

LABILITY OF VERBS AND  
THE CHANGE-OF-STATE CONSTRUCTION IN CHINESE

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE UNIVERSITY  
OF HAWAI'I AT MĀNOA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

CHINESE

JUNE 2017

By

Liulin Zhang

Dissertation Committee:

Song Jiang, Chairperson

Haidan Wang

Hsin-I Hsieh

Li Jiang

William O'Grady

Keywords: Chinese, Verb, Change of state, Construction, Cognitive linguistics

## ACKNOWLEDGMENTS

I am a girl born in summer. Summer is my favorite season, and the only season here in Hawaii. Coincidentally, Hawaii is translated as 夏威夷 in Chinese, and 夏 is also the Chinese character for summer. Before I came here, I asked myself whether it would be the place for me.

Things were not that dreamy, despite the amazing beaches and the year-round beautiful weather. Being in a Ph.D. program in Chinese linguistics means that one's interaction with the nature is indirect. Studying and making a living at the same time in a completely unfamiliar, extremely complicated environment was the most challenging situation I had ever faced in my life.

I am not sure whether I would have made it through without Prof. Song Jiang and Prof. Haidan Wang. They are more like parents than professors to me. In fact, I shared emotions with them that I would not even have shared with my parents, for in the Ph.D. program, I realized I was still not strong enough to fight against the loneliness of studying, working and exploring independently. The solace of their smiles, their encouragement, and their patience lit up my path, and I have learned and grown steadily through the opportunities they have provided. To me, they are warmer than the sunshine of Hawaii. Through their care, I felt reborn in my new land.

Prof. Li Jiang and Prof. William O'Grady guided my research in a professional direction. Prof. Jiang and I shared distinct beliefs in language, and though the intensity of our respective views often led to disagreements and conflicts, I learnt from all of them – including about the importance and techniques of scholarly debate. I am grateful to have a professor, and a friend, who is so willing to fight with me. Prof. O'Grady, meanwhile, is a true legend: always ready to help me through my obsessional scholarly problems. Far from acting arrogantly about his

infinitely great knowledge and experience, however, he has been unfailingly kind and empathetic.

It has been said that love and hatred are the same thing, and that their opposite is indifference. It was frustrating to be initially confronted with indifference from the person who inspired me to come here. However, this only made it sweeter when a glimmer of care later appeared. I realized Prof. Hsin-I Hsieh had been supporting me in his own way, which forced me to be more independent. I appreciate your existence, Prof. Hsieh, and my story of commitment, admiration, struggle, frustration, rebirth, and growing up all begins with you.

Whatever does not kill you makes you stronger. The beauty of Hawaii, a Paradise on Earth, belongs only to the strong.

## ABSTRACT

It has often been noted that some Chinese verbs can be used transitively or intransitively, and that the syntactically privileged argument (subject) in these different uses has different semantic roles. Many terms have been introduced to describe this phenomenon, among which *verb lability* appears to be the most felicitous one, given its transparency and straightforwardness: it does not pertain to notions absent in Chinese, nor does it encode any information about the function of the transitive/intransitive construction pair, which has been highly contentious in previous studies.

Set within the framework of cognitive linguistics and construction grammar, this dissertation proceeds from the assumption that language is usage-based instead of rule-generated. Accordingly, it employs a diachronic corpus-based approach. Meanwhile, to adapt to the special feature of Chinese, i.e., the rich varieties of Chinese are connected by characters, this dissertation's diachronic analysis of lexical semantics is based on Chinese characters.

Corpus data from the pre-Qin period (Old Chinese), the Tang dynasty (Middle Chinese), and the Ming dynasty (Early Mandarin) show that the 'theme + labile verb' construction is extraordinarily ancient and stable in Chinese, and that historically, labile verbs prototypically denote changes of state. An extensive study of verbal semantics in Modern Mandarin reveals two semantic factors determining verb lability: change of state and spontaneity. While change of state is the prototypical function of labile verbs and the construction pairs formed by them, the contingency between labile verbs and their transitive/intransitive use is sensitive to the likelihood of spontaneous occurrence of the event being described. This finding holds in a cross-linguistic context, reflecting general characteristics of human conceptualization. The complex event structure represented by a change-of-state event gives way to two competing strategies for

profiling in human construal – agent orientation and theme orientation – which respectively lead to the transitive use and intransitive use of a verbal. However, as an isolating language in which causative/anticausative is not marked, Chinese exhibits an overwhelmingly large group of labile verbs in comparison with other languages.

The intransitive change-of-state construction (CSC) formed by labile verbs has traditionally been referred to as the *notional passive construction*, and distinguished from the so-called *Chinese passive construction* marked by 被 *bei*. After investigating the process of grammaticalization of the character 被, it is found that 被 derived an ‘affected’ sense in construal from its lability (denoting ‘cover/receive’), and thus the 被 *bei* construction (BEIC) can be roughly represented as ‘affectee + 被 + event’. In contrast to CSC, BEIC predominantly takes animate subjects as affectees, and the events that affect them are not limited to change-of-state events.

In Chinese, the overall frequency of CSC is much higher than that of BEIC, but this prevalence is not commented upon or otherwise reflected in Chinese textbooks. Moreover, previous studies have reported contradictory findings about learners’ acquisition of CSC and BEIC. Taking a usage-based approach to language acquisition, The present research includes two experiments involving picture-description tasks. The results indicate that Chinese learners use more BEICs and fewer CSCs than native speakers do. Additionally, due to the difference in markedness, CSC is much more difficult to notice during incidental exposure than BEIC is, rendering explicit instruction necessary. It needs to be noted that such explicit instruction merely functions to counteract the attentional bias, and is not necessarily about the selectional constraints between these two constructions, which are inherent in learners’ cognition.

## TABLE OF CONTENTS

ACKNOWLEDGMENTS .....	i
ABSTRACT .....	iii
ABBREVIATIONS .....	x
TIMELINE OF CHINESE DYNASTIES .....	xi
HISTORICAL PERIODS OF THE CHINESE LANGUAGE.....	xii
CHAPTER 1 INTRODUCTION.....	1
1.1 Observation and Characterization.....	1
1.2 Disputed Terminology .....	4
1.2.1 Object deletion .....	4
1.2.2 Transitivity alternation .....	4
1.2.3 Controversial transitivity alternation.....	11
1.2.4 Summary of the terminological dispute.....	19
1.3 Research Questions .....	21
1.4 Organization .....	22
CHAPTER 2 FRAMEWORK AND METHODOLOGY .....	24
2.1 Background of Construction Grammar: Major Movements of Linguistics.....	24
2.1.1 From structuralism to generative grammar.....	24
2.1.2 From generative grammar to cognitive linguistics.....	26
2.1.3 Cognitive linguistics and construction grammar (CG).....	28
2.1.4 Summary .....	29
2.2 Basic Tenets of CG.....	30
2.2.1 Prototype theory.....	31
2.2.2 Syntax-lexicon continuum.....	33
2.2.3 The usage-based approach.....	35
2.2.4 Interaction between verb meaning and construction meaning.....	38
2.3 Advantages of CG in the Study of Chinese Intransitive Labile Construction .....	41
2.3.1 Theoretical plausibility.....	41
2.3.2 Applicability to Classical Chinese, Chinese dialects, and novel use.....	41
2.3.3 Pedagogical adaptability .....	43

2.4 Methodologies.....	43
2.4.1 Bottom-up approach .....	43
2.4.2 Lexical semantic approach .....	44
2.4.3 Character-based approach.....	46
2.4.4 Diachronic approach .....	49
2.5 Summary: Revisiting the Research Questions from the Perspective of CG.....	50
CHAPTER 3 DIACHRONY OF MONOSYLLABIC LABILE VERBS AND THE INTRANSITIVE LABILE CONSTRUCTION IN CHINESE.....	52
3.1 The Intransitive Labile Construction in the Pre-Qin Period (Old Chinese).....	53
3.1.1 The intransitive labile construction in <i>Mencius</i> .....	54
3.1.2 Contingency between verb types and the intransitive labile construction .....	58
3.1.3 Summary of the intransitive labile construction in the pre-Qin period.....	63
3.2 The Intransitive Labile Construction in the Tang Dynasty (Middle Chinese).....	64
3.2.1 The intransitive labile construction in <i>Chuanqi</i> stories.....	64
3.2.2 Contingency between verb types and the intransitive labile construction.....	75
3.2.3 Summary of the intransitive labile construction in the Tang dynasty .....	80
3.3 The Intransitive Labile Construction in the Ming Dynasty (Early Mandarin).....	81
3.3.1 The intransitive labile construction in <i>Sanyan</i> stories .....	82
3.3.2 Contingency between verb types and the intransitive labile construction .....	90
3.3.3 Summary of the intransitive labile construction in the Ming dynasty .....	94
3.4 Summary and Implications.....	95
CHAPTER 4 COMPOUNDING AND THE DEVELOPMENT OF CHINESE LABILE VERBALS.....	99
4.1 The Structure of Compound Verbs and Verb Compounds.....	99
4.2 Compounding and the Structure of Labile Verbals in the Ming Dynasty (Early Mandarin) .....	104
4.2.1 Compound labile verbals in <i>Sanyan</i> stories.....	104
4.2.2 Contingency between compound verbals and the intransitive labile construction.....	110
4.2.3 Summary of compound labile verbals in the Ming dynasty.....	116
4.3 Compounding and the Structure of Labile Verbals in Modern Mandarin.....	117

4.3.1 Labile verbals in the novel <i>Guo Ba Yin Jiu Si</i> (《过把瘾就死》 ‘ <i>Die Satisfied</i> ’) .....	117
4.3.2 Contingency between compound verbals and the intransitive labile construction.....	125
4.3.3 Summary of compound labile verbals in Modern Mandarin .....	129
4.4 Compounding and the Functional Development of Verbal Characters.....	130
4.4.1 Compounding and intransitivity shrinkage.....	131
4.4.2 Compounding and intransitivity expansion .....	134
4.4.3 Intransitivity steadiness.....	137
4.4.4 Summary of the relationship between compounding and the functional development of verbal characters .....	139
4.5 Summary of Compounding and the Development of Chinese Labile Verbals.....	139
CHAPTER 5 THE CROSS-LINGUISTIC PROTOTYPE OF LABILE VERBS: CHANGE OF STATE .....	142
5.1 Previous Findings on Verbal Lability.....	142
5.2 Chinese Verbal Lability in Letuchiy’s (2009, 2015) Typology of Labile Verbs .....	150
5.2.1 Reflexive lability .....	150
5.2.2 Reciprocal lability .....	151
5.2.3 Converse lability.....	153
5.2.4 Anticausative lability and passive lability.....	155
5.2.5 Summary of Chinese verbal lability in Letuchiy’s (2009, 2015) typology of labile verbs .....	159
5.3 Two Factors Determining Verbal Lability in Chinese .....	161
5.3.1 Change of state.....	162
5.3.2 Spontaneity .....	166
5.3.3 The interaction of the two factors .....	169
5.4 The Prototype of Verbal Lability and Its Extension in Chinese .....	170
5.4.1 Prototypical labile verbals .....	173
5.4.2 Transitive-dominated labile verbals.....	174
5.4.3 Intransitive-dominated labile verbals.....	176
5.5 Change of State: The Cognitive Base of Verbal Lability .....	177
5.6 Summary and Implications.....	180



CHAPTER 6 CHINESE PASSIVE EXPRESSIONS: THE CHANGE-OF-STATE CONSTRUCTION (CSC) AND THE 被 <i>BEI</i> CONSTRUCTION (BEIC).....	183
6.1 Emergence of the 被 <i>Bei</i> Construction (BEIC) in Chinese .....	184
6.2 Diachrony of 被 <i>Bei</i> and BEIC.....	189
6.2.1 被 <i>Bei</i> and BEIC in the pre-Qin period (Old Chinese).....	189
6.2.2 被 <i>Bei</i> and BEIC in the Tang dynasty (Middle Chinese).....	191
6.2.3 被 <i>Bei</i> and BEIC in the Ming dynasty (Early Mandarin) .....	194
6.2.4 Summary of the diachrony of 被 <i>bei</i> and BEIC.....	196
6.3 Historical Distributions of CSC and BEIC .....	197
6.4 Europeanization of Chinese and the Expansion of BEIC .....	199
6.4.1 Language modernization and Europeanization of Chinese grammar since the 1910s .....	200
6.4.2 Expansion of BEIC since the 1910s .....	203
6.5 BEIC in Modern Mandarin.....	204
6.5.1 The form and function of BEIC in Modern Mandarin .....	205
6.5.2 Distributions of CSC and BEIC in Modern Mandarin .....	207
6.6 The Prototype of BEIC: Affectedness.....	211
6.7 Summary: Revisiting the Notion of the Passive in Chinese.....	213
CHAPTER 7 CSC IN CHINESE TEACHING AND ACQUISITION.....	215
7.1 Literature Review .....	215
7.1.1 CSC in Chinese language textbooks .....	215
7.1.2 CSC in L1 acquisition of Chinese.....	218
7.1.3 CSC in L2 acquisition of Chinese.....	219
7.1.4 Summary .....	225
7.2 Usage-Based Approach to Language Acquisition and the Input Flood Treatment.....	226
7.3 Research Questions .....	227
7.4 Methods .....	228
7.5 Materials and Instrumentation .....	229
7.5.1 Pretest and posttest of binary forced-choice tasks.....	229
7.5.2 Input flood materials.....	233

7.6 Experiment 1 .....	234
7.6.1 Participants and procedure .....	234
7.6.2 Results.....	236
7.7 Discussion and the Revision of Research Questions .....	242
7.8 Experiment 2 .....	243
7.8.1 Participants and procedure .....	244
7.8.2 Results and discussion.....	244
7.9 Summary of CSC in Chinese Teaching and Acquisition.....	248
CHAPTER 8 CONCLUSIONS .....	252
REFERENCES.....	254

## ABBREVIATIONS

1	first person
2	second person
3	third person
A, AP	adjective, adjectival phrase
BA	marker of the 把 <i>ba</i> construction
BEI	marker of the 被 <i>bei</i> construction
CL	classifier
CONJ	conjunctive
DE	pre-nominal modification marker 的 <i>de</i> , the pre-verbal modification marker 地 <i>de</i> , or postverbal descriptive or resultative marker 得 <i>de</i>
DEM	demonstrative
GUO	experiential aspect marker 过 <i>guo</i>
LE	perfective marker or sentence-final particle
N, NP	noun, noun phrase
NEG	negation, negative
PL	plural
PP	prepositional/postpositional phrase
PROG	progressive
QUES	question particle/marker
SIP	sentence initial particle
SG	singular
SFP	sentence final particle
SUO	pronominal element 所 <i>suo</i> marking object relativization or passivization
TOP	topic
V, VP	verb, verb phrase
ZHE	durative aspect marker 着 <i>zhe</i>
ZHI	pre-nominal/post-nominal modification marker 之 <i>zhi</i>

### TIMELINE OF CHINESE DYNASTIES

ca. 2100-1600 BCE	Xia (Hsia) Dynasty	
ca. 1600-1050 BCE	Shang Dynasty	
ca. 1046-256 BCE	Western Zhou (ca. 1046-771 BCE)	
	Eastern Zhou (ca. 771-256 BCE)	Spring and Autumn Period (770-ca. 475 BCE)
		Warring States Period (ca. 475-221 BCE)
221-206 BCE	Qin (Ch'in) Dynasty	
206 BCE-220 CE	Western/Former Han (206 BCE-9 CE)	
	Eastern/Later Han (25-220 CE)	
220-589 CE	Six Dynasties Period	
	Three Kingdoms (220-265 CE)	
	Jin Dynasty (265-420 CE)	
	Period of the Northern and Southern Dynasties (386-589 CE)	
581-618 CE	Sui Dynasty	
618-906 CE	Tang (T'ang) Dynasty	
907-960 CE	Five Dynasties Period	
960-1279	Northern Song (960-1127)	
	Southern Song (1127-1279)	
1279-1368	Yuan Dynasty	
1368-1644	Ming Dynasty	
1644-1912	Qing (Ch'ing) Dynasty	
1912-1949	Republic Period	
1949-present	People's Republic of China	

*Note.* Adapted from Michael Tsin, [http://afe.easia.columbia.edu/timelines/china\\_timeline.htm](http://afe.easia.columbia.edu/timelines/china_timeline.htm)

## **HISTORICAL PERIODS OF THE CHINESE LANGUAGE**

I. Old Chinese: before the 3<sup>rd</sup> century

(The 3<sup>rd</sup> century and the 4<sup>th</sup> centuries constitute the transition period.)

II. Middle Chinese: from the 4<sup>th</sup> century to the 12<sup>th</sup> century

(The 12<sup>th</sup> century and the 13<sup>th</sup> centuries constitute the transition period.)

III. Early Mandarin: from the 13<sup>th</sup> century to the 19<sup>th</sup> century

(The transition period lasts from 1840 to 1919.)

IV. (Modern) Mandarin Chinese: after the 1919 May Fourth Movement

(Adapted from L. Wang, 1957/2004, p. 35)

## CHAPTER 1 INTRODUCTION

### 1.1 Observation and Characterization

In the history of Chinese linguistics, there is a famous ambiguous sentence:

(1) 鸡 不 吃了。

Ji bu chi-le.

chick NEG eat-LE

‘The chick does not eat (anything). / The chick will not be eaten.’

(Chao, 1959)

The ambiguity of example (1) resides in the openness of the thematic relation between the initial word 鸡 *ji* ‘chick’ and the verb 吃 *chi* ‘eat’. The chick can be the agent or the theme of the action of eating, and Chinese lacks grammatical markers to tease apart these two readings. In both, moreover, in both readings, the verb 吃 *chi* ‘eat’ involves only one argument in the sentence, despite being commonly understood as a two-place verb involving an agent and a theme. Considering that 鸡 *ji* ‘chick’ can be the theme of 吃 *chi* ‘eat’, it seems 吃 *chi* ‘eat’ can alternate between transitive and intransitive use (though this interpretation has been rejected by a large number of linguists, as discussed in section 1.2.3). On the other hand, when 鸡 *ji* ‘chick’ is interpreted as the agent of 吃 *chi* ‘eat’, it feels as if the object of 吃 *chi* ‘eat’ has been deleted.

Lv (1987) identified a related phenomenon whereby Chinese verbs (including verb compounds) can alternate between transitive and intransitive use, and allow object deletion. He employed a pair of antonyms, 打胜 *da-sheng* ‘play-win’ and 打败 *da-bai* ‘play-defeat’, as follows:

(2) a. 中 国 队 打 胜 了 韩 国 队。

Zhongguo dui **da-sheng**-le Hanguo dui.

China team play-win-LE South Korea team

‘The Chinese team won over the South Korean team.’ (The Chinese team won.)

- b. 中 国 队 打 胜 了。  
 Zhongguo dui **da-sheng**-le.  
 China team play-win-LE  
 ‘The Chinese team won.’
- (3) a. 中 国 队 打 败 了 韩 国 队。  
 Zhongguo dui **da-bai**-le Hanguo dui.  
 China team play-defeat-LE South Korea team  
 ‘The Chinese team defeated the South Korean team.’ (The Chinese team won.)
- b. 中 国 队 打 败 了。  
 Zhongguo dui **da-bai**-le.  
 China team play-defeat-LE  
 ‘The Chinese team lost.’

(Lv, 1987)

Example (2) shows that 打胜 *da-sheng* ‘play-win’ allows object deletion, and example (3) that object deletion is prohibited by 打败 *da-bai* ‘play-defeat’. In the same article, Lv also gave the name 第二格局 ‘syntactic pattern 2’ to the phenomenon of verbs like 打败 *da-bai* ‘play-defeat’ being able to alternate between transitive and intransitive use, to contrast with 第一格局 ‘syntactic pattern 1’, as shown in example (2). Syntactic pattern 2 is illustrated in example (4), below.

- (4) a. 中 国 队 打 败 了 韩 国 队。  
 Zhongguo dui **da-bai**-le Hanguo dui.  
 China team play-defeat-LE South Korea team  
 ‘The Chinese team defeated the South Korean team.’ (The Chinese team won.)
- b. 韩 国 队 打 败 了。  
 Hanguo dui **da-bai**-le.  
 South Korea team play-defeat-LE  
 ‘The South Korean team lost.’

Therefore, some Chinese verbals (including verbs and verb compounds) such as 吃 *chi* ‘eat’ allow both transitivity alternation and object deletion; some verbals including 打败 *da-bai* ‘play-defeat’ only permit transitivity alternation; and some other verbals such as 打胜 *da-sheng* ‘play-win’ only allow object deletion. This divergence can be traced back to Old Chinese.

- (5) 《春秋》 伐者 为客, 伐者 为主。  
 Chunqiu **fa** zhe wei ke, **fa** zhe wei zhu.<sup>1</sup>  
*Spring and Autumn Annals* attack people is guest attack people is host  
 ‘In the *Spring and Autumn Annals*, those who attack are guests, those who are attacked are hosts.’  
 (《公羊传》)
- (6) a. 秦子, 梁子, 以公旗辟于下道。  
 Qinzi Liangzi yi gong qi **bi** yu xia dao.  
 Qinzi Liangzi with duke flag dodge at small path  
 ‘Qinzi and Liangzi dodge at the small path under the name of the duke.’  
 (《左传》)
- b. 将焉辟之?  
 Jiang yan **bi** zhi?  
 will how avoid 3  
 ‘How to avoid it?’  
 (《左传》)
- (7) a. 女子曰: “君免乎?”  
 Nvzi yue: “jun **mian** hu?”  
 woman say monarch pardon QUES  
 ‘The woman asked: “Is the monarch pardoned from (the catastrophe)?”’  
 (《左传》)
- b. 若从君惠而免之……  
 Ruo cong jun hui er **mian** zhi……  
 if accept monarch favor CONJ pardon 3  
 ‘If (you could) accept the monarch’s favor and pardon our sins …’  
 (《左传》)  
 (Cikoski, 1978)

In example (5), the first 伐者 *fazhe* denotes ‘those who attack’, and the second 伐者 *fazhe* is understood as ‘those who are attacked’, suggesting 伐 *fa* ‘attack’ allows object deletion as well as transitivity alternation. In contrast to example (6a), (6b) displays object deletion, whereas 免 *mian* ‘pardon’ in (7) apparently alternates between transitive and intransitive use.

<sup>1</sup> Although pinyin is used to annotate the pronunciations of characters in this dissertation, it must be noted that because of the rich varieties of Chinese both synchronically and diachronically (cf. section 2.3.2), pinyin can never fully represent the pronunciations of characters in historical texts at the time of their composition.



## **1.2 Disputed Terminology**

A large body of literature has been devoted to discussion of the observations mentioned in the previous section. Accordingly, a considerable number of terms have been adopted to designate relevant words and phenomena.

### **1.2.1 Object deletion**

Among the observations presented above, object deletion has been the site of the least contention. It is accepted as common knowledge by the majority of Chinese linguists that most verbs allow object deletion if abundant contextual information is available. This consensus frequently serves as the background or baseline against which related phenomena are compared. For example, as a direct indication that the theta-grids of Chinese verbs are not necessarily filled in sentences, object deletion has been taken to illustrate some typological theories, including subject/topic-prominent languages (Li & Thompson, 1976, 1981) and parataxis against hypotaxis (Nida, 1966; L. Wang, 1984, pp. 468-472). L. Xu (2015) provided a comprehensive summary of object deletion in Chinese, noting that some verbs strictly require an overt theme to be present, such as 繁荣 *fanrong* ‘boom’ and 温暖 *wennuan* ‘warm’, they are relatively few, and the majority of Chinese verbs are “amphibious” in this regard.

### **1.2.2 Transitivity alternation**

A more convoluted terminological situation has arisen around the phenomenon of transitivity alternation presented in examples (4) and (7), above. For generations, Chinese linguistics has witnessed the application to Chinese of notions that were originally proposed for Indo-European languages. The three major waves of this process have been ergativity, the

unaccusative hypothesis, and the anticausative theory, and all have impacted scholars' understanding of Chinese transitivity alternation to some extent.

#### 1.2.2.1 Ergativity

The first round of the application came with the theory of ergativity (Anderson, 1976; Dixon, 1979; Lyons, 1977). In Eskimo, Basque, Abaza, Chukchee, Dyrbal and other ergative languages, the subject of an intransitive verb systematically behaves in the same way as the object of a transitive verb, and the notion of ergativity nearly always hinges on case marking (Otsuka, 2000, p. 13). The theory of ergativity was introduced into the field of Chinese linguistics shortly after its emergence. In an investigation of Classical Chinese, Cikoski (1978) linked verb alternation of the type presented in example (7) to ergativity, and claimed that alternating Chinese verbs are ergative verbs, in contrast to neutral verbs that only allow object deletion. Thereafter, ergative verbs (作格动词 *zuoge dongci*) and ergative structures (作格结构 *zuoge jiegou*, the agentless them-initial structures formed by ergative verbs) became the focus of research by a number of Chinese linguists (e.g., Shen & Sybesma, 2012; Song, 2009; Wu, 2008; Zeng, 2009; L. Zhang, 2009).

However, the term ergative may not be appropriate to descriptions of verb alternation in Chinese. It has been noted that ergativity was originally introduced to refer to the case-marking systems in which the subject of an intransitive verb systematically bears the same case marker as the object of a transitive verb. Insofar as (i) Chinese does not have a case-marking system, and (ii) the subject of an intransitive verb does not systematically behave the same as the object of a transitive verb, as confirmed by the object deletion illustrated in examples (2) and (6),

application of the terms ergative and ergativity to Chinese may result in confusion among researchers outside of China. Accordingly, this dissertation will not use them.

#### 1.2.2.2 Unaccusative

Another Western concept introduced to explain Chinese transitivity alternation is the unaccusative hypothesis. Perlmutter (1978) established the existence of two sub-classes of intransitive verbs, i.e., unergative verbs that take agent-like subjects and unaccusative verbs that take theme-like subjects. The term ‘unaccusative’ is intended to highlight the lack of canonical accusative licensing for the semantic object. Based on a discussion of the applicability of the unaccusative hypothesis to Italian, Burzio (1986) proposed a list of verbs that are unaccusative in English, as follows:

(8) arise, emerge, develop, ensue, begin, exist, occur, arrive, follow

Chinese linguists responded quickly to the unaccusative hypothesis. Based on the observation by Lv (1987), illustrated in examples (2) and (3), above, C.-T. Huang (1989) grouped existential verbs such as 有 *you* ‘have’, 来 *lai* ‘come’, 发生 *fasheng* ‘happen’, 死 *si* ‘die’ and 在 *zai* ‘exist’ together with 败 *bai* ‘defeat’ and referred to them as Chinese unaccusative verbs (非宾格动词 *fei bingge dongci* or 作格动词 *zuoge dongci*). This approach was followed by Y.-H. Li (1990), and later extended to non-existential verbs (cf. J. Xu, 1999, 2001; S. Yang, 1999; N. Yu, 1995).

Though the term ‘unaccusative’ has since become widely accepted in Chinese linguistics, the present dissertation does not use it, firstly because its literal meaning bears a close relationship to case marking, which is absent from Chinese, rendering its use to refer to Chinese

non-intuitive. Second, and more fundamentally, there is an incongruity between the definition of unaccusative verbs and the transitivity alterability of verbs. In English, it was recognized more than two decades ago that some unaccusative verbs, such as *fall* and *die*, can hardly be used transitively, especially in comparison with other unaccusative verbs (Levin, 1993, pp. 26-27). The same situation is also observable in Chinese. The most commonly cited definition of unaccusative verbs holds that they involve theme-like subjects, but not all intransitive verbs that take theme-like subjects can participate in alternation in Modern Mandarin. For example, the Chinese semantic counterparts to the English unaccusative verb *break* are 破 *po* and 坏 *huai*. Both can occur in theme-initial structures freely, and thus can be classified as unaccusative verbs, and yet the transitive use of them in Modern Mandarin sounds bizarre<sup>2</sup>:

- (9) a. 花瓶 破了。  
 Huaping po - le.  
 vase break-LE  
 'The vase broke.'  
 b. 琳琳 破了 花瓶。  
 Linlin po-le huaping.  
 Linlin break-LE vase  
 'Linlin broke the vase.'

Since transitivity alternation is a key matter of interest to this dissertation, employment of the term 'unaccusative' could be misleading and will be avoided.

### 1.2.2.3 Causative, anticausative, and inchoative

---

<sup>2</sup> In Classical Chinese there is a systematic operation called causativization, whereby intransitive verbs, transitive verbs, adjectives, and even nouns can take objects and be used causatively (Zadrava, 2011, p.142). So 破 *po* and 坏 *huai* can also be used transitively in Classical Chinese.

The term ‘anticausative’ owes its origin to Nedjalkov & Sil’nickij (1969/1973), and was carried forward by Haspelmath (1987). It was initially invented to name the case marker opposed to the causative.

(10) The subject of this paper is the typology of the causative opposition  $V_i: V_j...$ . The member of the opposition that is non-causative in meaning is formally marked by means of an anticausative morpheme, i.e.  $V_i <- V_j...$  (Nedjalkov & Sil’nickij, 1969/1973)

The notion of the anticausative was later taken up by Levin (1993, pp. 26-27) to address a subcategory of unaccusative verbs. As mentioned above, it was noticed that some English unaccusative verbs can hardly be used transitively. Against this background, the concept of anticausative verbs was used to specifically label those alternating unaccusative verbs, with *break* as a key example (Levin, 1993; Schafer, 2009). When anticausative verbs are used transitively, the structure is causative, whereas when they are used intransitively, researchers refer to the structure as anticausative or inchoative<sup>3</sup> (Haspelmath, 1987; Schafer, 2009).

This set of terms does not seem appropriate for use in this dissertation. This is because the terms ‘causative’, ‘anticausative’, and ‘inchoative’ are all derived from the meaning/function of the phenomena they are describing, but in Chinese, there is not yet any unanimous view of the functions of the structures in transitivity alternation (as will be discussed in section 1.2.3). Therefore, acceptance of any one of these terms could easily lead to a *priori* bias in our analysis of their functions. Moreover, the term ‘anticausative’ implies a directionality of derivation –

---

<sup>3</sup> It needs to be pointed out the phenomena described by the term ‘inchoative’ have been fairly miscellaneous. According to Dubois et al. (1973, p. 252), this term was first used in Gothic grammar for the forms in *-na-*. while Lakoff (1970, pp. 32, 98) used ‘inchoative’ for words like *thicken* (derived from *thick*).

from transitive to intransitive – which is inconsistent with construction grammar’s assumption that what we see is what we get (to be discussed in Chapter 2).

#### 1.2.2.4 Labile verbal and verbal lability

It is worth reiterating that none of the terms ergative, unaccusative, anticausative, inchoative, 作格动词 *zuoge dongci*, 作格结构 *zuoge jiegou*, and 非宾格动词 *feibinge dongci* seems to be a satisfactory term for use in this dissertation. ‘Ergative / 作格 *zuoge*’ and ‘unaccusative / 非宾格 *feibinge*’ inherently pertain to information about case, a category absent from Chinese, while ‘unaccusative / 非宾格 *feibinge*’ cannot fully account for transitivity alternation in Chinese. And the causative, anticausative, and inchoative carry particular semantic implications pointing at the functions of the phenomena they are describing, which have not been attested in Chinese. All of this implies that appropriate terms for this dissertation should be solely based on the form of Chinese transitivity alternation, and not hinge on any background information or assumptions that do not hold true for Chinese. One concept that meets both of these criteria is lability.

As a literal synonym for ‘unstable’, the term ‘labile’ was originally used in Caucasian linguistics (Nichols, 1984, p. 195) to deal with the ability of a verb to be either transitive or intransitive. However, this definition of labile verbs has not been unanimously accepted since that time. Some researchers have included object deletion in the discussion of verb lability, including Dixon (1994, p. 6), who used the term ‘A-lability’ to distinguish object-deletion from transitivity alternation, which was referred to as ‘P-lability’. Nonetheless, discussion of lability has focused predominantly on transitivity alternation (e.g., Gianollo, 2014; Haspelmath, 1987, 1993; Heidinger, 2014; Kulikov, 2003; Letuchiy, 2009, 2015; Mcmillion, 2006). Based on this

body of work, Letuchiy (2009) arrived at two parameters that could be used to formulate a general definition of labile verbs: (i) labile verbs have at least two distinct uses, one transitive and one intransitive; and (ii) the syntactically privileged arguments (subjects) in these different uses have different semantic roles.

Linguists have investigated verb lability in languages from diverse genetic and geographic backgrounds. As Gianollo (2014) noted, “the notion of lability has become current in typological studies for designating the cross-linguistically attested phenomenon of morphologically unmarked transitivity alternations.”

By definition, the term ‘labile’ is not dependent on any other category, and does not entail any semantic information about the related structures; it thus intrinsically raises the possibility of a discussion of verb alternation that bridges case-marking languages and isolating ones. Given this dissertation’s intention to be situated in a broader typological context and to line Chinese up with lability-attested languages (including Indo-European languages and Caucasian ones), ‘labile’ would seem the most felicitous term to use in it.

As discussed above in section 1.1, in addition to bare verbs, some ‘verb + complement/other elements’ structures also allow transitivity alternation. These include 打败 *da-bai* ‘play-defeat’, 哭湿 *ku-shi* ‘cry-wet’, 唱哭 *chang-ku* ‘sing-cry’, and 藏在心里 *cang-zai xin li* ‘hide into heart’. As used in this dissertation, the term ‘labile verbal’ includes this type of ‘verb + complement/other elements’ structure alongside bare verbs; and accordingly, the ability of these labile verbals to be used transitively and intransitively is referred to as ‘lability’.

A major drawback of adopting the term ‘labile verb’ comes from its low rate of recognition among Chinese linguists. No Chinese literature using this term has been found, and

the extent to which Chinese linguists will accept this unfamiliar term – or recognize differences between it and previously used ones – remains unknown.

#### 1.2.2.5 Summary of the terminology dispute for transitivity alternation

As detailed in the above sections, various terms have been introduced into Chinese linguistics from Indo-European linguistics to describe the verbs and structures relevant to transitivity alternation, including ergative, unaccusative, anticausative, inchoative, 作格动词 *zuoge dongci*, 作格结构 *zuoge jiegou*, and 非宾格动词 *feibingge dongci*. It is noteworthy that in practice, these terms have been extensively mingled together: with 作格动词 *zuoge dongci* and 作格结构 *zuoge jiegou* – the most frequently used in the Chinese literature – sometimes being taken as opposites of ‘causative’ / 使动 *shidong* (e.g., Aldridge, 2015; Shen & Sybesma, 2010; Zeng, 2009).

In contrast to these widely accepted terms, with their heavy freight of background information and semantic implications, the concept of verb lability is transparent regarding the phenomenon described by it. Its lack of recognition among Chinese linguists seems a rather trivial concern, in comparison to the problems that can be avoided by using it. Correspondingly, the intransitive structure formed by alternating verbs can easily be represented as the intransitive labile construction, without any presuppositions about its function having to be made.

### 1.2.3 Controversial transitivity alternation

The preceding sections have only reviewed the literature on non-controversial transitivity alternation, as presented in examples (4) and (7) (about 打败 *da-bai* ‘play-defeat’ in Modern Mandarin and 免 *mian* ‘pardon’ in Classical Chinese), and the theme-initial reading of 鸡不吃



了 *ji bu chi-le* ‘the chick will not be eaten’ has not been discussed yet. This leaves the problem of verbs that allow object deletion and transitivity alternation simultaneously, such as 吃 *chi* ‘eat’ in (1). The reason it is termed ‘controversial transitivity alternation’ here is that, in spite of being alterable in Chinese, verbs like 吃 *chi* ‘eat’ are conventionally classified as transitive verbs. It appears that only one study of Modern Mandarin has so far incorporated them into the discussion of verb alternation (Shen & Sybesma, 2012). C.-T. Huang (1989) explicitly excluded 吃 *chi* ‘eat’ from alternating verbs, pointing out that an agent is clearly implied in 鸡不吃了 *ji bu chi-le* ‘the chick will not be eaten’. But then, what is the ‘theme + transitive verb’ structure? This problem in fact constitutes one of the most contentious areas in Chinese linguistics, and has given rise to at least three paradigms: passive constructions, middle voice/construction, and topic structures.

It is worth noting, however, that the problem of controversial vs. non-controversial verb alternation is not as much of an issue in Classical Chinese, whose transitivity-alternation phenomenon has been described as 施受同辞 *shishoutongci* ‘a verb can take agent or theme as its subject’ (Onishi, 2004; S. Yang, 1924/1956), and as 反宾为主句 *fanbinweizhujū* ‘object-as-subject sentence’ (J. Li, 1933/1986). Classical Chinese linguistics typically does not distinguish transitive verbs, such as 伐 *fa* ‘attack’ in example (5), from alternating verbs, such as 免 *mian* ‘pardon’ in example (7).

### 1.2.3.1 Passive construction

Chinese linguists have long maintained that the ‘theme + transitive verb’ structure is a special type of passive construction without an overt passive marker, the so-called notional/unmarked/pseudo passive construction. This view can be traced back to Ma (1898) and

has been reaffirmed from time to time (e.g., Bo & Zhan, 2006; Lu, 2004; Shi, 2003; Shi & Tang, 1999; Tang, 2006; L. Wang, 1958/2004, pp. 418-420; Yang & He, 1992; Yip & Don, 2004, 2015; F. Zhou, 1961). Some researchers have gone so far as to claim that the ‘theme + transitive verb’ structure is “the most common form of passive in Chinese” (Yip & Don, 2004, p. 210) and the earliest mode of passive expression in Chinese (L. Wang, 1958/2004, p. 418). Corpus data also suggest that this structure plays an indispensable role in Chinese passive expression. Xiao and his colleagues (2006, 2015) studied a parallel corpus composed of approximately 250,000 English words and 400,000 Chinese ones, and found that only around 20% of *be* passives are translated into Chinese using syntactically marked passive constructions, with the majority being translated using the ‘theme + transitive verb’ structure (which the authors called the ‘notional passive’).

Interestingly, despite the obvious importance of the ‘theme + transitive verb’ structure in Chinese grammar, no method has ever been proposed to precisely distinguish it from the intransitive labile construction (or ergative/unaccusative structure) discussed in section 1.2.2. Very few studies have incorporated verbs like 吃 *chi* ‘eat’ into their discussions of verb alternation; and yet, the well-recognized alternating verb 开 *kai* ‘open’ appears in almost all research on the Chinese notional/unmarked/pseudo passive construction. According to Haspelmath (1987), the difference between passive and anticausative is determined by whether there is an implied agent:

- (11) In the passive, the actor is not in the subject position, but it can often be expressed in an actor phrase, and in any case the existence of an actor is implied in a passive clause. In the anticausative, however, the actor is completely eliminated, not only syntactically, but also semantically. And the process is presented as going on spontaneously. This semantic distinction is often quite subtle, but it is decisive. (Haspelmath, 1987)

The reasons that Huang (1989) gave for excluding 鸡不吃了 *ji bu chi-le* ‘the chick will not be eaten’ from his analysis of the unaccusative also involved the implied agent.<sup>4</sup> However, this principle is highly subjective and nearly impossible to implement in Chinese insofar as, out of context, both interpretations are usually possible. For example, 门开了 *men kai-le* can be understood as ‘the door opens spontaneously’ or ‘the door is opened by somebody’. It is also hard to say, from the perspective of Chinese speakers’ processing, whether 鸡不吃了 *ji bu chi-le* ‘the chick will not be eaten’ implies an agent or not without recourse to extensive experimental data.

In sum, it is still a mystery how the so-called notional/unmarked/pseudo passive construction differs from the non-controversial intransitive labile construction (or the ergative/unaccusative structure) reviewed in the previous section.

### 1.2.3.2 Middle construction/voice

Another term that has been adopted to refer to the ‘theme + transitive verb’ structure is ‘middle construction/voice’, but Chinese linguists’ understandings of this concept are extremely varied. X. He (2005) and J. Ting (2006) have both argued that the ‘theme + transitive verb’ structure is on a par with the middle construction or middle voice in other languages, but the denotations of Chinese middle construction are slightly different in their respective works. Inspired by the proposition that active vs. middle is the basic voice opposition in classical Indo-European languages, Fula, and Tamil (cf. Klaiman, 1991; Lyons, 1968), X. He (2005, p. 171)

---

<sup>4</sup> However, Huang (1989) did not claim that 鸡不吃了 *ji bu chi-le* ‘the chick will not be eaten’ is passive, but instead used the term 省略结构 *shenglv jie gou* ‘omission structure’, or in his later work, ‘middle construction’ (cf. Cheng & Huang, 1994).

called for a fundamental re-thinking of the Chinese voice-system. According to her, in analysis of Chinese ‘theme + transitive verb’ structure (known in her work as patient-subject construction), the unaccusativity-based account needs to be abandoned. This implies that theme-initial structures formed by non-controversial alternating verbals, such as 打败 *da-bai* ‘play-defeat’, should also be treated as middle voice. J. Ting (2006), meanwhile, targeted only “the so-called notional passives in Mandarin Chinese”, but provided no information on whether that category included non-controversial alternating verbs or not.

Other researchers have been more reticent to claim the ‘theme + transitive verb’ structures as middle constructions. For example, Xiong (2013) argued that the middle construction is primarily a semantic category, but with specific syntactic properties, and that ‘genericity’ should be taken as the defining semantic feature of the middle construction; thus, structures like 鸡不吃了 *ji bu chi-le* ‘the chick will not be eaten’ are excluded from middle constructions. In a study focusing on resultative compounds, however, Cheng & Huang (1994) distinguished 气球吹破了 *qiqiu chui-po-le* ‘the balloon was popped (blown-broken)’ from 这本书写累了李四 *zhe-ben shu xie-lei-le Lisi* ‘this book got Lisi to write himself tired’, and argued that the former was the middle construction, and the latter, ergative. The same study maintained that the subject of the ergative structure is a causee whereas the subject of the middle construction is not. However, circumscribing the notion of causee is no easier than distinguishing passive from anticausative, and they did not discuss ambiguous resultative compounds that might be understood as both, such as 关上 *guan-shang* ‘close’.

As well as the ‘theme + transitive verb’ structure, the notion of middle has been used to describe the ‘NP + 给 *gei* + VP’ structure (Shen & Sybesma, 2010), the ‘NP + V + 起来 *qilai* + AP’ structure (e.g., Y. Chen, 2016; Sung, 1994; G. Yu & H.-W. Si, 2008), and many other

structures (cf. Xiong, 2013). The problem is that, by intrinsically “not telling much and being polysemous” (Haspelmath, 1987), the term ‘middle’ in the Chinese case enables diverse interpretations from a variety angles, whose relative levels of interpretive quality is technically impossible to establish. In light of this vagueness, this dissertation will refrain from using it.

### 1.2.3.3 Topic structures

Intuitively, the ‘theme + transitive verb’ structure can be considered as a topic structure, but in fact very few researchers have taken this approach (X. Dong, 2015; Xu & Liu, 1998). The difficulties of applying the theories of topic to analyses of the ‘theme + transitive verb’ structure operate primarily on two levels: the vagueness of the notion *per se*, and the specific Chinese topic structures that are most frequently studied.

The concept of sentence topic is “one of the most controversial linguistic ideas” (Maslova & Bernini, 2006). First and foremost, the sentence topic must be distinguished from the discourse topic, which has more to do with contextualized understanding and text cohesion than with the grammatical forms of sentences (cf. Barnes, 1985; Halliday & Hasan, 1976; Ochs Keenan & Schieffelin, 1976; Reinhart, 1982; van Dijk, 1977; Van Oosten, 1985). Y.-R. Chao (1968) treated sentence topic as a concept in semantics, as distinct from subject, a concept in grammar; and argued that the semantic relation between subject and predicate is exactly the same as the relation between topic and comment. Later, there arose the more influential view that the topic of a sentence is the thing that the proposition expressed by the sentence is about (cf. Gundel, 1976; Kuno, 1972; Lambrecht, 1994; Reinhart, 1982) – though it needs to be pointed out here that the relationship expressed as “aboutness” is also an ambiguous one. Chafe (1976) defined topic as a “scene-setting” expression, or an element that sets “a spatial, temporal or

individual framework within which the main predication holds.” Chafe’s definition was introduced into Chinese linguistics by Li & Thompson (1976, 1981), and developed into the typological framework of subject/topic-prominent languages, which laid out a major paradigm pursued by generations of Chinese linguists (e.g., Cole, 1987; C.-R. Huang, 1991; Y.-C. Li, 1994; T.-C. Tang, 1988; Tsao, 1990, 1995; Xu, 1986; Xu & Langendoen, 1985; Xu & Liu, 2007).

Among the large number of studies exploring sentence topics in Chinese, the ‘theme + transitive verb’ structure is not frequently discussed at all. In this body of work, as an obvious deviation from the canonical SVO word order, the OSV structure attracts far more attention (e.g., C.-T. Huang, 1984a, 1984b, 1987; Y.-F. Qu, 1994; D. Shi, 1992, 1998, 2000; Shyu, 1995) than the ‘theme + transitive verb’ structure. Indeed, the investigation of Chinese topic structures is sometimes specifically confined to the OSV word order (e.g., Huang, Li, & Li, 2009, p. 202).

To my knowledge, only two studies have included the ‘theme + transitive verb’ structure in the analysis of topic, i.e., Xu & Liu (1998) and Dong (2015). Despite their book having reviewed the definitions of topic fairly comprehensively, Xu and Liu’s own use of the term switched back and forth between sentence topic and discourse topic, and the major part of their work remained devoted to OSV and SOV structures. Dong, meanwhile, was particularly focused on topic-controlled ellipsis patterns in Classical Chinese, and consistently used ‘topic’ to mean discourse topic. She posited that the frequently employed discourse strategy of topic-controlled ellipsis might have facilitated the formation of the later prevailing ‘theme + transitive verb’ structure; but as Chapter 3 will show, this proposition is not supported by historical data.

Thus, in light of its complex denotations and the common recognition about it among Chinese linguists, the term ‘topic’ will be avoided when this dissertation refers to controversial transitivity alternation.

#### 1.2.3.4 Summary of the terminological dispute over controversial transitivity alternation

In this section so far, we have reviewed three major accounts of the ‘theme + transitive verb’ structure in Chinese – i.e., passive structure, middle voice/construction, and topic structure – and found that none of them are felicitous terms for use in this dissertation, given its focus on transitivity alternation. Challenges to such use reside both in the vagueness of the terms, and the fuzzy border between transitive verbs and the non-controversial alternating verbs (ergative/unaccusative verbs) discussed in section 1.2.2. In the meantime, a question arises as to where the controversy concerning the ‘theme + transitive verb’ structure comes from, given that transitive verbs are not distinguished from other alternating verbs in most studies of Classical Chinese (e.g., J. Li, 1933/1986; S. Yang, 1924/1956; for an exception see Cikoski, 1978).

It was instantiated in section 1.2.2 that Chinese linguists’ recognition of transitivity alternation was bound up with generations’ worth of application of Indo-European linguistic theories to Chinese. It seems clear that transitive verbs such as 吃 *chi* ‘eat’ cannot participate in transitivity alternation in those languages that the ergative theory, the unaccusative theory, and the anticausative theory are rooted in. This situation has forced Chinese linguists to be cautious about applying these notions to transitive verbs such as 吃 *chi* ‘eat’, though such verbs also appear to undergo alternation in Chinese sentences. In contrast, scholars whose focus is on Classical Chinese have proven relatively immune from the influence of Indo-European linguistic theories, and thus tend to treat alternation straightforwardly (施受同辞 *shishoutongci* ‘a verb

can take agent or theme as its subject’ or 反宾为主句 *fanbinweizhujū* ‘object-as-subject sentence’), without much apparent concern that alternating verbs may be heterogeneous in nature. In other words, contention regarding the ‘theme + transitive verb’ structure has largely been a byproduct of researchers’ attempts to apply Indo-European linguistic theories to Chinese.

On the other hand, it was concluded at the end of section 1.2.2 that ‘labile verb’ seems to be the most felicitous term for a Chinese alternating verb, due to its transparency and straightforwardness. Moreover, a literal correspondence can be observed between it and the terms used by scholars of older forms of Chinese. ‘Labile’ literally means ‘unstable; changeable’; S. Yang (1924/1956) used the term 施受同辞 *shishoutongci* ‘a verb can take agent or theme as its subject’ (see also Onishi, 2004); and J. Li (1933/1986) used 反宾为主句 *fanbinweizhujū*, ‘object-as-subject sentence’. Therefore, by breaking away from the stereotypes generated by the importation of Indo-European linguistics, it should be amply possible to incorporate alternating transitive verbs into the discussion of labile verbs in Chinese, and also to describe ‘theme + transitive verb’ structures as the intransitive labile construction.

#### 1.2.4 Summary of the terminological dispute

The terms that have been used in Chinese linguistics to refer to the observations presented in section 1.1 have been reviewed. The terminological system established for use in this dissertation based on the results of such review is summarized below.

Object deletion is an operation in which the object is deleted without affecting the truth condition of the sentence.

- (12) a. 中国队打胜了韩国队。  
Zhongguo dui **da-sheng-le** Hanguo dui.  
China team play-win-LE South Korea team  
‘The Chinese team won over the South Korean team.’ (The Chinese team won.)



b. 中 国 队 打 胜 了。

Zhongguo dui **da-sheng-le**.  
China team play-win-LE  
'The Chinese team won.'

(13) a. 秦子, 梁子, 以 公 旗 辟 于 下 道。

Qinzi Liangzi yi gong qi **bi** yu xia dao.  
Qinzi Liangzi with duke flag dodge at small path

'Qinzi and Liangzi dodge at the small path under the name of the duke.'

(《左传》)

b. 将 焉 辟 之?

Jiang yan **bi** zhi?  
will how avoid 3  
'How to avoid it?'

(《左传》)

Labile verbs are those that can alternate between transitive and intransitive use without any overt marking: i.e., labile verbs allow 'A + V + B' (or the disposal structure in Chinese) and 'B + V' simultaneously to express the same event. In addition to bare verbs, some 'verb + complement/other elements' structures can also alternate between transitive and intransitive use, so the term 'labile verbal' is employed in this dissertation to describe them. The following are some examples of labile verbals:

(14) a. 中 国 队 打 败 了 韩 国 队。

Zhongguo dui **da-bai-le** Hanguo dui.  
China team play-defeat-LE South Korea team

'The Chinese team defeated the South Korean team.' (The Chinese team won.)

b. 韩 国 队 打 败 了。

Hanguo dui **da-bai-le**.  
South Korea team play-defeat-LE  
'The South Korean team lost.'

(15) a. 若 从 君 惠 而 免 之.....

Ruo cong jun hui er **mian** zhi.....  
if accept monarch favor CONJ pardon 3

'If (you could) accept the monarch's favor and pardon our sins...'

(《左传》)

b. 女 子 曰: “君 免 乎?”

Nvzi yue: “Jun **mian** hu?”  
woman say monarch pardon QUES

'The woman asked: "Is the monarch pardoned from (the catastrophe)?"'

(《左传》)

The intransitive structures formed by labile verbs, such as (14b) and (15b), are simply called the intransitive labile construction.

There are occasions when both object deletion and transitivity alternation are allowed at the same time, and ambiguity occurs.

(16) 鸡 不 吃 了。

Ji bu **chi**-le.

chick NEG eat-LE

‘The chick does not eat (anything). / The chick will not be eaten.’

(17) 《春 秋》 伐 者 为 客, 伐 者 为 主。

*Chunqiu* **fa** zhe wei ke, **fa** zhe wei zhu.

*Spring and Autumn Annals* attack people is guest attack people is host

‘In the *Spring and Autumn Annals*, those who attack are guests, those who are attacked are hosts’.

(《公羊传》)

This system of terminology is directly and solely based on description of the form. By not encoding any information about the meaning/function of the phenomena being described, these terms serve to reduce or eliminate biases regarding meaning/function. Without turning to any notions that, in Chinese, are absent (e.g., case), polysemous (e.g., middle), vague (e.g., topic) or contentious (e.g., passive), the present terminological system is unmatched in its transparency and straightforwardness. It is hoped that these qualities will enable it to play a positive role in applied linguistics fields, including Chinese teaching (as well be discussed in Chapter 7) and machine translation. Moreover, it will allow some unnecessary controversies, such as have arisen regarding the border between unaccusative/ergative verbs and transitive verbs, to be avoided.

### 1.3 Research Questions

According to a corpus study conducted by Tao and Thompson (1994), the most frequently occurring structure in Modern Chinese conversations is X+V, where X is a verbal argument, regardless the argument structure of the verb; and theme-verb constructions accounted for 48%

of all sentences. This echoes the findings of a number of other studies that have pointed out the importance in Chinese of the notional passive construction, a subtype of what this dissertation refers to as the intransitive labile construction (cf. L. Wang, 1958/2004, p. 418; Xiao, 2015; Xiao et al., 2006; Yip & Don, 2004, 2015).

In view of the obvious prevalence of the intransitive labile construction in Chinese, this dissertation is driven by the disputes pertaining to its form and function that were presented in section 1.2. In particular, it will attempt to provide answers to the following questions:

- I. What are the form (constituents and constraints) and function (meaning) of the intransitive labile construction in Chinese? Specifically:
  - i. What are the forms and semantic features of Chinese labile verbals across different historical periods?
  - ii. What are the characteristics of different subtypes of verbal lability in Chinese?
  - iii. What is the function of the intransitive labile construction as a prototype, especially in contrast with the most widely accepted Chinese passive, the 被 *bei* construction.
- II. Situated in a worldwide cross-linguistic context, what are the general characteristics of labile verbals and the intransitive labile construction in Chinese?
- III. How is verbal lability treated in Chinese teaching and acquired by Chinese learners who have English as their L1? Are there any improvements that can be made in teaching the intransitive labile construction?

