpectedly” is derived from its opposite sense; the meaning of “also”, “or” or “more” is derived from its sequential sense; and the meaning of “still” is derived from its continuant sense.

In Section 3.2, I investigate the Chinese action verb meaning “to take”. The constructions with TAKE in Chinese are normally associated with the most-studied construction—the disposal construction. The disposal construction in Mandarin is known as the BA construction. Most linguists disagree with Li Wang’s opinion because the ‘disposal’ notion he poses is too specific, without much room for extension to the other types of disposal sentences. Thus, the majority of articles related to issues of the BA construction in Mandarin tend to adopt a theory that could explain all of the examples of the BA construction, even though their goals are never put into practice completely.<sup>90</sup>

The puzzle of the disposal construction arises from its complicated diachronic evolution in semantics as well as syntax. Therefore, before creating a theory to explain the disposal construction, it is necessary to understand its diachronic development. It is impossible to adopt only one theory in order to analyze all types of the constructions with

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<sup>90</sup> Please see the related references: Chappell (1992); Hopper & Thompson (1980); Sun (1995); Tsao (1987); and Ziegeler (2000).

TAKE. Based on the historical evidence from ancient Chinese and typological evidence from dialects of modern Chinese, the representation of image schemata involving TAKE in both ancient and modern Chinese was composed of four independent serial events: “thing-transferred event”, the “thing-located event”, the “thing-transformed event”, and the “instrumental causative event”. All of these serial events consist of three arguments in their image schema. Removing the THING argument from their image schema in the former three events will cause semantic insufficiency and syntactic ungrammaticality.

However, the THING object, or INSTRUMENT in the instrumental causative event, is allowed to be omitted from the image schema. This is probably because the disposal verb used in this event conveys the sense of both “manipulativeness” and “affectedness”. After the omission of the INSTRUMENT from the instrumental causative event, a disposal event that involves two arguments in a single event was formed. The image schema of the disposal event represents a transfer of causative force from an ‘energy initiator’—causer—to an ‘energy receiver’—causee.

The disposal construction is a new form that was derived from the instrumental causative event by the Tang Dynasty due to the omission of the instrument. The semantic relationship between the disposal event and the instrument causative event is very close because both events contain the senses of “manipulativeness” and “affectedness” in their image schema, even though the serial event has become the single event. The other new form is the “agent-patient event”, which was derived from the disposal event when the nominal argument in the event is not a tangible object. The agent-patient event and the disposal event share the same syntactic structure, but they differ completely in semantics



because the grammatical TAKE is used to mark the PATIENT in the former but marks the CAUSEE in the latter.

In comparative cross-linguistic studies, most Sino-Tibetan linguists seem to agree that the BA construction or ‘disposal’ construction is unique to Chinese since no similar construction has been found in any other language. However, I found a *pu*-construction in Labo Naxi which may correspond to the Mandarin BA-construction to some extent. In addition, Liberty A. Lidz (2010:809), the author of the dissertation entitled *A Descriptive Grammar of Yongning Na (Mosuo)*, has glossed the word *pɔ* as a verb meaning ‘to take’ or ‘to use’ and as an instrumental marker of disposal construction.<sup>91</sup> Since Mandarin *ba*, Mosuo *pɔ*, and Labo Naxi *pu* have an identical etymological meaning (TAKE), it would be very interesting to investigate the similarity and dissimilarity of their functions in every respect.

**Chapter IV** focuses on a long-standing puzzle concerning the agentive passive marker in certain dialects of Chinese, such as Mandarin and Xiang. In these dialects, speakers use a single morpheme, such as *gei* (给) ‘to give’, *na* (拿) ‘to take’, *jiao* (教/叫) ‘to call’, and *rang* (让) ‘to let’, to function as both the passive/agent marker and the disposal/patient marker. Based on the typological similarities, I claim that these agentive passive markers arise from the causative construction, the configuration of which can be demonstrated as [NP1<sub>primary causer</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V + NP3<sub>causee</sub>]. Under this configuration, *gei* ‘to give’ and *rang* ‘to let’ occur in the permissive

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<sup>91</sup> The function and gloss of *pɔ* ‘to take’ in Mosuo provided by Lidz (2010:809) is misleading. As mentioned in Section 3.2 in Chapter III, TAKE in Chinese is associated with an INSTRUMENT in the instrumental causative construction, and to mark a CAUSEE in the disposal construction. Based on my understanding of Labo Mosuo and Labo Naxi, Mosuo *pɔ* and Labo Naxi *pu*, like Mandarin *ba*, are used to mark a CAUSEE in the disposal construction.

causative construction; *na* ‘to take’ occurs in the instrumental causative construction; and *jiao* ‘to call’ occurs in the manipulative causative construction.

The passive meaning was diachronically derived from the permissive causative construction, the instrumental causative construction, and the manipulative causative construction under the same process. This “causative-to-passive” process involves three steps: “topicalization”, “omission of primary causer”, and “structural reanalysis”. In the first step, the NP3<sub>causee</sub> is topicalized, placed in the sentence-initial position; the constituent order after topicalization can be represented as [NP3<sub>causee</sub>, NP1<sub>primary causer</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V]. In the second step, the NP1<sub>primary causer</sub> is omitted by the speaker; the constituent order after the omission of the NP1<sub>primary causer</sub> can be represented as [NP3<sub>causee</sub>, + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V]. In the final step, the pause particle after the NP3<sub>causee</sub> is neglected; the final configuration [NP3<sub>causee</sub> + *gei/ na/ jiao/ rang* + NP2<sub>secondary causer</sub> + V] is reanalyzed as a passive construction by the listener.

When the process is completed, the passive meaning starts to be conventionalized as a fixed passive construction in certain dialects of Chinese. The passive and disposal markers employ the same morpheme because of a mismatch of interpretation between the speaker and the listener. The speaker wants to express a causative meaning, but the sentence is understood as a passive construction by the listener. However, it should be noticed that this mismatch does not bring about any misunderstanding in their conversation. Both the speaker and the listener focus on the affected causee. The notion of ‘causee is affected by something/someone’ as understood by the listener is very similar

to the notion of ‘a person causes the causee being affected by something/someone’ as expressed by the speaker when the primary causer ‘a person’ is omitted.

In comparative cross-linguistic studies, there are at least four types of lexical verbs that can serve as a single source of both the passive and the disposal marker in certain dialects of Chinese (Shi & Wang 2009 and Wu 1999). They are GIVE-type, TAKE-type, CALL-type, and ALLOW-type. The TAKE-type disposal, such as *ba* (把) in Beijing Mandarin, was discussed in the second part of Chapter III. Moreover, the GIVE-type passive, TAKE-type passive, CALL-type passive, and ALLOW-type passive were discussed in Chapter IV. The likely parallel independent developments of the GIVE-type disposal, CALL-type disposal, and ALLOW-type disposal in these dialects of Chinese are worth investigating.

The GIVE-type disposal, as mentioned at the beginning of Chapter IV, is derived via a metaphorical process. Newman (1996:172) mentions that the literal GIVE is often ascribed to a causative expression in which “the GIVER is said to be the entity which ‘causes’ it that the RECIPIENT comes to have the THING”. The CALL-type disposal and the ALLOW-type disposal are only used by a very small population of Mandarin speakers in Henan, Shanxi, and Shandong. Data collection from these speakers is necessary before conducting an investigation.

**Chapter V** proposes a possible explanation for the development of nominalization, relativization, and genitivization in Chinese and Naxi. Most Chinese dialects and Naxi apply a single morpheme functioning as a genitive marker, a relativizer, and a nominalizer.

Section 5.1 has shown that the use of nominalization, genitivation, and relativization applies only one robust function in terms of “definiteness” in all of the dialects of Chinese. There are four types of constituents used for the expression of definiteness in nominalization, genitivation, and relativization: (1) “that + classifier” (pan-Chinese), (2) phonological fusion of [that + classifier] in Taiwanese, (3) a bare ‘that’ in Beijing Mandarin and Kunming Mandarin, and (4) a bare classifier in Cantonese and Chaozhou Min.

Concerning the four constituent types of expressions of definiteness, I find that different dialects of Chinese may apply different types. A dialect may also apply more than one type (e.g. literary Cantonese applies the bare ‘that’ and colloquial Cantonese applies the bare classifier). This common value of definiteness is the primary explanation for why Chinese speakers use an identical morpheme as a nominalizer, a relativizer, and a genitive marker. In addition, it also shows that the Mandarin conditional subordinator (*de hua*/的话), cleft (*shi~de*), and sentence final marker (*de*) are semantically related to the sense of definiteness. All of the contiguous and diachronic developments of *de* are based on the semantic nature of definiteness.

Section 5.2 points out the two distinct pathways in the development of nominalization, genitivation, and relativization in the Sino-Tibetan languages. In the first pathway, all of the Chinese dialects use an identical morpheme as a nominalizer, a relativizer, and a genitive marker; all of those markers in Chinese are simply expressions of definiteness. In the second pathway, many of the Tibetan-Burman languages apply nominalization-relativization syncretism in which they use one marker for nominalization and relativization, and another different marker for genitivation.

Within this typological classification, the idea that Labo Naxi, Mosuo and Naxi derived from the same ancestor, Proto-Na, is problematic. However, these contemporary languages show divergent evolution in their nominalization, genitivization, and relativization. Naxi *gə* is used as a genitive marker, a relativizer, and a nominalizer, but Labo Naxi and Mosuo use a cognate marker *i* for nominalization and relativization and use other markers *na* and *bu*<sup>33</sup> for genitivization, respectively. This shows that the development of Naxi *gə* is due to contact with the authoritative Chinese language in its Late Medieval, Pre-Modern, and Modern Chinese forms (from 960 to 1900 A.D.); *gə* was a loanword borrowed from the most general-purpose classifier *gə* (个) in Mandarin.

