An Investigation of Various Linguistic Changes in Chinese and Naxi

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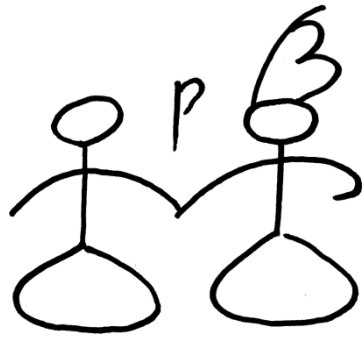
— Dedicated to

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

for their



This is a Naxi Dongba pictograph which means

LOVE.

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CHAPTER ONE

INTRODUCTION

It is not the purpose of this study 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 solved.

This study'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 study 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 study from Chapter 2 to Chapter 5 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 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 study 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 upmost 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 type of clue 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 visually identical.[1] 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 necessarily 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 linguistic theory is like convicting a man of a crime based on criminological theories alone; fortunately, this never happens in court. A 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 study are long overdue for a public debate. Linguists have been continually vexed by these puzzles, and have put forward various theories. This study 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 in the form of 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.[2] Note that Map 1.1 shows not only Chinese linguistic groups but also non-Chinese linguistic groups.

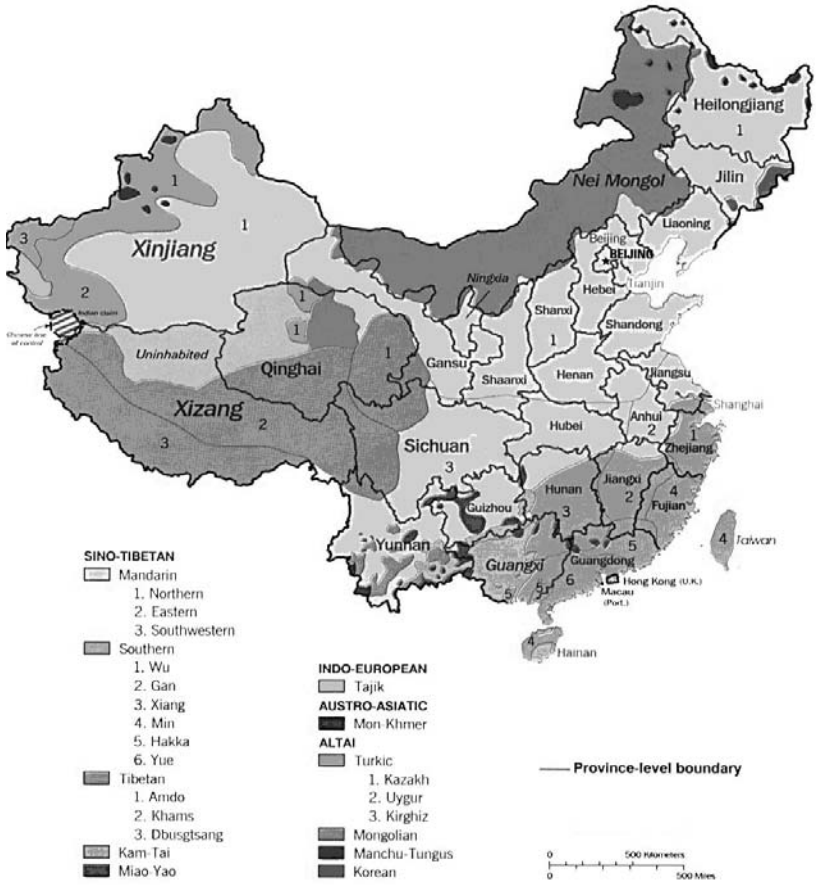
Chinese has been classified into seven mutually unintelligible dialect groups. (1) Mandarin (普通话), spoken by over seventy percent of all Chinese speakers, is used everywhere north of the Yangzi River, as well as in parts of the southwestern provinces of China, including Guangxi, Guizhou, Hunan, Sichuan, 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).

Several Tibeto-Burman languages, such as Tibetan, Burmese, Naxi, Na/Mosuo, Lahu, Hani, Lisu, and Yi, all of which are 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 within Yunnan Province are provided in Map 1.2.[3]