## **1.4 Organization**

The remainder of this dissertation is structured as follows. Chapter 2 introduces its framework, underlying assumptions, and methodology. In Chapter 3, contingencies between

labile verbs and the intransitive labile construction are estimated by historical period from corpus data, to provide a historical background regarding Chinese monosyllabic labile verbs, the intransitive labile construction, and the related typological characteristics of Chinese. Chapter 4 focuses on the relationship between compounding and the development of labile verbals in Chinese, and further discusses the functional development of verbal characters. Chapter 5 introduces the typology of labile verbs and applies it to Chinese, and sheds light on the cognitive base that underlies the association between change-of-state events and verbal lability in human languages. Chapter 6 contrasts the distributional constraints of the intransitive labile construction against the well known Chinese passive, the 被 *bei* construction, in corpus data across different historical periods, thus revisiting the notion of the passive in Chinese. And lastly, via two experiments, Chapter 7 explores the pedagogical implications of the dissertation's findings concerning the intransitive labile construction.

## CHAPTER 2 FRAMEWORK AND METHODOLOGY

### 2.1 Background of Construction Grammar: Major Movements of Linguistics

#### 2.1.1 From structuralism to generative grammar

Structural linguistics is generally regarded as the landmark of modern linguistics. It begins with the posthumous publication of Ferdinand de Saussure's *Course in General Linguistics* in 1916 compiled from lectures by his students. The foundation of structural linguistics is based on the notion of “sign”, containing two components: a “signified” is an idea or concept, while the “signifier” is a means of expressing the signified. The “sign” is thus the combined association of signifier and signified. The relationship between signs can be “paradigmatic” or “syntagmatic”. Paradigmatic relations hold among sets of units that exist in the mind, such as the set distinguished phonologically by variation in their initial sound *cat, bat, hat, mat, fat*, or the morphologically distinguished set *ran, run, running*. The units of a set must have something in common with one another, but they must contrast too, otherwise they could not be distinguished from each other and would collapse into a single unit. Syntagmatic relations, in contrast, are concerned with how units, once selected from their paradigmatic sets of oppositions, are chained together into structural wholes.

Saussure's structuralism (1916/1959) involves two important dichotomies: (1) *langue* versus *parole* and (2) form versus substance. *Langue* is the totality of regularities and patterns of formation that underlie the utterances, whereas *parole* refers to the actual utterances. Two utterances can be identical in form that is in principle independent of the variant substance or “raw material.” In fact, “structuralism,” in the European sense is the view that there is an abstract relational structure underlying and different from actual utterances and that this is the primary

object of study for linguists. Although the structural approach is not restricted to synchronic linguistics, Saussure, despite the structural orientation of his early work in the historical and comparative field, maintained that, whereas synchronic linguistics should deal with the structure of a language system at a given point in time, diachronic linguistics should be concerned with the historical development of isolated elements: it should be atomistic (Mitra, 2001-2003).

Bloomfield (1933), Wells (1947) and Harris (1951) developed Saussure's structuralism further in the United States and Noam Chomsky's work developed in particular in immediate reaction to Harris's program, therein he noted that structural linguistics was efficient for phonology and morphology, because both have a finite number of units that linguists can collect. However, Chomsky (1957) does not believe structural linguistics is sufficient for syntax, reasoning that an infinite number of sentences could be uttered, rendering a complete collection impossible. Instead, he proposed that the job of linguists should be creating a small set of rules that could generate all the sentences of a language, and nothing but those sentences. Chomsky's critiques led him to found generative grammar.

Therefore, the fundamental difference between structuralism and generative grammar stems from the fact that Chomsky focuses on those aspects of structure that make the system recursive, whereas structuralism in fact focuses on finite levels of language, such as morphophonemics (Lasnik & Lohndal, 2013). Within a few years, Chomsky broke with the structuralism on other points. He adopted a "mentalist" theory of language, meaning that the proper concern is with a speaker's creative linguistic competence and not performance, and believed that language is rooted in biology, not behavior... in a universal grammar that

humans are born knowing that underlies all languages despite the superficial variations that appear large.

### **2.1.2 From generative grammar to cognitive linguistics**

Ever since structuralism, the dominant view among linguists and philosophers of language is that human language is essentially arbitrary and symbolic (Tai, 1993), which is in sharp contrast with the iconic nature of animal communication:

- (1) Animal language... makes use of a fixed, finite number of linguistic dimensions, each of which is associated with a particular non-linguistics dimension in such a way that selection of a point along the linguistic dimension determines and signals a certain point along the non-linguistic dimension... The mechanism and principle, however, are entirely different from those employed by human language. (Chomsky, 1972, p. 69)
  
- (2) Our interpretation of the world is based in part on the representational systems that derive from the structure of the mind itself and do not mirror in any direction the form of things in the external world. (Chomsky, 1981, p. 3)

The two cited references are among many examples representing Chomsky's view that language is autonomous and innate. This view is also in line with his reservation on attempts to understand human language through evolution from pre-human to human (e.g., Chomsky, 1979, pp. 85-88; 1988, pp. 150-170). It is also worth pointing out that Chomsky's innateness hypothesis claims that human beings possess a language-specific faculty which is independent of their general cognitive capacities. He argues that the language-specific faculty cannot be derived from other cognitive systems of human beings (cf. Chomsky, 1986, 1988), and thus posits a definite boundary between linguistic and extralinguistic knowledge.

This standard doctrine of linguistics was challenged by cognitive linguists (cf. Haiman, 1980; 1983; 1985a, b; Lakoff, 1987; Langacker, 1987, 2008; etc.) mainly from three perspectives:

- I. If the language faculty cannot be understood through the evolution from pre-human to human, how is it developed?
- II. From a naive perspective (i.e. for those who lack linguistic training), it is hard to fathom why our species would have evolved an autonomous grammatical system independent of conceptual and phonological content (Langacker, 2008, p. 6).
- III. Whether these discrete boundaries between linguistic and extralinguistic knowledge are discovered by linguists or imposed on the basis of theoretical preconception.

In observation of these problems, cognitive linguistics posits that language inheres in the dynamic processing of real neural networks, and while the patterns that emerge are certainly amenable to analysis, the discrete notations and static representations devised by linguists can at best only approximate them (Langacker, 2008, p. 10). In other words, Language is best understood as a reflection of humans' multiple, dynamic, interacting cognitive processes and cognitive structures (Tyler, 2012, p. 28).

- (3) Cognitive linguistics stands out by emphasizing the semiological function of language. It fully acknowledges the grounding of language in social interaction, but insists that even its interactive function is critically dependent on conceptualization. Compared with formal approaches, cognitive linguistics stands out by resisting the imposition of boundaries between language and other psychological phenomena. Insofar as possible, linguistic structure is seen as drawing on other, more basic systems and abilities (e.g., perception, memory, categorization) from which it cannot be segregated. Rather than constituting a distinct, self-contained entity (a separate "module" or "mental faculty"), language is viewed as an integral facet of cognition. (Langacker, 2008, p. 7)



The notion of embodiment was therefore introduced from general cognition science to linguistics. Lakoff & Johnson (1999, p. 4) explained that reason arises from the nature of our brains, bodies, and bodily experience. It is shaped crucially by the peculiarities of our human bodies, by the remarkable details of the neural structure of our brains, and the specifics of our everyday functioning in the world.

By recognizing the relationship between language and human cognition, Langacker (2008, p. 37) points out that the boundaries between linguistic and extralinguistic knowledge are not clearly delineated. He further suggests, “the linguistic and the extralinguistic form a gradation rather than being sharply distinct. While there are limits to linguistic meaning, and valid distinctions can be drawn, imposing specific boundaries is both arbitrary and misleading.”

### **2.1.3 Cognitive linguistics and construction grammar (CG)**

It is noteworthy that cognitive linguistics has had, since its earliest formulations in the late 1970s, some bias towards lexical semantics (Lemmens, 1998, p. 15). Numerous studies are devoted to the investigation of polysemies, prepositions and metaphors (e.g., Brugman, 1983; Csábi, 2004; Lakoff & Johnson, 1980; Verspoor & Lowie, 2003). This tide did not really begin to turn until the introduction of construction grammar, which has extended ideas of cognitive linguistics to language as a whole. Ellis et al. (2015) noted:

- (4) It is not just that words typically relate to the things of the world, but, because language has emerged to describe our experiences of the world, so whole sentences are used to describe the doings of nouns in our world of experiences. Linguistic constructions which correspond to basic sentence types encode as their prototypical senses event types that are basic to human experience – those of something moving, something being in a state, someone causing a change of possession, something undergoing a change of state or location,

something having an effect on someone, etc. (cf. Croft, 2001, 2012; Goldberg, 1995; Levin, 1993).

Under the view of construction grammar, the basic units of language are constructions, which represent form and meaning pairings. According to construction grammar, a distinct construction is defined to exist if one or more of its properties are not strictly predictable from knowledge of other constructions existing in the grammar (Goldberg, 1995, p. 4; 2003).

- (5) C is a CONSTRUCTION iff<sub>def</sub> C is a form-meaning pair  $\langle F_i, S_i \rangle$  such that some aspect of  $F_i$  or some aspect of  $S_i$  is not strictly predictable from C's component parts or from other previously established constructions. (Goldberg, 1995, p. 4)

In line with the embodied nature of language presented before, Goldberg argues that simple clause constructions are associated directly with semantic structures that reflect scenes basic to human experience (1995, p. 6), and that constructions pertaining to basic argument structures are shown to be associated with dynamic scenes: experimentally grounded gestalts (1995, p. 5). After investigating four frequently used constructions, Goldberg (1995) was the first one pointing out that the central senses of argument structure constructions are associated with humanly relevant scenes: someone transferring something to someone, something causing something to move or to change state... the conceptual archetypes posited by Langacker (1991, p. 226).

#### **2.1.4 Summary**

From the review of major movements of linguistics in the past 100 years, it can be noticed that construction grammar is posited against generative grammar. The fundamental assumption of construction grammar is that language is associated with human experience,

which is essentially based on some dubious points cannot be accounted for by the hypothesis of universal grammar.

On the other hand, the notion of form and meaning pairing in cognitive grammar bears some similarities to the two components of symbol proposed by Saussure's (1916/1959) structuralism: signifier and signified. However, construction grammar maintains that the signified is essentially experimentally grounded gestalts, schemas of human conceptualizations of the world, which is not a concern of structuralism. In practice, an evident effect of structuralism has been the imposition of borders between notions in linguistic studies for decades, such as langue versus parole (somehow similar to language competence versus language performance in generative grammar, though "langue" is rejected by Chomsky), form versus substance, synchronic versus diachronic, and so forth. In contrast, construction grammar, as a general theory of syntactic representation for cognitive linguistics, recognizes that there are phenomena in our environment that are mutually exclusive and phenomena that only differ in degree, and so does human beings' cognition, which leads to the prototype theory to be taken up later.

## **2.2 Basic Tenets of CG**

In contrast to hypotheses involved with generative grammar, some tenets are assumed in the framework of cognitive linguistics and construction grammar:

- I. (Semantic) categories are not always well-delineated but structured around prototypes, with degrees of membership (Goldberg, 1995, pp. 13-14; Langacker, 1991, p. 266; 2008, p. 13).

- II. Syntax and lexicon do not have a clear-cut distinction. There is no unitary ‘grammar’ of language but rather a continuum of categories and constructions ranging from low frequency, highly specific, and lexical to high frequency, highly abstract, and general (Bybee, 2006).
- III. The nature of language is usage-based, contextualized exposure to input and frequency has an effect on language learning, processing, and novel use of language (Bybee, 2012; Langacker, 1988).
- IV. Constructions are meaningful in their own right (Goldberg, 1995; 2003; Langacker, 2008, p. 3), and the meaning of constructions and verbs interact in non-trivial ways (Goldberg, 1995, p. 24).

The following sections deal with each tenet in turn.

### **2.2.1 Prototype theory**

In our environment, there are phenomena that are mutually exclusive and phenomena that only differ in degree. Gonzales-Marquez, Becker, & Cutting (2007) listed *pregnancy* as a phenomenon that must be dichotomized. According to them, a woman can be pregnant or not, but she cannot be a little pregnant. Nevertheless, they also pointed out many other phenomena are treated as if they were also dichotomous, even though they are actually continuous, such as cooperative/competitive; introverted/extroverted; good/bad (Gonzales-Marquez, Becker, & Cutting, 2007).

In mainstream linguistic study, categorizing is largely dichotomizing by drawing borders between phenomena. It becomes a default assumption of classical categories that there must be strict boundaries around. However, as early as the 1970s, Rosch (1975a, b, 1977, 1978) argued

that this view of categories simply does not hold true. She demonstrates that each category has an internal structure, in the sense that some members might be “better,” or “more representative” (i.e. more “prototypical”) examples of the category than others, and that many categories lack clear-cut boundaries (Taylor, 2008). In the same vein, Langacker (2008) commented on the traditional view of categories:

- (6) This world of discrete units and sharp boundaries is definitely attractive. Dividing makes it easier to conquer. In particular, if meaning can safely be ignored, the description of grammar is greatly simplified (at least superficially). Discrete structures are more readily analyzed and more amenable to perspicuous formalization. Also, the categorical statements and strong predictability afforded by discreteness are highly valued in science. Yet language was not necessarily designed for the convenience or predilections of the analyst. We must therefore ask whether the basic discreteness commonly assumed by linguistic theorists has been discovered in language or imposed on it. Since my own experience ... I reluctantly conclude that it has largely been imposed. This is not to say, however, that everything in language is continuous—far from it—or to deny the utility of discrete representations, provided that we recognize their possible limitations. (Langacker, 2008, p. 13)

It therefore becomes an important characteristic of cognitive linguistics that (semantic) categories are not always well-delineated but structured around prototypes, the conceptual centers of the category. A category may have peripheral members, which lie in the blurred transition area between two categories (Lemmens, 1998, p. 12). A commonly cited example is that people more quickly classify as birds sparrows (or other average sized, average colored, average beaked, average featured specimens) than they do birds with less common features or feature combinations like geese or albatrosses (Rosch & Mervis, 1975; Rosch, Mervis, Gray, Johnson, & Boyes-Braem, 1976).

The application of prototype theory is mostly found in the study of word meanings, and proved especially fruitful in the investigation of polysemy (cf. Blank & Koch, 1999; Croft & Cruse, 2004; Geeraerts, 1989; Lakoff, 1982, 1987; Taylor, 1989; Ungerer & Schmid, 1996; etc.). In contrast, comparatively few researches have been conducted to look at constructions from the prototype theory, and the present study is an attempt along this line.

### 2.2.2 Syntax-lexicon continuum

Since it is believed by cognitive linguists that language is an integral facet of cognition, and that language is comprised of symbols, Langacker (2008, p. 7) claims that language allows “conceptualizations to be symbolized by means of sounds and gestures.” A symbolic structure ( $\Sigma$ ) thus resides in a link between a semantic structure (S) and a phonological structure (P), as represented in Figure 2.1(a). Two symbolic structures can combine to produce a higher-level symbolic structure, represented by the outer box, just like in Figure 2.1(b) and 2.1(c).

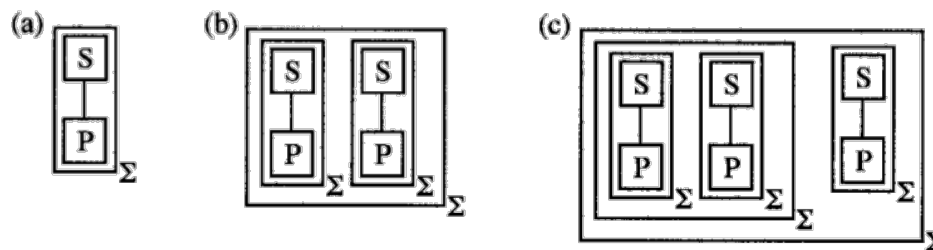


Figure 2.1. Symbolic complexity (Langacker, 2008, p. 15)

We can say that a series of structures like (a), (b), and (c) exhibit progressively greater symbolic complexity. Corresponding to diagrams (a), (b), and (c) would be a series of expressions such as *moon*, *moonless*, and *moonless night*.

Beside complexity, symbolic structures can also differ in terms of schematicity pertaining to the precision and detail of their characterization, which means symbolic assemblies can either be specific or schematic, as instantiated in example (7) and (8):

(7) (a) thing – creature – animal – dog – poodle

(b) do – act – propel – throw – fling

(8) V X *in the* N – *kick* X *in the skin* – *kick my pet giraffe in the skin*

(Langacker, 2008, pp. 19, 21)

In both (7) and (8), the initial structure is wholly schematic, and the last fully specific, with some in-between members. The difference between (7) and (8) lies in complexity: structures in (8) are more complex than those in (7), which typically are treated as lexical items. In addition, (7a) and (7b) belong to different word classes, both of which run the full gamut semantically from highly schematic, coarse-grained descriptions to those of a specific, fine-grained nature. It can be noted that the formation of the structures in (8) involves something commonly referred to as syntactic rules.

In sum, symbolic structures sketch along two parameters, namely complexity and schematicity, as represented in Figure 2.2, where the dashed line indicates the absence of any sharp boundary (corresponding to the prototype theory).

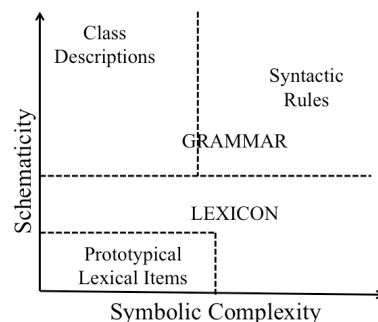


Figure 2.2. The syntax-lexicon continuum (adapted from Langacker, 2008, p. 21)

Examples of symbolic structures falling in different positions of Figure 2.2 are presented in Table 2.1, in which “atomic” stands for low complexity and “substantive” for low schematicity.

Table 2.1.

*The syntax-lexicon continuum* (Croft & Cruse 2004, p. 255)

<b>Construction type</b>	<b>Traditional name</b>	<b>Examples</b>
Complex and (mostly) schematic	<b>syntax</b>	[SBJ <i>be</i> -TNS V- <i>en</i> by OBL]
Complex, substantive verb	<b>subcategorization frame</b>	[SBJ <i>consume</i> OBJ]
Complex and (mostly) substantive	<b>idiom</b>	[ <i>kick</i> -TNS <i>the bucket</i> ]
Complex but bound	<b>morphology</b>	[NOUN- <i>s</i> ], [VERB-TNS]
Atomic and schematic	<b>syntactic category</b>	[DEM], [ADJ]
Atomic and substantive	<b>word/lexicon</b>	[ <i>this</i> ], [ <i>green</i> ]

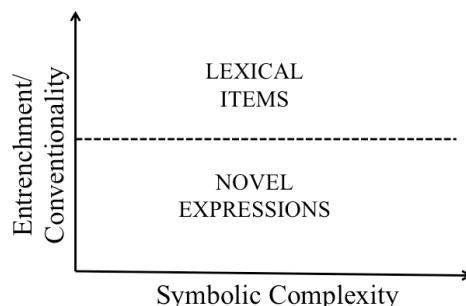
In this sense, syntactic patterns, are form meaning pairings, but at a more abstract (schematic) level than words (Langacker, 1987, p. 37). Bybee (2006) reaffirmed that there is no unitary ‘grammar’ of language but rather a continuum of categories and constructions ranging from low frequency, highly specific, and lexical to high frequency (see next section), highly abstract, and general.

The syntax-lexicon continuum is now embraced as a hallmark of cognitive linguistics and construction grammar, and derives another assumption of construction grammar: “what we see is what we get. (Goldberg, 2003)”. No underlying levels of syntax or any phonologically empty elements are posited under this framework.

### 2.2.3 The usage-based approach



It needs to be pointed out that not every form and meaning pairing has a standing in the syntax-lexicon continuum mentioned before. Symbolic structures virtually can have any degree of conventionality. In the example shown in Figure 2.3, to the extent that expressions become entrenched and attain the status of conventional units, substantive symbolic structures constitute lexical items. To the extent that they do not, they are novel.



*Figure 2.3.* Conventionality of substantive symbolic structures (Langacker, 2008, p. 21)

Similarly, the grammar of a language is, as said, a “structured inventory of conventionalized linguistic units” (Langacker 1991, p. 511). The reason why conventionality needs to be emphasized is that the robustness of language lies in the commonalities of language usage, which is best seen from infants’ first language acquisition:

- (9) Adult feedback consistently provides conventional forms, whether phonological or syntactic, morphological or lexical. These are the forms that children need in order to understand the intentions of others, and to convey their own intentions and be understood. Mastery of these conventions plays a central role for common ground: knowledge of a language and its use offers extensive communal common ground with other users of that language and so allows for more extensive and detailed communication of both needs and interests. Finally, adult reformulations of child errors also attest to the importance of interaction for the acquisition of language. It is in conversation that children master the conventions and so also learn how to use common ground. (Clark, 2015, p. 338)

Therefore, cognitive linguistics and construction grammar recognize the crucial part that contextualized exposure to input and frequency are playing in language learning, processing, and novel use of language, the usage-based nature of language.

A usage-based approach to linguistics is noticeably distinct from the dichotomy of *langue* versus *parole* in structuralism, and language competence versus language performance in generative grammar. In order to dissociate language competence from language performance, what is traditionally taken as a gold standard empirical test is grammaticality judgment (Ellis, 2002). Chomsky (1957, p. 13) noted “one way to test the adequacy of a grammar proposed for L is to determine whether or not the sequences that it generates are actually grammatical, i.e., acceptable to a native speaker.” However, cognitive linguists found that performance in grammaticality judgment is affected by frequency of input. Recently read sentences are judged to be more grammatically acceptable (cf. Barsalou et al., 1998; Luka, 1999), suggesting competence as assessed using grammaticality judgments seems hardly more constant than grammatical performance, both of which are affected by frequency and recency of use of construction.

Some other support for usage-based nature of language is found in children’s language acquisition. Children’s language between the ages of 2 and 3 years old seems to be much more “low-scope” than theories of UG have argued. A high proportion of children’s early multiword speech is produced from a developing set of slot-and-frame patterns (Pine & Lieven, 1993; 1997; Pine, Lieven, & Rowland, 1998). Pine, Lieven, and their colleagues analyzed recordings of 2- to 3-year-old children speaking with their mothers, and they measured the overlap between the words used in different slots in different utterances. For example, if a child had two patterns, *I don’t + X* and *I can’t + X*, they checked whether the verbs used in the X slots came from the

same group and their findings indicated that typically there was very little or no overlap. Ellis (2002) summarized from their observations that (a) the patterns are not related through an underlying grammar (i.e. the child does not “know” that *can't* and *don't* are both auxiliaries or that the words that appear in the patterns all belong to a category of verb); (b) there is no evidence for abstract grammatical patterns in the 2- to 3-year-old child's speech; and (c) in contrast, the children are picking up frequent patterns from what they hear around them and only slowly making more abstract generalizations as the database of related utterances grows.

Going hand in hand with the usage-based approach is CG's treatment of pragmatics – the idea of a strict division between semantics and pragmatics is abandoned, both of which are incorporated in the function of constructions. The approach to semantics that is adopted by this theory is one that crucially recognizes the importance of speaker-centered “construals” of situations in the sense of Langacker (1987, 1991), which is inherited from the theories of frame semantics (Fillmore, 1975, 1985) and an experientially based approach to language (Lakoff, 1977, 1987).

#### **2.2.4 Interaction between verb meaning and construction meaning**

From the usage-based approach, a construction is a conventional linguistic unit – that is, part of the linguistic system, accepted as a convention in the speech community, and entrenched as grammatical knowledge in the speaker's mind (Ellis, 2002). Constructions form a structured inventory of a speaker's knowledge of the conventions of his or her language (Langacker, 1987, p. 63–66), and differ in size and complexity. They can be as simple as a discrete lexical item (e.g., *Howzat!* in cricket), as complex as an idiom (e.g., *Beauty is in the eye of the beholder*), and they can also be abstract argument-structure constructions such as the ditransitive (*Pat faxed Bill*

*the letter*), the caused motion (*Pat pushed the napkin off the table*), and the conative (*Sam kicked at Bill*). Goldberg (2003) enumerated a few constructions at different levels, as shown in Table 2.2, which happen to resemble the examples of syntax-lexicon continuum in Table 2.1.

Table 2.2.

*Examples of constructions, varying in size and complexity; form and function are specified if not readily transparent (Goldberg, 2003)*

<b>Construction</b>	<b>Form/Example</b>	<b>Function</b>
Morpheme	e.g. <i>anti-, pre-, -ing</i>	
Word	e.g. <i>Avocado, anaconda, and</i>	
Complex word	e.g. <i>Daredevil, shoo-in</i>	
Idiom (filled)	e.g. <i>Going great guns</i>	
Idiom (partially filled)		
Covariational- Conditional construction	Form: The Xer the Yer (e.g. <i>The more you think about it, the less you understand</i> )	Meaning: linked independent and dependent variables
Ditransitive (double- object construction)	Form: Subj [V Obj1 Obj2] (e.g. <i>He gave her a Coke; He baked her a muffin.</i> )	Meaning: transfer (intended or actual)
Passive	Form: Subj aux VPpp (PP <sub>by</sub> ) (e.g. <i>The armadillo was hit by a car</i> )	Discourse function: to make undergoer topical and/or actor non-topical

That being said, despite different complexity and schematicity of constructions, the conventionality determines that constructions carry meanings themselves, independently of their component parts, based on which Goldberg (2003) claims that a distinct construction is defined to exist as long as some of its form or function is not strictly predictable from its component parts or from other constructions recognized to exist. That is, in addition to specifying the properties of an utterance's defining morphological, syntactic, and lexical form, a construction also specifies the semantic, pragmatic, and discourse functions that are associated with it.

Goldberg's (2003) definition of construction does not necessarily mean functions of different levels of constructions are mutually independent of each other. It was found that at least

verb meanings interact with abstract argument structure constructions in non-trivial ways. For example, if you hear a novel utterance like “it mandools across the ground” or “the teacher spugged the boy the book”, you know that *mandool* is a verb of motion and *spugging* involves transfer because your readings of these novel utterances containing unfamiliar verbs is driven by abstract verb-argument constructions (VACs) such as ditransitive construction and ‘V *across* noun’. Another example of the interaction between verb meaning and construction meaning is that there are always some verbs closely associated to a particular construction (for example, *give* is highly indicative of the ditransitive construction, whereas *leave*, although it can form a ditransitive, occurs in other constructions more frequently) (Ellis et al., 2015). In the usage-based approach, how faithful verbs are to particular VACs in usage experience is reflected by contingency. Corpus data and experiments have shown that the contingencies between verbs and VACs are fairly stable: if fluent native speakers are asked to generate examples of a particular VAC, such as ‘V *across* noun’, the verbs most frequently generated largely overlap those with the highest contingency in corpus data (cf. Ellis & O’Donnell, 2011; 2012; Ellis, O’Donnell, & Römer, 2014; Römer, O’Donnell, & Ellis, 2013).

In summary, it is suggested that language comprehension is determined by the listeners’ vast amount of statistical information from input about the behavior of lexical items in their language. Ellis (2002) went on to explain:

- (10) Comprehenders know the relative frequencies with which individual verbs appear in different tenses, in active versus passive structures and in intransitive versus transitive structures, the typical kinds of subjects and objects that a verb takes, and many other such facts. Such information is acquired through experience with input that exhibits these distributional properties. It is not some idiosyncratic fact in the lexicon isolated from “core” grammatical information; rather, it is relevant at all stages of lexical, syntactic, and discourse comprehension (Ellis, 2002).

## **2.3 Advantages of CG in the Study of Chinese Intransitive Labile Construction**

### **2.3.1 Theoretical plausibility**

The iconic and embodied nature of human language can not only accounts for the evolution from pre-human language to human language, but also exhibits a combination of two traditional perspectives to language, the platonic view and interactive alternative. The platonic view treats language as an abstract, disembodied entity following laws similar to those found in mathematics, whereas the interactive perspective sees meaning as emerging dynamically in discourse and social interaction, rather than being fixed or predetermined. It can be seen in the former view that everything of consequence is inside the head, and thus is asocial and acontextual, whereas according to the latter view, nothing of consequence is inside the head. Intuitively, none of these two traditional perspectives is convincing enough. The cognitive linguistic claims that meaning derives from embodied human experience accommodates the cognitive perspective as well as the interactive perspective.

Moreover, anchored in observable phenomena in our environment, the prototype theory virtually corresponds to our perception of the world. If entities are not categorized along strict demarcation by human beings, why do abstract linguistic notions have to?

### **2.3.2 Applicability to Classical Chinese, Chinese dialects, and novel use**

Norman (1988, p. i) brings to light the numerous numbers of varieties of Chinese by noting that few language names are as all-encompassing as that of Chinese:

- (11) It is made to serve at once for the archaic inscriptions of oracle bones, the literary language of the Zhou dynasty sages, the language of Tang and Song poetry and the early vernacular language of the classical novels, as well as the modern language in both its standard and dialectal forms. And this list is by no means exhaustive... The Chinese of the first

millennium BC is at least as different from the modern standard as Latin is from Italian or French... In a practical sense, the Chinese dialects differ from one another quite dramatically. A speaker of the Peking dialect can no more understand a person speaking Cantonese than an Englishman can understand an Austrian when each employs its native language. (Norman, 1988, p. i)

The diversity across the numerous varieties of Chinese is depicted synchronically and diachronically in the above paragraph. This rich diversity sometimes makes a unitary picture of Chinese grammar impossible for linguists sticking to the distinction between language competence and language performance. Synchronically, it is frequently seen that Chinese people from distinct dialect areas show considerable disparity in grammatical judgment, to the extent that the example sentences used in published papers on Chinese linguistics are sometimes faced with questioning about grammaticality. Diachronically, language change is reflected in the uninterrupted documentation of Chinese, but is seldom considered by generative grammarians when they conceive of the derivation of structures. In addition, novel use of existing structures has been observed in recent years, such as the novel 被 *bei* construction (cf. C.-T. Huang & Liu, 2014).

With the introduction of cognitive grammar, the synchronic and diachronic diversity of Chinese is no longer headache for linguists, but provides direct manifestation of the syntax-lexicon continuum (abstraction of form-function pairs is typically observable as grammaticalization), empirical evidence to the usage-based nature of language (entrenchment makes convention, thus making grammar), as well as hints to the exploration of cognitive prototypes of constructions (prototypical use is normally high in frequency). In sum, compared to other major linguistic frameworks, cognitive linguistics and construction grammar

demonstrate incomparable applicability to Classical Chinese, Chinese dialects, and novel use of structures.

### **2.3.3 Pedagogical adaptability**

The usage-based nature of language acknowledges the importance of input and frequency in language acquisition, this idea echoes some long-standing theories in second language studies such as the frequency hypothesis (Hatch & Wagner-Gough, 1976), the input hypothesis (Krashen, 1985), the theory of statistical learning (Saffran, Aslin, & Newport, 1996) and so forth. So from the perspective of language acquisition, cognitive linguistics and construction grammar is substantially well grounded.

In addition, based on several experimental studies, Ellis (2015) maintained that in essence, the learnability will be optimized for constructions that are (1) Zipfian in their type-token distributions in usage, (2) selective in their verb form occupancy, and (3) coherent in their semantics, all of which are manageable in material development and classroom teaching.

Particular to teaching Chinese as a second language, there are already some attempts to incorporate construction grammar in the teaching of 把 $ba$  construction (Jing-Schmidt, 2015a, b), pivotal construction and existential construction (Su, 2010; 2011; Su & Lu, 2010). However, concerning the intransitive labile construction in Chinese, I have not seen any study carried out in the same direction, which renders this topic of great interest and urgent necessity.

## **2.4 Methodologies**

### **2.4.1 Bottom-up approach**



As is noted in section 2.2.3, a major departure of CG from generative grammar is the cancellation of the dichotomy of language competence versus language performance. Cognitive linguistics and construction grammar insist that language is usage-based. Usage data are believed to be the basis for the mental representations in contrast to the generative tenet that these representations originate in some language faculty, i.e., a genetically determined module in the human brain. Langacker (1988) used the word “bottom-up” to summarize this departure:

- (12) In describing cognitive grammar as a “usage-based” model of language structure, I have in mind the “maximalist”, “non-reductive” and “bottom-up” character of the general approach (as compared to the minimalist, reductive and top-down spirit of the generative tradition).

The bottom-up approach has been realized as the corpus-based tradition of CG. The majority of studies set within the framework of CG begin with corpus data, in which forms, functions, prototypes and conceptual schemas of constructions are analyzed.

In recent years, experiments are also designed to investigate participants’ use of certain constructions. Ellis and his colleagues (2014, 2015) are pioneers in this fashion. For example, in a study (Ellis, O’Donnell, & Römer, 2014) about the caused motion construction (e.g. *He sneezed the tissue off the table*), participants with German/Spanish/Szech as L1 were asked to generate the first word that came to mind to fill the V slot in the verb argument construction frames such as ‘he \_\_\_ across the....’, ‘it \_\_\_ of the....’, etc. With sophisticated manipulation, experiments allow researchers to collect more targeted data for the construction of interest.

#### **2.4.2 Lexical semantic approach**

It has been discussed in section 2.2.4 that CG assumes that constructions are meaningful in their own right, and the meanings of constructions and verbs interact in non-trivial ways.

Goldberg, Casenhiser, & Sethuraman (2004) exemplified how individual, semantically prototypic verbs are “pathbreakers” in that they seed the growth of verb-centered argument-structure patterns, through an extensive corpus study of children’s and mother’s speech. In the same vein, Ellis (2002) claimed, “the verb is a better predictor of sentence meaning than any other word in the sentence”, and “the focus on verbs echoes their central role in determining the syntactic structure of a sentence.” In bottom-up corpus-based studies, the interactions between verbs and constructions are often assessed in the contingency of form-function mappings (Ellis & Cadierno, 2009). Some verbs are closely associated to a particular construction (for example, *give* is highly indicative of the ditransitive construction, whereas *leave*, although it can form a ditransitive, occurs in other constructions more frequently) (Ellis et al., 2015). How faithful verbs are to particular VACs in usage experience is reflected by contingency (Ellis et al., 2014). The investigation of type-token distributions is one of the common methods for contingency study. Token frequency is how often particular words or specific phrases appear in the input. Type frequency, on the other hand, is how many different lexical items can be applied to a certain pattern, paradigm, or construction (Ellis, 2002).

Since this dissertation is particularly interested in alternating verbs (labile verbs) and the construction instantiating their intransitive use, the function of the intransitive labile construction will be approached from the lexical semantics of labile verbs. The contingencies between verbs with various lexical meanings and the intransitive labile construction will be estimated in corpus data of different historical periods: target verbs denoting diverse meanings are chosen, and then tokens containing these target verbs will be coded in terms of the structure (‘theme + V’, ‘agent + V + theme’, or else), so that the type frequency of the intransitive labile construction can be attained. With quantitative data of the token frequency of the verb, together with the type

frequency of the intransitive labile construction therein, estimates of the contingency between the target verb and the intransitive labile construction can be calculated.

It is worth noting that this lexical semantic approach does not necessarily entail that the syntactic subcategorization frames of verbs are uniquely predictable from the verbs' lexical semantics (e.g., Carter, 1988; Chomsky, 1986; Gropen et al., 1989; Levin, 1985; Levin & Rapoport, 1988; Pinker, 1989; Rappaport & Levin, 1988). In CG, constructions are meaningful in their own right. So, we will see examples in which verbal semantics does not perfectly match the function of the construction, wherein the use of the verb needs to be understood through the function of the construction. Nevertheless, those examples usually cannot represent the prototypical use of the construction or the verb, and are often low in frequency.

### **2.4.3 Character-based approach**

Ever since Saussure (1916), descriptive linguistics has been taking spoken language as the primary object of its study. In *Course in General Linguistics*, Saussure (1916/1959) repeatedly affirms that languages are independent of writing (pp. 23-25), and that linguistic stability is in no way undermined by the absence of a written form (p. 24). Edward Sapir and Leonard Bloomfield “went out of their way to emphasize the primacy of spoken as opposed to written language, relegating the latter to a derived and secondary status” (Chafe & Tannen, 1987). Their approach sets the tone for modern linguistics.

However, the priority of spoken language over written language is not applicable for Chinese. Actually in *Course in General Linguistics*, Saussure (1916/1959, pp. 25-26) explicitly points out that with an ideographic writing system, Chinese works differently from Indo-European languages taking phonetic writing systems:

- (13) In an ideographic system each word is represented by a single sign that is unrelated to the sounds of the word itself. Each written sign stands for a whole word and, consequently, for the idea expressed by the word. The classic example of an ideographic system of writing is Chinese... To a Chinese, an ideogram and a spoken word are both symbols of an idea; to him writing is a second language, and if two words that have the same sound are used in conversation, he may resort to writing in order to express his thought. But in Chinese the mental substitution of the written word for the spoken word does not have the annoying consequences that it has in a phonetic system, for the substitution is absolute; the same graphic symbol can stand for words from different Chinese dialects. (Saussure, 1916/1959, p. 26)

Saussure's perception of Chinese echoes the complex denotative meaning of the notion 'Chinese', as reviewed in section 2.3.2, and reveals the truth that the notion of the Chinese language intrinsically hinges on the writing system. The basicness of the writing system to the Chinese language is also reflected in the official definition of 普通话 *Putonghua*, literally 'common speech' (commonly known as standard Chinese or standard Mandarin), in mainland China today:

- (14) 普通话就是现代汉民族共同语，是全国各民族通用的语言。普通话以北京语音为标准音，以北方话为基础方言，以典范的现代白话文著作语法规范。

'Pǔtōnghuà is the standard form of Modern Chinese with the Beijing phonological system as its norm of pronunciation, and Northern dialects as its base dialect, and looking to exemplary modern works in báihuà 'vernacular literary language' for its grammatical norms.' (P. Chen, 1999, p. 24)

In essence, Chinese grammar is undefinable without resorting to literary works, so the discussion of the intransitive labile construction in this dissertation is also based on texts of literary works from different periods of time, which are composed by characters. In other words,

grammar, mainly consisting of word order and function words in Chinese (Ye & Xu, 1997, p. 119), is approached from combinations of characters in this dissertation.

It is not really an innovative idea to approach Chinese grammar from characters, albeit in sharp contrast to the Indo-European linguistic tradition. As early as 1825, the Germany linguist and philosopher Humboldt spoke of a threefold isolation in Chinese, “The Chinese writing expresses, by a single sign, each simple word and each integral part of composed words; it suits the grammatical system of the language perfectly. The latter offers . . . a threefold isolation, of ideas (concepts), words, and characters.” In the same vein, T. Xu (2004) and Pan (2001a, b, 2006) proposed a “character-based method” in Chinese linguistic study and Chinese teaching. Pan (2001a, b) systematically discussed the correspondence between the notion of words in English and the notion of characters in Chinese. According to him, justifications for the character-based approach mainly come from four perspectives: (1) the natural unit of the language; (2) the basic tool of the speakers to conceptualize the world; (3) the intersection of linguistic levels; (4) the pivot of linguistic studies.

In the meantime, a notable congruence can be observed between this character-based approach and CG. In the first place, the character-based approach is consistent with the bottom-up principle of CG. Secondly, since discrete Chinese characters have semantic functions in their own right, they provide direct inferences to lexical semantics. More importantly, each character can be considered as a form-function pairing, a construction, and the form thereof corresponds to a written form as well as various phonetic forms found in different varieties of Chinese across thousands of years. In this sense, the idea of ‘character-based’ is essentially more reliable for Chinese than the notion of morpheme, which is assumed to be the combination of a phonetic form and a meaning. This approach is referred to as ‘the character-based constructional

approach' (L. Zhang, 2016) and exhibits remarkable advantage in explaining the functions of the commonly recognized Chinese imperfective aspect markers 在 *zai* and 着 *zhe*: just like all constructions, each Chinese character displays a semantic prototype structured around a central sense and the functions of the so-called 'functional words' are virtually extended from the central senses.

#### **2.4.4 Diachronic approach**

Another convention in modern linguistics that started from Saussure's structuralism is synchronic analysis. He claims, "synchronic facts, no matter what they are, evidence a certain regularity but are no way imperative; diachronic facts, on the contrary, force themselves upon language but are in no way general (Saussure, 1916/1959, pp. 25-26)." Needless to say, syntagmatic and paradigmatic analysis concerning language system should be conducted synchronically. The primacy of synchrony was inherited by descriptive linguistics represented by Bloomfield (1933), and by the 1940s, linguistics and the scientific study of language became equated with structuralist synchronic descriptive linguistics (Hymes & Fought, 1981, pp. 117-120). This situation did not change as structuralism gave way to generativism in the 1960s (Murray, 2006), but the importance of diachronic study is reestablished by CG: The development of the functions of a construction is normally traceable in historical data, and the prototype of the conceptual schema underlying this construction can thereby be revealed.<sup>5</sup>

---

<sup>5</sup> It needs to be pointed out that the structure of a complex category at a given point in time is not necessarily a direct reflection of how it develops, wither historically or in language acquisition (Langacker, 2008, p. 226). The diachronic approach can only provide some insights into the investigation of the prototypical sense of a construction.

A diachronic approach has another special merit in conjunction with the character-based approach in the investigation of Chinese. As an isolating language, it is well known that Chinese is not rich in inflection or grammatical markers, but rely heavily on word order and functional words to express grammatical meanings. Taking a character-based approach and diachronic perspective, the syntax-lexicon continuum can be captured from the use of each character noting the so-called ‘functional words’, through the process of grammaticalization. Studies on Chinese classifiers (e.g., S. Jiang, 2009; Tai, 1994; Tai & Wang, 1990), aspect markers (e.g., P. Wang, 2010; L. Zhang, 2016) all show that the functions of every commonly known ‘functional word’ in Chinese constituent a polysemy network structured around a central sense.

In practice, the diachronic approach radically has to be accompanied by the character-based approach because Chinese has been documented in characters and there is technically no way to know for sure how words are pronounced in a particular period of time. For example, some historical linguists posit phonetic contrast of verbs in Old Chinese when used transitively versus intransitively (e.g., Mei, 1991; Z. Yu, 1984). However, with no convincing evidence or any systematic rules but only a conjecture containing a very limited number of discrete examples, this dissertation will stick to the characters without considering the possibility of phonetic contrast.

## **2.5 Summary: Revisiting the Research Questions from the Perspective of CG**

Set within the framework of cognitive linguistics and construction grammar, this dissertation is particularly interested in the prototype of labile verbals and the intransitive labile construction in Chinese. The form and function of the intransitive labile construction, as well as its development, are approached from historical corpus analyses of labile verbals. A tentative

conceptual schema is thereby formulated for the intransitive labile construction, and situated in a cross-linguistic context.

Targeting at the disagreement concerning the function of the intransitive labile construction presented in Chapter 1, which mainly pertains to passive, this dissertation also investigates the notion of passive in Chinese by studying the grammaticalization of the commonly recognized Chinese passive marker 被 *bei*, and compares it to the prototype of the intransitive labile construction.

Last but not least, as a pedagogical implication, based on the cross-linguistic cognitive base of verbal lability, in tandem with the special characteristics of labile verbals in Chinese, it is discussed how to facilitate Chinese learners' acquisition of the form and function of the intransitive labile construction, in contrast against the 被 *bei* construction.



### CHAPTER 3 DIACHRONY OF MONOSYLLABIC LABILE VERBS AND THE INTRANSITIVE LABILE CONSTRUCTION IN CHINESE

In order to sketch a diachronic picture of Chinese verbal lability, corpus data from three historical periods are investigated in this chapter, namely pre-Qin texts as the representative of Old Chinese, texts of the Tang dynasty for Middle Chinese, and texts of the Ming dynasty for Early Mandarin. For each historical period, a brief introduction to the general characteristics of the Chinese language thereof is provided as background information. Analysis starts with a relatively small corpus comprising of some literal works with the intention of exhaustively finding all tokens of the intransitive labile construction: this small sample is first searched for all agentless verb structures, and the verbs in collected tokens are checked in all available texts of that era to ensure that the transitive uses (including in the disposal structures) of them are present so that labile verbs can be accurately identified. Therefore, a general outline can be drawn with regards to the form and function of the intransitive labile construction at that time. Based on the frequency of labile verbs in collected tokens, the semantic frames instantiated by high-frequency labile verbs are discussed. From the labile verb frequency list, a few target verbs are picked that do not have homonym, are not too polysemous, diverse and relatively stable in verbal semantics. The contingencies between the selected target verbs and the intransitive labile construction in all available texts of that historical period are quantified in percentage and presented. The corpus that I am using is Cncorpus (语料库在线 *Yuliaoku Zaixian*), conducted by the State Language Work Committee of P. R. China (国家语言文字工作委员会 *Guojia Yuyan Wenzhi Gongzuo Weiyuanhui*).

For diachronic consistency, only monosyllabic words (realized as single characters) are incorporated in the contingency study in this chapter. It is now a common knowledge that disyllabification (双音化) is a basic tendency of the development of the Chinese language (X. Dong, 2002). In Old Chinese, about 80% of words are monosyllabic (Baxter & Sagart, 1998). As Chinese evolves, disyllabic words are lexicalized from compounding, affixation, and reduplication of morphemes (the original monosyllabic words). Up until now, the proportion of disyllabic words is reported to be 62.79% and 75.18% in *Modern Chinese Dictionary* (《现代汉语词典》) and *Chinese New Word Dictionary* (《汉语新词词典》) respectively (cf. H. Xu, 1997). However, since most disyllabic words, particularly compound words, do not exist in Old Chinese, and take a variety of structures: morphemes bear various types of relationships to each other, which adds another layer to lexical semantics, they will not be discussed in this chapter.

### 3.1 The Intransitive Labile Construction in the Pre-Qin Period (Old Chinese)

According to L. Wang (1958/2004, p. 35), features of Old Chinese include: (1) scarce copular use in judging sentences; (2) pronominal objects in questions placed before the verb. As a deterministic distinction from Middle Chinese, the 被 *bei* construction, the particle 了 *le* and 着 *zhe* have not been fully grammaticalized in Old Chinese. These features are fairly prominent in pre-Qin Chinese (before 221 BCE).

Earliest occurrence of the intransitive labile construction can date back to Oracle Bone Scripts, with the transitive counterpart also presented as a reference:

- (1) a.        辛 丑    卜, ... 黍    登。  
               Xinchou bu        shu    **zheng**  
               (day) Xinchou divine    millet steam  
               ‘Day Xinchou’s divine said that millet should be steamed ...’

(《殷虚文字缀合》62)

b. ... 登 黍...

**zheng** shu

steam millet

‘Steam the millet (as a ritual).’

(《乙》 7596)

Nevertheless, very few Oracle Bone Scripts or Bronze Inscriptions have been preserved.

Data of this section mainly come from the Spring and Autumn period and the Warring States period.

### 3.1.1 The intransitive labile construction in *Mencius*

*Mencius* is a collection of conversations and anecdotes of the thinker and philosopher Mencius on topics about moral and political philosophy. A number of linguistic and textual clues suggest that the text was not written by Mencius himself but by his disciples (Lau, 1993, p. 331), probably during the late 4th century BCE (Kern, 2010, p. 69). The whole book comprises seven chapters, 38,125 characters. As a preliminary investigation of the intransitive labile construction in Old Chinese, the type-token distribution of it is checked in the whole book of *Mencius* (《孟子》). In the first step, 55 tokens of agentless verb structures are collected. With the verbs checked in pre-Qin data of Cncorpus for transitive use, 18 tokens are trimmed off. So, a sample of 37 tokens of the intransitive labile construction is collected. In these 37 tokens, it is found that the themes are inanimate in 20 (54.05%) of them and body part word is used in one token to refer to human theme:

(2) 暴 其 民 甚, 则 身 弑 国 亡。

Bao qi min shen, ze **shen** shi guo wang.

abuse DEM people too much, CONJ body kill state die

‘If people are abused too much, body will be killed and the state will die.’

29 of the tokens are positive sentences, seven are negative sentences, and one token is a question. The frequency of the labile verb types in these 37 tokens are aggregately shown in Table 3.1.

Table 3.1.

*Labile type frequencies in the intransitive labile construction in Mencius*

Verb	举	见	闻	卒	行	听	定	辟
Meaning	raise	appear/see	hear	die	implement	listen	pacify	avoid
Frequency	5	3	3	3	2	2	2	2
Verb	用	成	食	治	亡	备	弑	聚
Meaning	use	complete	eat	govern	die	prepare	slay (the King)	accumulate
Frequency	1	1	1	1	1	1	1	1
Verb	蔽	助	驾	削	税	溢	絜 (used as 洁)	Total
Meaning	cover	help	harness	cut down	tax	overflow	clean	
Frequency	1	1	1	1	1	1	1	37

It can be observed in Table 3.1 that although the sample is fairly small, the frequency profile of the labile verbs in the intransitive labile construction generally follows a Zipfian distribution wherein the highest frequency types account for the most tokens (Zipf, 1935). In terms of verbal semantics, many labile verbs entail change of state of the themes (change-of-state verbs, henceforth), or can be interpreted as stative themselves, such as 举 *ju* ‘raise’, 见 *jian* ‘appear’, 卒 *zu* ‘die’, 定 *ding* ‘pacify’, 成 *cheng* ‘complete’, 亡 *wang* ‘die’, 备 *bei* ‘prepare; ready’, 弑 *shi* ‘slay (the King),’ 聚 *ju* ‘accumulate’, 削 *xue* ‘cut down’, and 絜 *jie* (used as 洁) ‘clean’. The following are some examples, with transitive uses from the same historical period also presented as references:

- (3) a. 牲杀、器皿、衣服不备，不敢以祭。  
 Sheng sha qi min yi fu bu **bei** bu gan yi ji.  
 victims for slaughter vessel garment NEG prepare NEG dare to sacrifice  
 ‘The victims for slaughter, the vessels, and the garments, not being all complete, he does not presume to sacrifice.’

- b. 妇人 备 食。  
Furen **bei** shi.  
woman prepare food  
'Women prepared food.'

(《管子》)

- (4) a. 耳目之官不思，而 蔽 于 物。  
Er mu zhi guan bu si, er **bi** yu wu.  
ear eye ZHI organ NEG think CONJ cover by thing  
'The organs of ears and eyes do not think but covered by things.'

- b. 女子 出 门，必 拥 蔽 其 面。  
Nvzi chu men, bi yong **bi** 3 mian.  
Woman exit door must cover cover her face  
'Women must cover their face when they went out.'

(《礼记》)

Adverbs denoting the perfective aspect are sometimes captured highlighting the change-of-state sense (with transitive uses of verbs from the same historical period also presented as references):

- (5) a. 牺牲 既 成， 粢 盛 既 絜。  
Xi sheng ji **cheng** zi cheng ji **jie**.  
sacrifice already complete rice grains (in the sacrificial vessel) already clean  
'The sacrifice is ready. The rice and the grains have already been cleaned in the vessel.'

- b. 天 地 阴 阳 不 革， 而 成 万 物 不 同。  
Tian di yin yang bu ge, er **cheng** wanwu bu tong.  
heaven earth yin yang NEG change, CONJ produce all things NEG same  
'Yin and Yang do not change in the world, but the things they produce are all different.'

(《吕氏春秋》)

- (6) a. 今 乘 舆 已 驾 矣。  
Jin cheng yu yi **jia** yi.  
now horse carriage already harness SFP  
'The horse and carriage have already been harnessed (are ready now).'

- b. 窃 驾 君 车 者 罪 刖。  
Qie **jia** jun che zhe zui yue.  
without permission ride emperor carriage person punish cutting off feet  
'Those who ride the emperor's carriage without permission will be punished by cutting off feet.'

(《韩非子》)

Another semantic frame involved with the high-frequency labile verbs that cannot be overlooked is cognition and perception. 见 *Jian* ‘see’, 闻 *wen* ‘hear’ and 听 *ting* ‘listen’ fall into this category, as shown in the following example:

- (7) a. 谏 行 言 听, 膏 泽 下 于 民。  
 Jian xing yan **ting**, gao ze xia yu min.  
 admonishment implement suggestion listen benefit down to people  
 ‘If admonishments can be implemented and suggestions can be listened to, the benefit will be able to go down to people.’
- b. 处 平 静, 任 德 化, 以 听 其 要。  
 Chu pingjing, ren de hua, yi **ting** qi yao.  
 stay peace let virtue influence to listen to 3 important point  
 ‘Stay at peace, influence with virtue, and thus administer the most important points.’  
 (《吕氏春秋》)

It is worth mentioning that beside these 37 tokens of the intransitive labile construction, ten agentless verb structures take the form ‘theme + 不可胜 *bukecheng* + V’, denoting the theme cannot bear the imposition of the verb or the amount of the theme cannot be fully consumed by the verb. The other eight tokens of agentless verb structures contain 可 *ke* ‘can’, 足 *zu* ‘suffice’ or 难 *nan* ‘be difficult to’, denoting the property of the theme that it can or cannot be affected or receive a certain action. The verbs in ‘theme + 可 *ke*/足 *zu*/难 *nan* + V’ structure are heterogeneous in verbal semantics, ranging from change-of-state verbs, such as 诛 *zhu* ‘kill’ and 罔 *wang* ‘confuse’, to action verbs that do not imply resultant states, such as 用 *yong* ‘use’ and 食 *shi* ‘eat’:

- (8) 民…… 不 可 胜 诛。  
 Min... **bu ke sheng zhu**.  
 citizen NEG can bear kill  
 ‘Citizens are too many to be killed completely.’
- (9) 材 木 不 可 胜 用。  
 Cai mu **bu ke sheng yong**.  
 timber wood NEG can bear use  
 ‘Firewood cannot be used up.’

So the form ‘theme + 可 *ke*/足 *zu*/难 *nan* + V’ exhibits a considerable type frequency in *Mencius*, indicating the property of the theme concerning its potential. That being said, inasmuch as the verbs occurring in this pattern are not seen used intransitively alone, and no ‘agent + 可 *ke*/足 *zu*/难 *nan* + V + theme’ structure has been observed in pre-Qin texts, ‘可 *ke*/足 *zu*/难 *nan* + V’ can hardly be analyzed as labile verbals. We can only say 可 *ke* ‘can’, 足 *zu* ‘suffice’ and 难 *nan* ‘be difficult to’ can grant lability to verbs that are otherwise not labile.