Another puzzle that arose earlier than that of Naxi *gə* is the polysemous morpheme *ve* in Lahu (Matisoff 1972:237-258). Like Naxi *gə*, Lahu *ve* is also a single morpheme used as a genitive marker, a relativizer, and a nominalizer. In searching available literature on Tibeto-Burman linguistics, I found that this “3 in 1” (three functions in one morpheme) phenomenon only occurs in Hani, Lahu, and Naxi. Is there any plausible explanation for the development of Lahu *ve* and Hani *və*?

The puzzle of Lahu *ve* has probably remaining unsolved for several decades because scholars have overlooked the influence of external factors, especially contact-induced change. In addition, the etymology of Lahu *ve* is still arguable. DeLancey (to appear) mentions that “the first serious study of a final particle construction in Tibeto-Burman is Matisoff’s (1972) description of *ve* in the Loloish language Lahu. Matisoff (1985) identifies *ve*, as well as the Jinghpaw final particle *ai*, and others, as reflexes of the same Proto-Tibeto-Burman copula *\*way*”.

However, Lahu  $ve^{33}$  could be a nominalizer rather than a copula. DeLancey (to appear) mentions that the general structure of a nominalized clause construction in a verb-final language is “verb stem—nominalizer—(copula)”. According to Chang’s (1986) *Lahuyu Jianzhi* (拉祜语简志 (A grammar of Lahu)), Lahu  $ve^{33}$  used as a particle in the final position of the construction usually occurs in the pattern: “verb stem— $ve^{33}$ —( $zu^{31}$ )”; the optional  $zu^{31}$  is a common copula in Lahu;  $ve^{33}$  could be a nominalizer. Data collection from various dialects of Lahu speakers is necessary before conducting a further investigation.

## APPENDIX A

### LIST OF ABBREVIATIONS

1S	first singular
1D	first dual
2S	second singular
3S	third singular
Acc	accusative
Adv	adverb
Asp	aspect
Cl	classifier
Cmpr	comparative
Comp	complement
Cont	continuous aspect
Cop	copula
Def	definite
Erg	ergative
Evid	evidential
Gen	genitive
Impfv	imperfective
Neg	negative
Nml	nominalizer
NP	noun phrase
Perf	perfective
Pl	plural
Prog	progressive
Prt	particle
Ques	question particle
Rel	relativizer
Subj	subject
V	verb

**APPENDIX B**

**REFERENCES & RECONSTRUCTIONS FOR \*VOICED INITIALS IN**

**CHINESE**

		Karlgren's (高本汉) Reconstruction	<i>Han zi gu jin yin hui</i> (page)	<i>Hanyu fangyan cihui</i> (page)	<i>Jiangsusheng he Shanghai shi fangyan gaikuang</i> (page)
1	thin (薄)	*buak	292	352	650
2	pull out (拔)	*buat	113	270	576
3	butterfly (蝶)	*diɛp	302	56	604
4	wax (腊)	*lap	273	152	579
5	deer (鹿)	*luk	421	34	635
6	stone (石)	*dziæk	223	30	619
7	honey (蜜)	*miɪt	300	106	621
8	wheat (麦)	*muək	423	71	647
9	hot (热)	*niæt	186	379	589
10	sun; day (日)	*niɪt	132	14	619



APPENDIX C

REFERENCES & RECONSTRUCTIONS FOR \*VOICELESS INITIALS IN

CHINESE

		Karlgren's (高本汉) Reconstruction	<i>Han zi gu jin yin hui</i> (page)	<i>Hanyu fangyan cihui</i> (page)	<i>Jiangsusheng he Shanghaishi fangyan gaikuang</i> (page)
1	pen (笔)	*piuet	238	183	619
2	peel (剥)	*pok	24	277	593
3	pick (摘)	*t <sup>h</sup> iek	120	262	648
4	bamboo(竹)	*tiuk	237	169	637
5	color (色)	*siɪk	277	249	587
6	snow (雪)	*siuæt	383	5	612
7	rule (尺)	*ts <sup>h</sup> iæk	75	158	616
8	holiday (节)	*tsiet	240	23-24	606
9	pigeon (鸽)	*kəp	417	39	590
10	horn (角)	*kok	317	242	651

**APPENDIX D**

**IPA DESCRIPTIONS FOR WU DIALECTS (\*VOICED INITIALS)**

		Karlgren (高本汉)	Suzhou	Wuxi	Shanghai	Wenzhou
1	thin (薄)	*buak	boʔ23	bɔʔ2	boʔ2	bo12
2	pull out (拔)	*buat	baʔ23	baʔ2	baʔ2	bo12
3	butterfly (蝶)	*diɛp	diɪʔ23	laʔ2	laʔ2	di12
4	wax (腊)	*lap	laʔ23	lɔʔ2	loʔ2	la12
5	deer (鹿)	*luk	loʔ23	lɔʔ2	loʔ2	ləu12
6	stone (石)	*dziæk	zɔʔ23	zaʔ2	zaʔ2	zei12
7	honey (蜜)	*miɪt	miɪʔ23	miʔ2	miʔ2	mi13
8	wheat (麦)	*muək	mɔʔ23	maʔ2	maʔ2	ma12
9	hot (热)	*niæt	ɲiɪʔ23	ɲiəʔ2	ɲiəʔ2	ɲi12
10	sun; day (日)	*niɪt	ɲiɪʔ23	ɲiəʔ2	ɲiəʔ2	nE12

APPENDIX E

IPA DESCRIPTIONS FOR WU DIALECTS (\*VOICELESS INITIALS)

		Karlgren (高本汉)	Suzhou	Wuxi	Shanghai	Wenzhou
1	pen (笔)	*piuet	piɪʔ4	piəʔ5	piəʔ5	pi23
2	peel (剥)	*pok	poʔ4	pɔʔ5	poʔ5	po23
3	pick (摘)	*t <sup>h</sup> iek	tsɔʔ4	tsaʔ5	tiəʔ5	tsa23
4	bamboo(竹)	*tiuk	tsoʔ4	tsɔʔ5	tsoʔ5	tɕiu23
5	color (色)	*siɪk	sɤʔ4	səʔ5	səʔ5	sE23
6	snow (雪)	*siuæt	siɪʔ4	siəʔ5	siəʔ5	ɕy23
7	rule (尺)	*ts <sup>h</sup> iæk	tshɔʔ4	tshaʔ5	tshaʔ5	tshei23
8	holiday (节)	*tsiet		tsiəʔ5	tsiəʔ5	
9	pigeon (鸽)	*kəp	kɤʔ4	kəʔ5	kəʔ5	ky23
10	horn (角)	*kok	koʔ4	kɔʔ5	koʔ5	ko23

**APPENDIX F**

**IPA DESCRIPTIONS FOR HAKKA & MIN DIALECTS (\*VOICED INITIALS)**

		Karlgren (高本汉)	Meixian	Xiamen	Chaozhou	Fuzhou
1	thin (薄)	*buak	phɔk4	poʔ5	poʔ4	pɔʔ4
2	pull out (拔)	*buat		puiʔ5	poiʔ4	peiʔ4
3	butterfly (蝶)	*diɛp		iaʔ5	iaʔ4	tieʔ4
4	wax (腊)	*lap	lap4	laʔ5	laʔ4	laʔ4
5	deer (鹿)	*luk	luk4	lɔk5	tek4	løyʔ4
6	stone (石)	*dziæk	sak4	tshioʔ5	tsieʔ4	suɔʔ4
7	honey (蜜)	*miɪt	mɛt4	bit5	bik4	miʔ4
8	wheat (麦)	*muək	mak4	beʔ5	beʔ4	maʔ4
9	hot (热)	*niæt	ɲiat4	liat5		ieʔ4
10	sun; day (日)	*niɪt	ɲit21	lit5	zik4	niʔ4

APPENDIX G

IPA DESCRIPTIONS FOR HAKKA & MIN DIALECTS (\*VOICELESS INITIALS)

		Karlgren (高本汉)	Meixian	Xiamen	Chaozhou	Fuzhou
1	pen (笔)	*piuət	pit21	pit32	pik21	peiʔ23
2	peel (剥)	*pok	pɔk21	pak32	pak21	puɔʔ23
3	pick (摘)	*t <sup>h</sup> iek	tsak21	tiaʔ32	tiaʔ21	tieʔ23
4	bamboo(竹)	*tiuk	tsuk21	tik32	tek21	tɔyʔ23
5	color (色)	*siɪk	sət21	sik32	sek21	
6	snow (雪)	*siuæt	siæt21	seʔ32	soʔ21	suɔʔ23
7	rule (尺)	*ts <sup>h</sup> iæk	tshak21	tshioʔ32	tshieʔ21	tshuɔʔ23
8	holiday (节)	*tsiæt	tsiæt21	tsueʔ32	tsoiʔ21	
9	pigeon (鸽)	*kəp	kap21	kap32		kaʔ23
10	horn (角)	*kok	kɔk21	kak32	khak21	kɛyʔ23