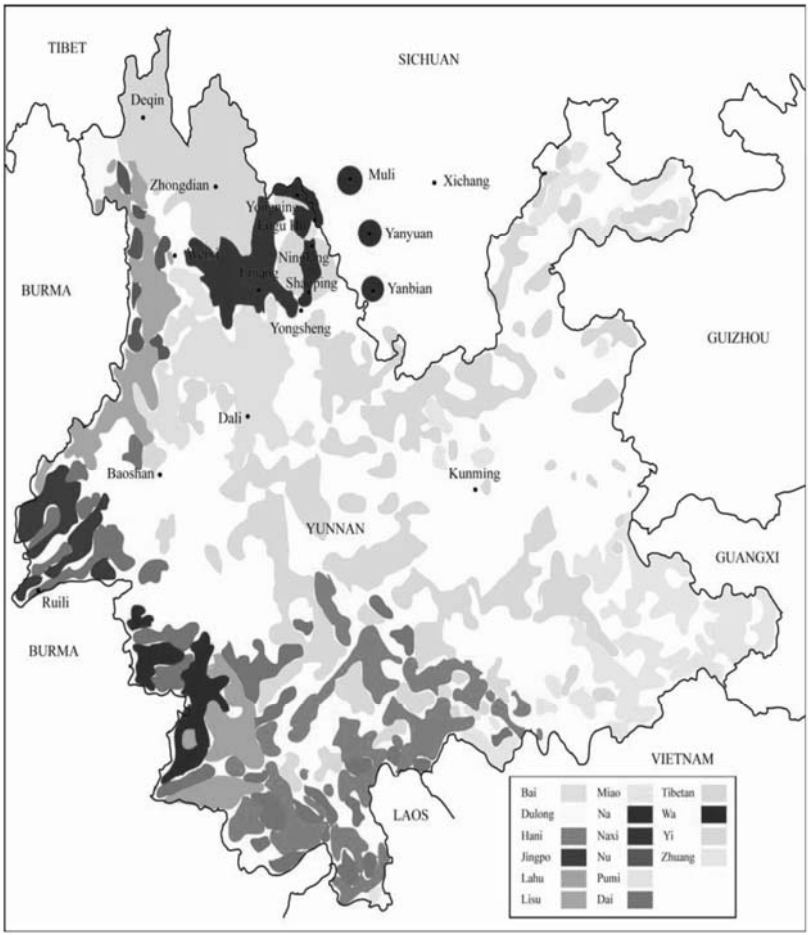
Among these languages, Naxi and Mosuo must be introduced beforehand because they are less-known and they raise some important issues in Chapter 2 and Chapter 5. The Mosuo and the Naxi people, most of whom live in the Lijiang (丽江) Naxi Autonomous County in northwestern Yunnan, have been described in the 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 been 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.[4] About

30,000 Mosuo people live on the eastern banks of the river. Mosuo are the great majority of the inhabitants of the Yongning basin and the Lugu Lake (泸沽湖) regions, including Muli (木里), Yongning (永宁), and Labo (拉伯).[5]

Map 1.1. Linguistic groups in mainland China and Taiwan



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



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).

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 unsubgrouped 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, 1997, and 2008)), and included in Lolo-Burmese (posed by Li (1999:25)).[6] Issues related to the genetic position of Naxi will be discussed in Chapter 2. A contact-induced grammatical change that has occurred in the Naxi language will be explored in Chapter 5.

1.3. Abstract and organization

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

Chapter 2 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 voicing and voicelessness of the root-initial consonants. A general phonological rule of this bipartite contrast is as follows: 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 3 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) since 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 function of BA 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 4 focuses on a long-standing 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-primary causer + *gei*/*na*/*jiao*/*rang* + NP2-secondary causer + V + NP3-causee].[7] This causative-to-passive process involves three steps: (1) NP3-causee is topicalized to the sentence-initial position, (2) NP1-primary causer is omitted by the speaker, and (3) the final configuration [NP3-causee + *gei*/*na*/*jiao*/*rang* + NP2-secondary causer + V] is reanalyzed as a passive construction by the listener.

Chapter 5 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 Lijiang Naxi uses *ɡə*. In order to account for the origin of Naxi *ɡə*, 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 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 + Cl] in which "Cl" is usually the most general-purpose classifier.

Section 5.2 provides a possible explanation for the development of Naxi *ɡə*. The origin of Naxi *ɡə* is puzzling because it is clear that Labo Naxi, Mosuo, and Naxi were derived from the same ancestor—Proto-Naish; however, they show divergent evolutions in their nominalization, genitivization, and relativization. Naxi *ɡə* 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 *bɯ*^{33} 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) that has been present in Chinese since Medieval Mandarin.

The last chapter, **Chapter 6**, 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 as follows: Chapter 2: "sound change: tonal split;" Chapter 3: "semantic change: schematic effect;" Chapter 4: "syntactic change: structural reanalysis;" Chapter 5: "contact-induced change: borrowing;" and Chapter 6: "conclusion."

CHAPTER TWO

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.[8]

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

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 creating subgroupings of Loloish. According to the studies completed by Bradley and Matisoff, Naxi has often been excluded from the Loloish languages because of its large number of irregular patterns of tonal split corresponding to the checked syllables of *L.[11]

Post 1980s Chinese linguists have also contributed to the 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.[12] 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 the idea in Matisoff's monograph on Loloish tonal split without any suspicion about his methodology? In this study, I will reconstract the study Matisoff outlined in the book entitled *The Loloish tonal split revisited* (1972) using newer data to see if I can achieve the same result.

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 this 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 1972 hypothesis, 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 its languages 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," a Loloish language).[13] 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.

In this chapter, I first provide 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 of 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.

2.1. Tonal splits in Chinese *checked syllables

Even 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 mentions that as early as 1931, Roman Jakobson has reported the following phenomenon 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).[14] 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 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.[15] 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. 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 expressed, as 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 the entering syllables, Yin-Ru (阴入) and Yang-Ru (阳入), in Chinese.[16] In order to present more actual situations concerning patterns of tonal split in *checked syllables, three Chinese references are 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 as reconstructed by Bernhard Karlgren (高本汉). (2) *Hanyu fangyan cihui* (*汉語方言詞汇—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 Shanghaishi 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 lexicons for different dialects, particularly Wu, spoken in the Province of Jiangsu and Shanghai City.[17]

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 sources of reference 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-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.

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).