### 3.1.2 Contingency between verb types and the intransitive labile construction

With the aim of selecting verbs for the study of contingency, factors of overall frequency, polysemy, homonym, and semantic diversity are taken into consideration.

To guarantee the applicability of this analysis, study of verbs with relatively high frequency will be more meaningful than the investigation of uncommon verbs. I searched the verbs listed in Table 3.1 in all available pre-Qin texts in Cncorpus (语料库在线 *Yuliaoku Zaixian*) to attain the overall frequency of each labile verb respectively. Results are shown in Table 3.2.

Table 3.2.

*Frequencies of labile verbs in pre-Qin texts*

Rank	Verb	Frequency	Rank	Verb	Frequency	Rank	Verb	Frequency
1	行	3023	9	亡	1264	17	蔽	168
2	用	2164	10	听	834	18	助	164
3	见	2045	11	举	763	19	驾	154
4	成	1872	12	定	629	20	削	146
5	闻	1826	13	备	534	21	税	55
6	卒	1701	14	辟	490	22	溢	42
7	食	1592	15	弑	320	23	絮	23
8	治	1367	16	聚	258		Total	21404

After a further investigation of the tokens it is found that verbs with high frequency are mostly polysemies or homonyms. For example, the original meaning of 行 *hang/xing* is ‘road’, but it can also mean ‘line; row; army’ and many other meanings. Since our purpose is to look at the contingency between labile verbs and the intransitive labile construction, polysemies or homonyms will bring great trouble to coding and considerable noise to our analysis, and thus should be eliminated as much as possible. In the last place, for the convenience of diachronic analysis, target verbs are ideally relatively stable in verbal semantics.

With polysemies/homonyms excluded, I narrowed down my study to six verbs based on frequency, specifically 削 *xue* ‘cut down’, 助 *zhu* ‘help’, 听 *ting* ‘listen’, 备 *bei* ‘prepare’, 弑 *shi* ‘slay (the King)’, and 聚 *ju* ‘accumulate’, all of which occur in more than 100 tokens.

Moreover, these six verbs represent a remarkable diversity in terms of verbal semantics, with 削 *xue* ‘cut down’, 备 *bei* ‘prepare/ready’, 弑 *shi* ‘slay (the King)’ and 聚 *ju* ‘accumulate’ indicate changes of state, among which 弑 *shi* ‘slay (the King)’ is punctual, 助 *zhu* ‘help’ as a typical transitive verb not implying a change of state, together with the perception verb 听 *ting* ‘listen’. For these six target verbs, all tokens are coded to pick out intransitive labile constructions.

The contingencies between target verbs and the intransitive labile construction are assessed by looking at how faithful they are to the construction: amid all tokens of a verb, what is the type frequency of the intransitive construction? The results are calculated in percentage and presented in Table 3.3.



Table 3.3.

*The type frequency of the intransitive labile construction for each verb in pre-Qin texts*

Verb	Type frequency of the intransitive labile construction	Token Frequency	Percentage
助 <i>zhu</i> 'help'	2	164	1.22%
弑 <i>shi</i> 'slay (the King)'	25	322	7.76%
听 <i>ting</i> 'listen'	120	807	14.87%
备 <i>bei</i> 'prepare'	139	533	26.08%
聚 <i>ju</i> 'accumulate'	81	255	31.76%
削 <i>xue</i> 'cut down'	71	145	48.97%

If the percentages are plotted in a bar chart, a continuum can be clearly observed.

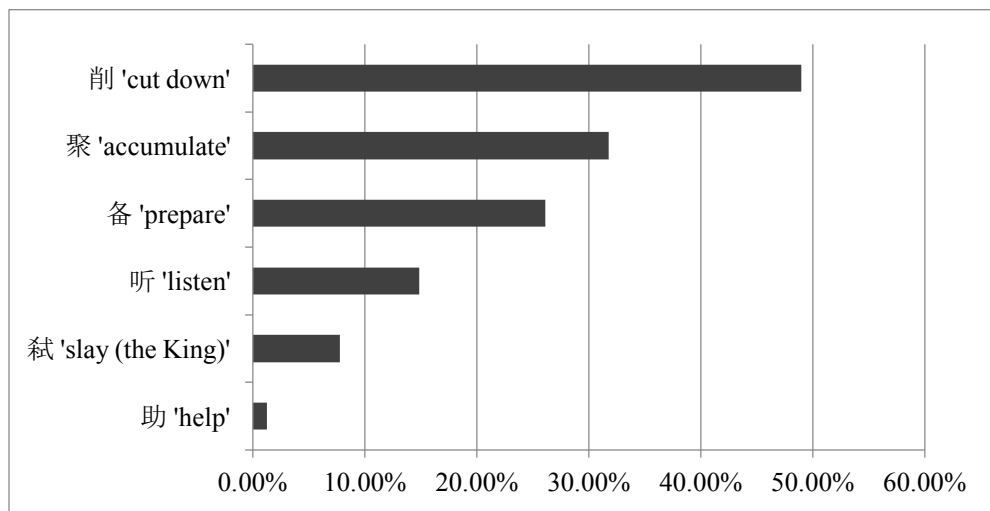


Figure 3.1. Faithfulness of labile verbs to the intransitive labile construction (pre-Qin period)

The following are some tokens (with transitive uses of verbs from the same historical period also presented as references):

- (10) a. 土地四削，魏国从此衰矣。  
 Tu di si **xue**, Wei guo cong ci shuai yi.  
 territory four cut down the State of Wei from then decline SPF  
 'With territory cut down at four sides, the State of Wei declined since then.'  
 (《吕氏春秋》)

b. 数 有 庆 而 益 地, 数 有 让 而 削 地。  
 Shu you qing er yi di, shu you rang er **xue** di.  
 time have award CONJ increase feud time have reproach CONJ cut down feud  
 ‘After being awarded a few times, the feud will be increased; after being reproached a few times, the feud will be cut down.’

(《礼记》)

(11) a. 是 故 财 聚 则 民 散 ……  
 Shi gu cai **ju** ze min san …  
 this reason wealth accumulate CONJ people flee  
 ‘For this reason, if wealth is accumulated, the people will flee…’

(《大学》)

b. 今 赵 欲 聚 兵 士……  
 Jin Zhao yu **ju** bingshi …  
 now the State of Zhao want accumulate ordinary soldier  
 ‘Right now, the State of Zhao want to accumulate ordinary soldier.’

(《韩非子》)

(12) a. 郑 伯 享 王 于 阙 西 辟, 乐 备。  
 Zheng bo xiang wang yu que xi bi yue **bei**.  
 the Earl of Zheng host king at watchtower western side music prepare  
 ‘The Earl of Zheng hosted the King at the western side to the watchtower, and music was prepared.’

(《左传》)

b. 王 备 礼 以 聘 之。  
 Wang **bei** li yi pin zhi.  
 king prepare present to employ 3  
 The King prepared many presents to employ him.

(《列子》)

As is noted before, among the target verbs, 削 *xue* ‘cut down’, 聚 *ju* ‘accumulate’, and 备 *bei* ‘prepare’ inherently encode change of state of the themes, and apparently 助 *zhu* ‘help’ does not. It can be seen in Figure 3.1 that overall, change-of-state verbs display higher faithfulness to the intransitive labile construction than verbs of other semantic frames. 弑 *shi* ‘slay (the King)’ seems to be an exception to this generalization as it also implies a change of state of the theme but the faithfulness to the intransitive construction is only estimated to be 7.76%. This exception may be accounted for by the animacy, status, and power of its theme<sup>6</sup>. In

<sup>6</sup> The reason why verbs of killing are low in lability is also related to the spontaneity of the event,

pre-Qin Chinese, the theme of 弑 *shi* ‘slay’ has to be the King or the monarch. In our tokens, the type frequency of 弑...君 *shi* (one’s) *jun* ‘slay (one’s) monarch’ is as high as 162.

In the meantime, if we consider that labile verbs are defined to be verbs that can alternate between transitive and intransitive use, undoubtedly the selected target verbs can all be considered labile since they allow transitive use and intransitive use in language use. However, if we take into account their faithfulness to their transitive use and intransitive use, it can be noticed that the transitive use is the dominant use of the non-change-of-state verbs 助 *zhu* ‘help’ and 听 *ting* ‘listen’: their intransitive use seems to be rather constrained. Whereas the transitive use and intransitive use of 削 *xue* ‘cut down’ are roughly equal in frequency. Based on the relative frequency of verbs’ transitive use and intransitive use, we say that 削 *xue* ‘cut down’ is more labile than 助 *zhu* ‘help’ and 听 *ting* ‘listen’. Therefore, it can be claimed that change of state constitutes the prototype of labile verbs in our data.

In response to prior studies focusing on ergative verbs or unaccusative verbs in Chinese, data of these six target verbs falsify the illusion that transitivity alternation and object deletion are mutually exclusive for Chinese verbs. Lv’s (1987) contrast of 打胜 *da-sheng* ‘play-win’ against 打败 *da-bai* ‘play-defeat’, and Cikoski’s (1978) dichotomy of ergative verbs versus neutral verbs both say that verbs allowing object deletion are neutral/transitive verbs, verbs allowing transitivity alternation are ergative/unaccusative verbs, which easily creates an illusion that object deletion and transitivity alternation cannot be observed from the same verb. However, in addition to the ‘theme + verb’ structure, all six target verbs in this study are also captured in ‘agent + verb’ combinations:

---

which is to be taken up in Chapter 5.

- (13) 右 兵, 弓 矢 御, 殳 矛 守, 戈 戟 助。  
 You bing, gong shi yu, shu mao shou, ge ji zhu.  
 respect weapon bow arrow shield pole spear defend dagger-axe halberd help  
 ‘Attach importance to the use of weapons: bow and arrow to shield, spear to defend, and dagger-axe and halberd to support.’  
 (《司马法》)
- (14) 取 国 者, 称 国 以 弑。  
 Qu guo zhe, cheng guo yi shi.  
 take state person claim country CONJ slay  
 ‘The person who wants to take a state slays (the King) to claim the country.’  
 (《谷梁传》)
- (15) 桓 公 不 听, 遂 与 之 盟。  
 Huan gong bu ting, sui yu zhi meng.  
 Duke Huan NEG listen CONJ with them align  
 ‘Duke Huan did not listen and formed a league with them.’  
 (《谷梁传》)
- (16) 使 敌 备 东, 而 击 其 西。  
 Shi di bei dong, er ji DEM xi.  
 let enemy prepare east CONJ attack its west  
 ‘Let enemies prepare at the east then attack the west.’  
 (《兵法》)
- (17) 今 子常……而 蓄 聚 不 厌。  
 Jin Zichang... er xu ju bu yan.  
 now Zichang CONJ store accumulate NEG satisfy  
 ‘Right now, Zichang ... keeps storing and accumulating (things) without satisfaction.’  
 (《国语》)
- (18) 君 陈……, 无 倚 法 以 削。  
 Jun Chen..., wu yi fa yi xue.  
 Monarch of Chen... NEG rely on law CONJ exploit  
 ‘Monarch of Chen... (please) do not exploit (people) relying on the law.’  
 (《尚书》)

Evidently, these verbs permit transitivity alternation as well as object deletion, a finding reveals that the notion of labile verb does not have a clear-cut demarcation from transitive verbs, and thus can only be understood as a prototype.

### 3.1.3 Summary of the intransitive labile construction in the pre-Qin period

This section investigates the intransitive labile construction in *Mencius* and the contingency between it and six target verbs in all available pre-Qin texts. Findings suggest that

in pre-Qin Chinese, the intransitive labile construction is more frequently used in positive sentences, and slightly biased towards inanimate themes. The most frequent labile verbs inherently encode changes of state, followed by cognition or perception verbs. Moreover, all six target verbs allow object deletion, which is the commonly recognized property of transitive verbs in Chinese, in addition to transitivity alternation. This finding casts doubt on the dichotomous view of ergative/unaccusative verbs against neutral/transitive verbs, suggesting that the notion of labile verb can only be understood as a prototype.

### **3.2 The Intransitive Labile Construction in the Tang Dynasty (Middle Chinese)**

The following characteristics distinguish Middle Chinese from Old Chinese (L. Wang, 1958/2004, p. 35): (1) mandatory copulars in judging sentences; (2) the emergence of the disposal structure; (3) frequent use of the 被 *bei* construction; (4) the emergence of the aspect particles 了 *le* and 着 *zhe*. During the time span of Middle Chinese, the Tang dynasty constitutes the central part, and also witnessed a boom in Chinese literature, making available rich materials for Middle Chinese study.

#### **3.2.1 The intransitive labile construction in *Chuanqi* stories**

*Chuanqi* (传奇) is a form of short story developed in the Tang dynasty. Although conventionally defined as stories written in Classical Chinese (as opposed to vernacular Chinese), the language used in the *Chuanqi* stories is remarkably different from Old Chinese and manifests many vernacular features, as recognized by Y. Guo & C. Guo (2008), and X. Chen (2013). Ten *Chuanqi* stories, i.e., *The Story of Ren* (《任氏传》), *The Story of the Governor of Nanke* (《南柯太守传》), *The Story of Li Wa* (《李娃传》), *Record within a Pillow* (《枕中记》), *The Story of Liu Yi* (《柳毅传》), *The Story of Liu* (《柳氏传》), *The Story of Nie*

*Yinniang* (《聂隐娘传》), *The Story of Yingying* (《莺莺传》), *The Legend of the Curly-whiskered Guest* (《虬髯客传》) and *The Story of Huo Xiaoyu* (《霍小玉传》), are randomly selected to form a small corpus composed of 31,614 characters, from which tokens of the intransitive labile construction are collected.

With special sentence patterns (e.g., questions/negative sentences with pronominal objects, the 被 *bei* construction, etc.) excluded, 214 tokens of the intransitive labile construction (all with the verbs checked in Tang dynasty data of Cncorpus for transitive use, including in the disposal structures), formed by 114 labile verb types, are collected from these ten stories. Among 214 tokens, themes are inanimate in 135 tokens (63.08%), animate in 79 tokens (36.92%). Positive sentences account for 154 tokens (71.96%), 52 are negative sentences (24.30%), and the rest are questions or double negative sentences. 41 of the labile verbs occur more than once in the tokens. Their frequencies are listed in Table 3.4.

Table 3.4.

*Labile type frequencies in tokens of the intransitive labile construction in Chuanqi stories*

Verb	断	讫	举	发	授	毕	爱	生
Meaning	cut off	complete	raise	let off	confer	finish	love	appear
Frequency	5	4	3	3	3	3	3	3
Verb	立	终	聚	解	转	迁	通	闻
Meaning	establish	complete	accumulate	untie	transfer	move	dredge	hear
Frequency	3	3	3	3	3	3	3	3
Verb	下	买	以	保	动	化	合	定
Meaning	down	buy	use	protect	break	turn; change	unite	pacify
Frequency	2	2	2	2	2	2	2	2
Verb	尽	居	彰	得	忘	持	攀	数
Meaning	finish	live	cite	get	forget	hold	draw	count
Frequency	2	2	2	2	2	2	2	2
Verb	激	税	给	绝	署	胜	谪	载
Meaning	surge	rent, buy	give	cut off	dispose	can bear	exile	record
Frequency	2	2	2	2	2	2	2	2
Verb	销							Total
Meaning	melt							
Frequency	2							101

*Note.* All the meanings for verbs displayed in this section only represent the meanings in the contexts of the collected tokens.

It can be seen in Table 3.4 that change-of-state verbs claim the lion's share of high-frequency labile verbs. Some change-of-state concepts, including 'cut off' and 'finish/end', are instantiated by multiple synonyms (断 *duan* and 绝 *jue* for 'cut off'; 讫 *qi*, 毕 *bi* and 终 *zhong* for 'finish/end'), and repeatedly occur in the intransitive labile construction (with transitive uses of verbs from the same historical period also presented as references):

- (19) a. 幽 会 未 终, 惊 魂 已 断。  
 You hui wei **zhong**, jing hun yi **duan**.  
 secret meeting not finish frightened spirit already cut off  
 'Even before the secret meeting (with my lover) finishes, my frightened feeling has already been cut off.'  
 (《莺莺传》)
- b. 终 吾 身 而已。  
**Zhong** wu shen eryi.  
 finish 1 body nothing more  
 'Just till I die...'  
 (《朱文公校昌黎先生集》)
- c. 使 刘 弘基、孙 华 等 至 关 门, 断 其 行 路。  
 Shi Liu Hongji, Sun Hua deng zhi guanmen, **duan** qi xinglu.  
 send Liu Hongji Sun Hua and so forth to the gate of the pass cut off 3 pathway  
 'Send Liu Hongji, Sun Hua and so forth to the gate of the pass to cut off the pathway.'  
 (《大唐创业起居注》)
- (20) a. 信 问 不 绝。  
 Xin wen bu **jue**.  
 letter greeting NEG finish  
 'Letters and greetings never end.'  
 (《南柯太守传》)
- b. 卿 其 绝 其 桥 道。  
 Qing qi **jue** qi qiao dao.  
 2 can cut off 3 bridge way  
 'You can cut off their bridge and way.'  
 (《大唐创业起居注》)
- (21) a. 语 毕 而 宫 门 辟。  
 Yu **bi** er gong men **bi**.  
 language end CONJ palace gate open  
 'The speech ended and then the palace gates opened.'  
 (《柳毅传》)

b. 度脱 众 生, 犹 未 毕 愿。

Dutuo zhongsheng, you wei **bi** yuan.

release sentient beings still not yet accomplish wish

‘(Although) the Buddha has released sentient beings, his wish is still not accomplished.’

(《地藏本愿》)

Other labile verbs within the change-of-state frame include 举*ju* ‘raise’, 发*fa* ‘let off’, 生*sheng* ‘appear’, 聚*ju* ‘accumulate’, 解*jie* ‘untie’, 通*tong* ‘dredge’, 下*xia* ‘down’, 动*dong* ‘break out’, 化*hua* ‘turn; change’, 合*he* ‘unite’, 定*ding* ‘pacify’, 谪*zhe* ‘exile’ and 销*xiao* ‘melt’. Additionally, more change-of-state verbs are found in low-frequency labile verbs that occur only once in the sample, i.e. 折*zhe* ‘break’, 拜*bai* ‘offer official post’, 推*tui* ‘elect’, 摆*bai* ‘swing’, 昭*zhao* ‘brighten’, 止*zhi* ‘stop’, 死*si* ‘die’, 泯*min* ‘eliminate’, 涌*yong* ‘gush’, 溢*yi* ‘overflow’, 盛*sheng* ‘flourish’, 直*zhi* ‘rectify’, 移*yi* ‘move’, 穷*qiong* ‘exhaust’, 空*kong* ‘empty’, 竖*shu* ‘erect’, 笼*long* ‘shroud’, 紊*wen* ‘harass’, 继*ji* ‘continue’, 罢*ba* ‘finish’, 致*zhi* ‘come’, 舒*shu* ‘stretch’, 萃*cui* ‘assemble’, 融*rong* ‘warm’, 被*bei* ‘cover’, 裂*lie* ‘crack’, 贬*bian* ‘abase’, 起*qi* ‘rise’, 辟*bi* ‘open’, 钟*zhong* ‘concentrate’, 阕*que* ‘end’, 雪*xue* ‘rehabilitate’, 黜*chu* ‘degrade’, 泄*xie* ‘let out’, 歇*xie* ‘rest’ and 黷*du* ‘smear’.

Purely stative verbs not encoding any change are also identified in Table 3.4, such as 胜*sheng* ‘can bear’. Stative verbs that occur only once in the collected tokens of the intransitive labile construction include 若*ruo* ‘be like; as if’, 存*cun* ‘exist’, 和*he* ‘in harmony with’ and so forth. Some corresponding stative tokens are given below (with transitive uses of verbs from the same historical period also presented as references):

(22) a. 男 女 之 际, 大 欲 存 焉。

Nan nv zhi ji, da yu **cun** yan.

man woman ZHI between big passion exist SFP

‘There is strong passion between men and women.’

(《李娃传》)



b. 屏 事 以 存 理……

Bing shi yi **cun** li...  
discard the truth retain reason  
'Discard the truth to retain the reason...'

(《传心法要》)

(23) a. 亲 宾 正 和。

Qin bin zheng **he**.  
relative guest right at this moment in harmony  
'Relatives and guests are in harmony with each other right at this moment.'

(《柳毅传》)

b. 圣 人 和 之 以 至 德， 辅 之 以 人 事。

Shengren **he** zhi yi zhi de, fu zhi yi renshi.  
emperor alleviate 3 with supreme morality support 3 with effort  
'The emperor alleviate it (the natural disaster) with the supreme morality, supported by best effort.'

(《孙思邈传》)

(24) a. 歔 欷 流 涕， 悲 不 自 胜。

Xixu liu ti, bei bu zi **sheng**.  
sob flow tear sorrow NEG self can bear  
'Sobbing with tears, (I just) cannot bear this sorrow myself.'

(《柳毅传》)

b. 少 帝 年 未 胜 衣。

Shao di nian wei **sheng** yi.  
young emperor age not yet can bear clothes  
'The young emperor is not old enough to match his clothes yet.'

(《大唐创业起居注》)

A similar class is observed dealing with concepts of change of location. The themes of change-of-locations verbs are invariably locative, such as 适 *shi* 'get to' in the following intransitive labile token (with its transitive use from the same historical period also presented as a reference):

(25) a. 水 陆 无 往 不 适。

Shui lu wu wang bu **shi**.  
water land NEG go NEG get to  
'There is no place in the water or on the land that (they have) not gotten to.'

(《柳毅传》)

- b. 至 期 适 市, 果 有 一 破 镜。  
 Zhi qi **shi** shi, guo you yi po jing.  
 come time get to market sure enough have a broken mirror  
 ‘When the time came and (he) went to the market, there is a broken mirror.’  
 (《独异志》)

Transfer verbs are distinct from change-of-location verbs in that the themes preceding them in the collected tokens are not locative but the transferred objects. High-frequency verb types presented in Table 3.4 within this frame include 授 *shou* ‘award’, 迁 *qian* ‘move’, 买 *mai* ‘buy’, 税 *shui* ‘rent, buy’, 给 *gei* ‘give’ and 谪 *zhe* ‘exile’. Besides, 报 *bao* ‘return’, 赠 *zeng* ‘give’, 弃 *qi* ‘discard’, 假 *jia* ‘lend’, 送 *song* ‘give, deliver’ and 陈 *chen* ‘present’ only occur once in tokens of the intransitive labile construction that I collected, also falling into this category. The following are some examples (with transitive uses of verbs from the same historical period also presented as references):

- (26) a. 有 一 仙人, 谪 在 下界。  
 You yi xianren, **zhe** zai xiajie.  
 TOP one immortal exile at the world of man  
 ‘There is an immortal exiled at the world of man.’  
 (《霍小玉传》)

- b. 高帝 黜 儒生, 文皇 谪 才子。  
 Gaodi chu rushing, Wenhua **zhe** caizi.  
 Emperor Gao dismiss Confucian scholar Emperor Wen exile gifted scholar  
 ‘The Emperor Gao dismissed Confucian scholars, whereas the Emperor Wen exiled gifted scholars.’  
 (《全唐诗》)

- (27) a. 乃 辇 服 玩, 并 其 母 偕 送 于 任 氏。  
 Nai nian fu wan, bing qi mu xie **song** yu Ren shi.  
 then load (on cart) clothing treasures together with DEM mother all give to Madam Ren  
 ‘Then, (they) loaded the clothing and treasures on the cart, and delivered to Madam Ren together with her mother.’  
 (《任氏传》)

- b. 送 马 千 匹 来 太原 交 市。  
**Song** ma qian - pi lai Taiyuan Jiaoshi.  
 send horse thousand- CL come Taiyuan Jiaoshi  
 ‘Send one thousand horses to Jiaoshi, Taiyuan.’  
 (《大唐创业起居注》)

载 *Zai* ‘carry, record’, 申 *shen* ‘express’, 纪 *ji* ‘record’, 言 *yan* ‘say’ and 述 *shu* ‘describe’ can also be grouped into transfer verbs in a broad and abstract sense since they indicate transferring information.

Action verbs that do not encode change of state are also considerable in the tokens, though most of them occur only once in the collected intransitive labile tokens. For example, 持 *chi* ‘hold’, 攀 *pan* ‘draw’, 数 *shu* ‘count’, 署 *shu* ‘dispose’, 以 *yi* ‘use’, 托 *tuo* ‘entrust’, 承 *cheng* ‘hold’, 投 *tou* ‘cast’, 拒 *ju* ‘reject’, 接 *jie* ‘catch’, 携 *lu* ‘capture’, 杀 *sha* ‘kill’, 教 *jiao* ‘teach’, 斥 *chi* ‘scold’, 逐 *zhu* ‘expel’, 求 *qiu* ‘seek’, 许 *xu* ‘approve’, 责 *ze* ‘scold’, 辱 *ru* ‘humiliate’, 选 *xuan* ‘select’, 驾 *jia* ‘harness’, 替 *ti* ‘replace’ and 聘 *pin* ‘engage’. Representative tokens of the intransitive labile construction are as follows (with transitive uses of verbs from the same historical period also presented as references):

- (28) a. 纵使条条似旧垂，亦应攀折他人手。  
 Zongshi tiao tiao si jiu chui, yi yin **pan** zhe ta ren shou.  
 even if twig twig like past dangle also should draw break other people hand  
 ‘Even if the twigs (of the willow) are dangling like in the past, they will also be drawn and broken by somebody else.’  
 (《柳氏传》)
- b. 无忧树下暂攀花。  
 Wu you shu xia zan **pan** hua.  
 no worry tree under suddenly draw flowers  
 ‘Draw the flowers under the no worry tree.’  
 (《敦煌变文》)
- (29) a. 周请署南柯司宪。  
 Zhou qing **shu** Nanke sixian.  
 Zhou please dispose Nanke secretary  
 ‘Please appoint Zhou as the secretary of Nanke.’  
 (《南柯太守传》)
- b. 署侯文为东部督邮  
**Shu** Hou Wen wei dongbu Duyou.  
 dispose Hou Wen as east Duyou  
 ‘Appoint Hou Wen as the Duyou (a government official’s title) of the east.’  
 (《艺文类聚》)

(30) a. 言 以 谢 曰: .....

Yan **yi** xie yue: .....

word use thank say

‘thank with the words: ...’

(《任氏传》)

b. 如 人 以 镜 照 面。

Ru ren **yi** jing zhao mian.

like people use mirror reflect face

‘Just like people reflect their faces using a mirror.’

(《传心法要》)

A relatively low-frequency semantic frame involved with labile verbs concerns cognition and perception, represented by 爱 *ai* ‘love’, 闻 *wen* ‘hear’, 忘 *wang* ‘forget’ in Table 3.4. Tokens of cognition/perception intransitive construction are exemplified as follows (with transitive uses of verbs from the same historical period also presented as references):

(31) a. 妾 本 娼家.....今 以 色 爱.....

Qie ben changjia... jin yi se **ai**...

I originally prostitute now with beauty love

‘I original was a prostitute... and is loved because of beauty.’

(《霍小玉传》)

b. 恪 善 骑 射, 太宗 尤 爱 之。

Ke shan qi she, Taizong you **ai** zhi.

Ke good at horsemanship archery, Emperor Taizong especially love 3

‘Ke is good at horsemanship and archery. Emperor Taizong especially love him.’

(《大唐新语》)

(32) a. 一 家 惊 喜, 声 闻 于 外。

Yi jia jing xi, sheng **wen** yu wai.

one family surprise happy sound hear at outside

‘The whole family is surprisingly pleasant, and the sound can be heard from the outside.’

(《霍小玉传》)

b. 海陵王元吉 闻 之 不 信。

Hailing Wang Yuanji **wen** zhi bu xin.

Hailing Wang Yuanji hear 3 not believe

‘Wang Yuanji of Hailing heard it but did not believe.’

(《大唐传载》)

(33) a. 一 食 一 饮, 未 尝 忘 焉。

Yi shi yi yin, wei chang **wang** yan.

one food one drink not ever forget SFP

‘I never forget the food and the drink.’

(《任氏传》)

b. 人 不 敢 忘 心。  
 Ren bu gan **wang** xin.  
 people not dare forget heart  
 ‘People do not dare to forget their hearts.’

(《传心法要》)

Concepts of cognition/perception are also instantiated by low-frequency labile verbs in our corpus data, including 忍 *ren* ‘bear’, 知 *zhi* ‘know’, and 览 *lan* ‘see’.

The major semantic frames, the frequencies of the according intransitive labile tokens, and representative verbs in the high-frequency tokens of each semantic frame can be summarized in Table 3.5.

Table 3.5.

*Type frequencies of semantic frames of verbs in tokens of the intransitive labile construction in Chuanqi stories*

Semantic Frame	Token frequency of the intransitive labile construction	Representative Labile Verbs
Change of state	109	断‘cut off’; 讫‘finish, end’; 举‘raise’; 发‘let off’; 生‘appear’; 聚‘accumulate’
Stative (static)	18	居‘live’; 胜‘can bear’; 同‘same’
Change of location	3	诣‘visit’; 渡‘ferry’; 适‘get to’
Transfer	26	授‘award’; 转‘transfer’; 买‘buy’; 给‘give’
Action	39	持‘hold’; 攀‘draw’; 数‘count’; 署‘dispose’
Cognition/Perception	18	忍‘bear’; 爱‘love’; 闻‘hear’
Total	214	

*Note.* All the meanings for verbs displayed in this section are the meanings in the contexts of the collected tokens.

It is worth reiterating that the semantic frame identification of the labile verbs needs to be understood in the contexts of the collected tokens. Out of contexts, many verbs allow multiple ways of interpretation, e.g., many change-of-state verbs can also be stative, such as 紊 *wen*

‘disorder/disordered’, 舒 *shu* ‘stretch/stretched’, 穷 *qiong* ‘end/limit/limited/poor’, 固 *gu* ‘solid/solidify’ and 直 *zhi* ‘straight/straighten’.

Another prominent finding is that some adverbials repeatedly occur in the collected tokens of the intransitive labile construction, such as 自 *zi* ‘self’ and 相 *xiang* ‘mutually’. 自 *Zi* ‘self’ appears in 25 tokens, co-occurring with verbs of various semantic frames, such as 自保 *zi bao* ‘protect oneself’ (two tokens), 自辱 *zi ru* ‘humiliate oneself’ (one token), 自立 *zi li* ‘establish oneself’ (two tokens), 自爱 *zi ai* ‘love oneself’ (two tokens) and 自给 *zi ji* ‘provide for oneself’ (three tokens). 相 *Xiang* ‘mutually’ occurs in five tokens, i.e., 相兼 *xiang jian* ‘hold two things concurrently’ (two tokens), 相持 *xiang chi* ‘hold each other’ (one token), 相得 *xiang de* ‘be mutually achieved’ (one token), 相假 *xiang jia* ‘lend to each other’ (one token). In fact, without 自 *zi* ‘self’ and 相 *xiang* ‘mutually’, many verbs mentioned above rarely occur independently in the intransitive labile construction, including 爱 *ai* ‘love’, 辱 *ru* ‘humiliate’, 兼 *jian* ‘hold two things concurrently’ and 持 *chi* ‘hold’. Moreover, the subjects in the tokens of ‘自 *zi* + V’ and ‘相 *xiang* + V’ are invariably human beings, which is actually uncommon for other intransitive labile tokens.

In parallel with the continuous disyllabification of the Chinese language, disyllabic elements are found in the labile verb positions of the collected tokens, such as 流连 *liulian* ‘linger’, 温习 *wenxi* ‘review’ and 罗列 *luolie* ‘arrange for show’ (with transitive uses of verbs from the same historical period also presented as references):

- (34) a. 默 想 曩昔 之 艺 业, 可 温习 乎?  
 Mo xiang nangxi zhi yi ye, ke **wenxi** hu?  
 silently think about past ZHI skill work can review QUES  
 ‘(If you) think silently about the skill and work in the past, can you review them?’  
 (《李娃传》)
- b. 时 复 温习 旧 闻 以 知 新 意。  
 Shi fu **wenxi** jiu wen yi zhi xin yi.  
 frequently repeatedly review old information to know new meaning  
 ‘Review old information frequently and repeatedly to know the new meaning.’  
 (《朱子语类》)
- (35) a. 侍婢 罗列。  
 Shibi **luolie**.  
 maid display  
 ‘Maids are arranged for display (are standing by side).’  
 (《虬髯客传》)
- b. 玄 宗…… 罗列 百 伎。  
 Xuan Zong... **luolie** bai ji.  
 Emperor Xuan... display hundred performer  
 ‘Emperor Xuan displayed hundreds of performers.’  
 (《明皇杂录》)
- (36) a. 大 凡 物 之 尤 者, 未 尝 不 留连 于 心。  
 Da fan wu zhi you zhe, weichang bu **liulian** yu xin.  
 Generally thing ZHI outstanding thing have not NEG linger in heart  
 ‘Generally all outstanding (beauties) linger in (his) heart.’  
 (《莺莺传》)
- b. 流连 万 象 之 际, 沉 吟 视 听 之 区。  
**Liulian** wan xiang zhi ji, chenyin shi ting zhi qu.  
 loiter ten thousand form ZHI between ponder vision audition ZHI area  
 ‘Loiter among all things, and ponder in the area of vision and audition.’  
 (《文心雕龙》)

Last but not least, beside the 214 tokens of the intransitive labile construction, the property-denoting ‘theme +可 *ke*/足 *zu*/难 *nan* + V’ structure that appeared in pre-Qin data are captured again in 25 excluded tokens. Resembling our earlier finding, the verb in this structure can be flexible in meaning. 不可穷 *bu ke qiong* ‘cannot be exhausted’, 可买 *ke mai* ‘can be bought’, and 可知 *ke zhi* ‘can be known’ are all found in the sample.

### 3.2.2 Contingency between verb types and the intransitive labile construction

In an attempt to line up with the contingency analysis of the pre-Qin period, the six target verbs used before, namely 削 *xue* ‘cut down’, 助 *zhu* ‘help’, 听 *ting* ‘listen’, 备 *bei* ‘prepare/ready’, 弑 *shi* ‘slay (the King)’ and 聚 *ju* ‘accumulate’, are searched again in Tang texts in Cncorpus. In addition, because of the increase in the sample, 买 *mai* ‘buy’ and 弃 *qi* ‘discard’ are chosen as representatives of transfer verbs, a labile verb category that was not investigated in Old Chinese. For these eight target verbs, all tokens, except for those occurring in the Twenty-Four Histories, are coded to pick out the intransitive labile construction. The reason to exclude the Twenty-Four Histories is that Chinese Standard Histories (正史) are mainly written in Old Chinese, so they can hardly reflect language change.

Like what I did before, the contingencies between target verbs and the intransitive labile constructions are assessed by looking at how faithful they are to the intransitive labile construction: among all tokens of a verb, I first eliminated those in which target verbs independently behave as subjects or objects, and then examined what is the type frequency of the intransitive labile construction. The results are calculated in percentages and presented in Table 3.6.



Table 3.6.

*Type frequency of the intransitive labile construction for each verb in Tang texts*

Verb	Type frequency of the intransitive labile construction	Token Frequency	Percentage
弑 <i>shi</i> ‘slay (the King)’	0	7	0.00%
助 <i>zhu</i> ‘help’	4	423	0.95%
买 <i>mai</i> ‘buy’	46	634	7.26%
听 <i>ting</i> ‘listen’	368	2566	14.34%
弃 <i>qi</i> ‘discard’	212	834	25.42%
削 <i>xue</i> ‘cut down’	75	192	39.06%
备 <i>bei</i> ‘prepare’	234	522	44.83%
聚 <i>ju</i> ‘accumulate’	261	481	54.26%

In Table 3.6, very low token frequency has been observed for 弑 *shi* ‘slay (the King)’. This is a situation remarkably distinct from pre-Qin Chinese, suggesting the verb 弑 *shi* ‘slay (the King)’ is dying out in Middle Chinese.

The percentages can be plotted in a bar chart, with 弑 *shi* ‘slay (the King)’ excluded because the frequency is too low to provide quantitatively valid information for distribution.

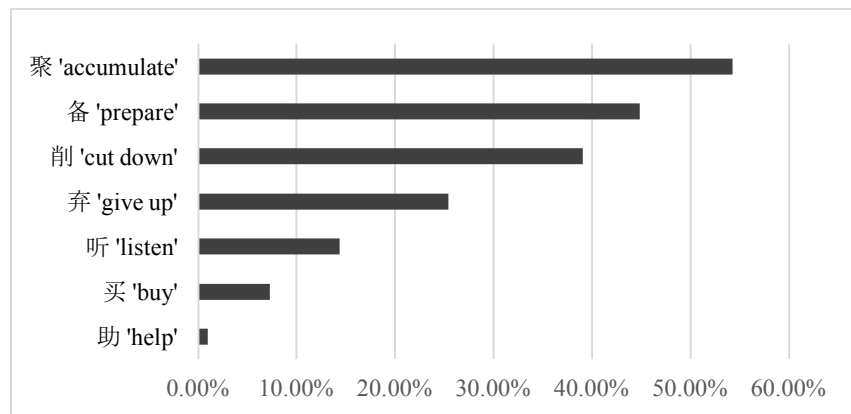


Figure 3.2. Faithfulness of labile verbs to the intransitive labile construction (the Tang dynasty)

Striking similarity can be observed between the pattern shown in Figure 3.2 and that of the pre-Qin period shown in Figure 3.1. First and foremost, with a range from 0% to 50%, the overall faithfulness of the investigated verbs to the intransitive labile construction is fairly close to the pre-Qin period. When it comes to the difference across semantic frames, change-of-state verbs 聚 *ju* ‘accumulate’, 备 *bei* ‘prepare/ready’ and 削 *xue* ‘cut down’ still exhibit higher faithfulness to the intransitive labile construction than verbs of other semantic frames, standing in sharp contrast to the action verb, 助 *zhu* ‘help’, that does not encode a change of state. The perception verb 听 *ting* ‘listen’, the transfer verbs 弃 *qi* ‘discard’ and 买 *buy* ‘buy’ appear to be in the middle between. Some examples of intransitive labile tokens are as follows (with transitive uses of verbs from the same historical period also presented as references):

- (37) a. 暮 钟 寒 鸟 聚, .....  
 Mu zhong han niao **ju**, .....  
 dusk bell cold bird accumulate  
 ‘With the sound of the bell at dusk, cold birds accumulated...’  
 (《全唐诗》)
- b. 平 原 贼 窦 建 德 聚 众 数 万 人。  
 Pingyuan zei Dou Jiande **ju** zhong shu wan ren.  
 Pingyuan heister Dou Jiande accumulate mass several ten thousand people  
 ‘Dou Jiande, the heister of Pingyuan, accumulated tens of thousands people.’  
 (《大唐创业起居注》)
- (38) a. 名 流 古 集 典 衣 买, .....  
 Ming liu gu ji dian yi **mai**, .....  
 celebrity ancient book mortgage clothes buy  
 ‘Mortgaging clothes to buy ancient books of celebrities...’  
 (《全唐诗》)
- b. 何 不 买 骏 乘 之。  
 He bu **mai** jun cheng zhi.  
 QUES not buy horse ride 3  
 ‘Why not buy a horse and ride it?’  
 (《大唐新语》)

- (39) a. 良 玉 多 弃 捐。  
Liang yu duo **qi** juan.  
nice jade mostly discard abandon  
'Nice jade is mostly discarded or abandoned.'  
(《全唐诗》)
- b. 来 俊 臣 弃 故 妻。  
Lai Junchen **qi** gu qi.  
Lai Junchen abandon past wife  
'Lai Junchen abandoned his first wife.'  
(《大唐新语》)
- (40) a. 哀 猿 听 未 休, ……  
Ai yuan **ting** wei xiu, ……  
sad ape listen not cease  
'The sad apes are continuously being heard...'  
(《全唐诗》)
- b. 听 吾 宣 说 地藏 菩萨 不 思 议 利 益 之 事。  
**Ting** wu xuan shuo Dizang Pusa bu si yi li yi zhi shi.  
listen 1 preach tell Ksitigarbha not think talk profit benefit ZHI story  
'Please listen to my story of Ksitigarbha not thinking or talking about profit or benefit.'  
(《地藏本愿》)
- (41) a. 无 力 者 其 国 必 削。  
Wu li zhe qi guo bi **xue**.  
no power one 3 country must cut down  
'The country of powerless emperors must be cut down.'
- b. 忽 见 一 人, 削 发 染 衣, 徐 行 缓 步。  
Hu jian yi ren, xue fa ran yi, xu xing huan bu.  
suddenly see a person cut hair dye clothes slowly go slowly walk  
'Suddenly saw a person cut hair and dye clothes, walking slowly.'  
(《艺文类聚》)

Among the target verbs that were investigated, 备 *bei* 'prepare/ready' clearly presents the coexistence of the change-of-state sense and purely stative sense in the tokens. On the one hand, 备 *bei* 'prepare' is frequently modified by words denoting the perfective aspect, such as 既 *ji* or 已 *yi*:

- (42) 经 邦 已 备, 皇 情 回 属。  
Jing bang yi **bei**, huang qing hui zhu.  
administer country already prepare emperor affection back entrust  
'The organized country is already prepared, and the emperor entrusted his affection again.'  
(《艺文类聚》)

- (43) 悟 修 之 道 既 备, .....  
 Wu xiu zhi dao ji **bei**.  
 understand practice (Buddhism) ZHI moral already prepare  
 ‘(Buddhists) already prepared the morals that have been fully understood and practiced.’  
 (《禅源论序》)

On the other hand, 备 *bei* ‘prepare/ready’ is also seen co-occurring with degree adverbs such as

甚 *shen* ‘very; extremely’:

- (44) 食 物 甚 备。  
 Shi wu shen **bei**.  
 food goods very complete  
 ‘Food and goods are very complete.’  
 (《广异记》)

- (45) 陈 设 甚 备。  
 Chenshe shen **bei**.  
 furnishing very complete  
 ‘Furnishings are quite complete.’  
 (《广异记》)

Another frequent type of modifiers for 备 *bei* ‘prepare’ denotes range, such as 咸 *xian*, 俱 *ju*,

毕 *bi* and 悉 *xi*:

- (46) 草 正 诸 体 悉 备。  
 Cao zheng zhu ti xi **bei**.  
 cursive script regular script various script all prepare  
 ‘(Skills to write) cursive script, regular script, and all scripts are all complete.’  
 (《书断列传》)

- (47) 万 法 尽 通, 万 行 俱 备。  
 Wan fa jin tong, wan hang ju **bei**.  
 ten thousand law all link up ten thousand road all prepare  
 ‘Tens of thousands of laws are all linked up. Tens of thousands of roads are all complete.’  
 (《坛经》)

- (48) 诸 俎 毕 备。  
 Zhu zu bi **bei**.  
 various sacrificial utensil all prepare  
 ‘Various kinds of sacrificial utensils are all prepared.’  
 (《唐国史补》)

In correspondence with our earlier finding that ergative/unaccusative verbs and neutral/transitive verbs do not have well-delineated boundary from each other, data of the Tang dynasty also suggest many Chinese verbs allow object deletion alongside transitivity alternation:

- (49) 遂 令 厮 养 之 卒 策 骑 而 备 焉。  
 Sui ling si yang zhi zu ce ji er **bei** yan.  
 CONJ ask enslave raise ZHI servant whip horse CONJ prepare SFP  
 ‘Then, (he) asked the enslaved and raised servant to whip the horse to prepare.’  
 (《奉天录》)
- (50) 有 人 拟 买。  
 You ren ni **mai**.  
 TOP person intend buy  
 ‘There is a person who intend to buy.’  
 (《敦煌变文》)
- (51) 明 主 虽然 弃, 丹 心 亦 未 休。  
 Ming zhu suiran **qi**, dan xin yi wei xiu.  
 wise lord although abandon red heart also not rest  
 ‘Although I was abandoned by the wise lord, my red heart (to serve) never rests.’  
 (《全唐诗》)
- (52) 虞 公 不 听, 后 遂 为 晋 所 灭。  
 Yu Gong bu **ting**, hou sui wei Jin suo mie.  
 Duke Yu NEG listen later CONJ is the State of Jin SUO wipe out  
 ‘Duke Yu did not listen, and was wiped out by the State of Jin later.’  
 (《艺文类聚》)

### 3.2.3 Summary of the intransitive labile construction in the Tang dynasty

In general, the investigation of the intransitive labile construction in texts of the Tang dynasty replicates our earlier findings of Old Chinese: there is no clear-cut distinction between ergative/unaccusative verbs and neutral/transitive verbs. Most verbs allow transitive alternation as well as object deletion, but indeed, change-of-state verbs have higher contingency to the intransitive labile construction than verbs from other semantic frames, thus constituting the prototype of labile verbs. Meanwhile, there is a strong tendency for the theme in the intransitive labile construction to be inanimate.

There are also some new discoveries, i.e., for a single verb, the static stative sense and the change-of-state sense always coexist, which means that it can be modified by degree words or aspect words in different contexts. Furthermore, the small corpora used for intransitive labile token collection are generally comparable in size for these two historical periods, but significantly more intransitive labile tokens have been collected from the ten *Chuanqi* stories than from *Mencius*. This change may be attributed to genres – *Mencius* is a collection of anecdotes and conversations containing many sophisticated arguments, whereas the *Chuanqi* stories are mainly delivered by factual expressions – but may also be indicative of an increase in the overall frequency of the intransitive labile construction in language use. Moreover, there have emerged some adverbials frequently seen in the intransitive labile construction, represented by 自 *zi* ‘self’ and 相 *xiang* ‘mutually’<sup>7</sup>.

For sure, the general development of Middle Chinese is also reflected in our data. Some verbs, such as 弑 *shi* ‘slay (the King)’, are dying out during the Tang dynasty. In the meantime, disyllabic verbal elements begin to be captured as labile verbals (to be discussed in Chapter 4).

### 3.3 The Intransitive Labile Construction in the Ming Dynasty (Early Mandarin)

Early Mandarin is primarily defined by phonetic features such as the disappearance of the entering tone (入声 *rusheng*), and disappearance of the three-way contrast between voiceless unaspirated, voiceless aspirated and voiced consonants of the initial stops and affricates (L. Wang, 1958/2004, p. 35). In terms of vocabulary and grammar, Early Mandarin inherited and promoted the traits developed by Middle Chinese. More disyllabic words are observed, and the

---

<sup>7</sup> It needs to be noted that this function of 自 *zi* ‘self’ and 相 *xiang* ‘mutually’ virtually germinates in Old Chinese, albeit not covered in my sample of Old Chinese.

disposal structure, the 被 *bei* construction, and the particles 了 *le* and 着 *zhe* become more commonly used. The Ming dynasty (1368-1644) is a remarkable era of Chinese literature featured by popular literary forms written in vernacular language, thus offering ideal materials for the present study.

### 3.3.1 The intransitive labile construction in *Sanyan* stories

*Sanyan* (三言, ‘three words’) refers to a trilogy of three individual vernacular story collections in the Ming dynasty, including *Yushi Mingyan* (《喻世明言》 ‘*Illustrious Words to Instruct the World*’) (1620), *Jingshi Tongyan* (《警世通言》 ‘*Comprehensive Words to Warn the World*’) (1624), and *Xingshi Hengyan* (《醒世恒言》 ‘*Constant Words to Awaken the World*’) (1627). There are 120 vernacular short stories in total in the *Sanyan* collections, 40 in each collection. A majority of the plots are based upon earlier *huabens* (scripts for story-telling), which were selected, edited, and adapted by Feng Menglong (1574-1646) to compile the *Sanyan* collections. Four stories, i.e. *Jiang Xingge Reencounters His Pearl Shirt* (《蒋兴哥重会珍珠衫》), *Du Shiniang Sinks Her Jewel Box in Anger* (《杜十娘怒沉百宝箱》), *The Oil-Peddler Wins the Queen of Flowers* (《卖油郎独占花魁》), and *Shi Fu Encounters a Friend at Tanque* (《施润泽滩阙遇友》) are randomly selected to form a small corpus composed of 69,139 characters, from which tokens of the intransitive labile construction are collected.

With special sentence patterns (e.g., questions/negative sentences with pronominal objects, the 被 *bei* construction, etc.) excluded, 622 tokens of the agentless intransitive structure are collected from these four stories. As I did before, ‘theme + 可 *ke*/足 *zu*/难 *nan* + V’ structures (with new variants of ‘theme + 能 *neng* + V’, ‘theme + 够 *gou* + V’, ‘theme + 可以 *keyi* + V’ and

‘theme + 容易 *rongyi* + V’) denoting property are trimmed off, accounting for 38 of the tokens. Extraction of labile verb types is not so easy as from Old Chinese and Middle Chinese because of an increased number of verb compounds and/or compound verbs (the boundary between verb compounds and compound verbs are sometimes fuzzy, to be discussed in Chapter 4), which are seen in 292 tokens. With verb compounds and compound verbs excluded, we finally end up with a sample of 326 intransitive labile tokens wherein inanimate themes occur in 254 tokens (77.91%), 238 tokens (73.00%) are positive sentences. 171 monosyllabic labile verbs (all checked in Ming texts of Cncorpus for transitive use, including in the disposal structures) are seen in these tokens. 57 of them occur in more than one token, with frequencies presented in Table 3.7.



Table 3.7.

*Labile type frequencies in the intransitive labile construction in Sanyan stories*

Verb	成	来	落	去	罢	绝	尽	毕
Meaning	accomplish	come	fall	go	finish	cut off	finish	finish
Frequency	10	10	10	10	9	9	7	7
Verb	说	吃	发	见	接	开	有	动
Meaning	say	eat; drink	let off	see	pick up	open	have	touch
Frequency	6	5	5	5	5	5	5	4
Verb	合	生	会	报	备	出	断	集
Meaning	converge	subsist	meet; know	recompense	prepare	go out	cut off	gather
Frequency	4	4	3	3	3	3	3	3
Verb	了	起	失	要	止	至	坐	与
Meaning	end	start	lose	want	stop	arrive	sit	give
Frequency	3	3	3	3	3	3	3	3
Verb	过	从	闭	荡	到	定	飞	空
Meaning	pass	follow	close	swing	arrive	pacify	fly	empty
Frequency	2	2	2	2	2	2	2	2
Verb	卖	迷	明	暖	认	舍	同	忘
Meaning	sell	infatuate	light	warm	recognize	abandon	same	forget
Frequency	2	2	2	2	2	2	2	2
Verb	下	想	醒	虚	许	愈	葬	沾
Meaning	fall	think	awake	empty	approve	recover	bury	touch (water)
Frequency	2	2	2	2	2	2	2	2
Verb	醉							Total
Meaning	drunk							
Frequency	2							212

*Note.* All the meanings for verbs displayed in this section are the meanings in the contexts of the collected intransitive labile tokens.

It can be seen in Table 3.7 that the most frequent labile verbs predominantly denote change of state or change of location. Some change-of-state/location concepts are instantiated by multiple synonyms, such as 罢 *ba*, 尽 *jin*, 毕 *bi* and 了 *liao* for ‘finish/end’, 绝 *jue* and 断 *duan* for ‘cut off’, 落 *luo* and 下 *xia* for ‘fall’, as shown in examples (53) and (54), and 至 *zhi* and 到

*dao* for ‘arrive’, as shown in examples (55) and (56) (with transitive uses of verbs from the same historical period also presented as references).

- (53) a. 一 块 鳖 鱼 落 地。  
Yi kuai bie yu **luo** di.  
one piece soft-shelled turtle fall ground  
‘A piece of soft-shelled turtle fell onto the ground.’  
(《卖油郎独占花魁》)
- b. 今日 老 儿 落 齿。  
Jinri laoer **luo** chi  
today old guy fall off tooth  
‘Today the old guy lost one tooth.’  
(《初刻拍案惊奇》)
- (54) a. 泪 下 如 雨。  
Lei **xia** ru yu.  
tear fall like rainfall  
‘Tears fell like rainfall.’  
(《蒋兴哥重会珍珠衫》)
- b. 王 某 …… 故 此 遭 污 下 狱。  
Wang Mou ... gu ci zao wu **xia** yu.  
Wang 3 ... for this suffer from scandal fall jail  
‘Mr. Wang suffered from scandal and went to jail for this reason.’  
(《初刻拍案惊奇》)
- (55) a. 十 四 岁 谓 之 开 花, 此 时 天 癸 已 至。  
Shisi sui wei zhi kai hua, ci shi tiangui yi **zhi**.  
fourteen years’ old call 3 open flower this time Tiangui (period for women) already arrive  
‘Fourteen is called bloom. Period has already arrived at this time.’  
(《卖油郎独占花魁》)
- b. 饮 酒 至 夜。  
Yin jiu **zhi** ye.  
drink alcohol till night  
‘Drink till night.’  
(《初刻拍案惊奇》)
- (56) a. 不 觉 周 年 已 到。  
Bu jue zhounian yi **dao**.  
NEG aware anniversary already arrive  
‘... did not realize it is already anniversary.’  
(《蒋兴哥重会珍珠衫》)
- b. 子 文 又 到 馆 中。  
Ziwen you **dao** guan-zhong.  
Ziwen again get to hall-middle  
‘Ziwen got to the hall again.’  
(《初刻拍案惊奇》)

On the list, 成*cheng* ‘accomplish’, 发*fa* ‘let off’, 开*kai* ‘open’, 合*he* ‘converge’, 备*bei* ‘prepare’, 集*ji* ‘gather’, 起*qi* ‘start’, 失*shi* ‘lose’, 止*zhi* ‘stop’, 坐*zuo* ‘sit’, 荡*dang* ‘swing’, 定*ding* ‘pacify’, 飞*fei* ‘fly’, 空*kong* ‘empty’, 迷*mi* ‘infatuate’, 明*ming* ‘light’, 暖*nuan* ‘warm’, 醒*xing* ‘awake’, 虚*xu* ‘empty’, 愈*yu* ‘recover’ and 醉*zui* ‘drunk’ also belong to change-of-state verbs. Change-of-location verbs include 来*lai* ‘come’, 去*qu* ‘go’, 出*chu* ‘go out’, 至*zhi* ‘arrive’ and 过*guo* ‘pass’.