**APPENDIX H**

**IPA DESCRIPTIONS FOR MANDARIN DIALECTS (\*VOICED INITIALS)**

		Beijing	Shenyang	Xian	Xuzhou	Pixian	Jinan
1	thin (薄)	pau35	pau35	pho24	pə55	pə55	pə42
2	pull out (拔)	pa35	pa35	pha24	pa55	pa55	pa42
3	butterfly(蝶)	tier35	tier213		tiə55	tie55	tie42
4	wax (腊)	la51	la41	la21	la313	la313	la21
5	deer (鹿)	lu51	lu41	lou21	lu313	lu313	lu21
6	stone (石)	ʃɿ35	sɿ35	ʃɿ24	ʃɿ55	ʃɿ55	ʃɿ42
7	honey (蜜)	mi51	mi41		mi313	mi313	mi21
8	wheat (麦)	mai51	mai41	mei21	me313	mei313	mei21
9	hot (热)	zə51	ie41	zə21	zə313	zə313	zə21
10	sun; day (日)	zɿ51	i41	ə21	zɿ313	zɿ313	zɿ21

APPENDIX I

IPA DESCRIPTIONS FOR MANDARIN DIALECTS (\*VOICELESS INITIALS)

		Beijing	Shenyang	Xian	Xuzhou	Pixian	Jinan
1	pen (笔)	pi214	pi213	pi21	pe313	pei313	pei213
2	peel (剥)	pau55	pau33	po21	puə313	puo313	pə213
3	pick (摘)	tʂai55	tsai35	tsei21	tʂe313	tʂei313	tʂei213
4	bamboo(竹)	tʂu35	tsu35	tsou21	tʂu313	tʂu313	tʂu213
5	color (色)	ʂair51	sai213	sei21	se313	ʂei313	ʂei213
6	snow (雪)	ɕye214	ɕye213	ɕye21	ɕye313	ɕye313	ɕye213
7	rule (尺)	tʂhɿ214	tʂhɿ213	tʂhɿ21	tʂhɿ313	tʂhɿ313	tʂhɿ213
8	holiday (节)	tɕie35	tɕie213	tɕie21	tɕie313	tɕie313	tɕie213
9	pigeon (鸽)	kə55	kə33	kə21	kə313	kə313	
10	horn (角)	tɕiau214	ka33		tɕyə313	tɕyə313	ka213

**APPENDIX J**

**IPA DESCRIPTIONS FOR CANTONESE DIALECTS (\*VOICED INITIALS)**

		Karlgren (高本汉)	Yangjiang	Guangzhou
1	thin (薄)	*buak	pɔk454	pɔk33
2	pull out (拔)	*buat		pət2
3	butterfly (蝶)	*diɛp	tip454	thie22
4	wax (腊)	*lap	lap454	lap22
5	deer (鹿)	*luk	lɔk454	lɔk2
6	stone (石)	*dziæk	ʃik454	ʃɛk22
7	honey (蜜)	*miɪt	mət454	met2
8	wheat (麦)	*muək	mək454	mək2
9	hot (热)	*niæt	jit454	jit22
10	sun; day (日)	*niɪt	jet454	jit22



## APPENDIX K

### IPA DESCRIPTIONS FOR CANTONESE DIALECTS (\*VOICELESS INITIALS)

		Karlgren (高本汉)	Yangjiang	Guangzhou
1	pen (笔)	*piuet	pət24	pət5
2	peel (剥)	*pok	mək24	mək33
3	pick (摘)	*t <sup>h</sup> iek		tʃak33
4	bamboo(竹)	*tiuk	tʃək24	tʃək5
5	color (色)	*siɪk	ʃɪk24	ʃɪk5
6	snow (雪)	*siuæt		ʃyt33
7	rule (尺)	*ts <sup>h</sup> iæk	tʃhɪk24	tʃhək33
8	holiday (节)	*tsiet	tʃit21	tʃit33
9	pigeon (鸽)	*kəp	kəp21	kap33
10	horn (角)	*kok	kək21	kək33

APPENDIX L

IPA DESCRIPTIONS FOR MANDARIN DIALECTS, XIANG, AND GAN

(\*VOICED INITIALS)

		Yangzhou	Nanjing	Chengdu	Kunming	Changsha	Nanchang
1	thin (薄)	pɑʔ4	poʔ5	po31	po31	po24	phək5
2	Pull out (拔)	pæʔ4	paʔ5	pha31	pa31	pa24	phat5
3	butterfly(蝶)	thiəʔ4	theʔ5	tie31	tie31	thie24	thiet5
4	wax (腊)	æʔ4	laʔ5	na31	la31	la24	lat5
5	deer (鹿)	lɔʔ4	luʔ5	nu31	lu31	ləu24	luk5
6	stone (石)	səʔ4	ʃɪʔ5	sɪ31	ʃɪ31	sɪ24	sak5
7	honey (蜜)	miəʔ4	miʔ5		mi31	mi24	mit5
8	wheat (麦)	mɔʔ4	məʔ5	me31	mə31	mə24	mat5
9	hot (热)	iəʔ4	zəʔ5	ze31	zə31	ye24	lɛt5
10	sun;day(日)	ləʔ4	zɪʔ5	zɪ31	zɪ31	zɪ24	jit5

APPENDIX M

IPA DESCRIPTIONS FOR MANDARIN DIALECTS, XIANG, AND GAN

(\*VOICELESS INITIALS)

		Yangzhou	Nanjing	Chengdu	Kunming	Changsha	Nanchang
1	pen (笔)	piəʔ4	piʔ5	pi31	pi31	pi24	pit5
2	peel (剥)	paʔ4	poʔ5	po31	po31	po24	pət5
3	pick (摘)	tsəʔ4	tsəʔ5	tse31	tsə31	tsə24	tsak5
4	bamboo(竹)	tsɔʔ4	tʂuʔ5	tsu31	tʂu31	tsəu24	tsuk5
5	color (色)	seʔ4	səʔ5	se31	sə31	sə24	sət5
6	snow (雪)	ɕyeʔ4	ɕyeʔ5	ɕye31	ɕie31	ɕie24	ɕyət5
7	rule (尺)	tshəʔ4	tʂhɿʔ5	tʂhɿ31	tʂhɿ31	tʂhɿ24	tshak5
8	holiday (节)	tɕieʔ4	tɕieʔ5	tɕie31	tɕie31	tɕie24	
9	pigeon (鸽)	kəʔ4	koʔ5	ko31	kuo31	ko24	kət5
10	horn (角)	kaʔ4	koʔ5	ko31	kuo31	ko24	kək5

**APPENDIX N**

**REFERENCES & RECONSTRUCTIONS FOR \*VOICED INITIALS IN YI AND**

**LOLOISH**

		Bradley's Reconstruction (*L) & (No.)	Matisoff's Reconstruction (*LB) & (No.)	<i>The Tibeto-Burman Lexicon Huang (ed.)/(No.)</i>
1	hand	*lak/L (111)	*lak/L (166)	107
2	pig	*wak/L (21)	*wak/L (168)	284
3	year	*C-kok/L (477B)	*C-kok/L (34)	777
4	enough	*lok/L (560)	*lok/L (164)	1349
5	six	*C-krok/L (483)	*C-krok/L (35)	802
6	waist	*ap/L (118)	*gyok/L (6) *džok/L	98
7	lick	*m-lyak/L (630)	*ʔlyak/L (179) *m-lyak/L	1674
8	vomit	*C-pat/L (577)	*C-pat/L (38)	1688
9	needle	*g-rap/L (382)	*rap/L (191)	578
10	sleep	*yip/L (735)	*(?)yip/L (180)	1646
11	goat	*(K)-cit/L (4)	*V-cit/L (27)	276
12	bite	*C-tsat/L (634A)	*C-tsat/L (24)	1753
13	hungry	*C-mwat/L (637)	*mwat/L (132)	1298
14	brain	*(C)-nok/L (140)	*(?)nok/L (156)	132
15	stand	*ʔ-ryap/L (687)	*ʔrap/L (175)	1784
16	thirsty	*C-sip/L (638)	*C-sip/L (129)	1478
17	eight	*C-yet/L (485)	*ʔrit/L (171)	804
18	new	*C-ʃik/L (536)		1050
19	boil	*C-sak/L (644)	*(?)gyak/L (61)	1804
20	kill	*C-sat/L (706)	*C-sat/L (124)	1602
21	sew	*gyup/L (680)	*(?)grup/L (63)	1324

Note that \*C-prefix is a cover-symbol which indicates \*b, \*d, \*g, and \*l prefixes in \*TB.