It is worth noting that quite a few change-of-state verbs can also be used as purely stative, static without any change. For example, 空*kong* ‘empty’, 明*ming* ‘light’ and 暖*nuan* ‘warm’ can be modified by degree words, used in parallel with the English adjectives ‘empty’, ‘light’ and ‘warm’. On the other hand, purely stative verbs can also be identified from collected intransitive labile tokens, such as 有*you* ‘have’ and 同*tong* ‘same’ (with transitive uses of verbs from the same historical period also presented as references):

(57) a. 金 帛 千 箱 有。

Jin bo qian xiang **you**.  
gold silk thousand box have  
‘There are thousands of boxes of gold and silk.’

(《蒋兴哥重会珍珠衫》)

b. 妻弟 有 个 儿 子。

Qidi **you** ge erzi.  
younger brother’s wife have CL son  
‘Younger brother’s wife has a son.’

(《初刻拍案惊奇》)

(58) a. 两 下 志 同 道 合。

Liang xia zhi **tong** dao he.  
two side will same road converge  
‘The two sides have the same will and their roads converge.’

(《卖油郎独占花魁》)

- b. 今舅舅 郑 枢密 生 一 表妹……正 与 次 弟 同 庚。  
 Jin jiujiu Zheng Shumi sheng yi biaomei... zheng yu ci di **tong geng**.  
 now uncle Zheng Shumi have a cousin ... exactly with second brother same age  
 ‘Now, my uncle Zheng Shumi (a government official’s title) have a daughter (who is my  
 cousin). She is exactly the same age as my second younger brother.’  
 (《初刻拍案惊奇》)

Transfer verbs do not inherently encode the resultant state, but profiles a subject’s action to change the location/state of an object instead. So when occurring in the perfective aspect, transfer verbs often imply change of state or change of location, such as 报**bao** ‘recompense’, 舍**she** ‘abandon’, 与**yu** ‘give’ and 卖**mai** ‘sell’ (with transitive uses of verbs from the same historical period also presented as references):

- (59) a. 滩阙 巧 逢 恩 义 报。  
 Tanque qiao feng en yi **bao**.  
 Tanque coincidentally meet favor friendly feelings recompense  
 ‘All favor and friendly feelings were recompensed in the coincident meeting at Tanque.’  
 (《施润泽滩阙遇友》)

- b. 有 黄 飞彪 愿 为 长 兄 报 仇。  
 You Huang Feibiao yuan wei zhang xiong **baochou**.  
 TOP Huang Feibiao be willing to for oldest brother revenge  
 Huang Feibiao is willing to revenge for his oldest brother.  
 (《封神演义》)

- (60) a. 这 点 个 与 你 也 不 妨 得。  
 Zhe dian ge **yu** ni ye bu fangde.  
 this little CL give 2SG also NEG matter  
 ‘It does not matter to give you this little.’  
 (《施润泽滩阙遇友》)

- b. 若 要 周 全 这 事, 须 得 与 他 千 金。  
 Ruo yao zhouquan zhe shi, xu de **yu** ta qian jin.  
 if want achieve this thing must need give 3 thousand gold  
 ‘If you want to achieve this, you need to give him a large amount of gold.’  
 (《二刻拍案惊奇》)

Cognition/perception verbs are still part and parcel on the high-frequency labile verb list, such as 见**jian** ‘see’, 要**yao** ‘want’, 认**ren** ‘recognize’, 忘**wang** ‘forget’ and 想**xiang** ‘think’,

as shown in the following tokens (with transitive uses of verbs from the same historical period also presented as references):

- (61) a. 别个都不要。  
 Bie ge dou bu **yao**.  
 other-CL all NEG want  
 ‘I do not want any other (girl).’  
 (《卖油郎独占花魁》)
- b. 人人要件白衣。  
 Ren ren **yao** jian bai yi.  
 person person want CL white clothes  
 ‘Each person wants a white clothes.’  
 (《二刻拍案惊奇》)
- (62) a. 平时穿戴衣饰之类,毫厘休想。  
 Pingshi chuan dai yi shi zhi lei, hao li xiu **xiang**.  
 ordinary times wear wear clothes accessories ZHI sort bit slight not think  
 ‘Do not think about (taking) any of your everyday clothes and accessories.’  
 (《杜十娘怒沉百宝箱》)
- b. 我……还想着“风月”两字。  
 Wo ... hai **xiang** zhe Feng Yue liang zi.  
 I still think-ZHE Feng Yue two character  
 ‘I am still thinking about the two characters of 风 and 月 (which means “erotica”).’  
 (《初刻拍案惊奇》)

It is noteworthy that compared to other semantic frames, cognition/perception verbs have a noticeable inclination towards negative sentences: among the 14 intransitive labile tokens formed by them, nine are negative, suggesting that the intransitive use of them in the intransitive labile may abide by some constraints.

Action verbs that do not involve change of state appear to be comparatively low on the high-frequency labile verb list presented in Table 3.7. Their verbal semantics merely depicts one’s action on an object, not providing any information concerning the resultant state, represented by 沾 *zhan* ‘touch (water)’, 许 *xu* ‘approve’ and 接 *jie* ‘pick up’. Examples of intransitive labile tokens are as follows (with transitive uses of verbs from the same historical period also presented as references):

- (63) a. 王 公 见 女 儿 不 接 而 回。  
 Wang gong jian nv'er bu **jie** er hui.  
 Mr. Wang see daughter NEG pick CONJ return  
 'Mr. Wang saw his daughter returned without being picked up.'  
 (《施润泽滩阙遇友》)
- b. 文 若 虚 接 了 银 钱。  
 Wen Ruoxu **jie-le** yin qian.  
 Wen Ruoxu catch-LE silver money  
 'Wen Ruoxu caught the money.'  
 (《初刻拍案惊奇》)
- (64) a. 茶 饭 不 沾。  
 Cha fan bu **zhan**.  
 tea meal NEG touch  
 'The food and drink are not touched.'  
 (《卖油郎独占花魁》)
- b. 我 辈 何 幸, 得 亲 沾 芳 泽。  
 Wo bei he xing, de qin **zhan** fang ze.  
 I generation so lucky get in person benefit by flower dew  
 'My generation is so lucky to benefit by flower dew in person.'  
 (《二刻拍案惊奇》)

As noted before, verbs are categorized based on their meanings in the tokens, therefore it is not surprising to see polysemies or homonyms falling into more than one semantic frames within different contexts. 会 *Hui* exemplifies this situation as it means 'to know' in example (65), and 'to meet' in example (66):

- (65) 生 意 行 中, 百 般 都 会。  
 Shengyi hang zhong bai ban dou **hui**.  
 job profession middle hundred kind all know  
 '(Jiang Xingge) knows (how to do) hundreds of kinds of jobs.'  
 (《蒋兴哥重会珍珠衫》)
- (66) 父 子 今 朝 重 会。  
 Fu zi jinzhao chong **hui**.  
 father son today again meet  
 'Father and son met again today.'  
 (《卖油郎独占花魁》)

There are still some adverbials frequently occurring in the collected intransitive labile tokens. Replicating the findings from Middle Chinese, '相 *xiang* + V' and '自 *zi* + V' remain to

be considerable in type frequency, with seven and five tokens respectively. The following are some examples:

(67) (三巧) 欲 自 缢。

(sanqiao) yu **zi yi**.

Sanqiao want self hang

‘(Sanqiao) wants to hang herself.’

(《蒋兴哥重会珍珠衫》)

(68) 两 个 姊妹 相 称。

Liang ge zimei **xiang cheng**.

two-CL sisters mutually call

‘Those two call each other sisters.’

(《蒋兴哥重会珍珠衫》)

In the last place, the property-denoting structure ‘theme + 可 *ke*/足 *zu*/难 *nan* + V’ is preserved in this historical period, with new variants of ‘theme +能 *neng* + V’, ‘theme +够 *gou* + V’, ‘theme +可以 *keyi* + V’, and ‘theme +容易 *rongyi* + V’ because of lexical development. Still, it is not seen any particular inclination of the semantics of the verbs used in this structure: action verbs occur as frequently as change-of-state/location verbs.

### 3.3.2 Contingency between verb types and the intransitive labile construction

With the intention to be lined up with the contingency analysis of previous historical periods, the target verbs used before, namely 削 *xue* ‘cut down’, 助 *zhu* ‘help’, 听 *ting* ‘listen’, 备 *bei* ‘prepare’, 弑 *shi* ‘slay (the King)’, 聚 *ju* ‘accumulate’, 买 *mai* ‘buy’ and 弃 *qi* ‘discard’ are searched in Ming texts of Cncorpus. Taking the same approach as I used for data of the Tang dynasty, all tokens of these eight verbs, except for those in the Twenty-Four Histories, are coded to pick out the intransitive labile construction<sup>8</sup>.

---

<sup>8</sup> Over 2,000 tokens have been attained for 听 *ting* ‘listen’, 备 *bei* ‘prepare’ and 买 *mai* ‘buy’ respectively, and 1000 of them are randomly picked for coding.

After eliminating the tokens in which target verbs occur in subjects or objects (including in proper nouns), special sentence patterns, and in compound verbs or verb compounds, the faithfulness of target verbs to the intransitive labile construction is estimated in percentages, as shown in Table 3.8.

Table 3.8.

*Type frequency of the intransitive labile construction for each verb in Ming texts*

Verb	Type frequency of the intransitive labile construction	Token Frequency	Percentage
助 <i>zhu</i> 'help'	1	604	0.17%
听 <i>ting</i> 'listen'	9	699	1.29%
买 <i>mai</i> 'buy'	29	869	3.34%
弑 <i>shi</i> 'slay (the King)'	3	47	6.38%
弃 <i>qi</i> 'discard'	73	811	9.00%
备 <i>bei</i> 'prepare'	66	426	15.49%
削 <i>xue</i> 'cut down'	17	96	17.71%
聚 <i>ju</i> 'accumulate'	203	426	47.65%

The percentages can be plotted in Figure 3.3:

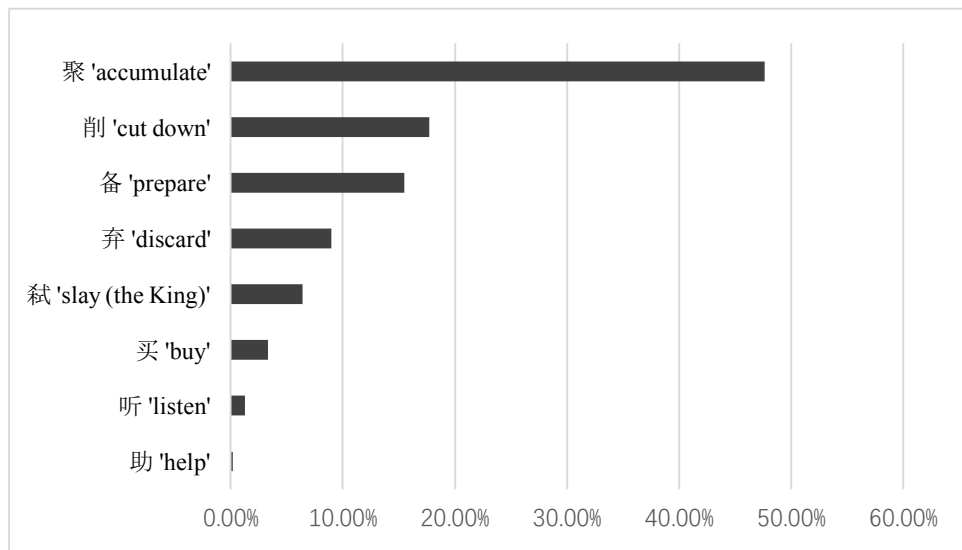


Figure 3.3. Faithfulness of labile verbs to the intransitive labile construction (the Ming dynasty)



The pattern shown in Figure 3.3 is generally the same as what is seen in Figure 3.1 and Figure 3.2: the overall faithfulness of the investigated verbs to the intransitive labile construction ranges from 0% to 50%, and change-of-state verbs show higher contingency to the intransitive labile construction than action verbs that do not encode resultant states in verbal semantics. Some intransitive labile tokens are presented as follows (with transitive uses of verbs from the same historical period also presented as references):

- (69) a. 魏 削 则 东 吴 亦 不 能 久 存。  
 Wei **xue** ze Dong Wu yi bu neng jiu cun.  
 Wei cut down CONJ Eastern Wu also NEG can long last  
 ‘If (the State of) Wei is cut down, the (State of) Eastern Wu cannot last long either.’  
 (《三国演义》)
- b. 我 等 聚 义 高 山， 誓 愿 除 奸 削 佞。  
 Wo deng ju yi gao shan, shi yuan chu jian **xue** ning.  
 1 PL gather revolt high mountain swear willing eradicate evildoer wipe out evildoer  
 ‘We gather at high mountains to revolt, and swear that we are willing to wipe out all evildoers.’  
 (《粉妆楼》)
- (70) a. 午 饭 已 备。  
 Wufan yi **bei**.  
 lunch already prepare  
 ‘Lunch is ready.’  
 (《警世通言》)
- b. 家 人 备 了 早 膳。  
 Jiaren **bei-le** zao shan.  
 family prepare-LE morning meal  
 ‘Families prepared breakfast.’  
 (《粉妆楼》)
- (71) a. 众 星 聚 于 江 东。  
 Zhong xing **ju** yu jiang dong.  
 many star accumulate at river east  
 ‘Many stars accumulates at the east of the river.’  
 (《粉妆楼》)
- b. 数 年 之 间， 聚 贿 千 万。  
 Shu nian zhi jian, **ju** hui qian wan.  
 several year ZHI within accumulate bribe thousand ten thousand  
 ‘Within the past few years, tens millions of bribes have been accumulated.’  
 (《初刻拍案惊奇》)

- (72) a. 旗 剑 戟, 弃 满 山 川。  
 Qi jian ji, **qi** man shan chuan .  
 flag sword halberd discard full mountain river  
 ‘Flags, swords and halberds are discarded all over mountains and rivers.’  
 (《水浒传》)
- b. 康 龙 弃了 八 座 大 营。  
 Kang Long **qi-le** ba-zuo da ying.  
 Kang Long abandon-LE eight-CL big campsite  
 ‘Kang Long abandoned eight campsites.’  
 (《粉妆楼》)

However, some details cannot be ignored distinguishing Figure 3.3 from the pictures of the pre-Qin period and the Tang dynasty. In the first place, the overall faithfulness of verbs to the intransitive labile construction has dropped remarkably: except for 聚 *ju* ‘accumulate’, all other verbs that have been studied in the Tang dynasty display lower contingency to the intransitive labile construction, indicating a shrinkage in their intransitive use. Furthermore, change-of-state verbs begin to diverge: both encoding change of state, 聚 *ju* ‘accumulate’ is significantly more faithful to the intransitive labile construction than 削 *xue* ‘cut down’ and 备 *bei* ‘prepare’.

In the meantime, 备 *bei* is also widely seen as a modifier for nouns or verbs, being purely stative denoting ‘complete/completely/ready’:

- (73) 晁 盖 备 细 说了。  
 Chao Gai **bei** xi shuo le.  
 Chao Gai completely detailedly say-LE  
 ‘Chao Gai said it detailedly and completely.’  
 (《水浒传》)
- (74) 悟 净 脱 身 至 南海, 备 说 详细。  
 Wujing tuo shen zhi Nanhai, **bei** shuo xiangxi.  
 Wujing get away get to Nanhai, detailedly say detail  
 ‘Wujing got away, arrived at Nanhai, and told (others) all the details.’  
 (《西游记》)

Last but not least, the dichotomous view of ergative/unaccusative verbs against neutral/transitive verbs is still untenable: the possibility of object deletion still exists for these target verbs.

(75) 罗 灿 手 快..... 往 右 一 削。

Luo Can shou kuai... wang you yi **xue**.  
Can Luo hand fast towards right one cut  
'Luo Can cut towards right with his fast hand.'

(《二刻拍案惊奇》)

(76) 尧 王 听 罢 大 喜。

Yao Wang **ting** ba da xi.  
Emperor Yao listen-finish greatly happy  
'Emperor Yao is very happy hearing it.'

(《封神演义》)

(77) 还 劳 王 大 哥 去 买。

Hai lao Wang da ge qu **mai**.  
also bother Wang big brother go buy  
'(I) also need to bother you, big brother Wang to go and buy it.'

(《警世通言》)

### 3.3.3 Summary of the intransitive labile construction in the Ming dynasty

By and large, the characteristics of the intransitive labile construction found in Old Chinese and Middle Chinese have been inherited by Early Mandarin of the Ming dynasty. Similarities are seen in the semantic frames defined by high-frequency labile verbs (i.e., change-of-state verbs can still be considered as the prototype of labile verbs), and the mutual compatibility of transitivity alternation and object deletion. Furthermore, the tendency that the theme-subjects in the intransitive labile constructions are often inanimate has been reinforced: the overwhelming majority of the collected intransitive labile tokens begin with inanimate themes.

Nevertheless, quite a few new features have also been revealed that cannot be overlooked. The faithfulness of verbs to the intransitive labile construction has dropped overall, and considerable heterogeneity can be observed within the category of change-of-state verbs.

Besides, some adverbials display exceptionally high frequency in the intransitive labile construction, such as 自 *zi* ‘self’ and 相 *xiang* ‘mutually’: a considerable type frequency can be observed for ‘theme + 自 *zi*/相 *xiang* + V’, and the verbs in these structures are found to be quite diverse in semantics, seemingly not subject to the general semantic prototype of labile verbs.

### 3.4 Summary and Implications

This chapter investigates Chinese monosyllabic labile verbs and the intransitive labile construction in corpus data of the pre-Qin period (Old Chinese), the Tang dynasty (Middle Chinese), and the Ming dynasty (Early Mandarin). Results show that the intransitive labile construction is extraordinarily ancient and stable in Chinese. The theme in the intransitive labile construction tends to be inanimate, and this tendency has become incrementally prominent over time. In all three historical periods, verb-construction (the intransitive labile construction) contingency analyses reveal that the most frequent labile verbs prototypically encode change of state or change of location. Moreover, a fairly large number of intransitive labile tokens have been collected from a very limited number of literal works, supporting Yao’s (1999) claim that the intransitive labile construction is a basic construction in Chinese.

Additionally, another finding is reached with regard to Cikoski’s (1978) dichotomy of ergative verbs versus neutral verbs, or in C.-T. Huang’s words (1989), unaccusative verbs versus transitive verbs. Quite a lot of labile verbs are also found in exemplars of object deletion in our data, making the border between ergative/unaccusative verbs and neutral/transitive verbs porous. This finding indicates that these categories can only be understood as prototypes, wherein change-of-state/location verbs constitute the core of ergative/unaccusative verbs (labile verbs, in this dissertation) since compared to non-change-of-state verbs, they present relatively high

faithfulness to the intransitive labile construction: the subjects of their intransitive use are more likely to differ from that of their transitive use in semantic role than other types of verbs.

The long-lasting prevalence of the intransitive labile construction and the compatibility between transitivity alternation and object deletion are consistent with the typological characteristics of Chinese, i.e., topic-prominent and parataxis, proposed by diverse typological theories.

Based on the relationship between sentence elements, Chinese has been recognized as a topic-prominent language, in contrast to English, which is claimed to be subject-prominent (Huang 1984a, 1984b; Li & Thompson, 1976, 1981, p. 15). Li & Thompson (1981, p. 95) states that in order to have a firm grasp of the topic-comment structure in Mandarin, it is important for one to understand the openness of the relationship between the topic and the comment. As long as the comment expresses something about the topic in the perception of the speaker and the hearer, the sentence will be meaningful. Lambrecht (1994, p. 118) elaborated on this typological theory by pointing out that in topic-prominent languages, the topics are only loosely associated with a proposition and whose relation to the proposition is a matter of pragmatic construal. This opinion can be aligned to Chafe's (1976, p. 50) claim that a topic sets a spatial, temporal, or individual framework within which the main predication holds.

Another typological theory primarily prevailing in translation studies designates Chinese grammar as parataxis, in contrast to hypotaxis, represented by English grammar (Nida, 1966; Wang, 1984, p. 468-472). Generally speaking, parataxis takes use of semantic connection and favors short, simple sentences, with the use of coordinating rather than subordinating conjunctions (Fish, 2012, p. 62) while hypotaxis is the grammatical arrangement of functionally similar but "unequal" constructs, with syntactic devices. Subordination is a commonly used way.

That is also part of the reason why Chinese grammar is said to exhibit typological features shared by sign languages and young creole languages (Haiman, 1985; Tai, 2008). Pan (2003) further compared Chinese sentences to bamboos, namely information is laid out linearly, and referred to English sentences as tree-like, with more deeply embedded hierarchical structures. Furthermore, like sign languages, Chinese, as much as possible, contextualizes the knowledge of the world, thereby simplifying the syntactic structure and allowing relatively free word order and argument selection (Tai, 2008).

Both accounts to the typological status of Chinese, topic-prominent and parataxis, acknowledge constructions in which the theta-grid the verb is not filled, such as the ‘agent + verb’ structure and the ‘theme + verb’ structure, the manifestation of object deletion and transitivity alternation respectively. It is worth noting that these typological features are largely preserved in Modern Mandarin. As is mentioned before, a corpus study conducted by Tao & Thompson (1994) reveals that the most frequently occurring structure in Modern Chinese conversations is X+V, where X is a verbal argument, regardless the argument structure of the verb, and theme-verb constructions account for 48%.

The basic tendency of Chinese development, disyllabification, is also reflected in our sample. A steady increase in the number of disyllabic verbs, compound verbs and verb compounds has been observed in the collected intransitive labile tokens. Meanwhile, differentiation has happened within the group of change-of-state verbs by the Ming dynasty: some of them occur more often in the intransitive labile construction than others.

Some adverbials have been shown to grant lability to verbs that are not usually labile, including 自 *zi* ‘self’ and 相 *xiang* ‘mutually’. The property-denoting ‘theme + 可 *ke*/足 *zu*/难

*nan* + V' can also be categorized into this type, if 可 *ke* 'can', 足 *zu* 'suffice', and 难 *nan* 'be difficult to' are treated as adverbials.

## **CHAPTER 4 COMPOUNDING AND THE DEVELOPMENT OF CHINESE LABILE VERBALS**

Historical data provides clear evidence of consistency in the semantics of Chinese monosyllabic labile verbs and the characteristics of the intransitive labile construction. However, the same data also show that change-of-state verbs began to diverge in their distributions, with some being used intransitively more often than others. In the meantime, Chinese words have undergone a continuous process of becoming disyllabic. Verb compounds and compound verbs have been increasing in use, both transitive and intransitive, making labile verbals. Utilizing corpus data, this chapter explores the potential relationship between the compounding of characters and the development of Chinese labile verbals. Based on the results, labile verbals in Modern Mandarin are investigated.

### **4.1 The Structure of Compound Verbs and Verb Compounds**

Old Chinese has a strong tendency towards monosyllabicity, and over the course of the evolution of the modern language, the lexicon has undergone a massive process of disyllabification (Arcodia, 2007). Compounding is one of the most common ways of disyllabifying Chinese verbs (cf. Arcodia, 2007; Shi, 2002, p. 71). Based on its assumption that syntactic patterns and words are two prototypes on a continuum (cf. section 2.2.2), this dissertation refrains from drawing a boundary between compound verbs and verb compounds, but instead holds that the major difference between them is frequency. For convenience, I will use the term ‘compound verbals’ to refer to them both.



In a widely cited work, Li & Thompson (1981, pp. 54-72) classified Chinese verb compounds into two types – the resultative verb compound (RVC) and the parallel verb compound – based on the semantic relations between their constituents.

An RVC is always composed of two elements, although each element may itself be a compound. A two-element verb compound is considered an RVC if the second element signals some result of the action or process conveyed by the first element. RVCs are further categorized into different subtypes based on the specific results they express.

Table 4.1.

*Different subtypes of results that can be expressed by an RVC (Li & Thompson, 1981, p. 55)*

Subtype	Verbal	Example Sentence
Cause	打破 <i>da-po</i> ‘pull-open’; 拉开 <i>la-kai</i> ‘pull-open’	我 把 茶 杯 打 破 了。 Wo ba cha-bei da-po le. 1SG BA tea-cup hit-broken LE ‘I broke the tea cup.’
Achievement	买到 <i>mai-dao</i> ‘buy-arrive’; 写清楚 <i>xie-qingchu</i> ‘write-clear’	他 买 到 了 那 本 字 典。 Ta mai-dao-le na-ben zidian. 3SG buy-arrive-LE that-CL dictionary ‘He managed to buy that dictionary.’
Direction	跳过去 <i>tiao-guo-qu</i> ‘jump-across-go’; 跑出来 <i>pai-chu-lai</i> ‘run-exist-come’	他 跳 过 去 了。 Ta tiao-guo-qu le. 3SG jump-across-go LE. ‘He jumped across.’
Phase	用完 <i>yong-wan</i> ‘use-finish’; 关掉 <i>guan-diao</i> ‘close-away’	他 的 钱 用 完 了。 Ta de qian yong-wan le. 3SG DE money use-finish LE ‘His/Her money is all used up.’

For Li & Thompson (1981, p. 56), another important characteristic of RVCs is that they are able to occur in the potential form. The potential form of an RVC involves the insertion of -得 *de-* ‘obtain’ or -不 *bu-* ‘not’ between the two constituents. The insertion of -得 *de-* has the effect of giving the compound an affirmative potential meaning, ‘can’, whereas the insertion of -不 *bu-* gives the compound a negative potential meaning, ‘cannot’.

In a parallel verb compound, on the other hand, the two verbs are either synonymous or signal the same type of predicative notions. For example, ‘celebrate’ was expressed by the monosyllabic word 庆 *qing* in an earlier state of the language, but in Modern Mandarin it is expressed by the parallel compound 庆祝 *qing-zhu* ‘celebrate-bless = celebrate’. The two constituents of parallel verb compounds are almost always of the same syntactic category as one another: i.e., both adjectival verbs, both action verbs, both verbs of perception, and so forth.

To put this another way, the structure of a compound verbal can be represented as ‘XY’. From a character-based perspective, both X and Y are meaningful characters. If Y signals some result of the action or process denoted by X, then XY is an RVC. If X and Y are synonymous or signal the same type of predicative notions, then XY is a parallel verb compound. Because the present study treats verb compounds and compound verbs as a single category, it must be clarified here that any discussion of ‘XY’ compound verbals is also intended to cover ‘X...Y’ compound verbals such as 庆祝完 *qingzhu-wan* ‘celebrate-finish’, in which X represents the first character and Y represents the last character regardless of what goes between them.

The historical data I collected regarding the intransitive labile construction indicates that verb compounds and compound verbs, both resultative and parallel, exist in Old Chinese and Middle Chinese:

- (1) 土地侵 削 而 不 振, 则 无 及 已。  
 Tu-di **qin** - **xue** er bu zhen, ze wu ji yi.  
 earth-land invade-cut down CONJ NEG reinvigorate, CONJ not on time SFP  
 ‘If the land is invaded but people do not reinvigorate themselves, it will be too late.’  
 (Pre-Qin • 《商君书》)
- (2) 马 之 股 有 疵, 可 买 入 居 之。  
 Ma zhi gu you ci, ke **mai-ru** ju zhi.  
 horse ZHI thigh have defect can buy-enter store 3  
 ‘There is a defect on the horse’s leg. You can buy and store it.’  
 (Tang • 《任氏传》)

In example (1), 侵 *qin* ‘invade’ and 削 *xue* ‘cut down’ are roughly synonymous, so 侵削 *qin-xue* ‘invade-cut down’ is a parallel verb compound. In example (2), however, 入 *ru* ‘enter’ indicates the resultative direction of 买 *mai* ‘buy’, making 买入 *mai-ru* ‘buy-enter’ an RVC.

That being said, the frequency of verb compounds and compound verbs seems fairly low in Old Chinese and Middle Chinese. Among the intransitive labile tokens collected from *Mencius* and the ten *Chuanqi* stories, disyllabic verbals are only captured in nine tokens (less than 10% of the total). Therefore, my discussion of compounding and the development of labile verbals will begin with data from the Ming dynasty (Early Mandarin); and the method will closely parallel the one employed in Chapter 3 for the diachrony of monosyllabic labile verbs.

Starting with a small corpus, the initial aim of analysis is to complete an exhaustive search for intransitive labile tokens (formed by multisyllabic verbal elements). This small sample is first searched for all agentless verbal structures, and the verbals in the collected tokens are checked against all available texts of the same era, to ensure that their transitive uses are present (including in the disposal structures), thus allowing the correct identification of compound labile verbals. The collected labile verbals are then analyzed for their structures, i.e., the meanings of and semantic relationships between their constituents, thereby enabling a prototypical pattern to be summarized.

The second step begins with the selection of some verbal elements (realized as Chinese characters according to the character-based approach, and thus referred to hereafter as ‘verbal characters’) that frequently occur in compound verbs and verb compounds. Next, I estimate the contingencies between the intransitive labile construction and the compound verbals formed by

them playing different roles, and compare them to each other, in order to reveal the relationship between compounding and the development of labile verbals.

It is noteworthy that, in addition to the resultative compounds and parallel compounds mentioned above, VP, V+PP and V+VP also appear to be labile in some cases. Tokens of this type are found in all investigated historical periods:

- (3) 天 下 可 运 于 掌。  
 Tian xia ke **yun** **yu zhang**.  
 heaven under can operated at hand  
 ‘The world can be operated by hand.’  
 (Pre-Qin • 《孟子》)
- (4) 长 安 有 媒 鲍 十 一 娘 者…… 推 为 渠 帅。  
 Chang’an you mei Bao Shiyiniang zhe ... **tui wei qushuai**.  
 Chang’an have matchmaker Bao Shiyiniang person elect as leader  
 ‘There is a matchmaker named Bao Shiyiniang in Chang’an, who was elected as the leader.’  
 (Tang • 《霍小玉传》)
- (5) 三 年, (卢 生) 征 为 常 侍。  
 San nian, (Lu Sheng) **zheng wei Changshi**.  
 three year (Lu Sheng) recruit become Changshi (a government official’s rank)  
 ‘Lu Sheng was recruited as Changshi in the third year.’  
 (Tang • 《枕中记》)
- (6) (桑 叶) 却 好 又 济 了 老 哥 之 用。  
 (Sang ye) que hao you **ji-le laoge zhi yong**.  
 folium mori meanwhile well also help-LE big brother ZHI use  
 ‘The folium mori can just be used to help you in the meantime, my big brother.’  
 (Ming • 《施润泽滩阙遇友》)
- (7) 好 蚕 种, 也 要 变 做 绵 茧。  
 Hao can zhong, ye yao **bian zuo mianjian**.  
 good graine also need to change become satiny cocoon  
 ‘Good graine also needs to be changed into satiny cocoon.’  
 (Ming • 《施润泽滩阙遇友》)

These types of VP, V+PP and V+VP can also be used transitively – mainly in disposal structures since Middle Chinese – and hence are labile verbals by definition. This type of labile verbal will not be the focus of the present chapter, mainly because it is very stable in Chinese (except to the extent that the verbs within it also undergo disyllabification); as such, it can

provide barely any information regarding the relationship between compounding and the development of labile verbals.

## 4.2 Compounding and the Structure of Labile Verbals in the Ming Dynasty (Early Mandarin)

### 4.2.1 Compound labile verbals in *Sanyan* stories

It was mentioned in section 3.3 that verb compounds and compound verbs taking the structure ‘XY’ are found in 292 tokens of the intransitive labile construction. When these 292 tokens are focused on as a group, it is noteworthy that the same change-of-state/location or purely stative verbs that frequently form intransitive labile constructions independently are also the most frequent occupants of the Y slot of ‘XY’ compounds. More specifically, the vast majority (252) of these 292 tokens can be represented as ‘theme + XY’, in which Y corresponds to the change-of-state/location or purely stative verbal characters listed in Table 3.7, exemplified by 来 *lai* ‘come’ (nine tokens), 成 *cheng* ‘accomplish’ (eight), 去 *qu* ‘go’ (eight), 下 *xia* ‘go down’ (eight), 出 *chu* ‘exit’ (seven), 尽 *jin* ‘finish’ (five) and 完 *wan* ‘finish’ (four). Some example sentences are as follows (with transitive uses of verbals from the same historical period also presented as references):

(8) a. 方 才 箱 子 可 暂 发 来。

Fangcai xiangzi ke zan **fa-lai**.

just now suitcase can for now send-come

‘The suitcase that you saw before can be sent here for now.’

(《杜十娘怒称百宝箱》)

b. 每 年 至 十 二 月 中 预 发 来 岁 工 银。

Mei nian zhi shi’eryue zhong yu **fa-lai** sui gong yin.

every year till December middle in advance send-come annual work money

‘Every year at the middle of December, the annual salary is sent in advance.’

(《醒世恒言》)

- (9) a. 美 娘 十 二 岁 到 王 家, 锦 绣 中 养 成。  
 Meiniang shi'er sui dao Wang jia, jinxiu - zhong yang-cheng.  
 Meiniang twelve age get to House Wang, beautiful brocade – in cultivate-accomplish  
 ‘Meiniang came to the House of Wang at the at the age of 12, and was raised up in beautiful brocade.’  
 (《卖油郎独占花魁》)
- b. 众 军 养 成 锐 气, 收 拾 出 兵。  
 Zhong jun yang-cheng rui qi, shoushi chu bing.  
 numerous army cultivate-accomplish invincible spirit, gather up dispatch troop  
 ‘Armies developed a invincible spirit, prepared to make war.’  
 (《粉妆楼》)
- (10) a. 袖 中 带 着 有 白 绫 汗 巾 一 条……取 出 劈 半 扯 开。  
 Xiu-zhong dai-zhe you bai ling hanjin yi-tiao ... qu-chu pi ban che-kai.  
 sleeve-in bring-ZHE have white silk single jersey one-CL... take-out rip half pull-open  
 ‘There is a white-silk single jersey in the sleeve. It was taken out, and ripped in half.’  
 (《卖油郎独占花魁》)
- b. 天 祥 便 取 出 两 张 素 纸。  
 Tianxiang bian qu-chu liang-zhang su zhi.  
 Tianxiang then take-out two-CL white paper  
 ‘Then, Tianxiang took out two pieces of white paper.’  
 (《初刻拍案惊奇》)
- (11) a. (银子) 今 若 拿 去, 少 不 得 又 要 走 的。  
 (Yinzi) jin ruo na-qu, shao-bu-de you yao zou de.  
 silver now if take-go hard to avoid again will leave DE  
 ‘If I take away the money today, it will probably leave me again.’  
 (《施润泽滩阙遇友》)
- b. 月 英 见 校 尉 拿 去 阿 姐……。  
 Yueying jian xiaowei na-qu ajie ...  
 Yueying see Xiaowei (a military rank) take-go older sister  
 ‘Yueying saw Xiaowei took away her old sister ...’  
 (《醒世恒言》)

The character most frequently observed occupying the Y slot is 得 *de* ‘get’, seen in 10 tokens. Although 得 *de* ‘get’ is not itself on the list of monosyllabic labile verbs (Table 3.7), it also signals a change of state/location. The following are some examples (with transitive uses of verbals from the same historical period also presented as references):

- (12) a. 一 句 句 都 听 得。  
 Yi ju ju dou **ting-de**.  
 one sentence sentence all listen-get  
 ‘Every single sentence was listened to.’  
 (《卖油郎独占花魁》)
- b. 王 元 椿 只 听 得 弦 响, 不 见 箭。  
 Wang Yuanchun zhi **ting-de** xian xiang, bu jian jian.  
 Wang Yuanchun only listen-get bowstring sound not see arrow  
 ‘Wang Yuanchun only heard the sound of bowstring, but did not see the arrow.’  
 (《初刻拍案惊奇》)
- (13) a. 那 边 还 放 下 许 多 客 账, 不 曾 取 得。  
 Na bian hai fang-xia xuduo ke zhang bu ceng **qu-de**.  
 that side still put-down many customer account NEG yet get-get  
 ‘There are still many customer account loans there that have not been paid back.’  
 (《施润泽滩阙遇友》)
- b. 你 若 有 心, 到 家 取 得 些 钱……  
 Ni ruo you xin, dao jia **qu-de** xie qian…  
 2 if have heard get to home get-get some money  
 ‘If you have that intension, go home and get some money…’  
 (《警世通言》)

When Y inherently refers to change-of-state/location, the X in the ‘theme + XY’ structure can be flexible in meaning. Take ‘theme + X来*lai*’ as an example (with transitive uses of verbals from the same historical period also presented as references):

- (14) a. 打 从 父 亲 任 上 回 来……  
 Da cong fuqin ren shang **hui-lai**…  
 ever since father tenure on return-come  
 ‘Ever since father returned from tenure …’  
 (《卖油郎独占花魁》)
- b. 李 瓶 儿…… 回 来 房 中, 倒 在 床 上 就 睡 着 了。  
 Li Ping’er… **hui-lai** fang-zhong, dao zai chuang-shang jiu shui zhao le.  
 Li Ping’er… return-back room-in lie down at bed – on immediately fall asleep LE  
 ‘Li Ping’er returned to her room, lied down on the bed and fell asleep immediately.’  
 (《金瓶梅》)
- (15) a. 天 生 这 碗 衣 饭, 送 来 与 我。  
 Tiansheng zhe - wan yi fan **song-lai** yu wo.  
 inherited this - bowl clothes food send-come give 1SG  
 ‘These inherited clothes and food have just been given to me.’  
 (《卖油郎独占花魁》)

- b. 姑 奶 奶      家      送 来      什 么 ?  
 Gunainai      jia      **song-lai** shenme?  
 married daughter home send-come what  
 ‘What did my married daughter send from home?’

(《金瓶梅》)

- (16) a. 你 老 人 家 女 儿 多, 不 把 来 当 事 了。  
 Ni lao ren jia nv'er duo, bu **ba-lai** dang shi le.  
 2 grand old woman daughter many NEG hold-come regard thing LE  
 ‘You are a grand old woman who has many daughters, so do not treat daughters seriously.’

(《蒋兴哥重会珍珠衫》)

- b. 娘 儿 两 个 把 来 盘 缠,      不 在 话 下。  
 Niang er liang-ge **ba-lai** panchan,      bu zai hua - xia.  
 mother son two-CL hold-come travelling expenses not at speech- below  
 ‘Both the mother and the son bring heir travelling expenses, which needs not be mentioned.’

(《水浒传》)

In example (14), 回 *hui* ‘return’ is a change-of-location verb, whereas 送 *song* ‘send’ in (15) belongs to the semantic frame of transfer, and 把 *ba* ‘hold’ in (17) does not imply change of state/location in its own right, but is a pure action verb.

In terms of structure, almost all change-of-state/location or purely stative Y elements encode the resultative states of the X elements in ‘XY’ compound verbals, and thus can be perceived as resultative compounds.

In addition, transfer verbs and creation verbs can imply change of state in the perfective aspect, and thus occasionally occur in the Y position of ‘XY’ compounds to signal the resultant state of X. This was observed in 12 of the collected tokens, formed by 交付 *jiao-fu* ‘hand over-hand over’ (in two tokens), 奉还 *feng-huan* ‘hold-return’, 送还 *song-huan* ‘send-return’, 赔偿 *pei-chang* ‘compensate-compensate’, 改造 *gai-zao* ‘change-create’, and so forth. In this case, the ‘XY’ verbal structure can be conceived of as either parallel or resultative, as shown in the following examples (with transitive uses of verbals from the same historical period also presented as references):



- (17) a. 这银子是他送终之物，何不把来送还。  
 Zhe yinzi shi ta song zhong zhi wu, he bu ba-lai **song-huan**.  
 this silver is 3SG send-death ZHI thing why NEG hold-come send-return  
 ‘This silver is being prepared to send him off. Why not return it (to him)?’  
 (《施润泽滩阙遇友》)
- b. 玄德……说情愿送还马匹。  
 Xuande ... shuo qingyuan **song-huan** mapi.  
 Xuande say be willing to send-return horse  
 ‘Xuande said he was willing to return the horses.’  
 (《三国演义》)
- (18) a. 房子只得兴工改造。  
 Fangzi zhi dei xing gong **gai-zao**.  
 house only can put up work change-create  
 ‘The house can only be reconstructed.’  
 (《施润泽滩阙遇友》)
- b. 宋金……改造厅堂园亭。  
 Song Jin ... **gai-zao** ting tang yuan ting.  
 Song Jin change-create hall hall garden pavilion  
 ‘Song Jin renovated halls, gardens and pavilion.’  
 (《警世通言》)

In contrast, the collected ‘theme + XY’ tokens in which Y does not involve a resultant state are much rarer, accounting for less than 10% of the total (28 tokens out of 292). Among them, an obvious parallel structure is taken by 15 ‘XY’ compound verbals, including 梳弄 *shu-nong* ‘brush-do (hair)’ (2 tokens), 依允 *yi-yun* ‘obey-permit’, 挤挨 *ji-ai* ‘squeeze-squeeze’, 教训 *jiao-xun* ‘teach-train’, and 敬慕 *jing-mu* ‘respect-admire’. The structures of the 13 remaining ‘XY’ compound verbals are neither parallel nor resultative. Instead, X and Y sometimes bear a verb-theme relationship, as in 出手 *chu-shou* ‘go out-hand = sell’, 过手 *guo-shou* ‘pass-hand = touch’, 到手 *dao-shou* ‘arrive-hand = receive’, 启齿 *qi-chi* ‘open-teeth = bring up’, 挂齿 *gua-chi* ‘hang-teeth = mention’, and 上市 *shang-shi* ‘go up-market = launch’; sometimes, X is the adverbial or object of Y, as with 枚举 *mei-ju* ‘one/one by one-enumerate = enumerate’; and sometimes X is the subject, as in 情愿 *qing-yuan* ‘mood-be willing to = be willing to’. Tokens of

‘theme + XY’ in which Y does not involve a resultant state include the following (with transitive uses of verbals from the same historical period also presented as references):

- (19) a. 瑶琴是我亲生之女……须是款款地教训。  
 Yaoqin shi wo qin-sheng zhi nv ... xu shi kuankuan de **jiao-xun**.  
 Yaoqin is 1SG self-born ZHI daughter must be slowly DE teach-train  
 ‘Yaoqin is my own daughter, so must be taught and trained slowly.’  
 (《卖油郎独占花魁》)
- b. 孽龙在此，变作先生，教训生徒。  
 Nie Long zai ci, bian zuo xiansheng, **jiao-xun** shengtu.  
 Nie Long at here change become professor teach-train student  
 ‘Nie Long became a professor here to train students.’  
 (《警世通言》)
- (20) a. 花利到手受用。  
 Huali **dao-shou** shouyong.  
 benefit arrive-hand enjoy  
 ‘The benefit is in hand to enjoy.’  
 (《卖油郎独占花魁》)
- b. 真是到手佳期却成虚度。  
 Zhenshi **dao-shou** jia qi que cheng xu du.  
 really arrive-hand good time but become vain spend  
 ‘It is exactly good time in hand but spent in vain.’  
 (《初刻拍案惊奇》)
- (21) a. 倚门献笑，送旧迎新……决不情愿。  
 Yi men xian xiao, song jiu ying xin ... jue bu **qing-yuan**.  
 lean toward door offer smile see off old host new definitely NEG mood - be willing to  
 ‘I am definitely not willing to lean toward the door and offer smiles, seeing off the old customers and hosting new ones.’  
 (《卖油郎独占花魁》)
- b. 小人情愿不要妻子了。  
 Xiao ren **qing - yuan** bu yao qizi le.  
 little person mood- be willing to not want wife LE  
 ‘I, the humble person, is willing to give away my wife.’  
 (《初刻拍案惊奇》)

Table 4.2, below, presents the frequencies of ‘XY’ compound labile verbals with different types of structures among the collected intransitive labile tokens.

Table 4.2.

*Type frequencies of 'XY' compound verbals with different structures  
in tokens of the intransitive labile construction*

X	Y	Semantic relationship between X and Y	Frequency	Examples
stative; change of state/location	stative; change of state/location	resultative/parallel	76	倒乱 <i>dao-luan</i> 'collapse-chaotic'; 开动 <i>kai-dong</i> 'start-move'
action (not involving a change of state)	stative; change of state/location	resultative	176	拿去 <i>na-qu</i> 'take-go'; 听得 <i>ting-de</i> 'listen-get'
action	transfer/creation (implying a change of state in the perfective aspect)	resultative/parallel	12	送还 <i>song-huan</i> 'send-return'; 改造 <i>gai-zao</i> 'change-create'
action (not involving a change of state)	action (not involving a change of state)	parallel	15	梳弄 <i>shu-nong</i> 'brush - do (hair)'; 依允 <i>yi-yun</i> 'obey-permit'
various	non-change of state	other	13	出手 <i>chu-shou</i> 'go out - hand'; 启齿 <i>qi-chi</i> 'open-teeth'

*Note.* The 'stative + action' structure, such as 备说 *bei shuo* 'detailedly say' is not discussed here because in such cases that the stative functions as the adverbial for the action, and generally does not affect the transitive/intransitive distribution of the action.

As Table 4.2 makes clear, the prototypical structure of compound labile verbals can be represented by the scheme 'X - resultant state'.

#### 4.2.2 Contingency between compound verbals and the intransitive labile construction

Chapter 3 looked at the contingency between monosyllabic verbs and the intransitive labile construction, but did not take into account the effect of compounding on the contingency. Taking the same approach that was previously used for monosyllabic verbs, this section investigates the contingency between the intransitive labile construction and those 'XY' compound verbals in which the target verbal characters occur either in the X slot or the Y slot, with the aim of revealing the relationship between compounding and the transitive/intransitive distribution of verbs. In line with with the method of contingency analysis I applied to previous

historical periods, the tokens containing the target verbal characters that have been using – i.e., 削 *xue* ‘cut down’, 助 *zhu* ‘help’, 听 *ting* ‘listen’, 备 *bei* ‘prepare/ready’, 弑 *shi* ‘slay (the King)’, 聚 *ju* ‘accumulate’, 买 *mai* ‘buy’, and 弃 *qi* ‘discard’ – were searched for ‘XV’ compound verbals (in which the target characters occur in the Y slot of an ‘XY’ compound verbal) and ‘VY’ compound verbals (in which the target characters occur in the X slot of an ‘XY’ compound verbal). The frequencies by type of the intransitive labile constructions formed by ‘XV’ compound verbals are presented in Table 4.3, and their faithfulness to the intransitive labile construction calculated in percentages.

Table 4.3.

*Type frequency of the intransitive labile construction for each ‘XV’ compound verbal in Ming texts*

Verbal	Type frequency of the intransitive labile construction	Token Frequency	Percentage
X 削 <i>xue</i> ‘X-cut down’	1	1	100.00%
X 备 <i>bei</i> ‘X-prepare’	28	51	54.90%
X 聚 <i>ju</i> ‘X-accumulate’	8	28	28.57%
X 弃 <i>qi</i> ‘X-discard’	3	17	17.65%
X 助 <i>zhu</i> ‘X-help’	0	13	0.00%
X 买 <i>mai</i> ‘X-buy’	0	7	0.00%
X 听 <i>ting</i> ‘X-listen’	0	3	0.00%

*Note.* 弑 *shi* ‘slay (the King)’ is never seen in a verb compound or compound verb.

On the one hand, these target characters seldom occur in the Y slot of a ‘XY’ compound verbal, so not many tokens have been analyzed. On the other, the difference between change-of-state verbs and non-change-of-state verbs in terms of their faithfulness to the intransitive labile construction is dramatic: ‘X-non-change of state’ is almost never seen in intransitive use. It also should be noted that verbal characters differ noticeably in their ability to enter the Y slot of ‘XY’

compound verbals. Even within the category of change-of-state verbs, 备 *bei* ‘prepare/ready’ appears to function more frequently as the resultant state of events than other verbs do. Some intransitive labile tokens formed by ‘X-change of state’ compound verbals are as follows (with transitive uses of verbals from the same historical period also presented as references):

(22) a. 乡 里 的 米 面 柴 火 只 往 那 里 供 备。  
 Xiang-li de mi mian chaihuo zhi wang nali **gong-bei**  
 town in DE rice noodle firewood only toward there provide-prepare  
 ‘The rice, noodles and firewood in town are to provide sustenance for the people there.’  
 (《醒世姻缘》)

b. 他……要 韦 美 供 备 米 粮。  
 Ta ... yao Wei Mei **gong-bei** mi liang.  
 3 want Wei Mei provide-prepare rice food  
 ‘He wants Wei Mei to provide rice and food.’  
 (《醒世姻缘》)

(23) a. 自 火 龙 兵 冲 散 人 马 急 切 难 以 收 聚。  
 Zi Huolong Bing chong-san renma, jiqie nanyi **shou-ju**.  
 since Army Huolong rush-scatter troop in haste hard to take in – accumulate  
 ‘Since being dispersed by the Huolong Army, the troop can hardly be gathered.’  
 (《封神演义》)

b. 言 沙 龙……只 得 收 聚 败 兵 回 关。  
 Yan Shalong... zhi dei **shou - ju** bai bing hui guan.  
 Yan Shalong... only must take in – accumulate lost soldier return pass  
 ‘Yan Shalong had to gather the defeated soldiers and returned to the pass.’  
 (《粉妆楼》)

(24) a. 恐 祖 宗 在 土 之 骨， 反 暴 弃 荒 野 矣！  
 Kong zuzong zai tu zhi gu, fan **bao-qi** huangye yi.  
 afraid ancestor in earth ZHI bone instead expose-discard wildness SFP  
 ‘I am afraid that ancestors’ bones under the earth will be exposed and discarded in the wilderness instead.’  
 (《醒世恒言》)

b. 纣 王 无 道， 暴 弃 天 命。  
 Zhou Wang wu dao, **bao-qi** tian ming.  
 King Zhou no morality expose-discard heaven mission  
 ‘King Zhou has no morality, and discarded the mission the heaven.’  
 (《封神演义》)

In stark contrast, when these target verbal characters occur in the X slots of ‘XY’ compound verbals, the differences in their faithfulness to the intransitive labile construction are

mitigated to a considerable degree, regardless of the limited number of tokens, as shown in Table 4.4, below.

Table 4.4.

*Type frequency of the intransitive labile construction for each 'VY' compound verbal in Ming texts*

Verbal	Type frequency of the intransitive labile construction	Token Frequency	Percentage
助 <i>zhu</i> Y 'help-Y'	0	1	0.00%
听 <i>ting</i> Y 'listen-Y'	3	273	1.10%
弃 <i>qi</i> Y 'discard-Y'	4	25	16.00%
备 <i>bei</i> Y 'prepare-Y'	3	17	17.65%
买 <i>mai</i> Y 'buy-Y'	12	56	21.43%
削 <i>xue</i> Y 'cut down - Y'	9	33	27.27%
聚 <i>ju</i> Y 'accumulate- Y'	5	15	33.30%

*Note.* 弑 *shi* 'slay (the King)' is never seen in a verb compound or compound verb.

The Y elements of 'XY' compound verbals captured in the intransitive labile tokens predominantly indicate resultant states, as shown in the following examples (with transitive uses of verbals from the same historical period also presented as references):

(25) a. 爸 妈 叫 喊, 都 听 得 的。  
Ba ma jiao han, dou **ting-de** de.  
father mother call call all listen-get DE  
'The call of parents is heard.'

(《初刻拍案惊奇》)

b. 赛儿 听 得 这 话……  
Sai'er **ting-de** zhe hua...  
Sai'er listen-get this word  
'Sai'er heard these words ...'

(《初刻拍案惊奇》)

(26) a. 这 副 棺 木 买 去 了。  
Zhe-fu guanmu **mai-qu-le**.  
this-CL coffin buy-go-LE  
'This coffin is bought.'

(《警世通言》)

- b. 因 去 岁 魏 太 监 的 家 人, 买 去 身 师 画 图 一 张...  
 Yin qu sui Wei Taijian de jia ren, **mai-qu** shen shi hua tu yi-zhang...  
 because last year Wei eunuch DE family buy-go my teacher draw picture one-CL  
 Because last year Eunuch Wei's families bought a painting work of my teacher...  
 (《幻中游》)
- (27) a. 收 用 了 一 个 丫 头, 过 了 两 日, 嫌 不 好, 弃 吊 了。  
 Shouyong-le yi-ge yatou, guo-le liang ri, xian bu hao, **qi-diao-le**.  
 expropriate-LE one-CL girl pass-LE two day mind NEG good discard-drop-LE  
 'One girl was taken as concubine, but after two days was detested and then discarded.'  
 (《醒世姻缘》)
- b. 你……弃 吊 了 俺 的 女 儿。  
 Ni……**qi-diao-le** an de nv'er.  
 2 discard-drop-LE 1 DE daughter  
 'You discarded my daughter.'  
 (《醒世姻缘》)

The finding discussed in the previous section – that 'X-resultant state' represents the prototypical structure of compound labile verbals – is further supported by the data on target verbal characters. However, as previously discussed, the number of collected tokens is far too few to provide reliable information, especially given that none of the current targets are high-frequency Y elements in the 'XY' compound verbals found in the previous section. Accordingly, to increase the power of this analysis, another verbal character that frequently functions as a resultant state – 完 *wan* 'finish' – has been included to enlarge the sample size. As compared to other high-frequency characters denoting resultant states, such as 来 *lai* 'come' and 去 *qu* 'go', which derived metaphorical meanings, 完 *wan* 'finish' is less polysemous.

In all, 1,000 tokens containing the character 完 were collected from Ming texts in Cncorpus and coded in terms of their structure (transitive or intransitive) and the role of 完 *wan* 'finish' in the predicate (i.e., independent; X of an 'XY' compound verbal; or Y of an 'XY' compound verbal). The numbers of intransitive labile tokens for each condition when 完 *wan*

‘finish’ plays different roles are shown in table 4.6, below, with faithfulness to the intransitive labile construction shown as percentages.