**APPENDIX O**

**REFERENCES & RECONSTRUCTIONS FOR \*VOICELESS INITIALS IN YI**

**AND LOLOISH**

		Bradley's Reconstruction (*H)	Matisoff's Reconstruction (*LB) & (No.)	<i>The Tibeto-Burman Lexicon Huang (ed.)/(No.)</i>
1	chicken	*k-rak/H (50)	*k-rak/H (184)	293
2	black	*c-nak/H (503)	*s-nak/H (142)	1005
3	bean	*s-nok/H (276A)	*s-nok/H (140)	430
4	come out	*ʔ-dwak/H (656)	*ʔtwak/H (102) *Ntwak/H	1207/1208
5	be afraid	*(sə)-grok/H (689)	*ʔkrok/H (104) *Nkrok/H	1366
6	shoot	*ʔ-m-pok/H (337)	*Npök/H (108)	1611/1612
7	eye	*c-myak/H (92)	*s-myak/H (145)	79
8	blow	*s-mut/H (690)	*s-mut/H (143)	1219
9	ascend/ go up	*ʔ-dak/H (652)	*ʔtak/H (98) *Ntak/H	1609
10	cold	*c-grak/H (514)	*ʔkrak/H (99) *Nkrak	1063
11	sharp	*tak/H (543)	*tak/H (41)	1020
12	tree	*sik/H (303)	*sik/H (118)	372
13	bird	*s-ɲyak/H (48)	*s-ɲak/H (141)	326

**APPENDIX P**

**IPA DESCRIPTIONS FOR YI DIALECTS (\*VOICED INITIALS)**

		Matisoff's Reconstruction (*LOW)	Yi
1	hand	*lak/L	Weishan: l <sub>1</sub> 21; Mile: le2; Lunan: le2; Xide: lo55; Wuding: l <sub>α</sub> 55; Luquan: la55; Nanhua: le21; Sani: le2
2	pig	*wak/L	Weishan: v <sub>1</sub> 21; Mile: ve2; Lunan: ve2; Xide: vo55; Wuding: v <sub>α</sub> 55; Luquan: va55; Nanhua: ve21; Sani: ve2
3	year	*C-kok/L	Weishan: kho21; Mile: khu2; Lunan: qho2; Xide: khu55; Wuding: khu55; Luquan: kho55; Nanhua: khu55; Sani: qhu3
4	enough	*lok/L	Weishan: ʔlo21; Mile: lu2; Lunan: lo2; Xide: lu55; Wuding: lu55; Luquan: lo55; Nanhua: lo21; Sani: lu2
5	six	*C-krok/L	Weishan: kho21; Mile: tʂhu2; Lunan: kho2; Xide: fu55; Wuding: tɕhu55; Luquan: tɕho55; Nanhua: tɕho55; Sani: khu2
6	waist	*gyok/L	Weishan: dz <sub>o</sub> 21; Mile: dz <sub>u</sub> 21; Lunan: dz <sub>o</sub> 2; Xide: dz <sub>u</sub> 55; Wuding: dz <sub>u</sub> 55; Luquan: dz <sub>o</sub> 55; Nanhua: dz <sub>u</sub> 21; Sani: dz <sub>u</sub> 2
7	lick	*m-lyak/L	Weishan: la21; Mile: ʎa2; Lunan: ʎa2; Xide: zo55; Wuding: lə55; Luquan: lə55; Nanhua: lə21; Sani: ʎa2
8	vomit	*C-pat/L	Weishan: tʂh <sub>1</sub> 21; Mile: phi2; Lunan: ph <sub>1</sub> 2; Xide: p <sub>α</sub> 55; Wuding: ti55; Luquan: phi55; Nanhua: p <sub>α</sub> 55; Sani: ph <sub>1</sub> 2
9	needle	*rap/L	Weishan: y21; Mile: ve2; Lunan: vɤ2; Xide: zi55; Wuding: vɤ55; Luquan: vɤ55; Nanhua: və21; Sani: vɤ2
10	sleep	*(?)yip/L	Weishan: ʔ <sub>1</sub> 21; Xide: i55; Wuding: ji55; Nanhua: ʔ <sub>i</sub> 21; Sani: ji2
11	goat	*V-cit/L	Weishan: tʂh <sub>1</sub> 21; Xide: tʂh <sub>1</sub> 55; Wuding: tʂh <sub>1</sub> 55; Luquan: tʂhi55; Nanhua: tʂh <sub>1</sub> 55; Sani: tɕhi2
12	bite	*C-tsat/L	Weishan: kho21; Xide: ɕi55; Wuding: tɕhɤ55; Luquan: tɕhɤ55; Nanhua: kh <sub>α</sub> 55; Sani: qhu2
13	hungry	*mwat/L	Weishan: mu21; Xide: mi55; Wuding: ji55; Luquan: ji55; Nanhua: me21; Sani: n2

14	brain	*(? )nok/L	Weishan: ʔno21; Mile: nu2; Lunan: no2; Xide: no55; Wuding: nu55; Luquan: no2; Nanhua: nu21; Sani: nu44
15	stand	*ʔrap/L	Weishan: hy21; Mile: xo2; Lunan: hɤ2; Xide: hi55; Wuding: he55; Luquan: he55; Nanhua: xə21; Sani: hɤ2
16	thirsty	*C-sip/L	Weishan: sɿ21; Xide: sɿ55; Wuding: si55; Luquan: si55; Nanhua: ɕɿ55; Sani: sz2
17	eight	*ʔrit/L	Weishan: hɿ21; Xide: hi55; Wuding: hi55; Luquan: hi55; Nanhua: xe21; Sani: he2
18	new	*C-ʃik/L	Weishan: xu21; Xide: ʃɿ55; Wuding: ɕi55; Nanhua: ɕi55; Sani: ɕi2
19	boil	*(? )gyak/L	Weishan: tɕɿ21; Xide: tɕo55; Wuding: tɕa55; Nanhua: tɕe55; Sani: tɕe55
20	kill	*C-sat/L	Weishan: ɕɿ21; Xide: si55; Nanhua: se55
21	sew	*(? )grup/L	Weishan: gu21; Xide: gu55; Wuding: nə55; Nanhua: nə21; Sani: nɑ2

APPENDIX Q

IPA DESCRIPTIONS FOR YI DIALECTS (\*VOICELESS INITIALS)

		Matisoff's Reconstruction (*HIGH)	Yi
1	chicken	*k-rak/H	Weishan: zɿ33; Mile: ze33; Lunan: ze4; Xide: va33; Wuding: va2; Luquan: va2; Nanhua: zi33; Sani: je44
2	black	*s-nak/H	Weishan: nɿ33; Mile: ne33; Lunan: ne4; Xide: nɔ33; Wuding: nɑ2; Luquan: na2; Nanhua: ne33; Sani: ne44
3	bean	*s-nok/H	Weishan: no33; Mile: nu33; Lunan: no4; Xide: nu33; Wuding: nu2; Luquan: no2; Nanhua: no33; Sani: nu44
4	come out	*ʔtwak/H	Weishan: do33; Mile: du33; Lunan: do4; Xide: du33; Wuding: du2; Luquan: do2; Nanhua: du33; Sani: du44
5	be afraid	*ʔkrok/H	Weishan: go33; Mile: dz u33; Lunan: go4; Xide: dzu33; Wuding: tɕi2; Luquan: dzo2; Nanhua: tɕi55; Sani: gu44
6	shoot	*Npɔk/H	Weishan: ba33; Mile: ba33; Lunan: ba4; Xide: mbe33; Wuding: mphə2; Luquan: mbhə2; Nanhua: bæ33; Sani: ba44
7	eye	*s-myak/H	Weishan: ʔmɿ33; Xide: ɲɔ33; Wuding: nɑ2; Nanhua: me33; Sani: ne44
8	blow	*s-mut/H	Weishan: ʔm33; Xide: mo33; Wuding: mɯ2; Nanhua: mɯ33; Sani: m44
9	ascend	*ʔtak/H	Weishan: dɿ33; Mile: de33; Lunan: de4; Xide: li33; Wuding: da2; Luquan: da2; Nanhua: de33; Sani: de44
10	cold	*ʔkrak/H	Weishan: gu33; Xide: ŋgo33; Wuding: dza2; Nanhua: ɲæ33; Sani: ŋe33
11	sharp	*tak/H	Weishan: ʔna55; Mile: the33; Lunan: the4; Xide: thɔ33; Wuding: tha2; Luquan: tha2; Nanhua: the33; Sani: the44
12	tree	*sik/H	Weishan: sɿ33; Mile: si33; Lunan: si4; Xide: sɿ33; Wuding: si2; Luquan: si2; Nanhua: ɕi33; Sani: sz44
13	bird	*s-ŋak/H	Weishan: n33; Xide: tsɿ33; Wuding: ŋɑ2; Nanhua: ɲæ33; Sani: ŋe33



**APPENDIX R**

**REFERENCES FOR \*VOICED INITIALS IN NAXI AND MOSUO**

		<u>Naxi</u>  <i>Naxiyujianzhi</i> (纳西语简志)	<u>Mosuo</u>  <i>Naxiyujianzhi</i> (纳西语简志) & <i>A Descriptive Grammar of Yongning Na</i> (Mosuo)
1	hand	He (1985:143)	He (1985:143)
2	pig	He (1985:139)	He (1985:139)
3	year	He (1985:137)	He (1985:137)
4	enough	Huang (1992, no.1349)	Lidz (2010:795)
5	six	He (1985:170)	He (1985:170)
6	waist	He (1985:144)	He (1985:144)
7	lick		
8	vomit	He (1985:155)	He (1985:155)
9	needle	He (1985:150)	He (1985:150)
10	sleep	He (1985:157)	He (1985:157)
11	goat	He (1985:139)	He (1985:139)
12	bite	Huang (1992, no.1753)	Lidz (2010:821)
13	hungry		
14	brain		Lidz (2010:796)
15	stand	He (1985:156)	He (1985:156)
16	thirsty		
17	eight	He (1985:170)	He (1985:170)
18	new	He (1985:168)	Lidz (2010:818)
19	boil	He (1985:158)	He (1985:158)
20	kill	He (1985:159)	He (1985:159)
21	sew		