Table 4.6.

*Type frequency of the intransitive labile construction*

*when 完wan ‘finish’ plays different roles in the predicates of tokens*

	Independent as the predicate	X of an ‘XY’ compound verbal	Y of an ‘XY’ compound verbal
Token frequency	299	136	288
Type frequency of the intransitive labile construction	124	92	67
Percentage	41.46%	67.64%	23.26%

This table makes it clear that, compared to other change-of-state target characters such as 聚ju ‘accumulate’, 削xue ‘cut down’ and 备bei ‘prepare’, 完wan ‘finish’ is more frequently seen in verb compounds or compound verbs – again showing that change-of-state verbal characters differ in their abilities to form compounds.

A closer look at the intransitive labile tokens formed by 完wan ‘finish’ reveals that when it occurs in the X slot of an ‘XY’ compound verbal, the Y element is invariably stative or change-of-state: as with 完成wan-cheng ‘finish-complete’, 完毕wan-bi ‘finish-complete’ and 完备wan-bei ‘finish-ready’. When 完wan ‘finish’ occurs in the Y slot of an ‘XY’ compound verbal, on the other hand, the X slot is often taken by action verbs (not necessarily involving a resultant state), as shown in the following examples (with transitive uses of verbals from the same historical period also presented as references):



- (28) a. 那 三 百 文 钱 不 几 日 用 完 了。  
 Na san bai wen qian bu ji ri **yong-wan-le**.  
 that three hundred copper coin NEG several day use-finish-LE  
 ‘Those 300 copper coins were used up in a few days’  
 (《话本》)
- b. 若 用 完 了 这 银 子, 就 难 行 动 了。  
 Ruo **yong-wan-le** zhe yinzi, jiu nan xingdong le.  
 if use-finish-LE this silver then difficult take action LE  
 ‘If this portion of money is used up, it will be difficult to take action.’  
 (《醒世恒言》)
- (29) a. 限 儿 的 书 都 看 了, 题 目 都 做 完 了。  
 Xianr de shu dou kan-le, timu dou **zuo-wan-le**.  
 Assign DE book all read-LE exercise all do-finish-LE  
 ‘The assigned books are all read, and the assigned exercises are all done.’  
 (《二刻拍案惊奇》)
- b. 卢 宣 仍 去 做 完 了 法 事。  
 Lu Xuan reng qu **zuo-wan-le** fa shi.  
 Lu Xuan still go do-finish-LE religious rite  
 ‘Lu Xuan still went and finished the religious rites.’  
 (《粉妆楼》)

The percentages presented in Table 4.6 seem to suggest a relationship between the semantics of X, on the one hand, and the faithfulness of the ‘X-resultant state’ compound verbal to the intransitive labile construction, on the other. Specifically, ‘change of state-resultant state’ appears to be more faithful to the intransitive labile construction than ‘action-resultant state’ is.

#### 4.2.3 Summary of compound labile verbals in the Ming dynasty

My investigation of the intransitive labile construction in four *Sanyan* stories and contingency analysis of the compound verbals formed by eight target characters show that labile compound verbals prototypically take the form ‘X-resultant state’, where X can be verbs with different semantic frames. However, contingency analysis of the different predicate functions of 完 *wan* ‘finish’ reveals that, although ‘X-resultant state’ is the prototypical structure of labile compound verbals, ‘change of state-resultant state’ appears to be more faithful to the intransitive labile construction than ‘action-resultant state’ is.

In addition, my analysis makes it clear that even within the semantic frame of change of state, verbal characters differ in their abilities to be compounded with other elements. Some are more frequently seen in compound verbals than others (e.g., 完 *wan* ‘finish’); some more frequently occur in the X position of an ‘XY’ compound verbal (e.g., 削 *xue* ‘cut down’); and some prefer the Y position (e.g., 备 *bei* ‘prepare/ready’).

### 4.3 Compounding and the Structure of Labile Verbals in Modern Mandarin

As previously mentioned, disyllabification (双音化) is a basic tendency of the development of the Chinese language (X. Dong, 2002). Before 200 BCE, disyllabic words represented roughly 20% of the lexicon (at least in the written style), but in the modern language such estimates range above 80% (Shi, 2002, pp. 70-72), and the disyllable is now regarded as the preferred word-form in the Modern Chinese lexicon (Arcodia, 2007). Along with the internalization of some Indo-European grammatical features, the large-scale expansion of multi-syllable words is taken as one of the two key distinguishing features of Modern Mandarin, as initiated by the May Fourth Movement of 1919 (L. Wang, 1958/2004, p. 35). Accordingly, any discussion of labile verbals in Modern Mandarin will be primarily about compound verbals.

#### 4.3.1 Labile verbals in the novel *Guo Ba Yin Jiu Si* (《过把瘾就死》 ‘*Die Satisfied*’)

Continuing with the same approach that I have been using thus far, I chose the novel *Guo Ba Yin Jiu Si* (《过把瘾就死》 ‘*Die Satisfied*’) (59,212 characters), written by Wang Shuo, as the small corpus. Wang Shuo is a famous author who grew up in Beijing, and whose writing style features the “living language” spoken by ordinary people in the street, so his works are frequently used as data for spoken Mandarin. A sample of 614 tokens of the intransitive labile

construction was collected from *Guo Ba Yin Jiu Si*. Of these, 237 tokens (38.60%) start with animate themes, and 377 (61.40%) with inanimate ones. Positive sentences account for 76.22% of the total (468 tokens), with the remainder comprising negative sentences (118 tokens/19.22%), double-negative sentences (2 tokens/0.33%), and questions (26 tokens/4.23%). In terms of the labile verbals among the collected tokens, 260 (42.35%) are monosyllabic; 308 (50.16%) are compound verbals; and 46 (7.49%) are other verbal structures such as VP, V+PP, V+VP and V+得 *de* + descriptive complement.

Turning first to the monosyllabic labile verbs, Table 4.7 presents the major semantic frames, the frequency of the according tokens of the intransitive labile tokens, and representative verbal characters of each semantic frame.

Table 4.7.

*Type frequencies of semantic frames of verbs in tokens of the intransitive labile construction in Guo Ba Yin Jiu Si ‘Die Satisfied’*

Semantic Frame	TLC Token Frequency	Representative Labile Verbs
Change of state	101	变‘change’; 动‘move’; 滚‘roll’; 开‘open’; 扭‘twist’; 起‘rise’; 散‘disperse’
Stative (static)	33	如‘be like’; 无‘do not have’; 有‘have’
Change of location	50	出‘go out’; 到‘arrive’; 来‘come’; 去‘go’
Emotion	11	烦‘annoy/annoyed’; 气‘irritate/irritated’; 吓‘frighten/frightened’
Creation	7	干‘do’; 演‘performe’; 做‘make’
Transfer	11	给‘give’; 还‘return’; 卖‘sell’; 送‘give/send’
Action	36	拔‘pull out’; 吃‘eat’; 打‘hit’; 算‘calculate’
Cognition/Perception	11	见‘see’; 敬‘respect’; 看‘look’; 要‘want’
Total		260

*Note.* All the meanings for verbs displayed in this section are the meanings in the contexts of the collected tokens.

The type frequencies of the semantic frames shown in Table 4.7 bear a striking resemblance to my findings regarding previous historical periods, the exception being the addition of a new category that has not been discussed before, emotion verbs. The intransitive and transitive use of such verbs are illustrated in the following examples:

- (30) a. 我 吓了 一跳。  
 Wo **xia-le** yi-tiao.  
 1SG frighten-LE one-jump  
 ‘I was so frightened that I jumped up.’
- b. 你 吓了 我 一跳。  
 Ni **xia-le** wo yi-tiao  
 2SG frighten-LE 1SG one-jump  
 ‘You frightened me so much that I jumped up.’
- (31) a. 我 很 烦。  
 Wo hen **fan**.  
 1SG very annoyed  
 ‘I am so annoyed.’
- b. 你 别 烦 我!  
 Ni bie **fan** wo!  
 2SG do not annoy 1SG  
 ‘Don’t annoy me!’

In a broad sense, the emotion verbs in examples (30a) and (31a) also indicate states or changes of state, just like transfer verbs and creation verbs in the perfective aspect, and change-of-location verbs.

In Modern Mandarin, change-of-location verbs such as 来 *lai* ‘come’, 去 *qu* ‘go’ and 到 *dao* ‘arrive’ permit two arguments to exchange positions. This property is shared with some other verbs that also involve a locative argument, such as 住 *zhu* ‘live’ and 盖 *gai* ‘cover’:

- (32) a. 一个 人 来了 (学校)。  
 Yi-ge ren **lai-le** (xuexiao).  
 one-CL person come-LE (school)  
 ‘A person came (to school).’
- b. (学校) 来了 一个 人。  
 (Xuexiao) **lai-le** yi-ge ren.  
 (school) come-LE one-CL person  
 ‘A person came (to school).’

- (33) a. 一块布盖着尸体。  
 Yi-kuai bu **gai-zhe** shiti.  
 one-piece cloth cover-ZHE corpse  
 ‘A piece of cloth covers the corpse.’
- b. 尸体盖着一块布。  
 Shiti **gai-zhe** yi-kuai bu  
 corpse cover-ZHE one-piece cloth  
 ‘The corpse is covered by a piece of cloth.’

With regard to ‘XY’ (also representing ‘X...Y’) compound verbals, my previous finding that ‘X-resultant state’ represents the prototypical structure of compound labile verbals is replicated. Out of the 308 tokens structured around compound labiles, only 30 have nonstative pure actions in the Y slots, with the rest taking the ‘X-resultant state’ structure. Verbal characters frequently seen in the Y slot include 来 *lai* ‘come’ (in 40 tokens), 去 *qu* ‘go’ (18 tokens), 出 *chu* ‘go out’ (seven tokens), 过 *guo* ‘pass’ (six tokens), 入 *ru* ‘enter’ (five tokens), 开 *kai* ‘open; turn on’ (five tokens), 完 *wan* ‘finish’ (four tokens) and 生 *sheng* ‘grow; accrue’ (three tokens). The following examples provide some contexts (with transitive uses of verbals from the same historical period also presented as references):

- (34) a. 她的眼泪刷地下来了。  
 Ta de yanlei shua de **xia - lai - le**.  
 3SG DE tears ‘shua’ (the sound of tears) DE go down-come-LE  
 ‘Her tears suddenly fell.’
- b. 这一次下来了好几个省部级干部。  
 Zhe yi ci **xia - lai - le** haoji- ge sheng bu ji ganbu.  
 this one time down-come-LE several-CL province department rank leaders  
 ‘This time, several department leaders were dismissed.’
- (35) a. 青春期穿着军装度过。  
 Qingchunqi chuan-zhe junzhuang **du-guo**.  
 puberty wear-ZHE military uniform spend-pass  
 ‘(His) puberty was spent wearing military uniforms.’
- b. 他在陕西农村度过了自己的童年时光。  
 Ta zai Shanxi nongcun **du - guo-le** ziji de tongnian shiguang.  
 3SG at Shanxi village spend-pass-LE self DE childhood time  
 ‘He spent his childhood in a village in Shanxi.’

- (36) a. 他的手也无力地松开。  
Ta de shou ye wu li de **song-kai**.  
3SG DE hand also no power DE loose-open  
'His hands were loosened powerlessly.'
- b. 她没把手缩回去, 我却松开了手。  
Ta mei ba shou suo-hui-qu, wo que **song-kai-le** shou.  
3 not BA hand draw-back-go 1 but loose-open-LE hand  
'She did not draw back her hands, but I loosened my hand.'
- (37) a. 矛盾就产生了。  
Maodun jiu **chan-sheng-le**.  
conflict then develop-grow-LE  
'Conflicts thereby emerge.'
- b. 我们产生了不同的看法。  
Women **chan-sheng-le** bu tong de kanfa.  
1PL develop-grow-LE not same DE view  
'We began to have different views.'

Moreover, when the Y element of an 'XY' compound labile signals the resultant state, the X element does not show an inclination towards any specific semantic frame: in 140 tokens it denotes change of state, but is absolutely nonstative in 86 others. In the following examples, the labile verbals begin with a nonstative element (with transitive uses of verbals from the same historical period also presented as references).

- (38) a. 承诺可以推翻。  
Chengnuo keyi **tui-fan**.  
commitment can push-reverse  
'Commitments can be overturned.'
- b. 李隆基……用武力推翻了韦太后。  
Li Longji... yong wuli **tui-fan-le** Wei Taihou.  
Li Longji use violence push-reverse-LE Wei Queen  
'Li Longji overturned the government of Queen Wei with violence.'
- (39) a. 两瓶“二锅头”基本上喝光了。  
Liang-ping “Er guo tou” jibenshang **he-guang-le**.  
two-bottle “Er guo tou” (a Chinese alcoholic beverage) basically drink-finish-LE  
'Two bottles of Chinese vodka are basically drunk up.'
- b. 一桌十个人喝光了五瓶曲酒。  
Yi zhuo shi-ge ren **he-guang-le** wu-ping qu jiu.  
one table ten-CL people drink-finish-LE five-bottle Qu alcohol  
'Ten people of one table drank up five bottles of Qu liquor.'

- (40) a. 她 力气 用 尽。  
 Ta liqi **yong-jin**.  
 3SG strength use-finish  
 ‘Her strength is exhausted.’
- b. 我 用 尽 了 全 力。  
 Wo **yong-jin-le** quan li.  
 I use-finish-LE whole energy  
 ‘I exhausted my energy.’

As previously mentioned, labile verbals can be a complex verbal structures such as VP, V+PP, V+VP, and so forth. As compared to previous historical periods, the type frequency in Modern Mandarin of ‘V+得 *de*+descriptive complement’ is very considerable (seen in 19 tokens); and the V in the ‘V+得 *de*+descriptive complement’ structure appears to be flexible in meaning, as the following examples indicate:

- (41) 我的 伤口 愈合 得 不错。  
 Wo de shangkou **yuhe de bucuo**.  
 1SG DE wound heal DE not bad  
 ‘My wound heals very well.’
- (42) 事情 办 得 非常 顺利。  
 Shiqing **ban de feichang shunli**.  
 matter deal with DE very smoothly  
 ‘The matter is dealt with so well that it runs smoothly.’
- (43) 衣服 蹭 得 玉 一块 白 一块。  
 Yifu **ceng de yu yi-kuai bai yi-kuai**.  
 clothes rub DE jade one-piece white one-piece  
 ‘The clothes were rubbed and became white in this part, like jade in that part.’

It is noteworthy that the transitive use of these verbal structures needs to be realized by a disposal structure such as the 把 *ba* construction. VP, V+PP, V+VP, and descriptive complement structures typically do not take objects directly.

- (44) a. 车 骑 得 飞 快。  
 Che **qi de feikuai**.  
 bicycle ride DE flying fast  
 ‘The bicycle was ridden very fast.’

- b.\* 琳琳 骑得飞快 车。  
 Linlin **qi de feikuai** che.  
 Linlin ride DE flying fast bicycle  
 ‘Linlin rode her bicycle very fast.’
- c. 琳琳 把 车 骑得飞快。  
 Linlin ba che **qi de feikuai**.  
 Linlin BA bicycle ride-DE flying fast  
 ‘Linlin rode her bicycle very fast.’
- (45) a. 啤酒瓶 摆成一排。  
 Pijiu ping **bai cheng yi-pai**.  
 beer bottle put become one-row  
 ‘Beer bottles are put into a row.’
- b.\* 琳琳 摆成一排啤酒瓶。  
 Linlin **bai cheng yi-pai** pijiu ping.  
 Linlin put become one-row beer bottle  
 ‘Linlin put the beer bottles into a row.’
- c. 琳琳 把 啤酒瓶 摆成一排。  
 Linlin ba pijiu ping **bai-cheng yi-pai**  
 Linlin BA beer bottle put-become one-row  
 ‘Linlin put the beer bottles into a row.’

Last but not least, Modern Mandarin retains those adverbials that endow action verbs with lability, such as 自 *zi* ‘self’, 相 *xiang* ‘mutually’, 可 *ke* ‘can’, 足 *zu* ‘suffice’ and 难 *nan* ‘be difficult to’, with new variants. Inherited from earlier historical periods, the adverbial 自 *zi* ‘self’ is seen in five tokens in our sample: specifically, 自怨 *zi yuan* ‘blame oneself’, 自艾 *zi yi* ‘correct oneself’, 自拔 *zi ba* ‘pull oneself out’, 自气 *zi qi* ‘be angry with oneself’, and 自若 *zi ruo* ‘self-possessed’. Due to the considerable entrenchment of these structures over hundreds of years, many of them have become grammaticalized in Modern Mandarin. For example, 自怨自艾 *ziyuanziyi* ‘blame and correct oneself’ has been fused together as an idiom; 自若 *ziruo* ‘self-possessed’ derives the meaning of ‘calm and at ease’ and can occasionally be modified by degree words such as 非常 *feichang* ‘very’; and 自拔 *zi ba* ‘pull oneself out’ predominantly occurs in the structure 从...中自拔 *cong... zhong zi ba*, denoting ‘to pull oneself out of a certain emotion’.



Like 自 *zi* ‘self’, the adverbial 相 *xiang* ‘mutually’ has been passed down from previous historical periods, but with a new variant, 互相 *huxiang* ‘mutually’. The original form 相 *xiang* ‘mutually’ occurs in four tokens: specifically, 相识 *xiang shi* ‘be acquainted with each other’, 相敬如宾 *xiang jing ru bin* ‘respect each other as if the other were a guest’, 相逢 *xiang feng* ‘meet each other’, and 相连 *xiang lian* ‘be linked to each other’. Grammaticalization also takes place among this group of ‘相 *xiang* + V’ structures: e.g., 相敬如宾 *xiangjingrubin*, which is normally treated as an idiom specifically referring to proper respect and concern between husband and wife. The Modern Mandarin variant of 相 *xiang*, 互相 *huxiang* ‘mutually’, occurs in six tokens. Verbs modified by it include 传授 *chuanshou* ‘impart’, 凝视 *ningshi* ‘gaze’, 认识 *renshi* ‘be acquainted with’, 体谅 *tiliang* ‘be considerate of’, 拥抱 *yongbao* ‘hug’, and 喂 *wei* ‘feed’. It can also be noted that 认识 *renshi* ‘be acquainted with’, 敬 *jing* ‘respect’, 逢 *feng* ‘meet’, 体谅 *tiliang* ‘be considerate of’, and 凝视 *ningshi* ‘gaze’ are not prototypical labile verbs.

Modern Mandarin’s inheritance from previous historical periods also includes creation verbs, transfer verbs, perception verbs and nonstative action verbs that are not typically used intransitively. They can denote property when following 可(以) *ke(yi)* ‘can’, 能 *neng* ‘can’, 要 *yao* ‘need to’, 该 *gai* ‘should’, 好 *hao* ‘easy’, 容易 *rongyi* ‘easy’, or 难 *nan* ‘difficult’. This structure is instantiated by 48 tokens, represented by the following two examples:

- (46) 你 也 要 检 查 一 下。  
 Ni ye **yao jiancha** yi-xia.  
 2SG also need to check one-strike  
 ‘You also need to be checked briefly.’

- (47) 对 象 可 以 替 代。  
Duixiang **keyi tidai**.  
partner can replace  
'The partner can be replaced.'

#### 4.3.2 Contingency between compound verbals and the intransitive labile construction

The target verbal characters used for contingency analysis are the same ones I have been using for previous historical periods, namely 削 *xue* 'cut down', 助 *zhu* 'help', 听 *ting* 'listen', 备 *bei* 'prepare', 弑 *shi* 'slay (the King)', 聚 *ju* 'accumulate', 买 *mai* 'buy', 弃 *qi* 'discard' and 完 *wan* 'finish'. These target verbal characters were searched for in the Modern Chinese section of Cncorpus, and 1,000 tokens for each target were picked at random, except in the case of 弑 *shi* 'slay (the King)', for which only nine tokens were available. After elimination of tokens in which targets occurred in subjects or objects (including in proper nouns), relative clauses, or special sentence patterns, all the remaining tokens of these nine targets were coded to single out the intransitive labile construction. In addition, as this chapter concerns the relationship between compounding and contingency to the intransitive labile construction, tokens were also coded in terms of the roles played by targets in the predicates of tokens: i.e., whether they occur independently as the predicate, or in the X slot of an 'XY' compound verbal, or in the Y slot of an 'XY' compound verbal.<sup>9</sup> Table 4.8 sets forth targets with various roles in terms of their estimated percentages of faithfulness to the intransitive labile construction (shortened to 'ILC' in tables hereafter).

---

<sup>9</sup> As noted before, the category that I refer to as 'XY' compound verbals includes 'X...Y' structures also. There are cases when target characters occur in the middle between X and Y, such as 备 *bei* 'prepare/ready' in 准备完 *zhunbei-wan* 'prepare-finish', in which the role of the target verbal 备 *bei* 'prepare/ready' is coded as 'M' (standing for 'middle'). These cases are not included in the faithfulness-analysis statistics because they are extremely rare among the collected tokens.

Table 4.8.

*Faithfulness to the intransitive labile construction**when target characters play different roles in the predicates of tokens*

	Independent as the predicate		X of an 'XY' compound verbal		Y of an 'XY' compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
助 'help'	67	0.00%	10	0.00%	421	0.00%
弑 'slay (the King)'	9	0.00%	0	0.00%	0	0.00%
听 'listen'	371	2.70%	410	3.17%	29	0.00%
买 'buy'	483	3.73%	125	18.40%	31	12.90%
弃 'discard'	138	15.94%	15	46.67%	699	5.29%
备 'prepare'	89	22.47%	13	23.08%	356	8.15%
削 'cut down'	44	11.36%	214	22.43%	145	5.52%
完 'finish'	36	61.11%	262	36.26%	135	46.67%
聚 'accumulate'	243	44.03%	245	76.73%	152	65.13%

In general, in spite of the different roles that targets play in predicates, the change-of-state verbal characters 聚 *ju* 'accumulate', 完 *wan* 'finish', 削 *xue* 'cut down' and 备 *bei* 'prepare' are evidently more faithful to the intransitive labile construction than the non-change-of-state verbs 助 *zhu* 'help' and 听 *ting* 'listen'. This echoes the findings, discussed in preceding sections, that labile verbs prototypically encode changes of state.

The figures in Table 4.8 also reveal that target characters have widely varying distributions in predicates. Firstly, 弑 *shi* 'slay (the King)' is rapidly becoming extinct, and even within the very limited number of tokens available, its objects are no longer limited to kings, meaning that the difference between it and other verbs of killing has become blurred. Secondly, some target characters are most often used independently as predicates, such as 买 *mai* 'buy'; other targets occur more frequently in the X slot of 'XY' compound verbals, such as 听 *ting*

‘listen’, 削 *xue* ‘cut down’, 完 *wan* ‘finish’ and 聚 *ju* ‘accumulate’; and some prefer the Y slot of ‘XY’ compound verbals, such as 助 *zhu* ‘help’, 弃 *qi* ‘discard’ and 备 *bei* ‘prepare’. Little correlation can be found between these verbals’ semantics and their functional distributions in predicates. It should also be mentioned that certain target characters rarely occur in certain roles. For example, 弃 *qi* ‘discard’ and 备 *bei* ‘prepare’ are almost never seen in the X slot of ‘XY’ compound verbals. Lastly, some high-frequency compound verbs<sup>10</sup> severely affected the distribution. For example, of the 421 tokens in which 助 *zhu* ‘help’ functioned as the Y element in an ‘XY’ compound, 256 (60.80%) were structured around 帮助 *bangzhu* ‘help’. A similar situation was observed for 准备 *zhubei* and 剥削 *boxue* ‘exploit’, which accounted for 214 (60.11%) and 129 (88.97%) tokens of the 356 and 145 tokens, respectively.

Among those target verbal characters that function independently as predicates, a clear divergence can be observed within the group of change-of-state verbs: 聚 *ju* ‘accumulate’ and 完 *wan* ‘finish’ are noticeably more faithful to the intransitive labile construction than 备 *bei* ‘prepare’ and 削 *xue* ‘cut down’. Moreover, a transfer verb that can imply change of state in the perfective aspect, 弃 *qi* ‘discard’, displays a higher faithfulness to the intransitive labile construction than 削 *xue* ‘cut down’ does. A closer examination of the tokens of 削 *xue* indicates that in Modern Mandarin, it mainly denotes ‘whittle; peel’ when used independently as the predicate, instead of the change-of-state sense ‘cut down’. The discussion of the functional development of verbal characters will be taken up in section 4.4.

---

<sup>10</sup> As previously discussed, this dissertation regards frequency as the key difference between compound verbs and verb compounds. Accordingly, high-frequency compound verbals are automatically treated as compound verbs, and not as verb compounds.

When the target verbal characters occur in the X slots of ‘XY’ compound verbals, one can observe a higher level of faithfulness to the intransitive labile construction among action verbs, including the perception verb 听 *ting* ‘listen’ and the transfer verbs 买 *mai* ‘buy’ and 弃 *qi* ‘discard’. Investigation of individual tokens reveals that the ‘action-Y’ compound verbals among the intransitive labile tokens are mostly resultative compounds, as shown in the following examples. In other words, taking resultative complements allows action verbs to be used intransitively more often.

- (48) 这部片子教育意义很深刻，可惜就是听不清。  
 Zhe-bu pianzi jiaoyu yiyi hen shenke, kexi jiushi **ting-bu-qing**.  
 this-CL movie education meaning very profound unfortunately just hear-NEG-clear  
 ‘This movie has a profound educational meaning, but unfortunately it cannot be heard clearly.’
- (49) 皮球还是没有买成。  
 Piqiu rengshi meiyou **mai-cheng**.  
 ball still not buy-accomplish  
 ‘I still have not been able to buy the ball.’
- (50) 棉被已弃置一旁。  
 Mianbei yi **qi - zhi** yipang.  
 quilt already discard-put on side  
 ‘The quilt has already been put aside.’

Lastly, when target verbal characters occurred in the Y slots of ‘XY’ compound verbals, their faithfulness to the intransitive labile construction was generally lower than when they occurred in other positions. If we look at the elements in the X slot in this case, a very high frequency can be observed for action verbs. The verbal compounds formed by 助 *zhu* ‘help’, 听 *ting* ‘listen’, 买 *mai* ‘buy’, 削 *xue* ‘cut down’ and 备 *bei* ‘prepare’ are invariably action-denoting in the Y positions, and the resultant high-frequency compound verbs include 帮助 *bang-zhu* ‘help-help = help’, 协助 *xie-zhu* ‘assist-help = help’, 购买 *gou-mai* ‘buy-buy = buy’,

剥削 *bo-xue* ‘peel-cut down = exploit’, and 准备 *zhun-bei* ‘permit-prepare = prepare’.<sup>11</sup> An exception arises with 聚 *ju* ‘accumulate’, since most ‘X-聚 *ju*’ compound verbals are parallel structures encoding resultant states: e.g., 凝聚 *ning-ju* ‘coagulate-accumulate = condense’, 集聚 *ji-ju* ‘gather-accumulate = gather’, 积聚 *ji-ju* ‘accumulate-accumulate = accumulate’ and 汇聚 *hui-ju* ‘converge-accumulate = gather’. Accordingly, we can see that ‘X-聚 *ju*’ exhibits higher faithfulness to the intransitive labile construction than 聚 *ju* ‘accumulate’ alone does. Therefore, it can be conjectured that placing action verbs in the X position and forming ‘action-V’ compound verbals reduces a character’s ability to be used intransitively.

#### 4.3.3 Summary of compound labile verbals in Modern Mandarin

In terms of the meanings of labile verbals, my findings about Modern Mandarin are consistent with those about previous historical periods: the most frequently seen labile verbals prototypically encode changes of state. With regard to the structure of labile compound verbals, my investigation of the intransitive labile construction in the modern novel *Guo Ba Yin Jiu Si* (《过把瘾就死》‘*Die Satisfied*’) revealed that labile compound verbals prototypically take the form ‘X-resultant state’, wherein X can be verbs from different semantic frames. This closely replicates my findings about Early Mandarin. Moreover, an examination of nine characters’ faithfulness to the intransitive labile construction and their different functions in predicates revealed that preceding stative elements and forming ‘V-resultant state’ compounds allowed

---

<sup>11</sup> Although 削 *xue* ‘cut down’ and 备 *bei* ‘prepare’ have been classified as change-of-state verbs, they are actually polysemous *per se*. So, on the one hand, 剥削 *boxue* ‘peel-cut down = exploit’ and 准备 *zhubei* ‘permit-prepare = prepare’ can be perceived as resultative compounds, but on the other (and in the opinion of this dissertation), 削 *xue* ‘cut down’ and 备 *bei* ‘prepare’ are more action-denoting than state-denoting in both 剥削 *boxue* ‘exploit’ and 准备 *zhubei* ‘prepare’.

characters to be used intransitively more often; whereas following action verbs and forming ‘action-V’ compounds reduced characters’ ability to be used intransitively.

Lastly, the functional distributions of target characters across different types of predicates were found to differ dramatically: with some characters mostly used independently as predicates, some occurring most frequently in the X slot of ‘XY’ compound verbals, and others preferring the Y slot of ‘XY’ compound verbals – and little correlation being found between semantics and these functional distributions. Some characters, meanwhile, tended to change meanings as they moved between different predicate functions: an issue that will be discussed in the next section.

#### **4.4 Compounding and the Functional Development of Verbal Characters**

Almost all Chinese characters are polysemous, and this quality is interrelated with their grammatical functions. The above contingency analyses of different historical periods using the same group of target verbal characters showed that the faithfulness of a verbal character to the intransitive labile construction is not always constant. Rather, there are cases in which the intransitive use of a verbal character shrinks or expands dramatically. Meanwhile, Chinese has become ever more disyllabic through compounding, affixation, and reduplication of characters. These co-occurrences make it reasonable to speculate that there is a correlation between compounding and the functional development of verbal characters. An examination of the diachrony of target verbal characters reveals that, in terms of their faithfulness to the intransitive labile construction, their functional development generally follows three directions: intransitivity shrinkage, intransitivity expansion, and intransitivity steadiness. In the sections that follow, the possible correlations between compounding and the functional development of verbal characters is discussed with reference to each of these three situations.

#### 4.4.1 Compounding and intransitivity shrinkage

As shown in the Table 4.9, below, the faithfulness of 削 *xue* ‘cut down’ (independent as the predicate) to the intransitive labile construction is dramatically less in Modern Mandarin than in Old Chinese.

Table 4.9.

*Development of the functional distribution of 削 *xue* ‘cut down’*

	Independent as the predicate		X of an ‘XY’ compound verbal		Y of an ‘XY’ compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
Pre-Qin	145	48.97%	NA	NA	9	55.56%
Tang	192	39.06%	24	66.67%	8	75.99%
Ming	96	17.71%	33	27.27%	1	100.00%
Modern	44	11.36%	214	22.43%	145	5.52%

If we look at the token frequencies of 削 *xue* ‘cut down’ across its history and its functions, it seems to be in a process of becoming less free. For example, in the pre-Qin period when Chinese words were predominantly monosyllabic, 削 *xue* ‘cut down’ was almost always used independently as the predicate (in 145 out of 154 tokens); whereas in Modern Mandarin, it needs to compound with other elements most of the time (in 359 out of 403 tokens) – and usually (in 214 out of 403 tokens), it precedes other elements to form ‘削 *xue*-Y’ compounds.

With regard to meaning, the character 削 *xue* has been polysemous ever since Old Chinese. On the one hand, it encodes the resultant state of the loss of something, typically territory or power, in contexts such as example (51). On the other, it can denote the action of peeling or to whittling, as exemplified by (52).<sup>12</sup>

<sup>12</sup> According to *Hanyu Pinyin*, Mainland China’s official romanization system for Standard Chinese (Modern Mandarin) that was first published in 1958, 削 should be pronounced as *xiao* when it denotes



- (51) 土地四削，魏国从此衰矣。  
 Tu di si **xue**, Wei guo cong ci shuai yi.  
 territory four cut down the State of Wei from then decline SPF  
 ‘With territory cut down at four sides, the Wei Kingdom declined after that.’  
 (Pre-Qin • 《吕氏春秋》)
- (52) 公输子削竹木以为鹊。  
 Gongshuzi **xiao** zhu mu yi wei que.  
 Gongshuzi whittle bamboo wood take as magpie  
 ‘Gongshuzi whittles bamboo and wood to make magpies.’  
 (Pre-Qin • 《墨子》)

We know that change-of-state verbals occur in intransitive structures more often than action verbals do. Indeed, the collected intransitive labile constructions of 削 *xue* are predominantly about territory loss or power loss. However, as Chinese continuously evolves towards the disyllabic, and 削 *xue* becomes less free, its change-of-state ‘cut down’ sense in Modern Mandarin is typically expressed by ‘削 *xue*-resultant state’ compounds, as shown in example (53). Its action-denoting meaning, on the other hand, is preserved when it is used alone or occurs in the Y position of ‘XY’ compound verbals, as shown in (54).

- (53) 传统的身份限制削弱了。  
 Chuantong de shenfen xianzhi **xue** -ruo -le.  
 traditional DE status restriction cut down-weak-le  
 ‘The traditional restriction on status has been weakened.’
- (54) 妈妈想吃水萝卜，让她去削皮。  
 Mama xiang chi shuiluobo, rang ta qu **xiao** pi.  
 mother want eat summer radish let 3SG go peel skin  
 ‘Mother wanted to have summer radish and asked her to peel it.’

So, in the case of 削 *xue*, an increasing likelihood of compounding co-occurs with the specialization of its meaning. When Chinese was monosyllabic, 削 *xue* could denote an action as well as the resultant state, but since the possibility of compounding arose, its meaning has

---

the action ‘to peel; to whittle’.

been tending toward the action, and this results in a shrinkage of its intransitive uses. Its original change-of-state function is now mainly realized by ‘削 *xue*-resultant state’ compounds.

Similar situations can be observed with 买 *mai* ‘buy’ and 听 *ting* ‘listen’. In Old Chinese, they implied changes of state in contexts such as examples (55) and (56), but in Modern Mandarin, such usages have become scarce due to the extensive use of resultative compounds.

- (55) 袖 中 赵 匕首, 买 自 徐 夫人。  
 Xiu-zhong Zhao bishou, **mai** zi Xu Furen.  
 sleeve-in Zhao dagger buy from Xu Madame  
 ‘The dagger of the State of Zhao in the sleeve was bought from Madame Xu.’  
 (Tang • 《全唐诗》)
- (56) 家 家 皆 歇 管 弦 听。  
 Jia jia jie xie guan xian **ting**.  
 family family all rest wind music string music listen  
 ‘All families rest, and the sound of wind music and string music can be heard.’  
 (Tang • 《全唐诗》)

Accordingly, a decrease in the faithfulness to the intransitive labile construction can also be observed with 买 *mai* ‘buy’ and 听 *ting* ‘listen’ used independently as predicates, as shown in Tables 4.10 and 4.11, below.

Table 4.11.

*Development of the functional distribution of 买 *mai* ‘buy’*

	Independent as the predicate		X of an ‘XY’ compound verbal		Y of an ‘XY’ compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
Pre-Qin	27	0.00%	1	0.00%	NA	NA
Tang	634	7.26%	64	9.84%	NA	NA
Ming	869	3.34%	56	21.43%	7	0.00%
Modern	483	3.73%	125	18.40%	31	12.90%

Table 4.11.

*Development of the functional distribution of 听 ting ‘listen’*

	Independent as the predicate		X of an ‘XY’ compound verbal		Y of an ‘XY’ compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
Pre-Qin	807	14.87%	3	0.00%	7	0.00%
Tang	2,566	14.34%	40	55.00%	6	33.33%
Ming	699	1.29%	273	1.10%	3	0.00%
Modern	371	2.70%	410	3.17%	29	0.00%

It should be noted that, far from being limited to 削 *xue* ‘cut down’, 买 *mai* ‘buy’ and 听 *ting* ‘listen’, intransitivity shrinkage is a widespread phenomenon among Chinese verbal characters. Other examples that were mentioned in Chapter 3 include 举 *ju* ‘lift; raise; promote’, 治 *zhi* ‘heal; govern; effectively-governed/stable’, 解 *jie* ‘untie’, and 保 *bao* ‘protect’.

#### 4.4.2 Compounding and intransitivity expansion

Table 4.12 shows that, in contrast to 削 *xue* ‘cut down’, the faithfulness of 完 *wan* ‘finish’ (independent as the predicate) to the intransitive labile construction increased over the course of the language’s development from Old Chinese to Modern Mandarin.

Table 4.12.

*Development of the functional distribution of 完 wan ‘finish’*

	Independent as the predicate		X of an ‘XY’ compound verbal		Y of an ‘XY’ compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
Pre-Qin	36	33.33%	4	100%	5	60%
Tang	43	51.16%	9	88.89%	22	31.82%
Ming	299	41.46%	136	67.64%	288	23.26%
Modern	36	61.11%	262	36.26%	135	46.67%

Moreover, when we consider that the transitive use of 完 *wan* ‘finish’ in Modern Mandarin only exists in 14 tokens formed by lexicalized structures such as 完工 *wan-gong* ‘finish-work’ and 完事 *wan-shi* ‘finish-thing’, the intransitivity expansion is actually larger than it appears from these percentages.

Meanwhile, the token frequencies of 完 *wan* ‘finish’ across three predicate functions and four phases of its history tell us that it, too, has become less free over time. In Old Chinese, it was used independently as the predicate most of the time (in 36 out of 45 tokens), whereas in Modern Chinese it virtually always occurs in compounds (in 357 out of 393 tokens).

By exploring the meanings of 完 *wan* ‘finish’ in the tokens collected from different historical periods, it was found that in Old Chinese, an action is sometimes implied in particular contexts,<sup>13</sup> as shown in example (57).

- (57) 命 百 官 收 斂, 完 堤 防。  
 Ming bai guan shou-lian, wan di fang.  
 ask hundred official gather-gather complete dike dam  
 ‘(It is necessary to) ask officials to gather (grains) and complete dikes and dams (by building it).’  
 (Pre-Qin • 《吕氏春秋》)

However, with the rise of compound verbals, the action, which was typically implied in Old Chinese, usually needs to be expressed explicitly by an action verb in Modern Mandarin. For instance, in example (58), the verb 抽 *chou* ‘suck’ denotes the action, whereas 完 *wan* ‘finish’ indicates the theme-oriented resultant state. Correspondingly, the stative sense of ‘done’, as shown in example (59), is reinforced in the meaning of the character 完 *wan* ‘finish’.

<sup>13</sup> This implication of action can also be understood as the result of the systematic operation of causativization, which was common in Old Chinese. However, this analysis is not accepted by this dissertation, because the term ‘causativization’ implies a directionality of derivation (from intransitive to transitive), and this is incongruent with the assumptions of Construction Grammar (cf. Chapter 2).

(58) 他 的 烟 抽 完 了。

Ta de yan **chou-wan-le**.  
3SG DE cigarette suck-finish-LE  
'His cigarette is finished.'

(59) 天 下 事 就 如 此 完 了 吗?

Tianxia shi jiu ru ci **wan-le** ma?  
under the heaven thing just like this finish-LE QUES  
'Things under heaven all finished just like this?'

Therefore, in the case of 完 *wan* 'finish', the ever-increasing likelihood of compounding is accompanied by increasing specialization of its function. When compounding was not common in Chinese, it could imply an action in addition to the stative sense; but as compound verbals assert a dominant role in its use, the stative sense is reinforced and the possibility of implying an action is eliminated. In comparison with 削 *xue* 'cut down', whose function is tending toward an action verb, the functional specialization co-occurring with compounding in the case of 完 *wan* 'finish' is moving in the opposite direction. Thus, we can observe an intransitivity expansion based on the development of its functional distribution.

Among my target characters, 完 *wan* 'finish' is the only one that exhibits intransitivity expansion. However, it should be borne in mind that such expansion is not a discrete phenomenon at all. In Chapter 3, it was shown that historically, there have been multiple high-frequency labile verbs denoting the concept 'finish/complete', including 成 *cheng*, 罢 *ba*, 尽 *jin* and 终 *zhong*. To different extents, their intransitive uses have all become more dominant over time. An extreme case of this sort is 了 *liao*, which in Modern Mandarin has ended up as an aspect marker. Some verbs of breaking mentioned in Chapter 1, such as 破 *po*, 坏 *huai*, 碎 *sui* and 烂 *lan*, have also undergone the process of intransitivity expansion to the point that their transitive use is effectively extinct in Modern Mandarin, and thus can hardly be considered labile any more.

- (60) a. 花瓶 破了。  
 Huaping po - le.  
 vase break-LE  
 ‘The vase broke.’
- b. 琳琳 破了 花瓶。  
 Linlin po-le huaping.  
 Linlin break-LE vase  
 ‘Linlin broke the vase.’

If the systematic causative use of words in Old Chinese is taken into consideration, almost all stative characters functionally feature intransitivity expansion in their development.

#### 4.4.3 Intransitivity steadiness

Not all of the target characters displayed dramatic changes in their functional distribution. Indeed, large numbers of verbal characters appeared to be constant in their transitive/intransitive distribution. A good example is 助 *zhu* ‘help’ (Table 4.13), whose faithfulness to the intransitive labile construction remains low, despite general increases in the incidence of compounding over time.

Table 4.13.

*Development of the functional distribution of 助 zhu ‘help’*

	Independent as the predicate		X of an ‘XY’ compound verbal		Y of an ‘XY’ compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
Pre-Qin	164	1.22%	NA	NA	2	0.00%
Tang	423	0.95%	3	0.00%	2	0.00%
Ming	604	0.17%	1	0.00%	13	0.00%
Modern	67	0.00%	10	0.00%	421	0.00%

In some other cases, bi-directional fluctuation in the faithfulness of target characters to the intransitive labile construction can be observed across historical periods. The verbs 聚 *ju* ‘accumulate’, 弃 *qi* ‘discard’ and 备 *bei* ‘prepare’ fall into this category.

Table 4.14.

*Development of the functional distribution of 聚 ju 'accumulate'*

	Independent as the predicate		X of an 'XY' compound verbal		Y of an 'XY' compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
Pre-Qin	255	31.76%	6	0.00%	8	37.50%
Tang	481	54.26%	7	85.71%	4	75.00%
Ming	426	47.65%	15	33.30%	28	28.57%
Modern	243	44.03%	245	76.73%	152	65.13%

Table 4.15.

*Development of the functional distribution of 弃 qi 'discard'*

	Independent as the predicate		X of an 'XY' compound verbal		Y of an 'XY' compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
Pre-Qin	412	10.92%	10	10%	2	50%
Tang	834	25.42%	64	54.69%	9	44.44%
Ming	811	9.00%	25	16.00%	17	17.65%
Modern	138	15.94%	15	46.67%	699	5.29%

Table 4.16.

*Development of the functional distribution of 备 bei 'prepare'*

	Independent as the predicate		X of an 'XY' compound verbal		Y of an 'XY' compound verbal	
	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC	Token frequency	Faithfulness to ILC
Pre-Qin	533	26.08%	NA	NA	NA	NA
Tang	522	44.83%	NA	NA	2	100%
Ming	426	15.49%	17	17.65%	51	54.90%
Modern	89	22.47%	13	23.08%	356	8.15%

However, apart from the limited number of examples mentioned in this and the preceding three sections, the vast majority of verbal characters have tended to remain stable in their transitive/intransitive distribution over time.

#### **4.4.4 Summary of the relationship between compounding and the functional development of verbal characters**

In section 4.4, it has been shown that the compounding of some target verbal characters is related to their functional specialization, and that this specialization can proceed in two opposing directions. The first direction, represented by 削 *xue* ‘cut down’, 买 *mai* ‘buy’ and 听 *ting* ‘listen’, involves verbal characters that have retained their action-denoting meaning but lost their stative sense (in Modern Mandarin, the resultant state is typically expressed by particular stative elements that follow these verbal characters to form compounds), and this is reflected in an intransitivity shrinkage in their distribution. In the second direction, stative characters – exemplified by verbs of completion and verbs of breaking – have lost their ability to imply actions (in Modern Mandarin, the actions involved with them are typically expressed by other elements that precede them to form compounds), and their intransitive use is thereby expanded.

That being said, the potential effect of compounding on transitive/intransitive distribution is limited to a small group of verbal characters. The vast majority of such characters are relatively stable in their functions, in spite of the increasing prevalence of compounding in the language as a whole.

#### **4.5 Summary of Compounding and the Development of Chinese Labile Verbals**

In this chapter, the structure of verb compounds and compound verbs has been represented as ‘XY’. By exhaustively analyzing intransitive labile tokens from small corpora of



Early Mandarin and Modern Mandarin, it was found that labile compound verbals have prototypically taken the form ‘X-resultant state’, wherein X can be verbs from different semantic frames. However, contingency analysis of several target verbal characters revealed that the semantics of X is correlated with the faithfulness of ‘X-resultant state’ compound verbals to the intransitive labile construction: specifically, ‘change of state-resultant state’ appears to be more faithful to the intransitive labile construction than ‘action-resultant state’.

If we compare the faithfulness of the intransitive labile construction among target characters, taking into account the different functions they serve in predicates, it can be seen that preceding stative elements and forming ‘V-resultant state’ compounds allow characters to be used intransitively more often; whereas following action verbs and forming ‘action-V’ compounds reduce characters’ ability to be used intransitively. Moreover, through this process, the meaning/function of the character itself can become specialized in some cases. This specialization has operated in two distinct directions. In the first, the verbal characters have tended to precede stative elements in compounds, and thus have retained their action-denoting meaning but gradually lost their stative sense (e.g., 削 *xue* ‘cut down’, 买 *mai* ‘buy’ and 听 *ting* ‘listen’). In the second, some other characters – primarily statives – have frequently been placed after actions in compounds, and have in the end lost their ability to imply actions (e.g., 完 *wan* ‘finish’, 成 *cheng* ‘complete’, 破 *po* ‘break’ and 坏 *huai* ‘break’).

Aside from compounding, Modern Mandarin has inherited all the characteristics of labile verbals and the intransitive labile construction that can be identified in previous historical periods, including the change-of-state sense, the dominance of animate themes, and adverbials that can endow non-prototypical labile verbs with lability.

Lastly, in this chapter about Early Mandarin and Modern Mandarin, 了 *le* has mainly been treated as the perfective aspect marker. However, it should be noted that this aspect-marking function essentially derives from its ability to serve as the resultant state in resultative compounds. It was a verb of completion, as discussed in section 4.4.3, and in Modern Mandarin, ‘action+了 *le*’ can still imply a resultant state in many contexts. Tokens such as example (61) have been coded as verbal characters used independently as predicates in the intransitive labile construction; but in fact, it is very difficult to say whether 了 *le* merely functions as a grammatical marker here, or carries some kind of lexical function.

- (61) 电脑 买了。  
diannaο **mai- le.**  
computer buy-LE  
‘The computer is bought (now belonging to the buyer).’

## CHAPTER 5 THE CROSS-LINGUISTIC PROTOTYPE OF LABILE VERBS: CHANGE OF STATE

This chapter begins with a review of the literature on the typology of labile verbs that have been proposed for other languages, including types of lability, labile verb classes, and semantic frames. The findings about labile verbals in Chinese that were presented in Chapters 3 and 4, above, are then situated in a cross-linguistic context. Specifically, and it is shown that change of state is the hallmark of the verbal semantics of labile verbals in human languages. Verbal lability is therefore revisited from the viewpoint of human conceptualization, and a cross-linguistic conceptual schema of the intransitive labile construction is proposed.

### 5.1 Previous Findings on Verbal Lability

Discussion of lability cannot proceed entirely independently of the notion of the anticausative, insofar as the former is frequently taken as a subtype of non-directed inchoative/causative verb alternation systems (cf. Haspelmath, 1987, 1993; Nedjalkov & Sil'nickij, 1969/1973), in parallel with causative alternation and anticausative alternation. In **causative alternation**, the inchoative verb is basic, and the causative verb is derived by marking; whereas in **anticausative alternation**, the causative verb is basic and the inchoative verb is derived by marking. In **non-directed alternations**, neither the inchoative nor the causative verb is derived from the other. **Labile alternation** is just one of three specific types of non-directed alternation, and is characterized by the same verb being used both in the inchoative and in the causative sense. The other two types of non-directed alternations are **equipollent alternations**, in which both verbs are derived from the same stem by means of different

marking, and **suppletive alternations**, in which different verb roots are used. Some examples are shown in Table 5.1, below.

Table 5.1.  
*Formal types of inchoative/causative verb pairs* (Haspelmath, 1993)

Subtype	Language Verb Stem	Transitive (Causative)	Intransitive (Anticausative)
Causative	French <i>fonder</i> ‘melt’	<i>faire fondre</i>	<i>fondre</i>
Anticausative	Hindi-Urdu <i>naa</i> ‘open’	<i>khol-naa</i>	<i>khul-naa</i>
Equipollent	Japanese <i>atum</i> ‘gather’	<i>atum-eru</i>	<i>atum-aru</i>
Suppletive	Russian <i>goret’/zhech’</i> ‘burn’	<i>zhech’</i>	<i>goret’</i>
Labile	Modern Greek <i>svíno</i> ‘go out/extinguish’	<i>svíno</i> ‘extinguish’	<i>svíno</i> ‘go out’

Prior scholars have noted that the selection of alternation types is sensitive to verbal semantics and varies across languages. Nedjalkov & Sil’nickij (1969/1973) investigated 60 languages’ realizations of four alternations – ‘laugh/make laugh’, ‘boil (intr.)/(tr.)’, ‘burn (intr.)/(tr.)’, and ‘break (intr.)/(tr.)’ – i.e., 240 verb pairs; counted the number of languages using a given alternation type for each verb pair; and calculated the ratios of the numbers of anticausative pairs to causative pairs, with the results presented below in Table 5.2.

Table 5.2.  
*Expression types by verb pairs* (Nedjalkov & Sil’nickij, 1969/1973)

	Total	Anti-causative	Causative	Equipollent	Suppletive	Labile	Others	A/C
‘laugh/make laugh’	60	0	54	6	0	0	0	0
‘boil’	60	2	36	5	7	9	1	0.05
‘burn’	60	8	19	5	14	14	0	0.42
‘break’	60	22	9	8	0	19	2	2.44
Total	240	32	118	17	21	42	3	0.27

Haspelmath (1993) expanded the scope of this enquiry from four alternations to 31, and generally replicated the previous findings, as shown in Table 5.3.

Table 5.3.

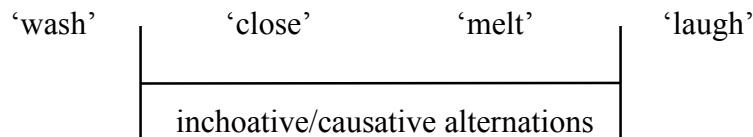
*Expression types by verb pairs (Haspelmath, 1993)*

	Total	Anti-causative	Causative	Equipol- lent	Supple- tive	Labile	A/C
'boil'	21	0.5	11.5	3	0	6	0.04
'freeze'	21	2	12	3	0	4	0.17
'dry'	20	3	10	4	0	3	0.30
'wake up'	21	3	9	6	1	2	0.33
'go out/ put out'	21	3	7.5	5.5	2	3	0.41
'sink'	21	4	9.5	5.5	0.5	1.5	0.42
'learn/teach'	21	3.5	7.5	6	3	2	0.47
'melt'	21	5	10.5	3	0	2.5	0.48
'stop'	21	5.5	9	3.5	0	3	0.61
'turn'	21	8	7.5	4	0	1.5	1.07
'dissolve'	21	10.5	7.5	2	0	1	1.40
'burn'	21	7	5	2	2	5	1.40
'destroy'	20	8.5	5.5	5	0	1	1.55
'fill'	21	8	5	5	0	3	1.60
'finish'	21	7.5	4.4	5	0	4	1.67
'begin'	19	5	3	3	0	8	1.67
'spread'	21	11	6	3	0	1	1.83
'roll'	21	8.5	4.5	5	0	3	1.89
'develop'	21	10	5	5	0	1	2.00
'get lost/lose'	21	11.5	4.5	4.5	0.5	0	2.56
'rise/raise'	21	12	4.5	3.5	1	0	2.67
'improve'	21	8.5	3	8	0	1.5	2.67
'rock'	21	12	40	3.5	0	1.5	3.00
'connect'	21	15	2.5	1.5	1	1	6.00
'change'	21	11	1.5	4.5	0	4	7.33
'gather'	21	15	2	3	0	1	7.50
'open'	21	13	1.5	4	0	2.5	8.67
'break'	21	12.5	1	4	0	3.5	12.50
'close'	21	15.5	1	2.5	0	2	15.50
'split'	20	11.5	0.5	5	0	3	23.00
'die/kill'	21	0	3	1	16	1	—
Total	636	243	164.5	128.5	69	31	

Both Nedjalkov & Sil'nickij (1969/1973) and Haspelmath (1993) explained the distributions they identified from the perspective of the likelihood of spontaneous occurrence.

This can be expressed on a scale, as in the following example:

(1) Scale of increasing likelihood of spontaneous occurrence



(Nedjalkov & Sil'nickij, 1969/1973; Haspelmath, 1993)

Haspelmath (1993) elaborated on the sensitivity of alternation-type selection to the likelihood of spontaneous occurrence as follows:

(2) Verb meanings on the left of this scale (e.g. ‘wash’) are so unlikely to occur spontaneously that they can never or almost never occur in an inchoative/causative alternation. The closest approximation to an inchoative version is a passive (‘is washed’). The next category of verbs (e.g., ‘close’) is somewhat more likely to occur spontaneously, but still normally caused externally. Such verbs show a preference for anticausative expression. Verb meanings further to the right are increasingly more likely to occur spontaneously. In verbs like ‘melt’ there is a preference for causative expression, for which anticausative expression is still possible. Finally, in verb on the right of the scale only causative derivations are possible. (Haspelmath, 1993)

This sensitivity can be explained by a general principle of iconicity: that cognitively marked categories tend also to be structurally marked (Givon, 1991, p. 106). Based on this principle, it is reasonable to conjecture that labiality favors verb pairs that stand near the middle of the spontaneity scale: i.e., representing events that are neither so spontaneous as to render causative marking unnecessary, nor so heavily reliant on external force that anticausative marking is not needed either. However, Nedjalkov & Sil'nickij (1969/1973) and Haspelmath (1993) both

refrained from drawing conclusions about non-directed inchoative/causative verb alternation systems, possibly due to the lack of clear patterns in their data.

The inchoative/causative verb alternation on which Nedjalkov & Sil'nickij's (1969/1973) and Haspelmath's (1987, 1993) studies were centered is defined as a pair of verbs that express the same basic situation – generally a change of state, or more rarely a going-on – and that differ only in that the causative verb meaning includes an agent participant who causes the situation, whereas the inchoative verb meaning excludes a causing agent and presents the situations as occurring spontaneously (Haspelmath, 1993). In other words, a change of state is generally assumed in the verb pairs that these authors picked for their respective cross-linguistic investigations. It has also been pointed out repeatedly that concepts of actions involving agent-oriented meaning components, such as tools or methods, virtually never occur in inchoative/causative verb alternation (Haspelmath, 1987, 1993). The verb 'cut' was cited as an example: it minimally differs from 'tear', in that it has the agent-oriented meaning component 'by means of a sharp instrument', but while 'tear (tr.)' has a corresponding inchoative verb – 'tear (intr.)' – 'cut' lacks one.

The relationship between the anticausative and the labile is completely reversed in Ljutikova (2002), Letuchij (2004) and Letuchiy's (2009, 2015) typology of labile verbs. The anticausative in more than a hundred languages has been proposed by these authors as a semantic subtype of lability. Other such subtypes include reciprocal lability, principally involving verbs called 'inherent reciprocals', such as *John kissed Mary – Mary and John kissed* (cf. Kemmer, 1993); reflexive lability, which tends to be related to body care (*John shaved Bill – John shaved*); converse lability, which primarily deals with emotion and perception verbs (cf. Bulgarian *xaresvam* 'love; please'); and passive lability, which is only seen in a few African

languages (cf. Bamana *dán* ‘plant/be planted’ and *sinsan* ‘enclose/be enclosed’). It is apparent that the anticausative is relatively more widespread than other subtypes, especially converse and passive lability.

Notwithstanding that Letuchiy’s (2009, 2015) analysis of verb lability differs from Haspelmath’s (1987, 1993) in many crucial ways – including sample languages, opinions about the status of verb lability, and research purposes – their conclusions bear a striking resemblance to one another, and to those of a number of other scholars’ studies. First, a consensus exists that lability does not usually spread to all verbs; rather, it is subject to certain semantic restrictions (Gianollo, 2014; Haspelmath 1987, 1993; Heidinger, 2014; Kulikov, 2003; Letuchij, 2004; Letuchiy, 2009, 2015; Mcmillion, 2006). With specific reference to semantic restrictions, Letuchij (2004) proposed four groups of verbs that are labile more often than others, with the first being phase verbs, corresponding to the English verbs ‘finish’ and ‘begin’; evidence for this was drawn from a range of typologically remote languages including German, Bulgarian, Arabic, and Turkish. It is noteworthy that on Haspelmath’s (1993) spontaneity scale, phase verbs were in the middle. So, the high probability that phase verbs will be labile coincides with the predications of the principle of iconicity: i.e., that verbs denoting caused events are more likely to be anticausative-marked, and those denoting spontaneous events, causative-marked.

Meanwhile, adjectives (or stative verbs) have been found relevant to both anticausativity and lability. Letuchiy (2009) pointed out that some languages have large classes of derived labile verbs:

(3) French:

*grandir* ‘make/get bigger’ <- *grand* ‘big’;

*grossir* ‘make/get thicker’ <- *gros* ‘thick’;

*refroidir* ‘make/get colder’ <- *refroid* ‘cold’;



*chauffer* ‘make/get hotter’ <- *chau* ‘hot’

(Letuchiy, 2009)

Derived labile verbs of this sort are also found in English, e.g., ‘soften’ and ‘loosen’, but are called fientives by Haspelmath (1987), who further found that in many languages, there are similarities between anticausatives and fientives (derived labiles). Anticausative-marking morphemes may be used to form fientives from adjectives, i.e., verbs with the meaning ‘X becomes Y’, where Y is an adjective:

(4) Gothic:

*full-n-an* ‘becomes full’ <- *fulls* ‘full’

*mikil-n-an* ‘become great’ <- *mikils* ‘great’

(5) Swah:

*saf-ik-* ‘become clean’ <- *safi* ‘clean’

*kamil-ik-* ‘become perfect’ <- *kamili* ‘perfect’

(6) Turkish:

*ince-l-mek* ‘become thin(ner)’ <- *ince* ‘thin’

*boş-al-mak* ‘become empty’ <- *boş* ‘empty’

(Haspelmath, 1987)

In Gothic, Swah and Turkish, *-an*, *-ik-*, and *-ma(e)k* are also the anticausative markers, respectively. With regard to this multiple function, Haspelmath (1987) reaffirmed Nedjalkov and Jaxontov’s (1983) explanation that transitive/inactive pairs (or causative/inchoative pairs, as Haspelmath termed them) typically express a change of state whose result is a natural state, and adjectives nearly always denote natural states.

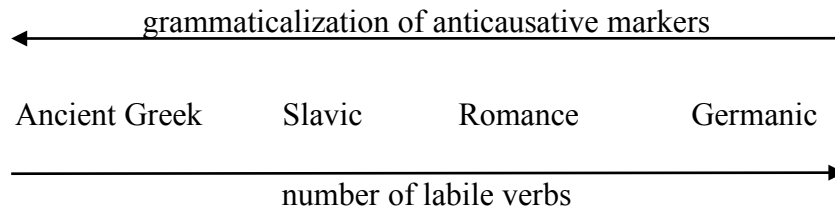
Moreover, Letuchiy’s (2009) typology of lability is largely consistent with Haspelmath’s (1993) cross-linguistic data, which show that Indo-European languages including Greek, Russian, and German use more anticausative marking than causative marking, whereas Caucasian languages including Georgian and Lezgian are comparatively more developed in

causative marking. After examining verb lability in the major Indo-European and Caucasian languages, Letuchiy (2009) proposed the following contrast:

- (7)
- |                                     |     |                                 |
|-------------------------------------|-----|---------------------------------|
| <u>Indo-European</u> languages:     | Vs. | <u>Caucasian</u> languages:     |
| Grammaticalization of anticausative |     | Grammaticalization of causative |
| “spontaneous” labile verbs          |     | “non-spontaneous” labile verbs  |
- (Letuchiy, 2009)

In the Indo-European languages in particular, Letuchiy (2009) found a negative correlation between the degree of grammaticalization of anticausative markers and the number of labile verbs, as shown in example (8).

(8) Indo-European languages:



(Letuchiy, 2009)

Based on these findings, she argued that properties of labile systems depend on areal and grammatical properties. The main grammatical parameter is determined by properties of derivational markers – not only their (non)existence, but also their degree of grammaticalization (Letuchiy, 2009). In other words, the occurrence of verb lability negatively correlates with the degree of grammaticalization of causative/anticausative.

If the hypothesized correlation between labile systems and grammatical properties is correct, then languages with little morphology are presumably rich in verb lability; and this reasoning has been used to account for “the overwhelming preference for labile verbs” in English (Nichols, 1986, p. 57; see also Haspelmath, 1993). However, data from isolating

languages have never been included in such analyses, despite being necessary to meaningful testing of this hypothesis, according to Haspelmath (1993) himself.

## 5.2 Chinese Verbal Lability in Letuchiy's (2009, 2015) Typology of Labile Verbs

Haspelmath's (1987, 1993) and Letuchiy's (2009, 2015) cross-linguistic findings about lability provide new perspectives from which to interpret the Chinese data presented in Chapters 3 and 4. All subtypes of verb lability can be found in Chinese.

### 5.2.1 Reflexive lability

From Old Chinese onward,<sup>14</sup> 自 *zi* 'self' has been able to grant lability to verbs from various semantic frames, and even to some that are typically not used intransitively, such as 怨 *yuan* 'blame'. When they come after 自 *zi* 'self', verbs can be used intransitively to depict an event in which the doer and the receiver are the same:

(9) 歔歔流涕，悲不自胜。

Xixu liu ti, bei bu **zi** sheng.  
sob flow tear sorrow NEG self can bear

'Sobbing and weeping, (I just) cannot bear this sorrow myself.'

(Tang • 《柳毅传》)

(10) 你也不必自怨。

Ni ye bu bi **zi** yuan.  
2SG either NEG need self blame

'You do not need to blame yourself either.'

(Modern Mandarin)

In this sense, 自 *zi* 'self' permits different types of verbs to be used intransitively to produce a reflexive meaning.

---

<sup>14</sup> In my own sample, the occurrence of this type of 自 *zi* 'self' can first be observed in the data from Middle Chinese, but other data make it clear that this function germinated in Old Chinese.

However, body-care-themed reflexive lability (*John shaved Bill – John shaved*) can only be observed in one verb in my sample of Modern Mandarin: 藏 *cang* ‘hide/be hidden’.

- (11) 我 就 在 院 里 黑 处 藏 着。  
Wo jiu zai yuan-li heichu **cang**-zhe.  
1SG just at yard-in black side hide-ZHE  
‘I just hid myself in the dark side of the yard.’

The event depicted in example (11) can also be expressed by the transitive 藏 *cang* ‘hide’ in a disposal 把 *ba* construction with a reflexive pronoun 自己 *ziji* ‘self’:

- (12) 我 把 自 己 藏 在 院 里 黑 处。  
Wo ba ziji **cang** zai yuan-li heichu  
1SG BA self hide at yard-in black side  
‘I hid myself in the dark side of the yard.’

It must be noted that a disposal structure is mandatory in the transitive use of 藏 *cang* ‘hide/be hidden’. This verb typically cannot take objects directly, just like other change-of-state VP, V+PP and V+VP structures, as shown in example (13):

- (13) a. 爸 爸 把 我 藏 在 了 院 子 里。  
Baba ba wo **cang** zai-le yuanzi-li.  
father BA 1SG hide at-LE yard-in  
‘Father hid me in the yard.’  
b. \*爸 爸 藏 我 在 了 院 子 里。  
Baba **cang** wo zai-le yuanzi-li.  
father hide 1SG at-LE yard-in  
‘Father hid me in the yard.’

### 5.2.2 Reciprocal lability

Like 自 *zi* ‘self’, the adverbial 相 *xiang* ‘mutually’ has been passed down from Old Chinese (Middle Chinese within my sample). Its Modern Mandarin variant, 互相 *huxiang* ‘mutually’, grants lability to a variety of verbs. In terms of function, the subject of ‘(互)相 (*hu*)*xiang* + V’ normally involves more than one of the participants in an event, and each

participant occupies both the role of the agent and the patient with respect to each other, as shown in the following examples:

- (14) 才 貌 相 兼。  
Cai mao **xiang** jian.  
talent look mutually hold two things concurrently  
'(If you two tie the knot,) then the beauty and the talent find each other.'  
(Tang • 《霍小玉传》)
- (15) 我 们 就 那 么 互 相 拥 抱 着。  
Women jiu name **huxiang** yongbao-zhe.  
1PL just that mutually hug-ZHE  
'We are just hugging each other like that.'  
(Modern Mandarin)

In other words, (互)相(*hu*)*xiang* allows different types of verbs to be used intransitively to create a reciprocal meaning.

Beside 相 *xiang* 'mutually', the so-called 'inherent reciprocals' (cf. Kemmer, 1993)

(e.g., *John kissed Mary – Mary and John kissed*) also exist in Modern Mandarin:

- (12) 我 和 贾 玲 恶 战 了 一 晚 上。  
Wo he Jia Ling **ezhan**-le yi wanshang.  
1SG and Jia Ling fight-LE a night  
'Jia Ling and I fought for a whole night.'
- (13) 我 和 贾 玲 隔 三 差 五 就 要 会 战 一 番。  
Wo he Jia Ling gesanchawu jiu yao **huizhan** yi fan.  
1SG and Jia Ling every now and then then will fight one time  
'Jia Ling and I fought now and then.'
- (14) 我 们 多 少 年 没 见 了?  
Women duoshao nian mei **jian** le?  
1PL how many year not meet LE  
'How many years have passed since we met each other?'

By definition, verbs of the reciprocal subtype in Modern Mandarin should be able to occur in 'A + V + B' and 'B + coordinating CONJ + B + V' at the same time; and in verbal semantics, they usually inherently encode reciprocity. Sentences of this type were not included among the intransitive labile tokens analyzed in Chapters 3 and 4 because their subjects are definitely not themes: i.e., these reciprocal verbs do not allow 'A+V+B' and 'B+V' simultaneously to express

the same event. However, according to Letuchiy's (2009) definition of labile verbs (see section 1.2.2.4), the subjects of their transitive use and intransitive use do have different semantic roles. Semantically, the subject of their transitive use constitutes a part of the subject of their intransitive use. Accordingly, this dissertation incorporates inherently reciprocal verbs, such as 战 *zhan* 'fight' and 见 *jian* 'meet', into the category of labile verbs in a broad sense.

### 5.2.3 Converse lability

Letuchiy (2009) described converse lability as similar to verb pairs such as 'take'/'give', in which both verbs denote the same situation with the same number of arguments, but the participants have different syntactic/semantic status: for instance, the recipient is the subject in the case of 'take' and the indirect object in the case of 'give'. Labile verbs of the converse subtype are not analogous to the other subtypes, in that they often have two bivalent uses. Based on examples of this including the Bulgarian *xaresvam* 'please/like', Romanian *place* 'please/like', and French *sentir* 'smell (transitive)/smell (intransitive)', Letuchiy (2004, 2009) claimed that converse lability is primarily seen among emotion and perception verbs.

In my sample, none of the emotion or perception verbs allow 'A+V+B' and 'B+V+A' to depict the same situation simultaneously; but as mentioned in section 4.2.1, such a property is found among a few verbs involving locative arguments, including 来 *lai* 'come', 去 *qu* 'go', 到 *dao* 'arrive', 住 *zhu* 'live' and 盖 *gai* 'cover'. Some examples are repeated below.

- (15) a. 一个人来了(学校)。  
 Yi-ge ren **lai-le** (xuexiao).  
 one-CL person come-LE (school)  
 'A person came (to school).'  
 b. (学校)来了一个人。  
 (Xuexiao) **lai-le** yi-ge ren.  
 (school) come-LE one-CL person  
 'A person came (to school).'

- (16) a. 一块布盖着尸体。  
 Yi-kuai bu **gai**-zhe shiti.  
 one-piece cloth cover-ZHE corpse  
 ‘A piece of cloth covers the corpse.’
- b. 尸体盖着一块布。  
 Shiti **gai**-zhe yi-kuai bu  
 corpse cover-ZHE one-piece cloth  
 ‘The corpse is covered by a piece of cloth.’

Historically, as an earlier variant indicating ‘to cover’, 被 *bei* also displayed converse lability.

This will be discussed in section 6.2.

The association between converse lability and verbs involving locative arguments can be extended to the three-place verb, 借 *jie* ‘borrow/lend’, which also permits ‘A+V+B’ alongside ‘B+V+A’ if its direct object is present.

- (17) 琳琳借了明明一本书。  
 Linlin **jie** -le Mingming yi-ben shu.  
 Linlin borrow/lend-LE Mingming one-CL book  
 ‘Linlin lent Mingming a book. / Linlin borrowed a book from Mingming.’

Because of the converse lability of 借 *jie* ‘borrow/lend’, example (17) is an ambiguous sentence permitting both readings.

In Modern Mandarin, the present verbs of converse lability all involve locative types of arguments. However, the inverse of this generalization does not also hold: i.e., there are some Modern Mandarin verbs involving locative arguments that are not conversely labile, such as 给 *gei* ‘give’. Moreover, in the transitive/intransitive structure pairing of converse lability, such as ‘A + 盖 *gai* + B’ and ‘B + 盖 *gai* + A’, no argument functions as a prototypical agent. Instead, both the locative (goal or source) and the object are theme-like.

#### 5.2.4 Anticausative lability and passive lability

An underexplored question about anticausative lability and passive lability is the demarcation between them. Letuchiy (2009, 2015) did not provide an explicit explanation, saying only that in anticausative lability, “the intransitive use of the verb differs from the transitive one by the absence of an agent”, whereas “the passive subtype includes labile pairs in which one of the uses is transitive, and the other is intransitive with a patientive subject, just as is characteristic of passive derivatives in some languages of the world” (2009). Therefore, anticausative lability and passive lability are compatible with each other by definition; or in other words, passive lability is a type of anticausative lability in which the intransitive use of the verb takes a more “patientive” subject. Letuchiy’s perception of anticausative lability can be lined up with Haspelmath’s (1987, 1993) definition of anticausative, which claims that inchoative/causative verb pairs express the same basic situation (generally a change of state, more rarely a going-on). However, Haspelmath’s (1987) interpretation of passive – that it always implies an agent – is not reflected in Letuchiy’s definition of passive lability. Nevertheless, as discussed above in section 1.2.3.1, taking the implied agent as the decisive feature for passive lability is not reliable either. It is possible to interpret verbs such as 开 *kai* ‘open’ as implying an agent or not implying one, with neither interpretation being less valid than the other. In view of the fuzziness of the boundary between them, anticausative lability and passive lability are discussed together in this section, with specific reference to the the ability of verbals to allow the ‘A+V+B’ structure as well as the ‘B+V’ structure to express the same event that does not involve reflexivity or reciprocity. Where the word ‘lability’ is used without further qualification in this section, it is referring anticausative/passive lability.



In Chapters 3 and 4, we saw that many verbal elements can be used transitively or intransitively to express the same situation; these elements include monosyllabic verbs, compound verbs and verb compounds, VP, V+PP, V+VP, and descriptive complement structures. In terms of the form of their transitive use, a disposal structure such as the 把 *ba* construction is mandatory for some of them, but optional or prohibited for others, as demonstrated by the following examples. In examples (18) and (19), the disposal structure is prohibited:

- (18) a. 球 滚 着。  
 Qiu **gun-zhe**  
 ball roll-ZHE  
 ‘The ball is rolling.’
- b. 琳琳 滚 着 球。  
 Linlin **gun-zhe** qiu.  
 Linlin roll-ZHE ball  
 ‘Linlin is rolling the ball.’
- c. \*琳琳 把 球 滚 着。  
 Linlin ba qiu **gun-zhe**.  
 Linlin BA ball roll-ZHE  
 ‘Linlin is rolling the ball.’
- (19) a. 饭 吃 不 完 了。  
 Fan **chi-bu-wan** le.  
 rice eat-NEG-finish LE  
 ‘The rice cannot be finished.’
- b. 琳琳 吃 不 完 饭 了。  
 Linlin chi-bu-wan fan le.  
 Linlin eat-NEG-finish rice LE  
 ‘Linlin cannot finish the rice.’
- c. \*琳琳 把 饭 吃 不 完 了。  
 Linlin ba fan **chi-bu-wan** le.  
 Linlin BA rice eat-NEG-finish LE  
 ‘Linlin cannot finish the rice.’

In examples (20) and (21), the disposal structure is optional:

- (20) a. 门 开 了。  
 men **kai** le  
 door open-LE  
 ‘The door is open.’

- b. 琳琳 开了 门。  
 Linlin **kai-le** men.  
 Linlin open-LE door  
 ‘Linlin opened the door.’
- c. 琳琳 把 门 开了。  
 Linlin ba men **kai** le.  
 Linlin BA door open-LE  
 ‘Linlin opened the door.’
- (21) a. 饭 吃完了。  
 Fan **chi-wan-le**.  
 Rice eat-finish-LE  
 ‘The rice is eaten up.’
- b. 琳琳 吃完了 饭。  
 Linlin **chi-wan-le** fan.  
 Linlin eat-finish-LE rice  
 ‘Linlin ate up the rice.’
- c. 琳琳 把 饭 吃完了。  
 Linlin ba fan **chi-wan-le**.  
 Linlin BA rice eat-finish-LE  
 ‘Linlin ate up the rice.’

Lastly, in examples (22) and (23), the disposal structure is mandatory:

- (22) a. 这 首 歌 唱 得 很 好 听。  
 Zhe-shou ge **chang de hen haoting**  
 this-CL song sing DE very pleasant to the ear  
 ‘This song is sung very well, pleasant to the ear.’
- b. \*琳琳 唱 得 很 好 听 这 首 歌。  
 Linlin **chang de hen haoting** zhe-shou ge.  
 Linlin sing DE very pleasant to hear this-CL song  
 ‘Linlin sang this song very well, making it pleasant to the ear.’
- c. 琳琳 把 这 首 歌 唱 得 很 好 听。  
 Linlin ba zhe-shou ge **chang de hen haoting**.  
 Linlin BA this-CL song sing DE very pleasant to the ear  
 ‘Linlin sang this song very well, making it pleasant to the ear.’
- (23) a. 书 堆 成 了 一 座 山。  
 Shu **dui-cheng-le yi-zuo shan**.  
 book pile-become-LE one-CL mountain  
 ‘Books are piled into a mountain.’
- b. \*琳琳 堆 成 了 一 座 山 书。  
 Linlin **dui-cheng-le yi-zuo shan** shu.  
 Linlin pile-become-LE one-CL mountain book  
 ‘Linlin piled the book into a mountain.’

- c. 琳琳 把 书 堆 成 了 一 座 山。  
 Linlin ba shu **dui- cheng- le yi-zuo shan.**  
 Linlin BA book pile-become-LE one-CL mountain  
 ‘Linlin piled the book into a mountain.’

In terms of function, the overwhelming majority of labile verbals of this type either inherently encode a change of state or can imply a change of state in the perfective aspect, echoing Haspelmath’s (1987, 1993) definition of inchoative/anticausative verb pairs. However, it should be pointed out that some cases of verbal lability from various historical periods definitely have nothing to do with change of state. For example, action verbs – including creation verbs, transfer verbs and perception verbs – can be used to express properties when following 可(以) *ke(yi)* ‘can’, 能 *neng* ‘can’, 好 *hao* ‘easy’, (容)易(*rong*)*yi* ‘easy’, 难 *nan* ‘be difficult to’, and 足 *zu* ‘suffice’, among others.

- (24) 江 山 易 改 ， 本 性 难 移。  
 Jiangshan **yi gai**, **benxing nan yi.**  
 territory easy change nature be difficult to move  
 ‘Territory can be changed easily, but nature can hardly be changed.’  
 (Early Mandarin • 《醒世恒言》)

- (25) 你 这 儿 可 真 难 找。  
 Ni zher **ke zhen nan zhao.**  
 2SG here indeed really hard find  
 ‘It is really difficult to find your place here.’  
 (Modern Mandarin)

In my Modern Mandarin sample collected from *Guo Ba Yin Jiu Si* (《过把瘾就死》 ‘Die Satisfied’), 22 tokens can be understood as passive but definitely do not involve change of state, as shown in the following examples:

- (26) 是 非 问 题 以 后 再 谈。  
 Shifei **wenti yihou zai tan.**  
 right or wrong matter later again talk  
 ‘The matter of right or wrong should be talked about later.’

- (27) 反抗 谁 不 知道。  
Fankang shei bu **zhidao**.  
resist who NEG know  
'It is not known whom to fight against.'
- (28) 想 离婚 就 直 说。  
Xiang lihun jiu zhi **shuo**.  
want divorce then directly say  
'Say it straight out if you want to divorce'

Very few regulations can be found within this group. They are formed by different types of action verbs; they occur in conversation or narration; they are sometimes imperative, sometimes indicative, sometimes subjunctive; and negative and positive uses are roughly equal in number. In short, as well as being few in number, these tokens are highly sporadic.

### **5.2.5 Summary of Chinese verbal lability in Letuchiy's (2009, 2015) typology of labile verbs**

The subtypes of Chinese verbal lability, based on the forms of the transitive and intransitive use of verbals, is summarized in Table 5.4, below.

Table 5.4.

*Subtypes of verbal lability in Modern Mandarin (based on form)*

Subtype	Transitive Use	Intransitive Use	Examples
Type 1	A + V + B; B + V + A	B + V	盖 <i>gai</i> ‘cover’; 到 <i>lai</i> ‘arrive’; 住 <i>zhu</i> ‘live’
Type 2	A + V + B	A+ coordinating conj. + B+ V	对战 <i>duizhan</i> ‘fight’; 见 <i>jian</i> ‘meet’
Type 3	A + 把 <i>ba</i> + 自己 <i>ziji</i> + V (with locative)	A + V	藏在... <i>cang-zai...</i> ‘hide at...’
Type 4	A + V + B	B + modifier + V 自 <i>zi</i> ‘self’ (互)相 <i>huxiang</i> ‘mutually’ 可以/能/容易/难/... <i>keyi/neng/rongyi/nan/...</i> ‘can/can/easy/hard/ ...’	怨 <i>yuan</i> ‘blame’; 爱 <i>ai</i> ‘love’ 逢 <i>feng</i> ‘meet’; 敬 <i>jing</i> ‘respect’ 撕毁 <i>si-hui</i> ‘tear up’; 找 <i>zhao</i> ‘find’; 进 <i>jin</i> ‘enter’
Type 5	A + V + B	B + V	滚 <i>gun</i> ‘roll’; 摇晃 <i>yaohuang</i> ‘shake’; 吃不完 <i>chi-bu-wan</i> ‘cannot eat-finish’
Type 6	A + V + B; A + 把 <i>ba</i> + B + V (with complement)	B + V	开 <i>kai</i> ‘open’; 哭湿 <i>ku-shi</i> ‘cry-wet’; 写累 <i>xie-lei</i> ‘write-tired’
Type 7	A + 把 <i>ba</i> + B + V (with complement/ other elements)	B + V	洗得干干净净 <i>xi-de-ganganjingjing</i> ‘wash clean’; 放在心里 <i>fang-zai xin li</i> ‘put into heart’; 堆成一座山 <i>dui-cheng yi-zuo shan</i> ‘pile into a mountain’

On one hand, my findings regarding verb lability support Haspelmath’s (1987, 1993) and Letuchiy’s (2009, 2015) cross-linguistic findings in many aspects. All subtypes of lability proposed by Letuchiy (2009) were observed among Chinese verbs: in Table 5.4, subtype 1 corresponds to converse lability; subtype 2, to reciprocal lability; subtype 3, to reflexive lability; and subtypes 5-7, to anticausative/passive lability. In terms of frequency, the main subtype is

anticausative lability (which in Chinese is entangled with passive lability). As to the meaning of labile verbals, my finding that Chinese ones prototypically denote or imply change of state parallels Haspelmath's (1987, 1993) discussion of anticausative/inchoative verb pairs.

On the other hand, the scope of verbal lability as understood by Haspelmath (1987, 1993) and Letuchiy (2009, 2015) is too limited to capture the labile verbals found in Chinese. Letuchiy (2009) noted that converse lability and passive lability are rare in studied languages. However, in Chinese, many verbs involving locative arguments display converse lability. Passive lability (entangled with anticausative lability) is also a widespread property of Chinese verbals. Moreover, even verbs that are typically not used intransitively can have lability granted to them by 自 *zi* 'self', (互)相 *huxiang* 'mutually' and 可以/能/容易/难/... *keyi/neng/rongyi/nan/...* 'can/can/easy/difficult', denoting reflexivity, reciprocity and property respectively (as shown in subtype 4). Accordingly, although change of state is the prototypical meaning of labile verbals, verbal lability in Chinese occasionally extends to pure statives and to actions that absolutely do not involve resultant states.

It is important to note that the incongruous breadth of the category of labile verbals in Chinese potentially supports the hypothesized correlation between degree of marked causative/anticausative grammaticalization and the number of labile verbs. Known as a representative of isolating languages, Chinese does not have any marking for causative/anticausative, and yet, lability extends to a larger group of verbals in Chinese than in languages richer in morphology.

### **5.3 Two Factors Determining Verbal Lability in Chinese**

Although lability is common among Chinese verbals, this does not mean that all Chinese verbals are equally labile. In Chapters 3 and 4, we saw that verbals differ in their degrees of faithfulness to the intransitive labile construction, which means that their transitive/intransitive distributions also differ. Statistically, the prototype of verbal lability designates a situation in which the transitive use and the intransitive use of a verbal are equally frequent; or to put this another way, verbals that do not lean clearly toward the transitive or the intransitive are more labile than verbals that are primarily used either transitively or intransitively. Cross-linguistically, researchers have proposed that two factors concerning verbal semantics – change of state, and the likelihood of spontaneous occurrence – may be related to lability. The following sections deal with each factor in turn.

### **5.3.1 Change of state**

In discussions of the anticausative, a defining property of the inchoative/causative verb pairs is that they express the same basic situation, which is primarily a change of state (cf. Haspelmath, 1987, 1993; Nedjalkov & Sil'nickij, 1969/1973). Based on this criterion, Haspelmath (1993) extrapolated that three large classes of situations are excluded from the inchoative/causative alternation:

- (29) First, a state cannot be the inchoative member of an inchoative/causative alternation. Second, an action that does not express a change of state (e.g. 'help', 'invite', 'cite', 'criticize', 'read') cannot be the causative member of such an alternation. Third, agentive intransitive verbs like 'talk', 'dance', 'work', etc. cannot be the inchoative member of an inchoative/causative pair because they are not conceived of as occurring spontaneously. This still leaves us with a large class of transitive verbs such as 'wash', 'build', 'cut', 'dig', 'paint', etc., which do express a change of state. (Haspelmath, 1993)

Haspelmath's (1993) above-cited opinion coincides with the causal approach to lexical semantics (cf. Croft, 1991; Leven & Rappaport Hovav, 2005), which was introduced to account for transitivity alternation in English. According to Levin & Rappaport Hovav (2005, p. 117), the causal approach to lexical semantics "takes the facets of verb meaning relevant to argument realization to involve the causal structure of the events denoted". Tsunoda's (1981, 1985) simplified hierarchy, which originally organized the semantic classes of two-place verbs according to the likelihood of their members' transitivity, was adopted by Levin (2009) in the following form:

(30) Change of state > Surface contact > Perception/cognition

As shown in example (31), below, change-of-state verbs (including change-of-location verbs) are perceived as inherently causative, and identify force recipients; whereas surface-contact verbs (including exertion-of-force verbs) identify force recipients, but do not entail changes of state. Perception/cognition verbs, meanwhile, involve neither force recipients nor changes of state.

(31) Change-of-state verbs: break, open, close, warm, dim, cool, flatten, ...

Surface-contact verbs: hit, kick, shoot, slap, beat, wipe, rub, scratch, sweep, ...

Perception/cognition verbs: hear, see, smell, know, enjoy, fear, hate, ...

(adapted from Levin, 2009)

Citing Croft (1991, 1994, 1998), DeLancey (1984), Langacker (1987), and Talmy (1976), Levin (2009) concluded that "one instantiation of the causal approach models events in terms of individuals acting on individuals, thus involving causal chains, consisting of a series of segments (or 'atomic events'), each relating two participants in the event" and that "a single participant



may be involved in more than one segment”. It should be noted that change-of-state verbs encode this causal chain by definition. The transitive form of ‘break’ has been used as an example to illustrate the causal chain, as follows:

(32) *Harry broke the vase*. Modelled with a three-segment causal chain:

- (i) Harry acts on the vase
- (ii) the vase changes state
- (iii) the vase is in a result state (i.e., broken)

(Croft, 1994, p. 38)

Complex event structures can be observed for this kind of verbs.

(33) break: [ [ x ACT ] CAUSE [ BECOME [ y <BROKEN> ] ] ]

(Levin & Rappaport Hovav, 2005, p. 113)

In other words, it is obvious that in English, only change-of-state verbs are labile and able to participate in transitivity alternation.

The situation in Chinese is considerably more complicated, as pure statives are sometimes used transitively, and some actions not involving resultant states are also found among intransitive labile constructions. However, in all the historical periods I investigated, the faithfulness to the intransitive labile construction among Chinese change-of-state verbs is closer to 50% than it is for any other Chinese verb type. This disparity between change-of-state and non-change-of-state verbs becomes even clearer if we include a pure stative (好 *hao* ‘good’) and a surface contact verb (踢 *ti* ‘kick’) in our contingency analysis of Modern Mandarin, looking at verbals’ transitive/intransitive distributions (Table 5.5, below).

Table 5.5

*Faithfulness of Modern Mandarin verbs to the intransitive labile construction*

	Semantic type	Token Frequency	Type frequency of the intransitive labile construction	Percentage
助 <i>zhu</i> ‘help’	Action not involving a change of state	498	0	0.00%
踢 <i>ti</i> ‘kick’	Action not involving a change of state	313	8	2.56%
听 <i>ting</i> ‘listen’	Perception	810	23	2.84%
买 <i>mai</i> ‘buy’	Action implying a change of state in the perfect aspect	639	45	7.04%
弃 <i>qi</i> ‘discard’	Transfer (implying a change of state in the perfect aspect)	852	66	7.75%
备 <i>bei</i> ‘prepare’	Change of state	458	52	11.35%
削 <i>xue</i> ‘cut down’	Change of state	403	61	15.14%
完 <i>wan</i> ‘finish’	Change of state	433	149	34.41%
聚 <i>ju</i> ‘accumulate’	Change of state	640	394	61.56%
好 <i>hao</i> ‘good’	Stative	249	166	66.67%

*Note.* Data presented in the table include tokens in which target characters play various roles in the predicates (i.e., independent, X of ‘XY’ compound verbal, or Y of ‘XY’ compound verbal).

In terms of faithfulness to the intransitive labile construction, it is clear that the general tendency of change-of-state verbs is to lie in the middle between pure statives and action verbs, close to the 50% mark.

According to Haspelmath (1993), the third class of verbs that is excluded from lability comprises agentive intransitive verbs such as ‘talk’, ‘dance’ and ‘work’. Since the only argument involved by them is the agent, they normally cannot take another agent to form a transitive structure. In this respect, Modern Mandarin is no different from other languages:

- (34) a. 琳琳 在 工作。  
 Linlin zai **gongzuo**.  
 Linlin PROG work  
 ‘Linlin is working.’
- b. \*爸爸 工作 琳琳。  
 Baba **gongzuo** Linlin.  
 father work Linlin  
 ‘Father caused Linlin to work.’

In coding 500 tokens of the verb 工作 *gongzuo* ‘work’, I did not find a single one in which it was used transitively or took an argument other than the agent. If agentive intransitive verbs are to take a second agent to denote the causative sense, a lexical approach is required. For example:

- (35) 爸爸 让 琳琳 工作。  
 Baba rang Linlin **gongzuo**  
 father make Linlin work  
 ‘Father makes Linlin work.’

### 5.3.2 Spontaneity

A problem remains with regard to the potential correlation between the spontaneity of events and the distribution of verbs. In an attempt to test this correlational conjecture in Modern Mandarin, I selected as target verbs the Chinese counterparts of six change-of-state verbal characters that differ markedly in spontaneity, according to Haspelmath’s (1993) spontaneity scale shown in Table 5.3<sup>15</sup>. Specifically, these targets were 醒 *xing* ‘wake’, 停 *ting* ‘stop’, 完 *wan* ‘finish’, 丢 *diu* ‘lose/be lost’, 开 *kai* ‘open’ and 破 *po* ‘break’. Additionally, in

---

<sup>15</sup> Although this dissertation acknowledges the fact that events differ in the likelihood of spontaneous occurrence and the overall tendency proposed by Nedjalov & Sil’nickij (1969/1973) and Haspelmath (1993), it needs to be noted that the specific order of events on the spontaneity scale (Haspelmath, 1993) needs to be interpreted with caution. It is hard to say which event is more likely to occur spontaneously among ‘boil’ and ‘freeze’. Essentially, Haspelmath’s (1993) finding is based on quantitative analysis of 21 languages. If the sample size increases, there may be some variability. Therefore, I only selected some target verbs that definitely differ in terms of spontaneity.

consideration of the fact that resultant states in Modern Mandarin can also be implied by the perfective aspect marker or sentence final particle 了 *le* being added to some action verbs, 买 *mai* ‘buy’ and 吃 *chi* ‘eat’ were also included, as representatives of change-of-state events that definitely cannot occur spontaneously.

These eight target verbal characters were searched for in the Modern Mandarin part of Cncorpus. Since the number of tokens for each target verb was immense, 500 tokens of each target were randomly selected for coding, and tokens of their intransitive use enumerated. For each verbal character, the type frequency of the intransitive labile construction is presented in Table 5.6, with its estimated faithfulness shown as a percentage.

Table 5.6.

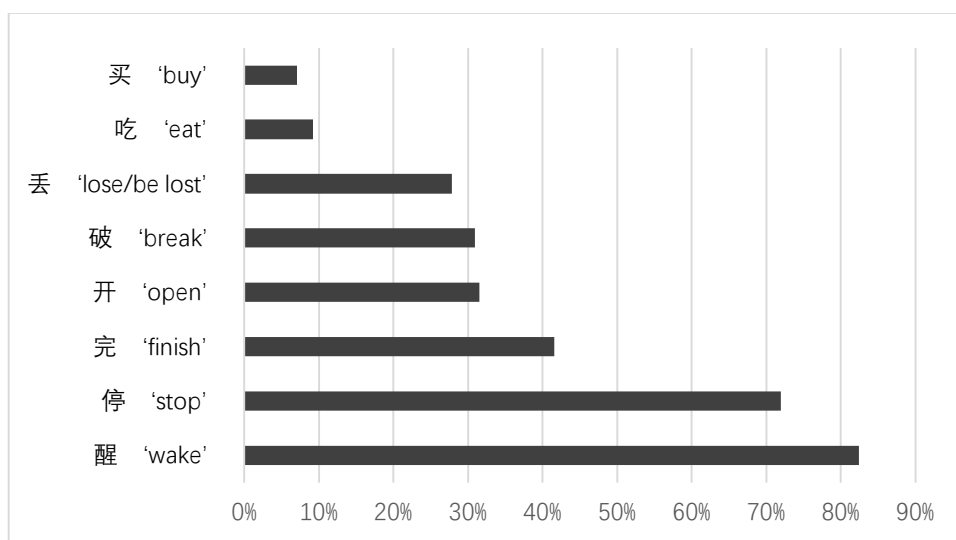
*Faithfulness to the intransitive labile construction of verbal characters differing in spontaneity*

Verbal character	Token frequency	ILC Type Frequency	Faithfulness to ILC
醒 <i>xing</i> ‘wake’	256	211	82.42%
停 <i>ting</i> ‘stop’	385	277	71.95%
完 <i>wan</i> ‘finish’	433 <sup>14</sup>	180	41.57%
开 <i>kai</i> ‘open’	469	148	31.56%
破 <i>po</i> ‘break’	210	65	30.95%
丢 <i>diu</i> ‘lose/be lost’	410	114	27.80%
吃 <i>chi</i> ‘eat’	422	39	9.24%
买 <i>mai</i> ‘buy’	639 <sup>16</sup>	45	7.04%

*Note.* If the target character occurred in a token’s subject or object (including cases in which the character independently occurs as a modifier or in a relative clause), it was not counted for the token-frequency purpose. Data presented in the table include tokens in which target characters play various roles in the predicates (i.e., independent, X of ‘XY’ compound verbal, or Y of ‘XY’ compound verbal).

<sup>16</sup> As distinct from the data on the other six target verbal characters in this section, data on 买 *mai* ‘buy’ and 完 *wan* ‘finish’ were already analyzed in Chapter 4, so the earlier results are simply repeated here.

The faithfulness of verbal characters to the intransitive labile construction can be graphed, as shown in Figure 5.1.



*Figure 5.1.*

Faithfulness to the intransitive labile construction of verbal characters differing in spontaneity

It can clearly be observed from Figure 5.1 that, as the spontaneity of the event increases, faithfulness to the intransitive labile construction also increases (i.e., the verbal character is used intransitively more often than used transitively). This strongly supports the hypothesized relation between the spontaneity of a change-of-state event and the lability of the verbal that describes it. It is especially interesting that the faithfulness of the the phase verb 完 *wan* 'finish' to the intransitive labile construction is closest to 50% among all eight of the target verbal characters, suggesting that it occurs in the predicates of transitive structures and intransitive structures with roughly equal frequency. In this context, it is worth reiterating that in Letuchij's (2004) cross-linguistic investigation, phase verbs were found to be labile more often than other groups of verbs; and that on Haspelmath's (1993) spontaneity scale, phase verbs occur in the middle. Thus, my finding that the transitive use of 完 *wan* 'finish' is generally as frequent as its intransitive

use in Modern Mandarin provides another piece of empirical evidence that phase verbs occupy a central position in the radial category of labile verbs. Centered around 完 *wan* ‘finish’, this pattern sees 停 *ting* ‘stop’ and 醒 *xing* ‘wake’ occur more frequently in intransitive use, whereas 开 *kai* ‘open’, 破 *po* ‘break’ and 丢 *diu* ‘lose/be lost’ are more frequently used transitively. All of this is generally consistent with these verbs’ ranks on the spontaneity scale, apart from the fact that the spontaneity differences between 开 *kai* ‘open’, 破 *po* ‘break’ and 丢 *diu* ‘lose/be lost’ are not reflected in their distributions. It can also be observed that the commonly known transitive verbs 买 *mai* ‘buy’ and 吃 *chi* ‘eat’, which definitely cannot happen spontaneously, are indeed predominantly used transitively, although they can imply a change of state when co-occurring with 了 *le*.

### 5.3.3 The interaction of the two factors

In the previous two sections, we have seen that the lability of verbs is sensitive to two factors: the involvement of change/non-change of state in, and the likelihood of spontaneous occurrence of, the events they describe. Based on these two factors, events can be categorized into four types: (i) change of state, spontaneous; (ii) change of state, caused by external force; (iii) non-change of state, but affected by external force; (iv) non-change of state, but spontaneous. Surface-contact verbs (including exertion-of-force verbs) and perception/cognition verbs express events that are affected by external force, but do not involve changes of state. States and agentive intransitive verbs are also non-change-of-state, but can be considered spontaneous (since they are definitely not affected by external forces). They are excluded from the category of labile verbs by the change-of-state factor. Change-of-state events’ transitive/intransitive distribution in Modern Mandarin is largely related to their likelihood of

spontaneous occurrence: the more likely an event is to occur spontaneously, the more dominant its intransitive use will be, and vice versa. Inasmuch as the factor of spontaneity in verbal semantics is not dichotomous but scalar, and some Chinese action verbs can imply changes of state in the perfective aspect, the abovementioned four types of events are not mutually exclusive, and thus Figure 5.2 includes a shaded area presenting the prototype of labile verbals. The darker the shade, the more labile the verbal is.

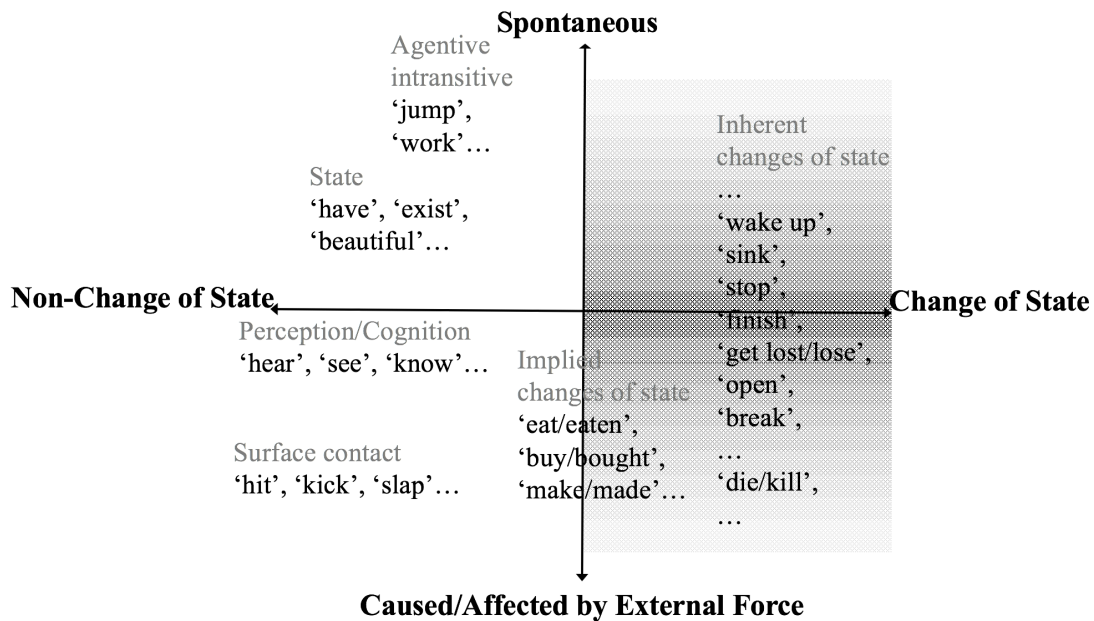


Figure 5.2. Four types of events based on two factors

#### 5.4 The Prototype of Verbal Lability and Its Extension in Chinese

As discussed in section 4.4, above, the increased prevalence of compounding in Modern Mandarin co-occurs with increased specialization of verbal characters' meanings. Some characters have lost the stative component in their verbal semantics, while others can no longer imply actions. In other words, the ability of a character to express both an action and the resultant state simultaneously has decreased over time. If one takes a causal viewpoint on lexical semantics, it appears that many verbal characters have lost their ability to express three-segment causal chains independently: their meanings are becoming more atomic, focused either on the

action or the resultant state. As such, in Modern Mandarin, non-spontaneous change-of-state events are typically denoted by resultative verb compounds. For instance, in the sphere of verbs of killing, example (36) is acceptable because 死 *si* ‘die’ is particularly oriented toward the state of the patient, whereas 杀 *sha* ‘kill’ merely indicates an action.

- (36) 琳琳 杀了 明明 三次, 明明 还是 没 死。  
Linlin **sha**-le Mingming san-ci, Mingming haishi mei **si**.  
Linlin kill-LE Mingming three-time Mingming still not die  
‘Linlin killed Mingming three times but Mingming still did not die.’

(Adapted from Tai, 1984)

Moreover, as distinct from most other languages, Modern Mandarin allows its labile verbals to have agent-oriented components, due to the existence of resultative verb compounds. In a discussion of inchoative/causative verb alternation in Indo-European languages, Haspelmath (1987, 1993) pointed out that concepts of actions involving agent-oriented meaning components, such as tools or methods, virtually never alternate between transitive and intransitive use. The contrast between ‘cut’ (involving the agent-oriented meaning component ‘by means of a sharp instrument’) and ‘tear’ were used as examples. However, in Modern Mandarin, the agent-oriented component can be expressed by the X element in a resultative ‘XY’ compound verbal. For instance, 砍断 *kan-duan* ‘cut-break = cut in two’ is labile in Modern Mandarin, and the character 砍 is formed from the radical 石 ‘stone’, absolutely encoding features of the tool.

Since many of the events in Figure 5.2 must be expressed by compound verbs or verb compounds in Modern Mandarin, contingency analysis of compound verbals will be more accurate and informative than contingency analysis of verbal characters, when one is seeking to illustrate the effects of the change-of-state and spontaneity factors. Therefore, 10 compound verbals representing a range of different event types were selected as targets and searched for in the Modern Mandarin part of Cncorpus. These 10 compounds were 认识 *ren-shi* ‘know-know =



know/be acquainted with’, 抽打 *chou-da* ‘spank-hit = spank’, 购买 *gou-mai* ‘buy-buy = buy’, 吃完 *chi-wan* ‘eat-finish’, 完成 *wan-cheng* ‘finish-accomplish = complete’, 摇晃 *yao-huang* ‘shake-sway = shake’, 凝聚 *ning-ju* ‘coagulate-accumulate = coagulate’, 拥有 *yong-you* ‘hold-have = possess’, 美丽 *mei-li* ‘beautiful-beautiful = beautiful’, and 工作 *gong-zuo* ‘work-work = work’. Tokens in which they function as predicates were coded as to whether they were used transitively or intransitively. This yielded type frequencies for the intransitive labile construction, and each construction’s percentage of faithfulness to the intransitive labile construction is shown in Table 5.7, below.

Table 5.7.

*Faithfulness to the intransitive labile construction of compound verbals*

Verbal	Token frequency	ILC Type Frequency	Faithfulness to ILC
拥有 <i>yongyou</i> ‘possess’	457	0	0.00%
抽打 <i>chouda</i> ‘spank’	30	0	0.00%
认识 <i>renshi</i> ‘know’	266	3	1.13%
购买 <i>goumai</i> ‘buy’	243	8	3.29%
吃完 <i>chi-wan</i> ‘eat-finish’	148	28	18.92%
完成 <i>wancheng</i> ‘complete’	446	132	29.60%
凝聚 <i>ningju</i> ‘coagulate’	94	47	50.00%
摇晃 <i>yaohuang</i> ‘shake’	114	66	57.89%
美丽 <i>meili</i> ‘beautiful’	103	103	100%
工作 <i>gongzuo</i> ‘work’	444	444	100%

*Note.* If the target compound verbal occurred in a token’s subject or object (including cases in which the verbal occurred independently as a modifier or in a relative clause), it was not counted for the token-frequency purpose.

From the locations of these targets on the quadrant scale of event types, it can be observed that the more labile verbals tend to display a faithfulness to the intransitive labile construction of around 50%.

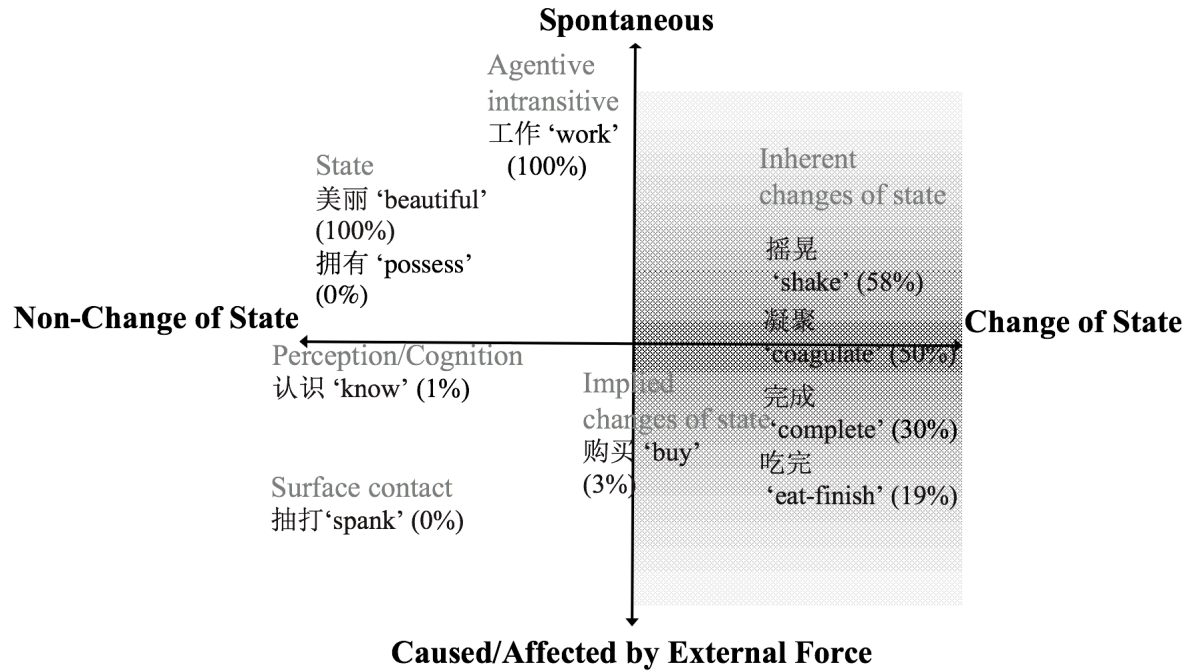


Figure 5.3. Faithfulness to the intransitive labile construction of target verbals on the quadrant scale of event types

Assuming that labile verbals constitute a radial category, its central members and peripheral members in Modern Mandarin can be identified from this analysis.

#### 5.4.1 Prototypical labile verbals

Prototypical labile verbals inherently denote change-of-state events that can commonly happen spontaneously or caused by outside forces. Representative semantic frames include:

(37) a. Phase verbs (change of state in the temporal domain):

Monosyllabic 完 *wan* 'finish', 成 *cheng* 'accomplish', 尽 *jin* 'finish', 了 *liao* 'end', etc., in Classical Chinese

Disyllabic 开始 *kaishi* ‘start’, 完成 *wancheng* ‘complete’, 结束 *jieshu* ‘finish’, 终结 *zhongjie* ‘end’, etc. in Modern Mandarin

b. Verbs of moving (change of state in the spatial domain):

动 *dong* ‘move’, 抖 *dou* ‘tremble’, 摇 *yao* ‘swing’, 晃 *huang* ‘shake’, 摆 *bai* ‘sway’, 升 *sheng* ‘ascend’, 降 *jiang* ‘descend’, 停 *ting* ‘stop’, 聚 *ju* ‘accumulate’, 散 *san* ‘disperse’, 转 *zhuan* ‘turn’ and compound verbals formed by them that do not contain agent-oriented meaning components.

Prototypical labile verbals feature comparable levels of contingency to the transitive use (including in the disposal structures and cases of object deletion) and the intransitive use. Verbs denoting these types of events are also the most likely to be labile in other languages (cf. Letuchij, 2004; Mcmillion, 2006).