**APPENDIX S**

**REFERENCES FOR \*VOICELESS INITIALS IN NAXI AND MOSUO**

		<u>Naxi</u>  <i>Naxiyujianzhi</i> (纳西语简志)	<u>Mosuo</u>  <i>Naxiyujianzhi</i> (纳西语简志) & <i>A Descriptive Grammar of Yongning Na</i> (Mosuo)
1	chicken	He (1985:139)	He (1985:139)
2	black	He (1985:167)	He (1985:167)
3	bean	He (1985:141)	He (1985:141)
4	come out	Huang (1992, no.656)	
5	be afraid	He (1985:162)	Lidz (2010:776)
6	shoot		
7	eye	He (1985:143)	He (1985:143)
8	blow	He (1985:155)	He (1985:155)
9	ascend/ go up	He (1985:163)	He (1985:163)
10	cold		
11	sharp	Huang (1992, no.543)	Lidz (2010:820)
12	tree		Lidz (2010:815)
13	bird		

**APPENDIX T**

**IPA DESCRIPTIONS FOR POSSIBLE LOLOISH & BURMISH (\*VOICED**

**INITIALS)**

		Matisoff's Reconstruction (*Low)	Loloish & Burmish
1	hand	*lak/L	Lahu: la21; Hani (Luchun): la31; Hani (Mojiang): la31; Lisu: lɛ31; Jinou: la55; Naxi: la31; Mosuo: la31; Written Burmese: lak4; Burmese: lɛʔ4; Achang: loʔ55
2	pig	*wak/L	Lahu: va21; Hani (Luchun): va31; Hani (Mojiang): ja31; Lisu: vɛ31; Jinou: va55; Naxi: mbu31; Mosuo: bu13; Written Burmese: wak4; Burmese: wɛʔ4; Achang: oʔ55
3	year	*C-kok/L	Lahu: qhɔ21; Hani (Luchun): xu31; Hani (Mojiang): xv31; Lisu: kho31; Naxi: khu55; Mosuo: khu13; Written Burmese: hnɔs4; Burmese: niʔ4; Achang: nək55
4	enough	*lok/L	Lahu: lo21; Hani (Luchun): lu31; Hani (Mojiang): lv31; Lisu: lo31; Jinou: lo55; Naxi: lu31; Mosuo: lu31; Written Burmese: lok4; Burmese: lauʔ4
5	six	*C-krok/L	Lahu: khɔ21; Hani (Luchun): ku31; Hani (Mojiang): khv31; Lisu: tɕho31; Jinou: tɕho44; Naxi: tɕho55; Mosuo: khɛr13 Written Burmese: khroʔk4; Burmese: tɕhauʔ4; Achang: xzoʔ55
6	waist	*gyok/L	Lahu: tɕo21; Hani (Luchun): tsɿ31; Hani (Mojiang): tshɿ31; Lisu: dzo31; Jinou: tʃo55; Naxi: thw55; Mosuo: tɕa13
7	lick	*m-lyak/L	Lahu: lɛ21; Hani (Luchun): mje31; Hani (Mojiang): mɿ31; Lisu: lu31; Jinou: mrə55; Written Burmese: jak4 ; Burmese: jɛʔ4; Achang: liap55
8	vomit	*C-pat/L	Lahu: phe21; Jinou: phi55; Naxi: phy55; Mosuo: phi13
9	needle	*rap/L	Lahu: vo21; Hani (Luchun): vo31; Hani (Mojiang): vo31; Jinou: kə55; Naxi: ko31; Mosuo: vo13; Written Burmese: ap4; Burmese: aʔ4; Achang: ap55
10	sleep	*(?)yip/L	Lahu: zi21; Hani (Luchun): ju31; Hani (Mojiang): ʒv31; Jinou: ji55; Naxi: i55; Mosuo: zɿ13; Written Burmese: ip4; Burmese: eʔ4

11	goat	*V-cit/L	Lahu: tɕhe21; Hani (Luchun): tsi31; Hani (Mojiang): tʃhɿ31; Lisu: tʃhi31; Jinou: tshɿ55; Naxi: tshu55; Mosuo: tshu13; Written Burmese: shit4; Burmese: sheʔ4; Achang: paʔ55
12	bite	*C-tsat/L	Lahu: tɕhe21; Hani (Luchun): ko31; Hani (Mojiang): kho31; Lisu: kho31; Jinou: thə55; Naxi: thər55; Mosuo: thæ13; Written Burmese: kok4; Burmese: kaiʔ4
13	hungry	*mwat/L	Lahu: mɿ21; Hani (Luchun): mi31; Hani (Mojiang): me31; Lisu: mu31; Jinou: mæ55; Achang: ʃut55
14	brain	*(?)nok/L	Lahu: nɔ21; Hani (Luchun): nɔ31; Hani (Mojiang): nɿ31; Lisu: nu55; Jinou: no55; Mosuo: ʃu13; Written Burmese: hnɔk4; Burmese: nauʔ4; Achang: nuʔ31
15	stand	*ʔrap/L	Lahu: xu35; Hani (Luchun): ɕo31; Hani (Mojiang): ʃo31; Lisu: he31; Jinou: xɛ55; Naxi: ɕy55; Mosuo: xɿ13; Written Burmese: rap4; Burmese: jaʔ4; Achang: zap55
16	thirsty	*C-sip/L	Lahu: ɕi35; Hani (Mojiang): ʃv31; Lisu: se31; Jinou: ɕi55; Written Burmese: ɲat4; Burmese: ɲaʔ4; Achang: ʃut55
17	eight	*ʔrit/L	Lahu: xi35; Hani (Luchun): ɕe31; Hani (Mojiang): xɛ31; Lisu: he31; Jinou: xɛ44; Naxi: ɣo55; Mosuo: xo13; Written Burmese: hras4; Burmese: ɕiʔ4; Achang: ɕet55
18	new	*C-ʃik/L	Lahu: si35; Hani (Luchun): ʃɿ31; Hani (Mojiang): sɿ31; Lisu: ʃi31; Jinou: ɕi55; Naxi: ʃɿ55; Mosuo: ʃu13; Written Burmese: tθas4; Burmese: tθiʔ4; Achang: ʃək55
19	boil	*(?)gyak/L	Lahu: tɕa35; Hani (Luchun): tʃha31; Hani (Mojiang): tɕa31; Lisu: tɕa55; Jinou: tʃha55; Naxi: tɕiə55; Mosuo: tɕa13; Written Burmese: khjak4; Burmese: tɕhɛʔ4
20	kill	*C-sat/L	Hani (Luchun): si31; Hani (Mojiang): se31; Lisu: se31; Jinou: sɛ55; Naxi: sər55; Mosuo: su13 Written Burmese: tθat4; Burmese: tθaʔ4; Achang: sat55
21	sew	*(?)grup/L	Hani (Luchun): kv31; Hani (Mojiang): gu31; Lisu: dʒi31; Jinou: tɕu55 Written Burmese: khjup4; Burmese: tɕhoʔ4; Achang: xzop55

**APPENDIX U**

**IPA DESCRIPTIONS FOR POSSIBLE LOLOISH & BURMISH (\*VOICELESS**

**INITIALS)**

		Matisoff's Reconstruction (*HIGH)	Loloish & Burmish
1	chicken	*k-rak/H	Lahu: ɣa54; Hani (Luchun): xa33; Hani (Mojiang): xa33; Lisu: ɣa33; Jinou: ja42; Naxi: æ31; Mosuo: a13; Written Burmese: krak4; Burmese: tɕɛʔ4 Achang: kzuaʔ55
2	black	*s-nak/H	Lahu: na54; Hani (Luchun): na33; Hani (Mojiang): na33; Lisu: nɛ33; Jinou: na42; Naxi: na31; Mosuo: na13; Written Burmese: nak4; Burmese: nɛʔ4; Achang: lək55
3	bean	*s-nok/H	Lahu: no54; Hani (Luchun): nɤ33; Hani (Mojiang): nu33; Lisu: no33; Naxi: nu31; Mosuo: nu31; Achang: tsheʔ31
4	come out	*ʔtwak/H	Lahu: to54; Hani (Luchun): tv33; Hani (Mojiang): du33; Lisu: do33; Jinou: to42; Naxi: thv33; Written Burmese: thwak4; Burmese: thwɛʔ4; Achang: thoʔ55
5	be afraid	*ʔkrok/H	Lahu: ko54; Hani (Luchun): kv33; Hani (Mojiang): gu33; Lisu: dzo33; Jinou: khø33; Naxi: zər33; Mosuo: dwæ13; Written Burmese: krək4; Burmese: tɕauʔ4; Achang: zoʔ55
6	shoot	*Np ök/H	Lahu: bo54; Hani (Luchun): pɤ33; Hani (Mojiang): bɤ33; Lisu: bu33; Jinou: pə42; Written Burmese: pas4; Burmese: piʔ4; Achang: pək55
7	eye	*s-myak/H	Lahu: mɛ54; Hani (Luchun): ma33; Hani (Mojiang): mja33; Lisu: miɛ33; Jinou: mja42; Naxi: miə31; Mosuo: ɲa31; Written Burmese: mjak4; Burmese: mjɛʔ4; Achang: ɲoʔ55