#### 5.4.2 Transitive-dominated labile verbals

In comparison with prototypical labile verbals, some labile verbals are more frequently used transitively than intransitively. Verbals denoting change-of-state events that are typically caused by outside forces, and actions that bring about changes of state, belong to this group – which in Modern Mandarin is oftentimes expressed by ‘action-resultant state’ compounds. Some common semantic frames are as follows:

(38) a. Verbals of breaking:

Monosyllabic 破 *po* ‘break’, 坏 *huai* ‘break’, 碎 *sui* ‘smash’, 烂 *lan* ‘break’, etc. in Classical Chinese; 毁 *hui* ‘ruin’ and 灭 *mie* ‘extinguish’ in both Classical Chinese and Modern Mandarin

Compound verbals 破坏 *pohuai* ‘destroy’, 打碎 *da-sui* ‘break’, 打破 *da-po* ‘break’, 弄坏 *nong-huai* ‘break’, 毁灭 *huimie* ‘destroy’, etc., in Modern Mandarin

b. Creation verbals:

Monosyllabic 做 *zuo* ‘make’, 制 *zhi* ‘make’, 造 *zao* ‘produce’, 写 *xie* ‘write’, 作 *zuo* ‘make’, 画 *hua* ‘draw’, 唱 *chang* ‘sing’, 建 *jian* ‘build’, etc.

Resultative compounds 做完 *zuo-wan* ‘do-finish’, 画好 *hua-hao* ‘draw-complete’, 创作完成 *chuangzuo-wancheng* ‘create-complete’, 唱错 *chang-cuo* ‘sing-wrong’, etc.

V+VP, V+PP or descriptive complement structures 写成论文 *xie-cheng lunwen* ‘write up as a paper’, 写得精彩 *xie-de jingcai* ‘is written wonderfully’, 建在市中心 *jian-zai shizhongxin* ‘be built at downtown area’, etc.

c. Transfer verbals:

Monosyllabic 买 *mai* ‘buy’, 卖 *mai* ‘sell’, 给 *gei* ‘give’, 送 *song* ‘deliver’, 传 *chuan* ‘pass’, 放 *fang* ‘put’, 运 *yun* ‘carry’, etc.

Resultative compounds 买来 *mai-lai* ‘buy-come’, 卖完 *mai-wan* ‘sell-finish’, 卖掉 *mai-diao* ‘sell-out’, 送还 *song-huan* ‘deliver-return’, 放下 *fang-xia* ‘put-down’, etc.

VP, V+VP, V+PP or descriptive complement structures 授予琳琳 *shouyu Linlin* ‘award/be awarded to Linlin’, 送给琳琳 *song-gei Linlin* ‘give to Linlin’, 放在桌子上 *fang-zai zhuozi-shang* ‘put on the table’, etc.

Along this direction on the periphery of the radial category of lability lie verbals denoting change-of-state actions in which the theme and the agent are the same in terms of animacy, especially when both are human beings. These include compound verbals structured around 打 *da* ‘hit’, 骂 *ma* ‘scold’, 杀 *sha* ‘kill’, 表扬 *biaoyang* ‘praise’, 批评 *piping* ‘criticize’, 邀请 *yaoqing* ‘invite’ and 帮助 *bangzhu* ‘help’. Although resultant states can be expressed by compounding, sentences are usually ambiguous when these verbals are used intransitively. Readings of object deletion and of transitivity alternation are both allowed, as shown in the famous example:

(39) 鸡 不 吃 了。

Ji bu chi-le.

chick NEG eat-LE

‘The chick does not eat (anything). / The chick will not be eaten.’

(Chao, 1959)

Signaling that the only overt argument is the theme, 被 *bei* is frequently used as a device for eliminating this ambiguity. By definition, if the intransitive use of a verbal is marked, it can no longer be treated as labile.

Compared to other lability-attested languages, Chinese has an exceptionally rich repertoire of transitive-dominated labile verbals. In languages that are more morphologically developed, the intransitive use of transfer verbs, creation verbs and other action verbs tends to be marked as anticausative or passive.

### 5.4.3 Intransitive-dominated labile verbals

Some Chinese labile verbals tend to be used intransitively more often than transitively. Verbals that fall into this group include those indicating change-of-state events that typically happen spontaneously. Intransitive-dominated labile verbals do not often take prototypical themes, since spontaneity is related to agentivity (Cysouw, 2008). Specifically, if an event only involves one participant, it being spontaneous means the participant acts volitionally, in the sense that it deliberately instigates the action and has control over it, which makes it an agent (cf. O’Grady, 2013, p. 46). It is also known that agentive intransitives such as 工作 *gongzuo* ‘work’ are never used transitively in Modern Mandarin, so the subjects of intransitive-dominated labile verbals when used intransitively are neither prototypical agents nor prototypical themes. The following are some common semantic frames:

(40) a. Uncontrolled process:

Monosyllabic 沉 *chen* ‘sink’, 熔 *rong* ‘melt’, 化 *hua* ‘melt’, 醒 *xing* ‘wake up’, 干 *gan* ‘dry’, etc., and compound verbals formed by them that do not involve agent-oriented meaning components, e.g., 化开 *hua-kai* ‘melt-open= dissolve’, 沉没 *chen-mo* ‘sink-submerge = sink’, 溶解 *rongjie* ‘dissolve’, etc.

b. Change of location (controlled):

来 *lai* ‘come’, 到 *dao* ‘arrive’, 去 *qu* ‘go’ and 回 *hui* ‘return’

Along this direction of intransitive dominance, the peripheral labile verbals are 坐 *zuo* ‘sit’, 站 *zhan* ‘stand’ and 躺 *tang* ‘lie’. On the one hand, they denote volitional actions, but on the other, they can also express modes of existence, which are stative. The transitive use of them is normally referred to as locative inversion, if locative inversion is considered as a transitive structure.

(41) a. 床 上 坐 着 一 个 人。  
Chuang-shang **zuo**-zhe yi-ge ren.  
bed above sit-ZHE one-CL person  
‘There is a person sitting on the bed.’

b. 一 个 人 坐 着。  
Yi-ge ren **zuo**-zhe.  
One-CL person sit-ZHE  
‘There sits a person’.

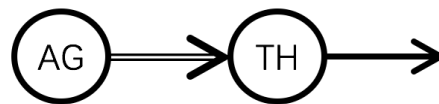
## 5.5 Change of State: The Cognitive Base of Verbal Labiality

Consistent with the assumptions of cognitive linguistics, as discussed in Chapter 2, if a state is defined as the way something exists in human construal, the following three characteristics can be formulated for this concept:

(42) I. ‘State’ is a relational notion. It cannot be conceived of without reference to something (either tangible or intangible).

- II. A state is objective, because the thing(s) that a state is in relation to must exist in some fashion (in the spatial domain, the temporal domain, or the cognitive domain).
- III. A state is subjective to human construal, and human construal of the same thing may vary from person to person and from time to time.

Accordingly, a change of state means that, on the level of human construal, something exists in a different way than it did before, entailing an initial state and a final state. A change of state can occur spontaneously or result from external force, and in human languages is typically expressed by verbals (the term *verb* is used in cognitive linguistics for any expression that profiles a process: e.g., Langacker, 2008, p. 354). So, change-of-state verbals inherently feature complex event structures; as Croft (1991, p. 173) put it, “the prototypical event type that fits this model is unmediated volitional causation that brings about a change in the entity acted on (i.e. the manifestation of the transmission of force)”. This can be represented by the following diagram, in which ‘AG’ signifies agent, and ‘TH’, theme:



*Figure 5.4.* The complex event structure of change-of-state verbs

This complex event structure automatically gives way to two competing strategies of profiling in human construal: **agent orientation** and **theme orientation**. According to Langacker (2008, p. 355), since it is difficult to attend to a complex occurrence in a global and wholly neutral fashion, attention, as a limited resource, has to be allocated. As a matter of focal prominence, **trajector** and **landmark** are the primary and secondary focal participants in a profiled relationship, and subject/object relations are grammatical manifestations of

trajector/landmark alignment. A subject is a nominal that codes the trajector of a profiled relationship, and an object is one that codes the landmark. It should be noted, however, that (i) different allocations are possible for a given structure, and (ii) the choice of trajector is a pivotal factor in canonical alignment. The key difference between the two major profiling strategies is that one aligns the trajector with the agent, and the other aligns it with the theme.

- (43) Agent and theme attract focal prominence because each has a kind of cognitive salience that sets it apart from other semantic roles in its experiential realm. Agents belong to the “active” realm – that of action, change, and force, of mobile creatures acting on the world. Here a willful human actor stands out as a paragon with respect to other active roles (like instrument, experiencer, or natural force). On the other hand, themes belong to the “passive” realm of settings, locations, and stable situations, where objects with particular properties are arranged in certain ways. The world thus constituted defines our circumstances, presents both problems and opportunities, and serves as the platform for human activity. (Langacker, 2008, p. 370)

In the complex event structure of a change of state, both participants have a chance of being profiled as the trajector, which means that each of them can be the subject of a clause: lability arises. In this sense, lability inherently hinges on change-of-state events.

Correspondingly, in a state or in an agentive intransitive event, because only one participant is involved, no alternative method of profiling is available. Meanwhile, in an event depicted by a surface-contact verb or a perception/cognition verb (without any complement), the theme does not undergo any change – and sometimes is not even affected – so the focal prominence is naturally assigned to the agent, which starts this process. However, in Modern Mandarin, surface-contact verbs and perception/cognition verbs can be endowed with lability by verb complements, which themselves are typically stative or change-of-state, insofar as these theme-oriented elements increase the chance of the theme being profiled as the trajector.



This also sheds additional light on the factor of spontaneity. A position high on the spontaneity scale generally means that a situation is not likely to be caused by external force in the human world; it thus also indicates a low chance of the agent bearing the focal prominence in construal. Conversely, a low spontaneity-scale position suggests a high probability of focal prominence being placed on the agent. This explains the reason why we saw, in section 5.3.2, that as the spontaneity of a change-of-state event increases, the faithfulness of verbs to the intransitive labile construction also increases.

Another issue that is related to the change-of-state aspect of lability involves the animacy of the agent and the theme. In general, there is a cross-linguistic tendency for agents to be animate more often than themes are. To repeat Langacker's (2008, p. 370) dictum, "a willful human actor stands out as a paragon with respect to other active roles (like instrument, experiencer, or natural force)." In the human world, we see animate entities (especially human beings) act on other things more often than inanimate entities do. This general observation is reflected extremely strongly in labile-structure pairs. In the data presented in Chapters 3 and 4, we saw that sentences with inanimate subjects accounted for 60%-70% of intransitive labile tokens, and that animate subjects mainly occurred with the reflexive 自己 *zìzì* 'self' or the reciprocal 互相 *hùhu* 'mutually'. This tendency may be ascribable to the fact that, in the human society we live in, the states of animate entities (especially human beings) are more rarely changed by external forces than those of inanimate entities are.

## 5.6 Summary and Implications

Prior cross-linguistic investigation of lability suggested (i) that it functioned as a substitute for the causative or anticausative, depending on which of the two is not

morphologically marked in a given language (Haspelmath, 1993); and (ii) that in human languages, some groups of verbs are more frequently labile than others (Letuchij, 2004). Based on quantitative data on the realizations of a number of causative/inchoative verb pairs in more than twenty languages, Haspelmath has also suggested that lability is related to change-of-state events and a spontaneity scale. However, isolating languages that lack grammaticalized causative/anticausative markers have, until now, been completely left out of this discussion.

This chapter has identified an overwhelmingly large group of labile verbals in Chinese, supporting the conjecture that languages not rich in morphology are presumably rich in verbal lability (e.g., Nichols, 1986, p. 57; Haspelmath, 1993). Nevertheless, some verbals in Chinese are more labile than others. Differing degrees of verbal lability are reflected in verb-construction contingency: verbals that are more labile, such as phase verbs, display comparable levels of faithfulness to the transitive structure and the intransitive structure; whereas verbals that are less labile have a main use and a peripheral use in respect to transitivity and intransitivity. Consistent with previous cross-linguistic findings, this chapter has shown that the degree of verbal lability in Chinese is determined by two factors: change of state and spontaneity of the event. Of these two factors, (non)change of state is the more basic, as the complex event structure it represents gives way to two competing strategies of profiling in human construal, agent orientation and theme orientation, which in turn lead to the transitive and intransitive use of a verbal, respectively. Therefore, a change of state can be described as inherent to verbal lability, and is the prototypical function of the transitive and intransitive constructions formed by labile verbals. Built upon the change-of-state factor, the contingency between labile verbals and their transitive/intransitive use is sensitive to the likelihood of spontaneous occurrence of the events

they express. If the event is more likely to occur spontaneously, the verbal will be more faithful to the intransitive use, and vice versa.

Needless to say, Chinese is not the only isolating language in the world, and data from other such languages will need to be examined as a check on the above cross-linguistic generalizations. My preliminary exploration of Vietnamese suggests that its verbal lability may also be broad in scope – or at the very least include the passive lability that Letuchiy (2009, 2015) claimed was unusual, as the following examples attest.

(44) Nhà này mua năm ngoái.  
house this buy year preceding  
This house was bought last year.

(Liem, 1969, p.11)

(45) Sách đó bán nhiều.  
that book sell much  
That book has sold well.

(Clark, 1974)

(46) Chuyện này thường nghe ở Sài Gòn.  
Story this usual hear in Saigon  
This story is frequently heard in Saigon.

(Clark, 1974)

## CHAPTER 6 CHINESE PASSIVE EXPRESSIONS: THE CHANGE-OF-STATE CONSTRUCTION (CSC) AND THE 被 *BEI* CONSTRUCTION (BEIC)

It has been suggested that the function of the intransitive labile construction is prototypically change of state, so from the perspective of function, the intransitive labile construction can be referred to as the change-of-state construction (CSC, henceforth). This finding is radically different from the traditional opinion arguing the intransitive labile construction to be a special type of passive construction without an overt passive marker (e.g., Bo & Zhan, 2006; Lu, 2004; Shi, 2003; Shi & Tang, 1999; Tang, 2006; Yang & He, 1992; Yip & Don, 2004; L. Wang, 1958/2004, p. 418-420; F. Zhou, 1961;). Aiming at this divergence, this chapter investigates the form and function of the commonly recognized passive marker in Chinese, 被 *bei*, and aligns it with the theory of verbal lability, based on which the notion of passive is revisited in Chinese.


Notably, 被 *bei* and passive expressions constitute a heatedly discussed topic in Chinese linguistics. Ever since Li Jinxi (1924/2007, p. 46) proposed the notion of passive expressions (被动表述) and linked it to the character 被 *bei*, 叫 *jiao* and 让 *rang*, numerous studies have been observed. Among some classic findings, Lv & Zhu (1952/1979, p. 60) pointed out that the use of the 被 *bei* construction was strictly constrained in the past, but many formal and functional constraints have already been broken in modern writing because of the influence of foreign languages. Based on quantitative analysis of historical data, J. Lv (1980), Y. Tang (1988) and F. Wu (2004) all argued that 被 *bei* substituted other earlier forms of passive markers (mainly 为 *wei*) in the Tang dynasty. Focusing on the convergence of passive and causative in Chinese,

Hashimoto (1987) and Norman (1982) held that Chinese passive expressions were influenced by Altaic languages, whereas L. Jiang (1999/2000), S. Jiang (2002) and Ota (2003, p.228-229) maintained that the mixed function of 叫 *jiao*/让 *rang*/给 *gei* is inherent in Chinese, independent from the language contact, and elicited evidence from Tang texts and southern dialects.

This chapter only compares CSC to the 被 *bei* construction (BEIC), without looking at other passive markers. Taking a diachronic character-based approach, this chapter traces the use of the character 被 *bei* across different historical periods and summarizes its route of grammaticalization. It is not assumed that 被 *bei* began to be used as 为 *wei* since the Tang dynasty as 被 *bei* and 为 *wei* exhibit distinct semantic prototypes and developed their own polysemy networks as two discrete characters.

### 6.1 Emergence of the 被 *Bei* Construction (BEIC) in Chinese

Albeit considered to be the passive construction in Mandarin Chinese, the history of the 被 *bei* construction is much shorter than that of CSC (see Chapter 3). From the historical character-based approach, the so-called Chinese passive marker, 被 *bei*, actually underwent a complicated process of grammaticalization. It started out as a noun indicating ‘quilt, cover’. According to the etymological dictionary, *Shuowenjiezi* ‘*The Explanation of Simple Graphs and Analysis of Compound Graphs*’ compiled by 许慎 Xu Shen (30 BC – 124 BC), the seal style and the explanation of 被 *bei* is as follows:

- (1)  ,寝衣,长一身有半。从衣皮声。  
‘被, quilt, as long as one and half person’s height. (Meaning) from 衣 ‘clothes’ and phonetic 皮 *pi*.’

This meaning is illustrated in the following examples:

- (2) 翡翠珠被，烂齐光些。  
Fei cui zhu **bei**, lan qi guang xie.  
jadeite pearl quilt radiant neat shine SFP  
'Quilts are embedded with jadeite and pearls, neat, radiant, and shining.'  
(Pre-Qin • 《楚辞·招魂》)
- (3) 被文服纤，丽而不奇些。  
**Bei** wen fu xian li er bu qi xie.  
quilt embroidered clothes fine silk beautiful CONJ NEG strange SFP  
'Quilts are embroidered and clothes are made of fine silk, beautiful but not strange.'  
(Pre-Qin • 《楚辞·招魂》)
- (4) 好儒学，被服造次必于儒者。  
Hao ru xue, **bei** fu zaoci bi yu ruzhe.  
like Confucianism quilt clothes behavior must follow Confucian  
'(Wang De) likes Confucianism. His quilt, clothes, and behavior must follow that of Confucians.'  
(Han • 《史记》卷五)

Related to its 'cover' meaning, 被 *bei* was also the word for 'cloak':

- (5) 右尹子革夕，  
Youyin Zige xi,  
Youyin (Title) Zige (Name) have an audience with the King in the evening,  
王见之，去冠、被，舍鞭.....  
wang jian zhi, qu guan, **bei**, she bian...  
King see 3 remove cap cloak put away whip  
'Youyin Zige had an audience with the King in the evening. The King came to meet him. Zige removed his cap and cloak, and put away his whip.'  
(Pre-Qin • 《左传》)

At the same time, 被 *bei* was also found used as a verb denoting 'to cover':

- (6) 光被四表，格于上下。  
Guang **bei** si biao, ge yu shang xia.  
light cover four far-away directions reach to above below  
'Light (of the King) reaches everywhere.'  
(Pre-Qin • 《今文尚书·尧》)
- (7) 以其烟被之，则凡水虫无声。  
Yi qi yan **bei** zhi, ze fan shui chong wu sheng.  
with DEM smoke cover 3 CONJ any water insect no sound  
'Cover the water with its smoke, then no water insect stridulates any more'  
(Pre-Qin • 《周礼》)

It can be noticed in examples (6) and (7) that there are themes expressed overtly after 被 *bei*, and the subjects, if there are any, are agent-like. However, almost in the same period of time, an alternative possibility can also be observed:

- (8) 盖 闻 善 摄 生 者, …… , 入 军 不 被 甲 兵。  
 Gai wen shan she sheng zhe, ... ru jun bu **bei** jia bing.  
 SIP hear good at hold life person join army NEG suffer armor soldier  
 ‘I heard those who are good at holding life... never suffer from army after joining army.’  
 (Pre-Qin • 《老子》五十章)
- (9) 何 贞 臣 之 无 罪 兮, 被 离 谤 而 见 尤。  
 He zhen chen zhi wu zui xi, **bei** li bang er jian you.  
 why royal minister ZHI NEG crime SFP undergo suffer slander CONJ meet blame  
 ‘Why royal ministers are innocent but suffer from slander and blame?’  
 (Pre-Qin • 《楚辞·惜往日》)
- (10) 幼 被 慈 母 三 迁 之 教。  
 You **bei** ci mu san qian zhi jiao  
 childhood undergo kind mother three times move ZHI education  
 ‘(Mencius) underwent the situation that his kind mother moved three times to better his education.’  
 (Pre-Qin • 《孟子·题辞》)

Unlike the ‘to cover’ sense presented before, the subjects placed before 被 *bei* in examples (8-10) can hardly be interpreted as agents, but semantically closer to themes, indicating the entities being covered. Therefore, the 被 *bei* in these sentences is translated as ‘suffer/undergo/receive’. At this stage, 被 *bei* displayed the same property as the converse lability discussed in section 5.2.3, with ‘A 被 *bei* B’ and ‘B 被 *bei* A’ expressing the same situation. In fact, this property is preserved in lexicalized structures (idioms), such as 泽被苍生 *zebeicangsheng* ‘spread all-round benefit to the people’ and 被泽蒙庥 *beizemengxiu* ‘receive benefit and protection’. According to H. Zhang (2005), from 泽被... *ze bei* ... ‘benefit covers ...’ to ...被泽 ... *bei ze* ‘... be covered with benefit’, the construal of 被 *bei* has been mapped on to the subjective domain of perception from its original spatial domain, therefore 被

*bei* is no longer an action verb but involves speakers' conceptualization of being affected. This feature further gives rise to the '被*bei* + V/VP' structure, which was formed no later than the Qin Dynasty.

- (11) 国 一 日 被 攻, 虽 欲 事 秦, 不 可 得 也。  
 Guo yi ri **bei** gong sui yu shi Qin, bu ke de ye.  
 country one day BEI assault even though want serve Qin (a state) NEG can get SFP  
 'When one day the state is assaulted, you will not be able to serve Qin anymore even though you want to.'  
 (Han • 《战国策·齐策》)
- (12) 信 而 见 疑, 忠 而 被 谤, 能 无 怨 乎?  
 Xin er jian yi, zhong er **bei** bang, neng wu yuan hu?  
 faithful CONJ see suspect loyal CONJ BEI slander can no resentment QUES  
 'Faithful but suspected, loyal but slandered, how to be free from resentment?'  
 (Han • 《史记·屈原列传》)

见*Jian*'see' in example (12) is typically known as a passive marker in Old Chinese (L. Wang, 1984, p. 420). Appearing to be its counterpart, 被*bei* in (12) is also treated by as a passive marker (cf. A. Zhao, 2009), and the structure in examples (11) and (12) appears to be exactly identical to the agentless 被*bei* construction we see in Modern Mandarin. Ever since this period, the frequency of the 'X + 被*bei* + event' structure, in which X semantically can be perceived as an affectee and the event can be expressed by verbs (or verb phrases, shortened as VP henceforth), the 'agent + VP' structures, or complete clauses, have been constantly rising (see section 6.2). Therefore, 被*bei* gradually gained the status of the most recognized Chinese passive marker.

The functional evolution of the character 被*bei* is illustrated in the following figure:



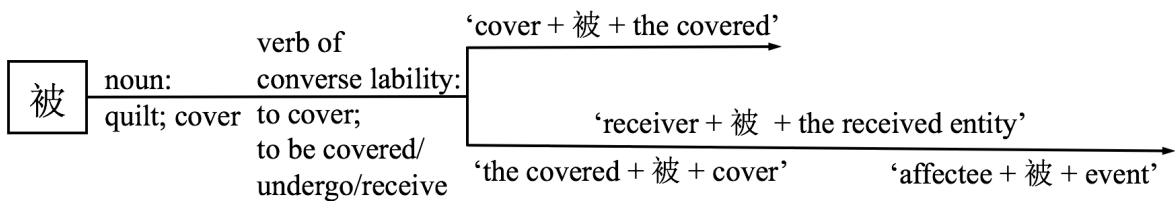


Figure 5.1. The functional evolution of the character 被

In sum, the ‘affectee + 被 *bei* + event’ structure (the 被 *bei* construction, shortened to BEIC henceforth<sup>17</sup>) is originally derived from the converse lability of 被 *bei*. As is discussed in Chapter 5, the prototypical function of labile constructions is change of state. In this sense, BEIC bears a close relationship to CSC in its origin.

Cross-linguistically, it has been noticed that the passive makers in many languages are grammaticalized from verbs of ‘receiving’ (cf. O’Grady, 2013, p. 149):

(13) English:

Harvey **got** arrested by the FBI.

(14) Welsh (a Celtic language spoken in Wales):

**Cafodd** Wyn ei rybuddio gan Ifor.  
get Wyn his warning by Ifor  
‘Wyn was warned by Ifor.’

(Keenan, 1985, p. 259)

(15) Tzeltal (a Mayan language of Mexico):

La y-**ich’** utel (yu’un s-tat) te Ziak-e.  
PST he-receive bawling out (because his father) DET Ziak-DET  
‘Ziak got a bawling out (from his father).’

(Keenan, 1985, p. 259)

Thus the grammaticalization of 被 *bei* from a labile verb to a so-called ‘passive marker’ can also be situated in a cross-linguistic background.

<sup>17</sup> In this dissertation, if not specified, the 被 *bei* construction primarily refers to the ‘X + 被 *bei* + VP’ structure without an agent.

## 6.2 Diachrony of 被 *Bei* and BEIC

In order to trace the historical development of the character 被 *bei* and BEIC, corpus data from three historical periods are investigated. To be consistent with my investigation of CSC (referred to as the intransitive labile construction in Chapter 3 and Chapter 4), pre-Qin texts are chosen as the representative of Old Chinese, Tang texts for Middle Chinese, and Ming texts for Early Mandarin. For each historical period, the character 被 *bei* is searched for tokens in all texts available in Cncorpus (语料库在线 *Yuliaoku Zaixian*). I coded all the tokens (if more than 500 tokens were collected, 500 tokens were randomly selected for coding) to identify the function of 被 *bei*: whether it functions as a noun, a verb denoting ‘cover’, a verb denoting ‘receive’, or the marker of BEIC denoting affectedness. Tokens of BEIC are further coded with regards to the animacy of the subject, and the structure of the element that expresses the event (i.e., a VP, an ‘agent + VP’ structure, or a clause). If the event is expressed by a VP, the head of it is coded to identify the semantic frame.

### 6.2.1 被 *Bei* and BEIC in the pre-Qin period (Old Chinese)

136 tokens containing the character 被 *bei* are collected from pre-Qin texts in Cncorpus. 被 *Bei* appears in persons’ names or as phonetic loan characters in 14 tokens (10.29%). The noun 被 *bei* ‘cover; quilt; cloak’ occurs in ten tokens (7.35%), whereas the verb 被 *bei* ‘to cover; to impose’ occurs in 19 tokens (13.97%). 被 *Bei* in 93 tokens (68.38%) needs to be understood as a verb denoting ‘be covered; receive’, as in the following examples:

- (16) 被            褐            而    出，衣        锦        而    入。  
    **Bei**            he            er    chu, yi        jin        er    ru.  
    be covered coarse hempen garments CONJ go out wear brocade gown CONJ enter  
    ‘Go out in coarse hempen garments. Go in wearing a brocade gown.’

(《吕氏春秋》)

- (17) 生 有 纵 欲 之 欢, 死 被 愚 暴 之 名。  
 Sheng you zong yu zhi huan, si **bei** yu bao zhi ming.  
 alive have indulge lust ZHI happiness die receive foolish inhuman ZHI name  
 ‘Enjoy the fleshly happiness when. Receive a name of foolish and inhuman after death.’  
 (《列子》)
- (18) 管 夷吾 被 囚。  
 Guan Yiwu **bei** qiu.  
 Guan Yiwu undergo prisoner  
 ‘Guan Yiwu is imprisoned.’  
 (《列子》)

It can be noticed from examples (16), (17) and (18) that, the meaning of 被 *bei* is becoming increasingly abstract from 被褐 *bei he* ‘be covered by coarse hempen garments’ to 被愚暴之名 *bei yu bao zhi ming* ‘receive a name of foolish and inhuman’, and further to 被囚 *bei qiu* ‘be imprisoned’. In fact, 囚 *qiu* can be a noun denoting ‘prisoner’, or a verb denoting ‘imprison’ at that time. If 囚 *qiu* in (18) is interpreted as a verb, the structure of (18) is exactly BEIC. The same interpretation is also possible for four other tokens, i.e., 被攻 *bei gong* ‘receive attack/ be attacked’, 被创 *bei chuang* ‘receive damage/ be wounded’, 被刑 *bei xing* ‘undergo torture/ be tortured’ and 被疑 *bei yi* ‘undergo suspicion/ be suspected’. However, no token has been captured taking the structure of ‘被 *bei* + pure verb/verb phrase/clause’, suggesting that BEIC is still not mature during this period of time.

Therefore, 被 *bei* is primarily a noun and a labile verb (‘cover/receive’) in the pre-Qin period. Moreover, a continuous process of the grammaticalization of 被 *bei* can clearly be observed in corpus data, and BEIC began to germinate from its ‘receive’ sense.

## 6.2.2 被 *Bei* and BEIC in the Tang dynasty (Middle Chinese)

A sample of 500 tokens containing 被 *bei* is collected from Tang texts and coded. Amid them, 被 *bei* occurs as persons' names or as phonetic loan characters in 33 tokens (6.6%), and occurs as a noun in 35 tokens (7%). The status of a labile verb has been preserved: 被 *bei* needs to be interpreted as 'to cover' in 21 tokens (4.2%), exemplified in (19) and (20); whereas in 66 other tokens (13.2%) 被 *bei* can only be understood as 'be covered' or 'receive', exemplified by (21) and (22):

- (19) 流 血 被 地, 气 遂 绝。  
Liu xie **bei** di, qi sui jue.  
flow blood cover ground breath CONJ finish  
'The flowing blood covers the ground and (the person) expired.'  
(《大唐新语》)
- (20) 牛 羊 被 野, 路 不 拾 遗。  
Niu yang **bei** ye, lu bu shi yi.  
cow sheep cover field road NEG pick up lost thing  
'Cow and sheep cover the field and the lost things are not picked up on the road.'  
(《大唐新语》)
- (21) 有 一 人 被 黑 衣, 颈 长 而 身 甚 广。  
You yi ren **bei** hei yi, jing chang er shen shen guang.  
TOP one person be covered black clothes neck long CONJ body quite wide  
'One person wore black clothes. The neck is long and the body is quite wide.'  
(《广异记》)
- (22) 汉高祖 ..... 前 后 被 七 十 二 箭。  
Han Gaozu qian hou **bei** qishi'er jian.  
the Emperor Gaozu of Han front back receive seventy-two arrow  
'The Emperor Gaozu of Han was shot by seventy-two arrows in the front and back.'  
(《独异志》)

BEIC is captured in 344 tokens (68.8%), wherein the elements denoting the events take three types of structures: verbs (or verb phrases), the 'agent + verb (phrase)' structures, or complete clauses.

In 165 tokens of BEIC (33%), it is VP that expresses the event affecting the affectee. 124 tokens take human subjects as affectees, and other animate subjects are seen in 14 tokens,

whereas only 27 tokens begin with inanimate subjects. Semantic frames of the verbs (or the heads of verb phrases) range from inherent change-of-state verbs (in 29 tokens, including emotion verbs) and action verbs that imply change of state in the perfective aspect (in 56 tokens) to action/cognition verbs that do not imply change of state whatsoever (in 80 tokens). Moreover, there are resultative complements following the verbs (of all semantic classes) in 26 tokens.

Examples are as follows:

- (23) 阿娘 被 问 来 由, 不 觉 心 中 欢 喜。  
 Aniang **bei** wen lai you, bu jue xin zhong huanxi.  
 nanny BEI ask reason unconsciously heart in happy  
 ‘When the nanny was asked the reason, she could not help feeling happy.’  
 (《敦煌变文》)
- (24) 父 兄 被 杀, 不 可 不 讎。  
 Fu xiong **bei** sha, bu ke bu chou.  
 father brother BEI kill NEG can NEG hate  
 ‘Father and brother are killed. (The person) has to hate.’  
 (《伍子胥变文》)
- (25) 雀 儿 被 吓 胆 碎。  
 Quer **bei** xia dan sui.  
 sparrow BEI scare gallbladder break into pieces  
 ‘The sparrow was so scared that its gallbladder broke into pieces.’  
 (《敦煌变文》)

It is noteworthy that among these 165 tokens in which VP that express the events, 14 of them denote designation, including 被遣 *bei qian* ‘BEI dispatch’, 被配 *bei pei* ‘BEI banish’, 被征 *bei zheng* ‘BEI draft’, 被放 *bei fang* ‘BEI exile’, and 被黜/废黜/放黜 *bei chu/feichu/fangchu* ‘BEI dismiss’.

Beside VP, the events can also be expressed by the ‘agent + verb (phrase)’ structures (in 116 tokens, 23.2%), or complete clauses (‘subject + verb + object’ structure, in 63 tokens, 12.6%), exemplified by the following examples:

- (26) 子胥 被 妇 识认。  
 Zixu **bei** fu shiren.  
 Zixu BEI woman recognize  
 ‘Zixu was recognized by the woman.’  
 (《伍子胥变文》)
- (27) 若 非 侠 客 怀 冤, 定 被 平 王 捕捉?  
 Ruo fei xiake huai yuan, ding **bei** Ping Wang puzhuo?  
 if NEG swordsman keep in mind injustice must BEI the Emperor Ping capture  
 ‘If the swordsman did not keep the injustice in mind, (he) must be captured by the Emperor Ping.’  
 (《伍子胥变文》)
- (28) 李子敖 被 鸣 鹤 吞 之。  
 Li Zi’ao **bei** ming he tun zhi.  
 Li Zi’ao BEI chirping crane swallow 3  
 ‘Li Zi’ao was swallowed (him) by the chirping crane.’  
 (《搜神记》)
- (29) 孙 象 竟 被 族 诛。  
 Sun Xiang jing **bei** zu zhu.  
 Sun Xiang unexpectedly BEI clan kill  
 ‘Sun Xiang had his clan killed (by somebody else).’  
 (《大唐新语》)
- (30) 每 被 孩儿 夺 母 食 ……  
 Mei **bei** hai’er duo mu shi ……  
 every time BEI kid take by force mother food  
 ‘Every time (it happens to a person that) his kid took his mother’s food by force…’  
 (《敦煌变文》)

These types of structures are not seen in pre-Qin texts, suggesting that 被 *bei* has been further grammaticalized with its meaning more abstract than before. It also needs to be noted that in (28), (29) and (30), the elements following 被 *bei* are complete clauses. In (28), there is a pronoun 之 *zhi* in the clause following 被 *bei* as the anaphor of the affectee, 李子敖 Li Zi’ao. In (29) and (30), the subjects clearly do not bear any theta-selectional relationships with the verbs in the clauses: their relation to the embedded clauses is completely a matter of pragmatic construal.

### 6.2.3 被 *bei* and BEIC in the Ming dynasty (Early Mandarin)

Continuing with the investigation of 被 *bei* and BEIC in Tang texts, a sample of 500 tokens containing 被 *bei* are collected from Ming texts and coded. It still occurs as a noun denoting ‘cover’ in 35 tokens (7%), but the verb use denoting ‘to cover/receive’ is no longer seen. Therefore, 465 tokens take the form of BEIC. Inherited from Middle Chinese, the elements following 被 *bei* in BEIC take three types of structures: VPs, the ‘agent + VP’ structures, or complete clauses.

VPs express the events that affect the affectees in 93 tokens (18.6%). 80 of them take human subject as affectees, whereas inanimate subjects are seen in 13 tokens. Verbs (or the heads of the VPs) are inherently change-of-state in nine tokens (e.g., 关 *guan* ‘close’, 禁 *jin* ‘imprison’ and 污 *wu* ‘smudge’), imply change of state in the perceptive aspect in 41 tokens (e.g., 擒 *qin* ‘capture’, 掳 *lu* ‘capture’ and 捆 *kun* ‘bind’), and do not express change of state in 43 tokens (e.g., 强 *qiang* ‘force’, 殴 *ou* ‘beat’ and 打 *da* ‘hit’). There are resultative complements following the verbs (of all semantic classes) in 36 tokens. Examples of different types are as follows:

- (31) 我 是 犯 罪 被 禁 之 人。  
Wo shi fan zui **bei** jin zhi ren.  
1SG am commit a crime BEI imprison ZHI person  
‘I am a person who committed a crime and get imprisoned.’

(《初刻拍案惊奇》)

- (32) 两 个 人 被 缚 在 柱 子 上 一 日 了。  
Liang-ge ren **bei** fu zai zhuzi shang yi ri le.  
two-CL person BEI bind at pillar on one day LE  
‘The two persons have been bound to the pillar for one day.’

(《初刻拍案惊奇》)

- (33) 小 孩子**被** 打 得 疼 了。  
 Xiao haizi **bei** da de teng le.  
 little kid BEI hit DE hurt LE  
 ‘The little kid hurts by getting hit.’

(《二刻拍案惊奇》)

Verbs of designation are seen in three tokens, specifically 被召 *bei zhao* ‘BEI summon’, 被逐 *bei zhao* ‘BEI drive out’, and 被差遣 *bei chaiqian* ‘BEI dispatched’.

In line with the data of Tang texts, the events can also be expressed by the ‘agent + VP’ structures (in 331 tokens, 66.2%), or complete clauses (‘subject + verb + object’ structure, in 40 tokens, 8%), exemplified by the following examples:

- (34) 刘 元 普.....**被** 两 人 用 手 一 推。  
 Liu Yuanpu... **bei** liang ren yong shou yi tui.  
 Liu Yuanpu BEI two person use hand one push  
 ‘Liu Yuanpu was given a push by two persons.’

(《初刻拍案惊奇》)

- (35) 新 人 正 待 叫 喊, 却 **被** 小 人 关 好 了 后 门。  
 Xin ren zheng dai jiaohan, que **bei** xiao ren guan hao le hou men.  
 new person just about to call unexpectedly BEI little man close-good-LE back door  
 ‘The new person was just about to call, but had the back door closed (for him) by the little person.’

(《二刻拍案惊奇》)

In example (35), the theta-grid of the the verb 关 *guan* ‘close’ has already been filled by an agent (小人 *xiaoren* ‘little person’) and a theme (后门 *houmen* ‘back door’) in the embedded clause. The subject of BEIC, 新人 *xinren* ‘the new person’ does not bear any relationship with the clause following 被 *bei* syntactically. Instead, it is merely affected by the event denoted by the clause in pragmatic construal.



## 6.2.4 Summary of the diachrony of 被 *bei* and BEIC

The proportions of the meanings/functions of 被 *bei* in the collected tokens of the three historical periods are aggregatedly presented in Table 6.1.

Table 6.1.

*Proportions of the meanings/functions of 被 *bei* in three historical periods*

Historical period	Noun 'cover'	Verb 'to cover'	Verb 'be covered/ receive'	BEIC		
				... 被+ VP	... 被+ agent + VP	... 被+ clause
Pre-Qin	7.35%	13.97%	68.38%	0%	0%	0%
Tang dynasty	7%	4.2%	13.2%	33%	23.2%	12.6%
Ming dynasty	7%	0%	0%	18.6%	66.2%	8%

It can be seen from Table 6.1 that the noun use of 被 *bei* has been fairly stable, whereas its verb use has been continuously shrinking, and generally disappeared by the Ming dynasty. After its emergence, BEIC can take three types of structures to express the events that affect the affectees: verbs (or verb phrases), the 'agent + V/VP' structures, or complete clauses, among which the 'agent + verb (phrase)' structures were becoming progressively frequent from the Tang dynasty (Middle Chinese) to the Ming dynasty (Early Mandarin). The development of the meaning/function of 被 *bei* clearly illustrates a continuous process of grammaticalization.

Specific to the BEIC taking form of 'affectee + 被 *bei* + VP', it is not seen a strict constraint regarding the semantics of VP: the VP can be change-of-state (expressed by bare verbs or compound verbals) or not. However, verbs of designation have been considerable in frequency. In terms of the affectee-subject, there is a strong tendency for it to be a human being.

### 6.3 Historical Distributions of CSC and BEIC

It is mentioned in Chapter 3 and section 6.1 that CSC is one of the most ancient constructions in Chinese, whereas BEIC emerged around the Qin Dynasty. In the small corpus of pre-Qin texts used for the investigation of CSC (*Mencius* and tokens of six target verbs), I do not find a single token of BEIC. CSC and BEIC co-occur in my samples of the Tang dynasty (ten *Chuanqi* stories and tokens of eight target verbs), and the Ming dynasty (four *Sanyan* stories and tokens of nine target verbs). However, the overall frequency of BEIC is extremely low compared to CSC.

In the ten *Chuanqi* stories of the Tang dynasty, BEIC is only found in two tokens, including one agentless BEIC (i.e. 被杀 *bei sha* ‘BEI kill’) and the other one with an agent (i.e., 被尼拏 *bei ni qie* ‘BEI the Buddhist nun lift’). In the data of the eight target verbs (i.e., 助 *zhu* ‘help’, 买 *mai* ‘buy’, 听 *ting* ‘listen’, 弃 *qi* ‘give up’, 削 *xue* ‘cut down’, 备 *bei* ‘prepare’, 聚 *ju* ‘accumulate’ and 弑 *shi* ‘slay (the King)’), only 弃 *qi* ‘give up’ has been observed in BEIC (three tokens), such as:

- (36) 明 珠 被 弃 捐。  
Ming zhu **bei** qi juan.  
bright pearl BEI discard abandon  
‘The bright pearls get discarded and abandoned.’

(《投珠于泉》)

- (37) 纵 被 无情 弃, 不 能 羞。  
Zong **bei** wuqing qi, bu neng xiu.  
even if BEI ruthless discard NEG can shame  
‘Even if (I) get discarded ruthlessly, I will not feel ashamed.’

(《思帝乡》)

The frequency of BEIC significantly increased in the data of the Ming dynasty, but the majority of them contain overt agents, echoing the finding of section 6.2. In the four *Sanyan* stories 48 tokens of BEIC are collected. Admist them only five tokens are agentless (i.e., 被骂

*bei ma* ‘BEI scold’, 被逼 *bei bi* ‘BEI force’, 被擗掇 *bei cuanduo* ‘BEI urge’, 被缠 *bei chan* ‘BEI badger’ and 被盜 *bei dao* ‘BEI steal’). The type frequencies of BEIC in the tokens of nine target verbs are shown in Table 6.2, with the CSC type frequencies also presented for comparison:

Table 6.2.

*Type frequencies of BEIC for each verbal character in Ming texts*

Verb	CSC Type Frequency	BEIC (Agentless) Type Frequency	BEIC (with Agent) Type Frequency	Token Frequency
助 ‘help’	1	0	0	604
听 ‘listen’	9	0	2	699
买 ‘buy’	29	0	2	869
弑 ‘slay (the King)’	3	2	1	47
弃 ‘discard’	73	0	0	811
备 ‘prepare’	66	0	0	426
削 ‘cut down’	17	0	0	96
完 ‘finish’	124	0	1	299
聚 ‘accumulate’	203	0	0	426

Two tokens of the agentless BEIC are as follows:

(38) (金海陵) 被 弑 于 瓜 洲。

(Jin Hailing) **bei shi** yu Guazhou.

Jin Hailing BEI slay at Guazhou

‘(Jin Hailing) was slayed at Guazhou.’

(《醒世恒言》)

(39) 后 帝 幸 江 都 被 弑。

Hou di xing Jiangdu **bei shi**.

later on emperor visit Jiangdu BEI slay

‘Later on, the emperor visited Jiangdu and got slayed.’

(《醒世恒言》)

If we analyze the distributional characteristics of BEIC, as compared to CSC, some major deviations can be observed. In the first place, it is generally agreed that BEIC has an apparent

negative/inflictive emotional connotation (cf. L. Wang, 1943/1985, p. 353; Lv & Zhu, 1952/1979, p. 60, among others), which is also reflected in previous examples. It has been mentioned in Chapter 5 that the subject in CSC is predominantly inanimate. However, in our tokens of agentless BEIC, the vast majority take human beings as subjects (124/165, 75.15% in the sample from Tang texts; 80/89, 86.02% in the sample from Ming texts). When it comes to verbal semantics, CSC is prototypically formed by change-of-state verbs by definition, whereas verbs of various semantic frames have been captured in BEIC (cf. Section 6.2). The distributional characteristics of BEIC versus CSC are summarized in Table 6.3.

Table 6.3.

*Historical distributions of CSC and BEIC*

	CSC	BEIC
Emotional Connotation	Neutral	Negative/Inflictive
Overall Frequency	Relatively high	Much lower
Animacy of Subject	Prototypically inanimate	Prototypically human
Verbal Semantics	Change-of-state	Diverse (transitive)

#### **6.4 Europeanization of Chinese and the Expansion of BEIC**

It has been shown that from Old Chinese to Early Mandarin, the overall frequency of BEIC is extremely low compared to CSC. A change happened to this situation around the 1910s, with the Europeanization of Chinese grammar. As an effect of language modernization, Modern Mandarin internalized some Indo-European grammatical features (L. Wang, 1958/2004, p. 35), and the frequency of BEIC increased abruptly around this period.

#### 6.4.1 Language modernization and Europeanization of Chinese grammar since the 1910s

A widely cited definition of language modernization is:

- (40) The process by which (a language becomes) the equal of other developed languages as a medium of communication; it is in a sense the process of joining the world community of increasingly intertranslatable languages recognized as appropriate vehicles of modern forms of discourse. (Ferguson, 1968)

Sridhar (1988) elaborated on this definition by highlighting the point that the criterion of “success” involves an external reference point “other developed languages”, rather than a language- (or culture-) internal one of, say “serving as the adequate vehicle for the expression of the current ideas of its speakers” (e.g., in the domain of computers), or an omnibus one, such as, “being able to express the ideas of modern society”. He referred to the notion of “intertranslatability with developed languages” as an exoglossic criterion, which distinguishes the modernization of the languages of developing societies (such as the languages of Asia and Africa) and the less developed languages of developed countries (such as Basque) from routine language change characteristic of all languages.

Under the big umbrella of language modernization study, considerable body of literature has been published focusing on Indian languages (e.g., D’douza, 1986; Sridhar, 1988), Hungarian (e.g., Gabor, 1998; Horvath, 1990), Japanese (e.g., Harada, 2015; Lippert, 2001), Chinese (e.g., Lippert, 2001; Shen, 2011; Y. Zhou, 1986), etc. For example, after comparatively examining the modernization and the shift of written languages in eighteenth-century Britain and in nineteenth-century Japan, Harada (2015) proposed a general process of language modernization: the initial phase of the shift was carried out by private individuals like authors, journalists and translators, and then, the written form invented by them became public and contributed to making canons through print culture and education—a private to public form is

followed. According to him, language modernization happens as a shift of the written form of a language to adapt to the written culture of the new society.

Harada's (2015) model is distinct from conventional models of language contact centered around spoken languages (cf. Thomason & Kaufman, 1988), and can hardly be aligned with language planning or language policy driven by governments either. However, it seems applicable to the Europeanization of Chinese since the New Culture Movement of the mid 1910s and the 1920s.

Faced with unprecedented social problems in the 1910s, Chinese scholars were keen to identify the evils responsible for the deplorable state of China, and language was among their targets. It was repeatedly suggested that Chinese expressions are not accurate for complex logic. For example, Lu Xun (1931) claimed, "the written or spoken language of Chinese is definitely too not precise (中国的文或话，法子实在太不精密)". Based on this perception, quite a few of scholars called for the Europeanization of Chinese. For example:

(41) 要想使我们的白话文成就新文学，唯有应用西洋修辞学上的一切质素，使得国语文法欧化。

'If we want to accomplish new literature through our standard written Chinese, qualities of Western languages must be adopted completely to make Chinese grammar Europeanized.'

(Fu Sinian, 1918)

Hu Shih explained the advantages of "Europeanized written Chinese":

(42) (欧化白话文)充分吸收西洋语言的细密的结构,使我们的文字能够传达复杂的思想,曲折的理论。只有欧化的白话文才能够应付新时代的需要。

'(Europeanized written Chinese) inherits the precise structure of Western languages, making our characters able to convey complex thoughts and profound theories. Nothing but Europeanized written Chinese can meet the needs of the new era.'

(Hu Shih, 1917)

At the same time, foreign texts began to be translated and published in China on a large scale. According to L. Liu (1995, p. 19), Yan Fu's interpretive translation of Thomas Huxley's *Evolution and Ethics* (1898) and other Western texts brought about an enormous impact on China and helped fashion an entire generation of Chinese intelligentsia. In literature, Lin Shu's immensely popular renderings of over a hundred foreign works into literary Chinese predated the publication of Lu Xun's first modern short story (1918) by many years (Lee, 1973, p. 44). Literary historian A Ying (Qian Xingcun) estimates that of the at least 1500 published works of fiction in the last decade of the Qing dynasty, two-thirds are translations of foreign literature and many are English and French works.

Dissatisfaction with the traditional Chinese written language and the great popularity of translated texts brought about a dramatic change to the written Chinese grammar used by authors and journalists, who were typically first established through translation work, such as Chen Duxiu, Guo Moruo, Hu Shih, Lu Xun, etc. The Chinese linguist, Wang Li, commented that (1944/1984, p. 434) the grammar change occurred from the 1910s to the 1940s is no less than that observed from the Han dynasty (202 BCE) to the Qing dynasty (1912). Therefore, he introduced the notion "Europeanized grammar":

(43) 最近二三十年来，中国受西洋文化的影响太深了，于是语法也发生了不少的变化。这种受西洋语法影响而产生的中国新语法，我们叫他做欧化的语法……咱们对于欧化的语法，用不着赞成，也用不着反对。欧化是大势所趋，不是人力所能阻隔的；但是，西洋语法和中国语法相离太远的地方，也不是中国所能勉强迁就的。

'During the recent two or three decades, the impact of Western culture on China has been so profound that grammar has also been changed remarkably. For this new Chinese grammar formed under the impact of Western grammar, let's call it Europeanized grammar... We really do not need to support or reject Europeanized grammar insofar as it is irreversible as

well as limited: Europeanization is a general trend that cannot be stopped by human beings, but it is also impossible for Chinese to cater Western grammar in many places because of many ungapable differences.’ (1943/1985, p. 334)

The Europeanized Chinese grammar, to a large extent, was later accepted as the grammatical standards for *Putonghua* (modern standard Mandarin). In this sense, the modern Chinese language can be seen as “invented” in the recent 100 years (L. Liu, 1995, p. 1).

#### 6.4.2 Expansion of BEIC since the 1910s

Wang Li (1943/1985, p. 334-359, 1944/1984, p. 433-502, 1958/2004, p. 462-472) conducted a comprehensive study of the Europeanization of Chinese grammar. The phenomena he noted include the systematic use of subjects, pronouns and copulas, the increased length of Chinese sentences, especially in the modifiers, the expansion of the function of BEIC, the Europeanization of coordination strategy of nouns, the emergence of indefinite articles, and so forth. Particular to BEIC, he (1943/1985, p. 353) pointed out that the traditional BEIC is usually suggestive of negative or inflictive events, and not all statements can undergo passivization using 被 *bei*. However, this restriction is loosened in modern Europeanized grammar. Chinese writers, especially translators, began to use 被 *bei* whenever passive voice is employed in Western languages. The examples he listed include 被选为会长 *bei xuan-wei huizhang* ‘be elected as chair’, 被释放 *bei shifang* ‘be released’, 被重用 *bei zhongyong* ‘be put in an important position’.

Wang’s observation laid the groundwork for a series of corpus-based diachronic studies focusing on the function of BEIC (e.g., He, 2008; Kubler, 1985; Peyraube, 2000; Tsao, 1978),



most of which, except for Peyraube (2000)<sup>18</sup>, support Wang’s claim. For example, He (2008) investigated the semantic mode of BEIC in vernacular literature from the 1600s to 1902, and in a corpus comprising of 1.75 million characters with different genres after the 1920s. The results are shown in Table 6.4, below.

Table 6.4.

*Distributions of semantic modes of the 被bei construction (He, 2003)*

Source	Time	Negative	Neutral	Positive	Total
《西游记》 ‘Journey to the West’	1600s	586/95.4%	19/3.1%	9/1.5%	614
《儒林外史》 ‘The Scholars’	1800s	98/98.0%	2/2.0%	0/0.0%	100
《红楼梦》 ‘Dream of the Red Chamber’	1800s	209/88.2%	24/10.1%	4/1.7%	237
《儿女英雄传》 ‘The Story of Hero Boys and Girls’	1900s	156/89.1%	16/9.1%	3/1.7%	175
《二十年目睹怪现状》 ‘Bizarre Happenings Eyewitnessed over Two Decades’	1902	301/91.2%	20/6.1%	9/2.7%	330
Sum (written language before 1910)		1350/92.7%	81/5.6%	25/1.7%	1456
Modern literature works	1923-1936	129/61.7%	63/30.1%	17/8.1%	209
Contemporary literature works	1956-1995	218/60.2%	109/30.1%	35/9.7%	362
Contemporary academic works	1994-1996	168/43.0%	197/50.4%	26/6.7%	391
Sum (written language after 1910s)		515/53.5%	369/38.4%	78/8.1%	962
Spoken Beijing dialect corpus	1989	46/92.0%	4/8.0%	0/0.0%	50

The overturn can clearly be captured in Table 6.4 that the use of neutral/positive 被bei constructions in written language rose abruptly after the 1910s, but this change is not observed in the spoken language.

## 6.5 BEIC in Modern Mandarin

<sup>18</sup> Contrary to the opinion of the other researchers, Peyraube (2000) argued that the weakening of the negative connotation of the 被 bei construction is largely driven by internal force underlying natural language evolution, rather than Europeanization.

### 6.5.1 The form and function of BEIC in Modern Mandarin

Taking the same method as I have been using for historical data, a sample of 500 tokens of BEIC is collected from Cncorpus. Since the Modern Chinese section of Cncorpus contains tagged data and 被 *bei* is tagged as a preposition in BEIC<sup>19</sup>, I put ‘被/p’ (the preposition 被 *bei*) as the key word and randomly selected 500 tokens for my sample. Among these 500 tokens, the events that affect the affectees are expressed by VPs in 316 tokens (63.2%), are expressed by the ‘agent + VP’ structures in 176 tokens (35.2%), and are expressed by complete clauses in 8 tokens (1.6%). Compared to the historical data of BEIC, the events are more frequently denoted by VPs, whereas less frequently denoted by complete clauses.

Specific to the ‘affectee + 被 *bei* + VP’ type of BEIC, the affectee-subjects are human beings in 169 tokens, are animate entities other than human beings in seven tokens, and are inanimate entities in 140 tokens. It can clearly be observed that inanimate affectee-subjects are much more frequent in Modern Mandarin than in previous historical periods.