8	blow	*s-mut/H	Lahu: mɿ54; Hani (Luchun): mɿ33; Lisu: mu33; Naxi: mu31; Mosuo: mu13; Written Burmese: hmut4; Burmese: moʔ4; Achang: mut55
9	ascend	*ʔtak/H	Lahu: ta54; Hani (Luchun): ta33; Hani (Mojiang): da33; Lisu: dɛ33; Jinou: ta42; Naxi: ndo33; Mosuo: do33; Written Burmese: tak4; Burmese: tɛʔ4; Achang: tɔʔ35
10	cold	*ʔkrak/H	Lahu: ka54; Hani (Luchun): ka33; Lisu: dzɛ33; Achang: kzuat55; Achang: kzuat55
11	sharp	*tak/H	Lahu: tsi54; Hani (Luchun): tha33; Hani (Mojiang): ta33; Lisu: tshɛ35; Jinou: tha42; Naxi: tha55; Mosuo: tha13; Written Burmese: thak4; Burmese: thɛʔ4; Achang: thɔʔ55
12	tree	*sik/H	Lahu: si54; Lisu: si35; Jinou: su44; Mosuo: su33; Written Burmese: tθas4; Burmese: tθiʔ4
13	bird	*s-ŋak/H	Lahu: ŋa54; Lisu: ɲiɛ35; Jinou: ŋa42; Written Burmese: hŋak4; Burmese: ŋɛʔ4; Achang: moʔ55

## REFERENCES CITED

- Bennett, Paul A. 1981. The evolution of passive and disposal sentences. *Journal of Chinese Linguistics* 9.61-90.
- Beyer, Stephan V. 1992. *The Classical Tibetan Language*. Albany: State University of New York Press.
- Bradley, David. 1975. Nahsi and Proto-Burmese-Lolo. *Linguistics of the Tibeto-Burman Area* 2.1.93-150.
- Bradley, David. 1978. *Proto-Loloish (Scandinavian Institute of Asian Studies Monograph No. 39)*. London: Curzon Press.
- Bradley, David. 1979. *Lahu dialects (Issue 23 of Oriental monograph series)*. Canberra: Australian National University Press.
- Chang, Gongen (常肱恩). 1986. *Lahuyu Jian Zhi [拉祜语简志 (A grammar of Lahu)]*. Beijing: Minzu Publisher Press.
- Chao, Y. R. 1930. A system of tone letters. *Le Maitre Phonetique* 45.24-7.
- Chappell, Hilary (曹茜蕾). 1992. Causativity and the *ba* construction in Chinese. *Partizipation: Das sprachliche Erfassen von Sachverhalten*, ed. by Hansjakob Seiler and Walfried Premper, 509-30. Tübingen: Gunter Narr Press.
- Chappell, Hilary (曹茜蕾). 2000. Dialect grammar in two Early Modern Southern Min texts: A comparative Study of dative *kit*, comitative *cang* and diminutive *-guia*. *Journal of Chinese Linguistics* 28.2.247-302.
- Chappell, Hilary (曹茜蕾). 2006. From Eurocentrism to Sinocentrism: the case of disposal constructions in Sinitic Languages. *Catching language: the standing challenge of grammar writing*, ed. by Felix Ameka, Alan Dench and Nicholas Evans, 441-86. Berlin: Mouton de Gruyter Press.
- Chen, Chuseng (陈初生). 1983. Zaoqi chuzhishi luelun [早期处置式略论 (A discussion of disposal construction in the early stage)]. *Zhongguo Yuwen (中国语文)* 3.191-206.
- Chen, Kang (陈康). 1986. Yiyu de sengdiao duiying [彝语的声调对应 (Tonal correspondences in Loloish)]. *Minzuyuwen (民族语文)* 5.30-9.
- Chen, Kang (陈康). 1988. Yiyu de jindiaolei [彝语的紧调类 (Tense tones in Loloish)]. *Minzuyuwen (民族语文)* 1.18-26.

- Chen, Kang (陈康). 1991. Yiyuzhi diaolei quanshi [彝语支调类诠释 (An explanation of tones in Loloish)]. *Minzuyuwen* (民族语文) 3.19-27.
- Chen, Kang (陈康). 1993. Yimianyu seyin yunwei yanbian guiiji [彝缅语塞音韵尾演变轨迹 (Development of syllable-final stops in Lolo-Burmese)]. *Minzuyuwen* (民族语文) 1.22-6.
- Chen, Kang (陈康). 1997. Lun yiyuzhi shengdiao xitong de fasheng yu liebian [论彝语支声调系统的发生与裂变 (The origin of tones and tonal splits in Loloish)]. *Minzuyuwen* (民族语文) 1.8-17.
- Chen, Matthew Y. 2000. *Tone sandhi: patterns across Chinese dialects* (Cambridge. *Studies in Linguistics Vol. 92*). Cambridge: Cambridge University Press.
- Dai, Qingxia (戴庆厦). 1981. Yiyuzhi yuyan de qing zhuo shengmu [彝语支语言的清浊声母 (Voiceless and voiced initial consonants in Loloish)]. *Academic Journal of the Central University for Nationality* (中央民族学院学报) 65-85.
- Dai, Qingxia (戴庆厦). 1992. Yimianyu biguan shengmu de lai yuan ji fazhan [彝缅语鼻冠声母的来源及发展 (The origin and development of pre-nasalized initial consonants in Lolo-Burmese)]. *Minzuyuwen* (民族语文). 1.42-51.
- Dai, Qingxia (戴庆厦), and Zhichao Cui (崔志超). 1985. *A Chang Yu Jian Zhi* [阿昌语简志 (A grammar of Achang)]. Beijing: Minzu Publisher Press.
- DeLancey, Scott. 1984. Etymological notes on Tibeto-Burman. *Linguistics of the Tibeto-Burman area*, ed. by Graham Thurgood 8.1.59-77.
- DeLancey, Scott. 1986. Relativization and nominalization in Tibetan and Newari. Presented at the 19th annual meeting of the International Conference on Sino-Tibetan Languages and Linguistics.
- DeLancey, Scott. 2004. Grammaticalization. *Morphology: An International Handbook on Inflection and Word Formation*, ed. by G. Booij, C. Lehmann, J. Mugdan, and S. Skopeteas, 1590-9. Berlin and New York: De Gruyter Press.
- DeLancey, Scott. 2011. Finite structures from clausal nominalization in Tibeto-Burman languages. *Nominalization in Asian Languages: Diachronic and Typological. Volume I: Sino-Tibetan and Iranian Languages (Typological Studies in Language Series)*, ed. by F.H. Yap & J. Wrona. Amsterdam/Philadelphia: John Benjamins Press; to appear.
- Ding, Sizhi Picus. 2001. Semantic change vs. categorial change: A study of the development of *ba* in Mandarin. *Journal of Chinese Linguistics* 29.1.102-28.



- Fang, guoyu (方国瑜), and Zhiwu He (和志武). 1979. Naxizu de yuanyun qianxi he fenbu [纳西族的渊源, 迁徙和分布 (The origin, migration and distribution of Naxi)]. *Minzuyanjiu* (民族研究) 1.33-41.
- Fangyan Diaocha (ed.) 1960. *Jiangsusheng he Shanghai shi fangyan gaikuang* [江苏省和上海市方言概况 (A dialectal survey in province of Jiangsu and Shanghai City)]. Jiangsurenmin Press.
- Feng, Chuntian (冯春田). 1990. Shilun jiegou zhuci “di” de yixie wenti [试论结构助词‘底/(的)’的一些问题 (A few questions about structural particle—“di”)]. *Zhongguo Yuwen* (中国语文) 219.6.448-52.
- Feng, Chuntian (冯春田). 1992. *Tang wudai mouxie yufa xianxiang tanxi* [唐五代某些语法现象探析 (A preliminary analysis of certain language phenomena during the Tang period)]. 232-67. Jinan: Shandong Education Publishing (山东教育出版社) Press.
- Ge, Xingzhi (盖兴之). 1982. Mianyi yuzhi chutan [缅彝语支初探 (Studies in the Mian-Yi language branch)]. *Minzuxuebao* (民族学报) 2.207-31.
- Ge, Xingzhi (盖兴之). 1986. *Ji Nuo Yu Jian Zhi* [基诺语简志 (A grammar of Jinuo)]. Beijing: Minzu Publisher Press.
- Ge, Xingzhi (盖兴之), and Zhuyi Jiang (姜竹仪). 1990. Naxiyu zai zangmianyuyan zhong de diwei [纳西语在藏缅语言中的地位 (The genetic position of Naxi in Tibeto-Burman)]. *Minzuyuwen* (民族语文) 1.63-73.
- Haudricourt, André-Georges. 1961. Bipartition et tripartition des systèmes de tons dans quelques langues d'Extrême-Orient (Two-way and three-way splitting of tonal systems in some Far-Eastern languages) translated by Christopher Court. *Bulletin de la Société de Linguistique de Paris* 56.163-80.
- Hopper, Paul, and Sandra A. Thompson. 1980. Transitivity in grammar and discourse. *Language* 56.2.251-99.
- He, Jiren (和即仁) and Zhuyi Jiang (姜竹仪). 1985. *Na Xi Yu Jian Zhi* [纳西语简志 (A grammar of Naxi)]. Beijing: Minzu Publisher Press.
- Her, One-Soon. 1990. Historical development of *ba* and *jiang* in the Tang Dynasty. *Language Variation and Change* 2.277-94. Cambridge: Cambridge University Press.
- Hu, Suha (胡素华). 2002. *Yiyu Jiegou Zhuci Yanjiu* [彝语结构助词研究 (Research on Structural Particles in Yi)]. Beijing: Minzu Publisher Press.

- Huang, Bufan (黄布凡) (ed.) 1992. *Zang Mian Yu Zu Yu Yan Ci Hui* [藏缅语族语言词汇 (A Tibeto-Burman Lexicon)]. Beijing: Central University for Nationality Press.
- Huang, Shuanfan (黄宣范). 1986. The history of the disposal construction revisited—evidence from *Zen Dialogues* in the Tang dynasty. *Journal of Chinese Linguistics* 14.1.43-51.
- Jiang, Lansheng (江蓝生). 1999. Chusuoci de lingge youngfa yu jiegou zhuci “di” de youlai [处所词的领格用法与结构助词“底”的由来 (The genitive use of place words and the origin of the structural particle *di*)]. *Zhongguo Yuwen* (中国语文) 269.2.83-93.
- Jiang, Lansheng (江蓝生). 2004. Kua cen fei duanyu jiegou ‘de hua’ de cihuihua [跨层非短语结构“的话”的词汇化 (About the lexicalization of the cross-structural combination “de hua”)]. *Zhongguo Yuwen* (中国语文) 302.5.387-99.
- Jiang, Shaoyu (蒋绍愚). 1997. Baziju luelun—jian lun gongneng kuozhan [把字句略论, 兼论功能扩展 (A discussion of *ba*-sentence and its functional extensions)]. *Zhongguo Yuwen* (中国语文) 281.4.298-304.
- Jiang, Shaoyu (蒋绍愚). 2002. Geiziju jiaoziju biao beidong de laiyan—jian lun yufahua, leitui he gongneng kuozhan [给字句, 教字句表被动的来源, 兼论语法化, 类推, 和功能扩展 (The origin of *gei*-sentence and *jiao*-sentence: grammaticalization, analogy, and functional extensions)]. *Yuyangxue Luncong* (语言学论丛) 26.159-77.
- Jiang, Shaoyu (蒋绍愚). 2009. Jindai hanyu de jizhong beidongshi [近代汉语的几种被动式 (Several passive patterns in Modern Chinese)]. *Academic Journal of Shanxi Normal University* (山西师范大学学报) 38.6.87-92.
- Jiang, Zhuyi (姜竹仪). 1993. Naxiyu dongbu he xibu fangyan yufa yitong gaizhu [纳西语东部和西部方言语法异同概述 (Differences between eastern and western dialects in Naxi)]. *Minzuyuwen* (民族语文) 4.43-8.
- Lahaussais, Aimée. 2002. Nominalization, relativization, genitivization in Thulung Rai. *Proceedings of the 18th Annual Meeting of the Berkeley Linguistics Society*. University of California-Berkeley Press.
- Lakoff, George. 1987. *Women, fire, and dangerous things: What categories reveal about the mind*. Chicago: University of Chicago Press.
- LaPolla, Randy, and Chenglong Huang. 2003. *A Grammar of Qiang*. Berlin: Mouton de Gruyter Press.

- Li, Charles N. (李讷) and Sandra A. Thompson. 1981. *Mandarin Chinese—A Functional Reference Grammar*. University of California-Berkeley Press.
- Li, Fang-kuei (李方桂). 1977. *Handbook of Comparative Tai*. Honolulu, HI: University of Hawai'i Press.
- Li, Lincan (李霖燦). 2001. *Naxizu Xiangxing Biaoyinwenzi Zidian (纳西族象形标音文字字典)*. Yunnan Minzu Press.
- Li, Yongsui (李永燧). 1992. Mianyi yuyan shengdiao bijiao yanjiu [缅彝语言声调比较研究 (A comparative study of tones in Lolo-Burmese)]. *Minzuyuwen (民族语文)* 6.11-24.
- Li, Yongsui (李永燧). 1996. Mianyyu diaolei—lishi bijiaofa de yunyong [缅彝语调类: 历史比较法的运用 (A comparative reconstruction of tones in Lolo-Burmese)]. *Minzuyuwen (民族语文)* 5.1-16.
- Li, Yongsui (李永燧). 1999. Lun mianyiyu [论缅彝语 (A discussion of Lolo-Burmese)]. *Minzuyuwen (民族语文)* 2.18-26.
- Li, Yongsui (李永燧). 2000. Gongtong mianyiyu yunlei chulun [共同缅彝语韵类刍论 (A discussion of tones in Lolo-Burmese)]. *Minzuyuwen (民族语文)* 4.1-12.
- Li, Yongsui (李永燧). 2008. Mianyiyu—yizhong shengdiao zuyu [缅彝语: 一种声调祖语 (The origin of tones in Proto-Lolo-Burmese)]. *Minzuyuwen (民族语文)* 3.44-54.
- Li, Ying-che. 1974. What does “disposal” mean? Features of the verb and noun in Chinese. *Journal of Chinese Linguistics* 2.200-18.
- Lidz, Liberty A. 2010. *A Descriptive Grammar of Yongning Na (Mosuo)*. Ph.D. Dissertation. Austin: University of Texas Press.
- Liu, Minzhi (刘敏芝). 2006. Songdai jiegou zhuci ‘di’ de xinxing yongfa ji qi lai yuan [宋代结构助词“底”的新兴用法及其来源 (Newer uses of the structural particle *di* in the Song Dynasty and their origin)]. *Zhongguo Yuwen (中国语文)* 310.1.59-64.
- Lu, Jianming (陆俭明). 1980. “Huan” and “geng” [“还”和“更”]. *Yuyanxue luncong (语言学论丛)* 6.191-209. Beijing: Commercial Press.
- Lu, Shuxiang (吕叔湘). 1984. Lun di3, di4 zhi bian ji di3 zi de youlai [论底地之辨及底字的由来 (A discussion on the controversy of *di3* and *di4* and the origin of *di3*)]. *Han Yu Yu Fa Lun Wen Ji (汉语语法文集)*. Beijing: Commercial Press.

- Maddieson, Ian, and Peter Ladefoged. 1985. Tense and lax in four minority languages of China. *Journal of Phonetics* 13.433-54.
- Mathieu, Christine. 2003. *A history and anthropological study of the ancient kingdoms of the Sino-Tibetan borderland Naxi and Mosuo*. Edwin Mellen Press.
- Matisoff, James. 1970. Glottal dissimilation and the Lahu high-rising tone: a tonogenetic case-study. *Journal of the American Oriental Society* 90.1.13-44.
- Matisoff, James. 1971. The tonal split in Loloish checked syllables. *Occasional Papers of the Wolfenden Society on Tibeto-Burman Linguistics*. University of Illinois-Urbana Press.
- Matisoff, James. 1972. *The Loloish Tonal Split Revisited (Research Monograph No. 7, Center for South and Southeast Asia Studies)*. University of California-Berkeley Press.
- Matisoff, James. 1972. Lahu nominalization, relativization, and genitivization. *Syntax and Semantics (Volume 1)*, ed. by John Kimball, 237-58. NY: Academic Press.
- Matisoff, James. 1973. Tonogenesis in Southeast Asia. *Consonant Types and Tone. Southern California Occasional Papers in Linguistics*, ed. by Larry M. Hyman, 1.71-95. University of California-Los Angeles Press.
- Matisoff, James. 1985. God and the Sino-Tibetan copula, with some good news concerning selected Tibeto-Burman rhymes. *Journal of Asian and African Studies (Tokyo Foreign Languages University)* 29.1-81.
- Matisoff, James. 2003. *Handbook of Proto-Tibeto-Burman: system and philosophy of Sino-Tibetan reconstruction*. University of California Press.
- McKhann, Charles F. 1995. The Naxi and the nationalities question. *Cultural Encounters on China's Ethnic Frontiers*, ed. by Stevan Harrell, 39-62. Seattle: University of Washington Press.
- Mei, Tsu-lin (梅祖麟). 1990. Tang song chuzhishi de laiyan [唐宋处置式的来源 (The origin of the disposal construction in Tang and Song dynasties)]. *Zhongguo Yuwen (中国语文)* 3.191-206.
- Mei, Tsu-lin (梅祖麟). 1992. Hanzangyu de "sui", "yue", "huan (xuan)" "huan" ji qi xiangguan wenti [汉藏语的“歲、越”, “還(旋)、圜”及其相关问题]. *Zhongguo Yuwen (中国语文)* 254.325-38.
- Mei, Tsu-lin (梅祖麟). 1988. Ciwei 'di', 'de' de laiyan [词尾“底”, “的”的来源 (The origin of the particle *di* and *de*)]. *Bulletin of the Institute of History and Philology Academia Sinica (中研院史语所集刊)* 59.1.141-72.

- Mei, Tsu-lin. 2000b (梅祖麟). Tang song chuzhishi de lai yuan [唐宋处置式的来源 (The origin of the disposal construction in Tang and Song Dynasties)]. *Mei Tsu-lin yuyanxue lunwenji* [梅祖麟语言学论文集] 188-221. Beijing: Commercial Press.
- Meng, Qinghui (孟庆惠). 1997. Hefei hua de zhe, na he sheme [合肥话的“这”“那”和“什么” (“This”, “that” and “what” in Hefei Mandarin)]. *Zhongguo Yuwen* (中国语文) 259.4.297-304.
- Newman, John. 1996. *Give: A Cognitive Linguistic Study* [Cognitive Linguistics Research 7]. Berlin and New York: Mouton de Gruyter Press.
- Noonan, Michael P. 1997. Versatile nominalization. *Essays on language function and language type (in honor of Talmy Givón)*, ed. by Joan Bybee et al., 373-94. Philadelphia: John Benjamins Press.
- Peyraube, Alain. 1988. Syntactic change in Chinese: On grammaticalization. *Bulletin of the Institute of History and Philology* 59.3.617-52. Taipei: Academia Sinica Press.
- Peyraube, Alain. 1996. Recent issues in Chinese historical Syntax. *New Horizons in Chinese Linguistics*, ed. by C.-T. James Huang and Y.-H. Audrey Li, 161-214. Boston: Kluwer Academic Publishers Press.
- Pittayaporn, Pittayawat. 2009. *The Phonology of Proto-Tai*. Ph.D. dissertation. Department of Linguistics, Cornell University Press.
- Shen, Jiaxuan (沈家煊). 2001. Two constructions with *Hai* in Mandarin Chinese [跟副词‘还’有关的两个句式]. In *Zhongguo Yuwen* (中国语文) 285.483-93.
- Shi, Feng (石锋), and Decai Zhou (周德才). 2005. Nanbu yiyu song jin yuanyin de shengxue biao xian [南部彝语松紧元音的声学表现 (An acoustic analysis of tense and lax vowels in Southern Yi)]. *Studies in Language and Linguistics* (语言研究) 25.60-5.
- Shi, Yuzhi (石毓智), and Charles N. Li (李讷). 1998. Hanyu fazhan shi shang jie gou zhuci de xing ti—lun DE de yufahua licheng [汉语发展史上结构助词的兴替—论“的”的语法化历程 (On the historical replacements among the three particles: zhi, zhe, and de)]. *Zhongguo Shehui Kexue* (中国社会科学) 6.165-80.
- Shi, Yuzhi (石毓智), and Charles N. Li (李讷). 2002. The establishment of the classifier system and the grammaticalization of the morphosyntactic particle *de* in Chinese. *Language Sciences* 24.1-15. Elsevier Science Press.

- Shi, Yuzhi (石毓智), and Tongshang Wang (王统尚). 2009. Fangyan zhong chuzhishi he beidonsi yongyou gongtong biaoji de yuanyin [方言中处置式和被动式拥有共同标记的原因 (Common markers of the disposal and passive constructions in Chinese dialects)]. *Hanyu Xuebao* (汉语学报) 26.2.43-53.
- Sio, Joanna Ut-Seong. 2009. The Cantonese *ge3*. Hong Kong Polytechnic University. Manuscript.
- Sun, Chaofen (孙朝奋). 1995. Transitivity, the *ba* construction and its history. *Journal of Chinese Linguistics* 23.1.159-95.
- Sweetser, Eve E. 1988. Grammaticalization and semantic bleaching. *Berkeley Linguistics Society 14th Proceedings* 389-405. University of California-Berkeley Press.
- Thompson, Laurence C. 1976. Proto-Viet-Muong Phonology. *Oceanic Linguistics Special Publications* 13.1.113-203. University of Hawai'i Press
- Thurgood, Graham. 2003. A subgrouping of the Sino-Tibetan languages: The interaction between language contact, change, and inheritance. *The Sino-Tibetan languages*, ed. by G. Thurgood and R. LaPolla, 3-21. London: Routledge Press.
- Traugott, Elizabeth C. 1982. From propositional to textual and expressive meanings: some semantic-pragmatic aspects of grammaticalization. *Perspectives on historical linguistics*, ed. by W. P. Lehmann and Y. Malkiel, 245-71. Amsterdam: John Benjamins Press.
- Tsao, Feng-fu (曹逢甫). 1987. A Topic-comment approach to the BA construction. *Journal of Chinese Linguistics* 15.1.1-54.
- Wang, Li (王力). 1947. *Zhongguo Xiandai Yufa* [中国现代语法 (Modern Chinese Grammar)]. Shanghai: Zhonghua Press.
- Wang, Li (王力). 1958. *Han Yu Shi Gao* [汉语史稿]. Beijing: Zhonghua Press.
- Wang, William S-Y. 1967. Phonological features of tone. *International Journal of American Linguistics* 33.2.93-105.
- Wu, Fuxiang (吴福祥). 2003. Zai lun chuzhishi de lai yuan [再论处置式的来源 (A further discussion regarding the origin of the disposal construction)]. *Studies in Language and Linguistics* (语言研究) 23.3.1-12.
- Wu, Yunji (伍云姬). 1999. An etymological study of disposal and passive markers in Hunan dialects. *Journal of Chinese Linguistics* 27.2.90-123.

- Wu, Yicheng, and Adams Bodomo. 2009. Classifiers  $\neq$  Determiner. *Linguistic Inquiry*. 40.3.487-503. MA: MIT Press.
- Xing, Janet Zhiqun. 2006. Mechanisms of semantic change in Chinese. *Studies in Language*, ed. by Bernard Comeir, 30.3.461-83. Netherlands: John Benjamins Press.
- Xu, Hui-ling, and Stephen Matthews. 2011. On the polyfunctionality and grammaticalization of the morpheme kai in the Chaozhou dialect. *Nominalization in Asian Languages: Diachronic and Typological Perspectives. Volume 1: Sino-Tibetan and Iranian Languages*, ed. by Foong-ha Yap and Janick Wrona. Amsterdam/Philadelphia: John Benjamins Press, to appear.
- Xu, Lietong (徐烈炯), and Danqing Liu (刘丹青). 1998. *Huati de Jiegou yu Gongneng* [话题的结构与功能 (*The structure and function of topic*)]. Shanghai: Shanghai Education Press.
- Xu, Lin (徐琳), Yuzhang Mu (木玉璋), and Xingzhi Ge (盖兴之). 1986. *Li su Yu Jian Zhi* [傣傣语简志 (*A grammar of Lisu*)]. Beijing: Minzu Publisher Press.
- Yang, Hsiu-Fang (杨秀芳). 2004. The grammaticalization of “KU” (故) and its use in Min dialects’ [论“故”的虚化及其在闽方言中的表现 (A discussion on grammaticalization of “KU” in Southern Min)]. *Taida Wen Shi Zhe Xuebao* (台大文史哲学报) 199-242.
- Yap, Foong-ha, Pik-ling Choi, and Kam-siu Cheung. 2007. Delexicalizing *di*: How a Chinese noun evolves into a nominalizer, with attitude. Department of Linguistics and Modern Languages, Chinese University of Hong Kong. Manuscript.
- Yap, Foong Ha, and Shoichi Iwasaki. 2003. From causative to passive: A passage in some East and Southeast Asian languages. *Cognitive Linguistics and Non-Indo-European Languages (Cognitive Linguistics Research 18)*, ed. by Eugene Casad and Gary Palmer, 419-46. Berlin: Mouton de Gruyter Press.
- Yap, Foong-ha, and Stephen Matthews. 2008. The development of nominalizers in East Asia and Tibeto-Burman languages. *Rethinking Grammaticalization—new perspectives*, ed. by Lopez-Couso and Seoane, 309-41. Philadelphia: John Benjamins Press.
- Yap, Foong-ha, Stephen Matthews, and Kaoru Horie. 2004. From pronominalizer to pragmatic marker: Implications for unidirectionality from a crosslinguistic perspective. *Up and down the cline: The nature of grammaticalization (Typological Studies in Language 59)*, ed. by Olga Fischer, Muriel Norde and Harry Perridon, 137-68. Amsterdam and Philadelphia: John Benjamins Press.

- Ye, Youwen (叶友文). 1988. Sui Tang chuzhishi neizai yuanyuan fenxi [隋唐处置式内在渊源分析 (The origin of the disposal construction in Tang and Song dynasties)]. *Journal of Chinese Linguistics* 16.1:55-71.
- Yeh, Meng. 1998. On 还 *hai* in Mandarin. *Journal of Chinese Linguistics* 26.2:236-80.
- Yuan, Jiahua (袁家骅) (ed.) 1964. *Han Yu Fang Yan Ci Hui* [汉语方言词汇 (Lexicon of Chinese Dialects)]. Beijing: Wenzigaige Press.
- Yuan, Yulin (袁毓林). 2003. Cong jiaodian lilun kan juuwei ‘de’ de jufa yuyi gongneng (从焦点理论看句尾“的”的句法语义功能) [On the syntactic and semantic function of ‘de’ in the sentence-final position: from a viewpoint of the modern ‘focus theory’]. *Zhongguo Yuwen* (中国语文) 292.1:3-16.
- Yue-Hashimoto, Anne O. 1986. Tonal flip-flop in Chinese dialects. *Journal of Chinese Linguistics*. 14.2:161-82.
- Zhang, Binglin (章炳麟). 1915. Xin Fang Yan (新方言). *Zhang Shi Cong Shu* (章氏丛书).
- Zhang, Chengcai (张成材). 2007. Shangzhou fangyan kouyu zhong de shuliang lianyin bianhua [商州方言口语中的数量连音变化 (Sound changes in Shangzhou dialects)]. *Zhongguo Yuwen* (中国语文) 317.2:159.
- Zhou, Fagao (周法高) (ed.) 1973. *Han Zi Gu Jin Yin Hui* [汉字古今音汇 (A Pronouncing Dictionary of Chinese Characters in Archaic & Ancient Chinese, Mandarin & Cantonese)]. Hong Kong: Chinese University of Hong Kong Press.
- Zhu, Minche (祝敏彻). 1957. Lun chuqi chuzhishi [论初期处置式 (A discussion of the disposal construction in the early stage)]. *Yuyanxue luncong* (语言学论丛) 1:17-33. Beijing: Commerical Press.
- Zhu, Minche (祝敏彻). 1982. Zhuzi yulei zhong “di”, “di” de yufazzuoyong [朱子语类中“地”“底”的语法作用 (The function of *di*<sub>4</sub> and *di*<sub>3</sub> in *Zhuzi Yulei*)]. *Zhongguo Yuwen* (中国语文) 3:193-97.
- Ziegeler, Debra. 2000. A possession-based analysis of the *ba*-construction in Mandarin Chinese. *Lingua* 111:807-42.