In terms of the semantic frames of the verbs (or the heads of VPs) in the ‘affectee + 被 *bei* + VP’ type of BEIC, consistent with the findings of the prior historical periods, BEIC generally does not select verb class: inherent change-of-state verbs (including emotion verbs) occur in 50 tokens, exemplified in (44); action verbs that imply changes of state are captured in 256 tokens, exemplified in (45); whereas nonchange-of-state verbs occur in 107 tokens, exemplified in (46). Besides, resultative verb compounds are seen in 210 tokens.

---

<sup>19</sup> Personally, I do not agree that 被 *bei* in BEIC can be understood as a preposition as it clearly preserves some part of its original verb meaning. However, it also needs to be distinguished from a prototypical verb as it is apparently grammaticalized. ‘Light verb’ may be felicitous to characterize these features of 被 *bei* in BEIC.

- (44) 正常的 新陈代谢 的 生理机能 被 破坏。  
 Zhengchang de xinchendaixie de shenglijineng **bei pohuai**.  
 normal DE metabolism DE physiological function BEI destroy  
 ‘The normal physiological function of metabolism is destroyed.’
- (45) 海南的 珍稀 动物 再 过 几 年 就 会 被 吃 光。  
 Hainan de zhenxi dongwu zai guo ji nian jiu hui **bei chi - guang**.  
 Hainan DE precious animal further pass several year right away will BEI eat- nothing left  
 ‘The precious animals in Hainan will be eaten up in a few years.’
- (46) 枪 背 带 被 粗 暴 地 拉 扯 了 两 下。  
 Qiang beidai **bei** cubao de **lache** le liang-xia  
 gun strap BEI violently DE pull LE twice  
 ‘The gun strap was violently pulled twice.’

Verbs of designation are still considerable in frequency of the ‘affectee + 被 + VP’ type of BEIC. It is noteworthy that in historical data, the events of designation primarily happen towards the negative direction, such as 被配 *bei pei* ‘BEI banish’, 被放 *bei fang* ‘BEI exile’, 被逐 *bei zhu* ‘BEI drive out’ and 被黜/废黜/放黜 *bei chu/feichu/fangchu* ‘BEI dismiss’. However, in Modern Mandarin data it is also observed many verbs denoting appointment or designation towards a positive direction, including 被列为... *bei lie-wei*... ‘BEI list as...’, 被评为... *bei ping-wei*... ‘BEI elect as’, and 被录用 *bei luyong* ‘BEI hire’. In total, verbs of designation or titling occur in 115 tokens, as shown in the following examples:

- (47) 罗 运 炳 被 提 升 为 团 长。  
 Luo Yunbing **bei tisheng-wei** tuanzhang.  
 Yunbing Luo BEI promote as regimental commander  
 ‘Yunbing Luo was promoted as the regimental commander.’
- (48) 他 被 誉 为 神 医。  
 Ta **bei yu-wei** shenyi.  
 3SG BEI praise as highly skilled doctor  
 ‘He is praised as a highly skilled doctor.’

To summarize, compared to the earlier historical periods, the events that affect the affectees in BEIC are more frequently denoted by VPs, but less frequently expressed by complete clauses. The tendency of the affectee-subjects to be human is much weaker than before. Moreover, beside events of designation, events of appointment (towards a positive

direction) also gained momentum in BEIC. It can be noticed that these new characteristics make BEIC in Modern Mandarin closer to the passive construction in English than Classical Chinese, indicative of the correlation between the Europeanization of Chinese grammar and the development of BEIC.

### 6.5.2 Distributions of CSC and BEIC in Modern Mandarin

Although BEIC has been increasingly similar to the passive construction in English since the 1910s, many English passive sentences still cannot be translated into BEIC (cf. Bo & Zhan, 2006; Lu, 2004; Ma, 1898; Shi, 2003; Shi & Tang, 1999; Tang, 2006; Yang & He, 1992; Yip & Don, 2004; Zhang, 1953; Zhou, 1961; etc.), as mentioned earlier. Instead, a CSC is in need, such as in the following examples:

- (49) a. \*你的信已经被收到了。  
\*Ni de xin yijing **bei shou-dao-le**.  
2SG DE letter already BEI receive-LE  
b. 你的信已经收到了。  
Ni de xin yijing **shou-dao-le**.  
2SG DE letter already receive-LE  
'Your letter has already been received.'

(Cheung, Liu, & Shih, 1994, p. 494)

- (50) a. \*饭被烧好了。  
\*Fan **bei shao-hao-le**.  
meal BEI cook-ready-LE  
b. 饭烧好了。  
Fan **shao-hao-le**.  
meal cook-ready-LE  
'The meal is ready.'

(Zhou & Jin, 2004, p. 61)

Xiao and his colleagues (2006; 2015) studied a parallel corpus composed of 250,000 English words and over 400,000 Chinese words, and found that only about 20% of *be* passives are translated into Chinese using BEIC, with the majority being translated into CSC, subjectless sentences, sentences with vague subjects (e.g., 有人 *youren* 'someone', 人们 *renmen* 'people',

大家 *dajia* ‘all’), and special sentences (e.g., the disposal 把 *ba* construction and the predicative 是...的 *shi ... de* structure).

In the small corpus of Modern Mandarin that I used for the investigation of CSC, the novel *Guo Ba Yin Jiu Si* (《过把瘾就死》 ‘*Die Satisfied*’) (59,212 characters), alongside 614 tokens of CSC, 54 tokens of the 被 *bei*/叫 *jiao*/让 *rang* construction are collected, among which overt agents appear in 40 tokens. Amid the 14 tokens of the agentless BEIC (叫 *jiao* and 让 *rang* always co-occur with agents in the sample), different types of verbs can be observed, as summarized in Table 6.5:

Table 6.5.

*Type frequencies of semantic classes of verbs in the 被 *bei* construction*

Semantic Class of Verb	Token Frequency of the 被 <i>bei</i> construction	Verbs
Change of state	3	锁 <i>suo</i> ‘lock’, 捆 <i>kun</i> ‘bind’, 定 <i>ding</i> ‘fix’
Implied change of state in the perfective aspect	2	剥夺 <i>boduo</i> ‘deprive’, 隔离 <i>geli</i> ‘isolate’
Non-change-of-state action	9	挤 <i>ji</i> ‘squeeze’, 磨 <i>mo</i> ‘grind’, 闹 <i>nao</i> ‘bother’, 压抑 <i>yayi</i> ‘suppress’, 照 <i>zhao</i> ‘light’, 割 <i>ge</i> ‘cut’, 刮 <i>gua</i> ‘scratch’, 打 <i>da</i> ‘hit’, 砸 <i>za</i> ‘smash’

In addition, resulative verb compounds are captured in seven tokens of agentless BEIC, formed with head verbs of different semantic frames and exemplified by the following examples:

- (51) 门 被 反 锁 上 了。  
 Men **bei fansuo-shang-le**.  
 door BEI back lock-up-LE  
 ‘The door was back locked.’

- (52) 她的脸被照亮了。  
 Ta de lian **bei zhao-liang-le**.  
 3SG DE face BEI illuminate-light-LE  
 ‘Her face was lit up.’
- (53) 我被割破了。  
 Wo **bei ge-po-le**.  
 1SG BEI cut-break-LE  
 ‘I was cut and wounded.’

When it comes to the contingency analysis of target verbal characters, type frequencies of BEIC are still low in comparison against CSC, as shown in Table 6.6, below.

Table 6.6.

*Type frequencies of BEIC for each verbal character in Modern Mandarin*

Verb	CSC Type Frequency	BEIC (Agentless) Type Frequency	BEIC (with Agent) Type Frequency	Token Frequency
助 <i>zhu</i> ‘help’	0	0	0	67
弑 <i>shi</i> ‘slay (the King)’	0	0	0	9
听 <i>ting</i> ‘listen’	10	0	0	371
买 <i>mai</i> ‘buy’	180	0	0	483
弃 <i>qi</i> ‘discard’	22	3	0	138
备 <i>bei</i> ‘prepare’	20	0	0	89
削 <i>xue</i> ‘cut down’	5	2	0	44
完 <i>wan</i> ‘finish’	22	0	0	36
聚 <i>ju</i> ‘accumulate’	107	0	0	243

Examples of agentless BEIC are as follows:

- (54) 过去的标准被弃如敝屣了，  
 Guoqu de biao zhun **bei qi** ru bi lv le.  
 past DE standard BEI discard like worn-out shoes LE  
 The standards in the past have been discarded like worn-out shoes.
- (55) (米切尔)最后被削职为民。  
 (Miqie’er) zuihou **bei xue zhi** wei min.  
 Michelle at last BEI cut job become commoner  
 ‘Michelle was demoted to commoner at last.’

As Modern Mandarin words are predominantly disyllabic, it may be more informative to look at compound verbals for the purpose of investigating the contingency between semantic frames and BEIC. Results are as presented in Table 6.7.

Table 6.7.

*Type frequencies of BEIC for each compound verbal in Modern Mandarin*

Verb	CSC Type Frequency	BEIC (Agentless) Type Frequency	BEIC (with Agent) Type Frequency	Token Frequency
拥有 <i>yongyou</i> ‘possess’	0	0	0	457
抽打 <i>chouda</i> ‘spank’	0	0	1	30
认识 <i>renshi</i> ‘know’	3	2	4	266
购买 <i>goumai</i> ‘buy’	8	0	0	243
吃完 <i>chi-wan</i> ‘eat-finish’	28	1	1	148
完成 <i>wancheng</i> ‘complete’	132	0	0	446
凝聚 <i>ningju</i> ‘coagulate’	47	0	0	94
摇晃 <i>yaohuang</i> ‘swag’	66	0	1	114
美丽 <i>meili</i> ‘beautiful’	103	0	0	103
工作 <i>gongzuo</i> ‘work’	444	0	0	444

Obviously, the type frequency of BEIC is still fairly low. The three tokens of agentless BEIC are as follows:

- (56) 深 层次 的 收获 可能 尚未 被 充分 认识。  
 Shen cengci de shouhuo keneng shangwei **bei** chongfen **renshi**.  
 deep level DE gain maybe not yet BEI fully recognize  
 ‘Gains at a deeper level may have not been fully recognized.’
- (57) 因为 这 一 发现, 他 才 终于 被 认识。  
 Yinwei zhe yi faxian, ta cai zhongyu **bei renshi**.  
 because this one discovery 3SG then finally BEI recognize  
 ‘Because of this discovery, he is finally recognized.’
- (58) 坐骑 被 杀掉 吃完了。  
 Zuoji **bei sha-diao** chi-wan-le.  
 mount BEI kill-fall eat-finish-LE.  
 ‘The mount has been killed and eaten up.’

Moreover, if we look at the semantics of verbals occurring in agentless BEIC, different semantic frames can be observed: 认识 *renshi* ‘recognize’ is a perception verb absolutely not involving change of state, but 吃完 *chi-wan* ‘eat-finish’ is a resultative compound. 削 *xue* ‘cut down’ and 弃 *qi* ‘discard’ can imply change of state in the perfective aspect. It is shown again that BEIC does not pick semantic frame of verbals.

Therefore, Table 6.3 can be revised, as shown in Table 6.8, to reflect the impact of language modernization on the distributional characteristics of BEIC.

Table 6.8.

*Distributional characteristics of CSC and BEIC*

	CSC	BEIC
Emotional Connotation	Neutral	(Weakening) negative/Inflictive
Overall Frequency	Relatively high	Much lower
Animacy of Subject	Prototypically inanimate	(Weakening) prototypically human
Verbal Semantics	Change-of-state	Diverse (transitive)

### 6.6 The Prototype of BEIC: Affectedness

Historical data show that BEIC is originated from the ‘N<sub>1</sub> + 被 *bei* + N<sub>2</sub>’ structure, in which 被 *bei* needs to be understood as ‘receive; suffer’. In terms of the ‘N<sub>1</sub> + 被 *bei* + N<sub>2</sub>’ structure, it is essentially one construction of a labile construction pair: ‘N<sub>1</sub> + 被 *bei* + N<sub>2</sub>’ and ‘N<sub>2</sub> + 被 *bei* + N<sub>1</sub>’ can denote the same event so 被 *bei* had converse lability in Old Chinese. Based on the ‘N<sub>1</sub> + 被 *bei* + N<sub>2</sub>’ structure, the meaning of 被 *bei* derived from physically



‘receive’ to conceptually ‘affected’ (H. Zhang, 2005). N<sub>2</sub> began to be replaced by VPs<sup>20</sup>, the ‘agent + VP’ structures or complete clauses, and BEIC is formed thereby, which can essentially be represented as ‘affectee + 被 *bei* + event’.

Particular to the ‘affectee + 被 *bei* + VP’ type of BEIC, it is found that distinguished from CSC, the affectee-subjects therein are prototypically human beings, rarely inanimate, whereas there is generally no constraint on the semantics of the VP: similar frequencies have been observed for change of state, implied change of state, and non-change of state. However, verbs of designation or appointment exhibit a considerable type frequency. These features distinguishing BEIC from CSC mirror their functional difference: change of state versus affectedness. Compared to inanimate entities, human beings are less likely to be changed but more likely to be affected in human society, making human subjects more faithful to BEIC than to CSC. Moreover, verbs of exerting force and surface contact are rarely seen in CSC without resultative complements (see Chapter 5), but entities can be affected by exerting force or surface contact, making these groups of verbs possible in BEIC. As for events of designation or appointment, although they can be considered as change of state, insomuch as there is basically no way for designation/appointment to happen spontaneously (inconsistent with the factor of spontaneity of CSC), they are predominantly conceptualized as affectedness.

In spite of the disparity, it also needs to be kept in mind that BEIC owes its origin to CSC, and bears some similarity to CSC in terms of its form and function.

---

<sup>20</sup> In Chinese the border between a noun and a verb is not clear per se in many cases, such as 被攻 *bei gong* ‘receive attack/ be attacked’, 被创 *bei chuang* ‘receive damage/ be wounded’, 被刑 *bei xing* ‘undergo torture/ be tortured’ and 被疑 *bei yi* ‘undergo suspicion/ be suspected’ mentioned in section 6.2.1.

## 6.7 Summary: Revisiting the Notion of the Passive in Chinese

BEIC is traditionally referred to as the passive construction in Chinese, whereas CSC is the notional/unmarked/pseudo passive construction (cf. Bo & Zhan, 2006; Lu, 2004; Ma, 1898; Shi, 2003; Shi & Tang, 1999; Tang, 2006; L. Wang, 1958/2004, p. 418-420; Yang & He, 1992; Yip & Don, 2004; F. Zhou, 1961). However, this dissertation argues that the prototype of BEIC is affectedness, whereas CSC is the change-of-state construction.

In syntax, the notion of passive goes hand in hand with passivization: the operation of turning an active sentence or clause into a corresponding passive sentence or clause by ‘downgrading’ the element that would otherwise have been the subject (the agent) and (usually) ‘upgrading’ the element that would otherwise have been the direct object (cf. Allerton, 2002, p. 109; O’Grady, 2013, p. 145). This understanding of passive obviously does not fit CSC and BEIC in this dissertation. It has been shown in Chapter 3 that CSC is one form of the basic argument structure of labile verbals, not derived from any other constructions, and BEIC owes its origin to CSC. Moreover, the subject in BEIC is not necessarily an argument of the verb following 被 *bei*, as long as the subject is affected by the event in pragmatic construal, BEIC can be formed. So, CSC and BEIC are not passive constructions in the sense of syntax.

Nethertheless, in cognitive linguistic, passive is characterized as a figure/ground reversal in profiling: “the switching of what is foregrounded in a given scene with what is backgrounded” (Emanatian 1993; cf. also Langacker 1987, p. 120). From this perspective, CSC and BEIC are passive by virtue of profiling the theme as the trajector (also known as “figure”) in their conceptual schemas.

Last but not least, it is discussed in section 6.4 and section 6.5 that because of language modernization and the Europeanization of Chinese grammar, BEIC in Modern Mandarin is

changing towards the passive construction in English in the following aspects: (1) the original negative/inflicative connotation of BEIC has weakened; (2) the events that affect the affectees in BEIC are more frequently denoted by VPs (where the subject bears a theta-selectional relationship with the VP), but less frequently expressed by complete clauses; and (3) the tendency of the affectee-subjects to be animate is much weaker than before.

## CHAPTER 7 CSC IN CHINESE TEACHING AND ACQUISITION

It has been demonstrated that the overall frequency of CSC is much higher than that of BEIC in language use, and that the functional emphases of them differ slightly. Meanwhile, the possibility of action verbals to imply resultant states and to form resultative compounds makes verbal lability extend to a larger group of events in Chinese than in most other languages including English. As a pedagogical implication, it is of interest to see how CSC is treated in Chinese teaching, and how it is acquired by native Chinese speakers and learners. With two experiments, it is also discussed how to teach CSC effectively.

### 7.1 Literature Review

#### 7.1.1 CSC in Chinese language textbooks

Apparently, the notions of ‘labile verb’ and the ‘change-of-state construction’ have not been introduced to the pedagogical grammar of Chinese. The most relevant concept covered in common Chinese textbooks is the notional/unmarked passive construction. I studied four series of commonly used Chinese textbooks, i.e., *Integrated Chinese* (Level I, Part I - Level II, Part II, *IC*, henceforth), *Interactions: A Cognitive Approach to Beginning Chinese* (Book 1-2, *IA*, henceforth), *Chinese Link* (Level 1 Part 1- Level 2 Part 2, *CL*, henceforth) and *Xin Shiyong Hanyu Keben [New Practical Chinese Reader]* (Book 1-2, *NPCR*, henceforth), and found that the notional passive construction is treated in widely different ways amidst them.

*IC* (3<sup>rd</sup> edition, Tao-chung Yao & Yuehua Liu, 2008) does not explicitly introduce the notional passive construction, though it can be noticed that examples of the notional passive construction occur quite early in the whole series of *IC*, such as in Level 1 Part 2 Lesson 12:

(1) 小 白 菜 卖 完 了。

Xiao baicai **mai-wan** - le.  
baby bok choy sell-finish- LE  
'The baby bok choy is sold out.'

(*IC* Level 1 Part 2, p. 42)

(2) 饭 做 好 了, 快 来 吃 吧。

Fan **zuo-hao**-le, kuai lai chi ba.  
meal make-good-LE fast come eat SFP  
'The food is ready. Come and eat.'

(*IC* Level 1 Part 2, p. 43)

Similar to the situation of *IC*, *IA* (Margaret Mian Yan, & Jennifer Li-chia Liu, 1998) does not explicitly introduce the notional passive construction either. Despite the constraints mentioned in the grammar point 'the passive marker 被 *bei*' in Lesson 22 (see example (3)), *IA* does not explain how English passive sentences should be expressed in Chinese, if the marker 被 *bei* is not applicable.

(3)	Structure	Gloss
	A 被 B V 了	A was ... by B

1. 你的车怎么不见了? How come your car has disappeared?  
我违规停车, 所以(我的)车被警察拖走了。  
I parked illegally; therefore (my) car was towed away by the police.
2. 听说他开车出事儿了, 他人怎么样了? 有没有受伤?  
(I) have heard that he had a car accident. How is he? Was (he) injured?  
他的车被撞坏了, 还好他人没(有)受伤。  
His car was damaged by being bumped. Fortunately he was not injured.
3. 我们说的话被他听见了吗?  
Did he hear what we have talked about?  
我们说的话被他听见了。  
He has heard what we have talked about.

In Chinese, there is no distinction of voice in verbs. But the direction of an action may be outward from the subject as actor or inward toward the subject as goal. The passive marker 被 is used if the inward action is to be expressed. Among the perception verbs, only 看见/看到 and 听见/听到 can occur with 被. Other perception verbs such as 闻到'to smell,' 感觉到'to feel' cannot occur with 被. Most of the sentences with 被 construction denote unfavorable meanings or adversity.

(*IA* II, p. 264)

*CL* (Sue-mei Wu, Yueming Yu, Hanhui Zhang, & Weizhong Tian, 2007) introduces notional passive sentences in Level 2 Part 2 Lesson 11, under the grammar point ‘被动句 passive sentences’:

(4) 被动句 Passive Sentences

The passive sense in Chinese is similar to English. However, in Chinese, a passive sense sentence commonly occurs in the following two structures:

I. Unmarked in structure, called the “notional passive sentence.” It usually occurs as a topic-comment sentence.

饭做好了。 The meal is ready.

作业写完了。 The assignment is finished.

钱花光了。 The money has all been spent.

信寄出去了。 The letter has been sent out.

II. Marked in structure with 被, 叫, or 让....

(*CL* Level 2 Part 2, p. 8)

*NPCR* (Liu Xun, 2002) is the only studied series in which ‘notional passive sentences’ is listed independently as a grammar point in Level II Lesson 23 (as shown in (5)), two lessons before the 被 *bei* sentence (as shown in (6)):

(5) 无标志被动句 Notional passive sentences

In some Chinese sentences, the subject of the sentence is itself an object of an action. Structurally, it is no different from a sentence in which the subject is the doer of the action, except that it is obviously a passive notion. The notional passive sentence may be used to emphasize the description of the object of the action. The subject of the sentence is usually a definite object. For example:

越剧票已经买好了。

那部小说看过没有？

饭已经做好了，还没有拿进去。

旅行的事儿她知道得很多。

(*NPCR* Level II, p. 198)

(6) 被字句 The 被 sentence

Besides the notional passive sentences, there is another kind of passive sentence with the preposition “被” (often replaced by “叫” or “让” in spoken Chinese), which is used to introduce the agent of an action, or to emphasize that the subject of the sentence is the recipient of an action.

(NPCR Level II, p. 239)

In summary (as shown in Table 7.1), in the studied four series of Chinese language textbooks, the notional passive construction is not explicitly mentioned in *IC* or *IA*. *CL* introduces ‘notional passive’ in the grammar note of passive sentences, together with 被 *bei*/叫 *jiao*/让 *rang* passive. *NPCR* lists “notional passive sentences” independently as a grammar point, occurring two lessons before the 被 *bei* construction.

Table 7.1.

*The notional passive construction in Chinese language textbooks*

Textbook	Position	How is the notional passive construction introduced?
<i>IC</i>	——	No explicit introduction, though examples are frequently observed in texts 被 <i>bei</i> /叫 <i>jiao</i> /让 <i>rang</i> passive is first introduced in Level 1 Part 2 Lesson 18.
<i>IA</i>	——	No explicit introduction, despite the constraints listed for marked passive The passive marker 被 <i>bei</i> is introduced in Lesson 22. it is noted “most of the sentences with 被 construction denote unfavorable meanings”.
<i>CL</i>	Level 2 Part 2 Lesson 11	Under the grammar point ‘被动句 passive sentences’, notional passive is introduced together with marked passive 被动句 passive sentences (notional or marked) are introduced in Level 2 Part 2 Lesson 11.
<i>NPCR</i>	Level II Lesson 23	‘Notional passive sentences’ is listed as an independent grammar point The 被 <i>bei</i> sentence is introduced in Level II Lesson 25, two lessons after notional passive.

### 7.1.2 CSC in L1 acquisition of Chinese

In a case study of two infants’ L1 acquisition of Chinese passive sentences, Peng & Hu (2011) found that CSC is acquired before BEIC. Earliest use of CSC occurs at about 1;6 (years;

months). At this earliest stage, the theme-subjects are sometimes not overly expressed, and most of the overt or covert theme-subjects are inanimate. The CSC tokens produced by these two infants end with 了 *le* in most cases, denoting a perfective sense. It is noteworthy that in their data of infants' utterances during 1-4 years old, CSC occurs much more frequent than marked passive sentences with 被 *bei*/叫 *jiao*/让 *rang*, accounting for 74.2% and 81.2% in their all passive expression respectively. Their findings of infants' earliest use of CSC resemble the findings from corpus data presented in Chapter 3 and Chapter 4 in many aspects including the overall frequency, the animacy of the theme-subject, etc., in support of the hypothesized cognitive base of labile verbals and CSC.

### 7.1.3 CSC in L2 acquisition of Chinese

Studies focusing on second language acquisition of CSC have posited contradictory opinions: some argue that CSC is more difficult than BEIC to acquire: learners tend to overuse BEIC when CSC is actually more appropriate. An opposite opinion holds that CSC is easier to acquire than BEIC.

#### 7.1.3.1 Overuse of BEIC

In a ground-breaking work applying error analysis into Chinese as a second language acquisition, J. Lu (1994) summarized learners' error types, and passive sentences are listed as an example of redundant addition (误加). He explained, "the passive marker 被 *bei* can only be applied to some verbs with causative senses. Redundant addition is observed when 被 *bei* is applied to other verbs for a passive sense in Chinese." In a study of Chinese character error analysis, Xiao (2002) noted that because of the negative transfer from the native language, Korean students



tend to overuse 被 *bei* in notional passive sentences. This conclusion is supported by Z. Wang (2004b, 2005) and Zhou & Xiao (2009). Z. Wang (2004b, 2005) studied the acquisition of Chinese marked and unmarked passive constructions of Japanese and Korean students and found “learners normally do not use the notional passive construction. They use marked passive whenever they want to express passive sense.” Wu & Zhou (2005) recapulated this conclusion:

- (7) 留学生对意义被动句的使用有回避的倾向,而并不回避使用“被”字句,对“被”字句的掌握情况比被动句好.....被动句比“被”字句的学习难度更高,留学生对它的掌握不如“被”字句。之所以会出现这种情况,原因就在于很多学生学了“被”是被动句的标志以后,将其无限度泛化,所有被动概念都用“被”字句表达,意义被动句的使用领地被侵占了。

‘There is a tendency to avoid using notional passive sentences among Chinese learners, but this tendency is not observed in the acquisition of 被 *bei* passive. Students’ mastery of 被 *bei* passive sentences is better than passive expressions overall, therefore notional passive sentences feature higher difficulty than marked passive for them. The reason for this tendency resides in the fact that students tend to overgeneralize the function of 被 *bei* after learning it as a passive marker, and use it to express all kinds of passive sense. The category of notional passive sentences is thus heavily encroached.’

Dai (2013) discovered from corpus data that the overuse of 被 *bei* is the most common type of errors in the acquisition of Chinese unmarked passive construction, accounting for 35.63% of all observed errors, and this problem is the most prominent among learners with English as the first language. She suggested that English speaking Chinese learners’ overuse of 被 *bei* might result from negative transfer from L1.

### 7.1.3.2 Overuse of CSC

In contrast to the opinion mentioned above, F. Lu (2005) analyzed large amount of data and difficulty of multiple structures, and found that the difficulty of notional passive sentences is lower than that of marked passive sentences. She explained:

- (8) 表面上看“被”字句比无标记被动句容易习得，然而事实并非如此。这是因为这两种被动句具有表层结构和语用意义及语体运用上的差异。无标记被动句除了受事主语通常为有定的需要加以注意外,其他大多可以跟一般外语中的被动句相对应，而“被”字句虽然表层有“被”为标记，可以跟英语的“by”相对应,然而深层却有主观感情色彩和语体运用色彩的问题.....在语体上，它主要用于书面语,口语中很少出现。口语中若需标记形式，大多使用“叫/让”，这又造成“叫/让”与“被”区分的困难。

‘On the surface, 被 *bei* sentences are easier than notional passive sentences to acquire, but not actually. That is because these two types of passive sentences differ in the surface structure and the pragmatic function. Characteristics of notional passive sentences generally correspond to passive expression in other languages except for the definiteness of the subject. On the other hand, although the marker 被 *bei* can be compared to ‘by’ in English, there are other issues concerning emotional connotations and pragmatic functions: in terms of the genre, 被 *bei* sentences mainly occur in written language instead of spoken language. If the speaker wants to use marked passive sentences in speaking, 叫 *jiao* or 让 *rang* is more frequently used, which makes the distinction amongst 被 *bei*, 叫 *jiao* and 让 *rang* another challenge.

Wang & Xu (2015) conducted two experiments (grammaticality judgment and picture description) to examine both the comprehension and the production of Chinese notional passives of English-speaking and Japanese-speaking learners. They found that Chinese learners at all proficiency levels showed stronger reliance on the use of notional passives compared to native speakers in production.

### 7.1.3.3 Mixed finding

Peng (2006) investigated elementary Chinese learners' comprehension and output of six types of sentences with passive sense in a dictation task and found that: in reception, 'theme + V + prep. + location' (CSC with PP) has the highest accuracy rate, followed by OSV sentences, 是 *shi...*的 *de...* predicative sentences, 'theme + V' (CSC formed by bare verbs), 'theme + resultative verb compound' (CSC with RVC), and 被 *bei* sentences; whereas in production, the performance of 是 *shi...*的 *de...* predicative sentences shows the highest accuracy rate, and then CSC with bare verbs, 被 *bei* sentences, CSC with PP, CSC with RVC, and OSV sentences in the last. In summary, BEIC is more difficult than CSC in reception, but overall easier in production.

#### 7.1.3.4 Underlying theoretical hypotheses

Most studies arguing CSC is more difficult to acquire than BEIC are essentially grounded in the Contrastive Analysis Hypothesis (CAH).

CAH states that the structure of the first language affects the acquisition of the second language (Fries, 1945; Lado, 1957). It was introduced when structural linguistics and behavioral psychology were dominant in the 1960s, Originated from Lado's *Linguistics across Cultures* (1957). He made one of the strongest claims of CAH in the preface: "the plan of the book rests on the assumption that we can predict and describe the patterns that will cause difficulty in learning, and those that will not cause difficulty, by comparing systematically the language and the culture to the learned with the native language and culture of the student." (1957, p. vii)

Then, in the first chapter of the book, Lado (1957, pp. 1-2) elaborates:

- (9) In the comparison between native and foreign language lies the key to ease or difficulty in foreign language learning... Those elements that are similar to (the learner's) native language will be simple for him, and those elements that are different will be difficult.

Though CAH was proposed long before, it was not systematically introduced to China until 2000. X. Liu (2000, p. 168) noted that language contrast not only has theoretical value to develop linguistics and to enrich linguistic theories, but also has pivotal practical value in language teaching.

- (10) 在习得第二语言的时候，学习者已形成了一整套第一语言的习惯，因此就存在第一语言（常常是母语）习惯的迁移问题。迁移（transfer）是心理学的概念，指在学习过程中已获得的知识、技能、方法、态度等对学习新知识、技能的影响。这种影响有的起积极、促进的作用，叫正迁移（positive transfer），有的起阻碍的作用，叫负迁移（negative transfer）。

‘Because second language learners have already formed a whole system of first language habits, there will be a transfer of the native language habit. Transfer is a psychological notion referring to the effect of previous knowledge, skills, methods, and attitude imposing on the learning of new knowledge and skills. Sometimes transfer has a positive and facilitative effect, and thus is called positive transfer. Some transfer may hinder second language development, and is thereby called negative transfer.’

Many of the studies we mentioned before noticed the transfer of the native language (e.g., Dai, 2013; Z. Wang, 2004b, 2005; Xiao, 2002; Zhou & Xiao, 2009). Moreover, Y. Wang (2004) specifically explored whether foreign students’ native languages affect their Chinese grammar acquisition. His subjects included native English/Japanese/Korean speakers whose Chinese were at elementary level. The notional passive construction is one of his target structures, and results showed that the performance of English native speakers was significantly poorer than that of Japanese speakers in the notional passive construction. Therefore, they concluded that the Chinese sentence constructions similar to their native languages were mastered more readily than those different from their native languages, so CAH is supported.

However, there are also findings not fully supporting CAH. In Wang & Xu’s (2015)

results of two offline experiments, L2 learners of Chinese' use of animacy cue in notional passive sentences is affected by word order, pragmatic factors, L1 transfer and most importantly, L2 input. Meanwhile, the L1 transfer is not observed on the animacy cue strategies by L2 speakers (primary research question of that study), but only on the word order cue.

On the other hand, Wang & Xu's (2015) finding, together with other studies suggesting the notional passive construction is easier than the marked passive to acquire (e.g., F. Lu, 2005), seems to support the Markedness Differential Hypothesis (MDH).

In its history, MDH was formulated as an attempt to address some of the problems that cannot be accounted for by CAH. By the early 1970s, support for CAH had begun to erode, both conceptually and empirically. It was noticed that some NL-TL differences do not cause difficulty predicted by CAH. As a result, Eckman (1977) introduced the Markedness Differential Hypothesis (MDH). MDH states that the areas of difficulty that a language learner will encounter can be predicted on the basis of a systematic comparison of the grammars of the NL and the TL. Using these markedness relationships, MDH makes three claims:

- (11) a. Those areas of the TL that differ from the NL and are more marked than the NL will be difficult.
- b. The relative degree of difficulty of the areas of the TL that are more marked than the NL will correspond to the relative degree of markedness.
- c. Those areas of the TL that are different from the NL, but are not more marked than the NL will not be difficult.

According to these three claims, the notional passive construction without any marker has lower degree of difficulty than marked passive sentences with 被 *bei*/叫 *jiao*/让 *rang*. In this sense, Wang & Xu's (2015) observation of Chinese learners' (at all proficiency levels) reliance on the notional passive construction in production can be explained.

#### 7.1.4 Summary

In short, CSC has not received much attention in Chinese language textbooks. Previous findings focusing on L1 acquisition of the notional passive construction are consistent with the diachrony of CSC and BEIC presented in Chapter 6: CSC is acquired before BEIC, and inherently has high contingency to the perfective aspect and inanimate themes. Nonetheless, studies of L2 acquisition of the notional passive construction show contradictory findings. It remains a mystery as to which one is overused among learners with English as L1, CSC or BEIC.

It has to be pointed out that the reviewed studies are virtually all about the notional passive construction, i.e., CSC formed by actions (transitive verbs in general linguistics). The acquisition of CSC formed by inherent change-of-state verbs, such as 停 *ting* ‘stop’ and 完成 *wancheng* ‘complete’, is barely discussed. This situation echoes theoretical linguistics that distinguishes the notional/unmarked/pseudo passive construction from the ergative/unaccusative/anticausative structure (cf. section 1.2.2). However, it has been shown in Chapter 5 that the change-of-state sense of the intransitive labile construction is generic and grounded on a cross-linguistic cognitive base, interacting with the semantics of the verbs therein. Moreover, as is discussed in Chapter 6, ‘passive’ is a controversial notion in Chinese itself. From this perspective, the so-called notional passive construction can also be incorporated into CSC (intransitive labile construction, from the perspective of form) in pedagogical grammar, steered away from convoluted notion of passive in Chinese and the 被 *bei* construction, which essentially has a distinct function (cf. Chapter 7). In the meantime, the wide-spread lability of Chinese verbals can be introduced as a typological characteristic of Chinese. This approach potentially reduces the chance of equating CSC/BEIC to the passive voice in other languages,

and overusing CSC/BEIC when the other is more appropriate.

## **7.2 Usage-Based Approach to Language Acquisition and the Input Flood Treatment**

Drawn on the assumptions of cognitive linguistics and construction grammar (cf. section 2.2), the present study assumes that language is usage-based instead of rule-generated.

The mainstream Universal Grammar (UG) theory holds that the ability to learn grammar is hard wired into brain. It is assumed in the theory of UG that grammars are mental representations, and that universal principles constrain these representations (White, 2003). In its origin, UG was postulated to account for the problem of the poverty of the stimulus, which refers to the observed mismatch between the primary linguistic data, namely the utterances a child is exposed to, and the subtle, abstract, and complex grammar knowledge that the child acquires.

However, as is mentioned in section 2.2.3, cognitive linguists and construction grammarians found that children's language between the ages of two and three years old is much more "low-scope" than theories of UG have argued. A high proportion of children's early multiword speech is produced from a developing set of slot-and-frame patterns, and there is no evidence for abstract grammatical patterns in the 2- to 3-year-old child's speech (cf. Ellis, 2002; Pine & Lieven, 1997). Therefore, as opposed to UG, the usage-based approach argues that we learn linguistic constructions while engaging in communication (Bybee, 2010). Language is usage-based in nature, and contextualized exposure to input and frequency have effects on language learning, processing, and novel use of language (Langacker, 1988). Under this view, language learning is exemplar-based, prototypes-driven, and sensitive to frequency of use. Abstract patterns emerge from the generalization of language experience (Jing-Schmidt, 2015a).

Assuming the importance of input and frequency in language acquisition, it can be conjectured that the intake of CSC in Chinese can be facilitated by input flood as this instruction method is based on the frequency effect, as well as the Noticing Hypothesis (Schmidt, 1990).

Input flood treatment is among input enhancement techniques (White, 2008), which aims to enhance the chance of noticing and acquiring of those target linguistic items (Schmidt, 1990; Sharwood-Smith, 1993). In addition to input and frequency, some researchers argue that mere exposure is not sufficient for language learners to notice and acquire the targeted features in input, as Schmidt (1990) notes in his Noticing Hypothesis, input has no practical value and cannot become available for intake and effective processing unless it is noticed by the learners. In observation of the Frequency Hypothesis as well as the Noticing Hypothesis, input flood treatment involves an artificially increased incidence of the target items in the audio and visual texts that learners are exposed to without any explicit instruction or feedback (Öztina, 2009) with the expectation that this artificial increase will aid the learner in noticing and then acquiring the form (Wong, 2005).

### **7.3 Research Questions**

In view of the contradictory findings with regards to learners' acquisition of CSC versus BEIC, and assuming that language is usage-based, the present study focuses on the effect of input flood on the acquisition of CSC by specifically looking at:

I. To what extent can input flood treatment affect learners' acceptability of CSC, in contrast to BEIC?



II. To what extent can learners abstract linguistic knowledge (either conscious or unconscious) about CSC, specifically the sensitivities to the animacy of the theme-subject and to verbal semantics, from the input flood treatment?

#### **7.4 Methods**

In order to address the research questions, a pretest and a posttest of binary forced-choice tasks are conducted to test participants' preference between CSC and BEIC in picture description, with an input flood treatment in between. Their responses to the pretest and the posttest are analyzed quantitatively to check their gain of linguistic knowledge from the input flood treatment. During the posttest, think-aloud protocols (including source attributions) are performed to gauge participants' awareness of the linguistic knowledge underlying their choices. The last phase of the experiment comprises of a language background survey.

In the think-aloud protocol analysis, participants are asked to verbalize their thoughts. As Kasper (1998) describes, verbal reports are oral records of thoughts, provided by subjects during or immediately after completing a task. This method was initially one way of direct observation, developed by Newell & Simon (1972), to investigate cognitive problem-solving strategies, such as reading. Think-aloud protocols have been widely used to explore L1 and L2 students' cognitive processes and are argued to be superior to introspection in that they provide more reliable information and less task interference (Ericsson & Simon, 1993).

In addition to the traditional think-aloud protocol analysis, the present study also incorporates the subjective measure of awareness. Targeting at studies that equate concurrent verbal reports to awareness, Rebuschat et al. (2013) points out that the presence of verbalization does not automatically mean that all learning in the experiment involved awareness because of the contamination from unconscious knowledge. For example, in the case of natural languages,

people can be very confident in their grammaticality judgments without knowing why, a phenomenology commonly referred to as intuition. Dienes and his colleagues (2004; 2005) posit the notions of structural knowledge and judgment knowledge, both of which can be conscious or unconscious. According to them, conscious structural knowledge leads to conscious judgment knowledge, but if structural knowledge is unconscious, judgment knowledge could still be either conscious or unconscious. In the case of intuition, structural (linguistic) knowledge is unconscious while judgment knowledge is conscious, and the unconscious structural knowledge makes the conscious judgment knowledge not available in the traditional think-aloud protocol analysis. If, on the other hand, both structural and judgment knowledge are unconscious, the phenomenology is that of guessing, which essentially cannot be taken as evidence of the presence of linguistic knowledge. Therefore, adopted from Dienes & Scott (2005) and Rebuschat et al. (2013), source attributions are included in the think-aloud protocol analysis of the present study to disentangle conscious and unconscious knowledge: participants are asked indicate, for each judgment, what their decision was based on (e.g., guess, intuition, memory, rule knowledge), while performing the posttest.

## **7.5 Materials and Instrumentation**

### **7.5.1 Pretest and posttest of binary forced-choice tasks**

As is presented in Chapter 5 and Chapter 6, CSC prototypically denotes a change of state, whereas the function of BEIC is primarily affectedness: it does not matter whether the receiver of action changes state or not. Accordingly, the subject of CSC tends to be inanimate, whereas the subject of BEIC tends to be animate. Hence, in the binary forced-choice tasks of the present

study, participants are presented with slides displaying four conditions involving change/nonchange-of-state events with animate/inanimate receivers of action.

Two counterbalanced question sets, each containing 16 slides, were designed to rule out item variability to the largest extent. Based on the HSK (*Hanyu Shuiping Kaoshi* ‘Chinese Proficiency Test’, designed by Hanban) Level 1-6 vocabulary guideline as a reference for frequency, I selected 16 labile verbals (including bare verbs, verb compounds, and other verbal constructions) for the test. All of the 16 selected verbals semantically allow animate or inanimate themes: eight of them inherently encode change of state or change of location, and the other eight do not. Two lists of theme-verbal pairs, as shown in Table 7.2, were designed for the 16 target verbals.

Table 7.2.

*Theme-verbal pairs in the binary preference judgment task*

Labile Verbal	Semantic Type	List 1 Theme-Verbal Pair	List 2 Theme-Verbal Pair
放在... <i>fang-zai...</i> 'put at...'	Change of state	放书 <i>fang shu</i> 'put book'	放小狗 <i>fang xiaogou</i> 'put the puppy'
染成... <i>ran-cheng...</i> 'dye become...'	Change of state	染 T 恤衫 <i>ran tixushan</i> 'dye the T shirt'	染熊 <i>ran xiong</i> 'dye the bear'
洗干净 <i>xi-ganjing</i> 'wash clean'	Change of state	洗衣服 <i>xi yifu</i> 'wash the clothes clean'	洗兔子 <i>xi tuzi</i> 'wash the rabbit'
找到 <i>zhaodao</i> 'find'	Change of state	找到钱 <i>zhaodao qian</i> 'find the money'	找到小猫 <i>zhaodao xiaomao</i> 'find the kitten'
画好 <i>hua-hao</i> 'draw complete'	Change of state	画猫 <i>hua mao</i> 'draw the cat'	画樱桃 <i>hua yingtao</i> 'draw the cherry'
扔出去 <i>reng-chuqu</i> 'throw out'	Change of state	扔小狗 <i>reng xiaogou</i> 'throw the puppy'	扔烟头 <i>reng yantou</i> 'throw the cigarette butt'
设计好 <i>sheji-hao</i> 'design complete'	Change of state	设计龙 <i>sheji long</i> 'design the dragon'	设计衣服 <i>sheji yifu</i> 'design the clothes'
包好 <i>bao-hao</i> 'wrap complete'	Change of state	包婴儿 <i>bao ying'er</i> 'wrap the baby'	包礼物 <i>bao liwu</i> 'wrap the gift'
拉 <i>la</i> 'pull'	Non-change of state	拉绳子 <i>la shengzi</i> 'pull the rope'	拉驴子 <i>la lvzi</i> 'pull the donkey'
撞上 <i>zhuang-shang</i> 'run into'	Non-change of state	撞树 <i>zhuang shu</i> 'run into a tree'	撞鹿 <i>zhuang lu</i> 'run into the deer'
踢 <i>ti</i> 'kick'	Non-change of state	踢球 <i>ti qiu</i> 'kick the ball'	踢男人 <i>ti nanren</i> 'kick the man'
踩 <i>cai</i> 'step on'	Non-change of state	踩香蕉皮 <i>cai xiangjiaopi</i> 'step on the banana skin'	踩乌龟 <i>cai wugui</i> 'step on the turtle'
摸 <i>mo</i> 'touch'	Non-change of state	摸虫子 <i>mo chongzi</i> 'touch the worm'	摸屏幕 <i>mo pingmu</i> 'touch the screen'
敲 <i>qiao</i> 'knock at'	Non-change of state	敲乌龟 <i>qiao wugui</i> 'knock on the turtle'	敲钉子 <i>qiao dingzi</i> 'knock on the nail'
检查 <i>jiancha</i> 'examine'	Non-change of state	检查病人 <i>jiancha bingren</i> 'examine the patient'	检查行李 <i>jiancha xingli</i> 'check the luggage'
推 <i>tui</i> 'push'	Non-change of state	推骆驼 <i>tui luotuo</i> 'push the camel'	推球 <i>tui qiu</i> 'push the ball'

Since animacy (animate or inanimate) and verbal semantics (change of state or non-change of state) are manipulated as variables, this 2\*2 design yields four conditions. It can be noticed from Table 7.2 that there are four theme-verbal pairs of each condition in each list, and across the two lists, the animacies of the themes for the same verbal are opposite to each other.

Based on the target theme-verbal pairs, comic pictures were found on the internet to form picture series shown on each slide as visual stimuli. There is an outside force acting on the theme in every picture series to exclude the possibility that themes are interpreted as changing spontaneously. In order to highlight the difference between a change of state and a non-change of state, each change-of-state event is illustrated in a series of three pictures showing the initial state, the imposition of the outside force and the resultative state respectively, whereas a non-change-of-state event is depicted by one picture. In addition to the visual stimuli, participants were also presented with two sentences taking the forms of CSC and BEIC respectively, and asked to choose which sentence is better to describe the event shown in the picture series.

Sample PowerPoint slides for each condition are given in Figure 7.1.

WHICH ONE OF THE FOLLOWING SENTENCES CAN BETTER DESCRIBE THE PICTURE(S). PLEASE THINK ALOUD.

5. A. 衣服洗干净了。 B. 衣服被洗干净了。

Your decision is based on guess, intuition, memory, or rule knowledge?

Inanimate, Change of State

WHICH ONE OF THE FOLLOWING SENTENCES CAN BETTER DESCRIBE THE PICTURE(S). PLEASE THINK ALOUD.

14. A. 香蕉皮踩了。 B. 香蕉皮被踩了。

Your decision is based on guess, intuition, memory, or rule knowledge?

Inanimate, Non-change of State

WHICH ONE OF THE FOLLOWING SENTENCES CAN BETTER DESCRIBE THE PICTURE(S). PLEASE THINK ALOUD.

15. A. 婴儿包好了。 B. 婴儿被包好了。

Your decision is based on guess, intuition, memory, or rule knowledge?

Animate, Change of State

WHICH ONE OF THE FOLLOWING SENTENCES CAN BETTER DESCRIBE THE PICTURE(S). PLEASE THINK ALOUD.

16. A. 骆驼推了。 B. 骆驼被推了。

Your decision is based on guess, intuition, memory, or rule knowledge?

Animate, Non-change of State

Figure 7.1. Sample Slides of the binary preference judgment for each condition

Slides were presented in a randomized order in each session to avoid priming effect caused by items of the same condition occurring consecutively.

### 7.5.2 Input flood materials

The input flood materials consist of three reading passages seeded with 22 prototypical CSCs, alongside six BEICs. Each passage is about 250 characters in length. The words covered in the input flood materials are all within HSK Level 1-5 vocabulary guideline, and the theme-verbal pairs occurring in the binary forced-choice tasks do not recur in the input flood materials. A sample passage, seeded with eight CSCs and two BEICs, is as follows. It can be noticed that most CSCs need to be expressed as passives in the English translation.

(12) Sample passage of the input flood treatment:

Chinese characters:

时间过得很快，暑期班马上就要结束了，[功课和论文都交了]<sub>CSC</sub>。[期末考试也考完了]<sub>CSC</sub>。丽莎觉得[自己的中文水平提高了很多]<sub>CSC</sub>。[美国的中文课，应该都能听懂了]<sub>CSC</sub>。她打算两天后回美国。[图书馆的书还了]<sub>CSC</sub>，[房间打扫干净了]<sub>CSC</sub>，[能卖的生活用品也卖了]<sub>CSC</sub>。丽莎想起自己的中国朋友们，以后，[自己还会不会被他们记起呢]<sub>BEIC</sub>? 这时有人敲门，居然是朋友们，他们全都来了。[连自己刚到北京的时候丢的钱包，居然也带了回来]<sub>CSC</sub>。丽莎高兴得说不出话，看了一会儿才发现并不是自己原来那个，而是一个新的。[原来自己丢钱包的事情被朋友们知道了]<sub>BEIC</sub>，他们一起买了一个新的。

Word-by-word translation:

Time pass-DE very fast, summer break class immediately about finish-LE, [homework and essays all submit-LE]<sub>CSC</sub>. [Final exam also take-finish-LE]<sub>CSC</sub>. Lisa think [self DE Chinese level raise-LE a lot]<sub>CSC</sub>. [America DE Chinese class, should all can listen-understand-LE]<sub>CSC</sub>. She plan two day after back America. [Library DE book return-LE]<sub>CSC</sub>, [room sweep-clean-LE]<sub>CSC</sub>, [can sell DE living supplies also sell-LE]<sub>CSC</sub>. Lisa think of self DE Chinese friends, afterwards, [self still can or not BEI they remember SFP]<sub>BEIC</sub>? This time have person knock door, unexpectedly is friends, they all come-LE. [Even self just arrive at Beijing DE time lose DE wallet, unexpectedly also bring-LE-come]<sub>CSC</sub>. Lisa happy-DE speak not out word, look-LE a while just realize actually not is self original that-CL, but is one-CL new-DE. [Original self lose wallet DE matter BEI friends know-LE]<sub>BEIC</sub>, they together buy-LE one-CL new DE.

Free translation:

Time flies. The summer break is almost over. All the homework and the essays have been turned in. Finals are finished. Lisa thinks her Chinese level has improved a lot, making her able to understand the Chinese classes in America. She plans to go back to the USA in two days. Books have been returned to the library. The room has been cleaned. Sellable living supplies have been sold. Lisa thinks of her Chinese friends and wonders if they will miss herself. Somebody knocks on the door right at this time. Unexpectedly, it is her friends. Friends all come to visit her! They even bring the wallet that Lisa lost when she just arrived in Beijing. Lisa is too happy to say a word. After looking at it for a while, Lisa realizes it is not her original wallet but a new one. As a matter of fact, that she lost her wallet was known to her friends, so they bought a new one together.

In order to make sure the input flood materials are comprehensible to participants, for each passage, participants need to respond to three comprehension check questions (all multiple choice questions with four choices).

## **7.6 Experiment 1**

### **7.6.1 Participants and procedure**

20 native English speakers were recruited from intermediate and advanced level Chinese classes at a large state university in the USA (nine males, eleven females, mean age 23.21<sup>21</sup>). Elementary learners were excluded primarily because they may have difficulty comprehending the input flood materials. Participants were randomly assigned to an input flood group (IF group) and an input flood with rule discovery group (RD group), ten people in each group. There are five males and five females in the IF group, mean age 22.79, mean years of Chinese study 3.47, and the lengths of exposure in Chinese speaking areas vary from none to three years (median: 0). Whereas in the RD group, there are four males and six females, mean age 23.63, mean years of

---

<sup>21</sup> Participants only reported years of age in the background information survey, no information of months provided, the same for the length of Chinese study.

Chinese study 3.16, and the lengths of exposure in Chinese speaking areas range from none to two years (median: 0).

Participants of both groups first responded to one list of binary forced-choice items, and then completed three reading comprehension passages seeded with 22 prototypical CSCs and six prototypical BEICs as the input flood treatment, followed by the other list of binary forced-choice items as the posttest. The RD group was explicitly told to pay attention to the distributions of CSC and BEIC in the reading comprehension passages and to discover the rules underlying their distributions, but the IF group was not, which means that the IF group received the input flood treatment as a mere reading comprehension task comprising of three passages, whereas the RD group performed a rule discovery task while doing the reading comprehension. Think-aloud protocol analysis (including source attributions) was performed during the posttest to examine participants' awareness of the linguistic knowledge underlying their choices. Particular to the source attributions, participants were asked to select one of four response options: *guess*, *intuition*, *memory*, or *rule knowledge*. Participants were instructed to use the *guess* category only when decisions were based on real guesses; that is, they might as well have flipped a coin. The *intuition* category was to be selected if participants had a gut feeling that they were right but did not know why. The *memory* category was to be selected when judgments were based on the recollection of items from the input flood treatment or other previous experience. Finally, the *rule knowledge* category was to be selected following decisions that were based on a rule that participants would be able to report concurrently. The design of source attributions is adopted from Rebuschat et al. (2013). Participants were required to score 80% or higher in the reading comprehension check questions in order to move on to the posttest, and all of them were able to do this.



Ten native Chinese speakers were recruited from international students and visiting scholars at the same university in the United States as L1 participants to provide a baseline of comparison. This group includes four females and six males, mean age 30.9. All of them reported to be educated in China up to high school level. Instead of performing the concurrent think-aloud protocol, L1 participants did a retrospective recall in Chinese to report the rationale underlying their choices.

## 7.6.2 Results

### 7.6.2.1 Percentages of CSC selections

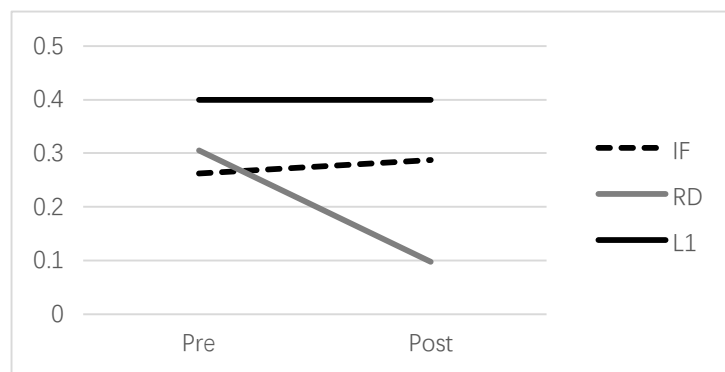
The percentages of different groups' CSC selection are aggregately shown in Table 7.3.

Table 7.3.

*Percentages of CSC selection of different groups*

Group	Pre	Post
IF	26.25% (SD = 14.67%)	28.75% (SD = 16.19%)
RD	30.56% (SD = 16.16%)	9.72% (SD = 14.69%)
L1		40.00%

Data can be represented by Figure 7.2.



*Figure 7.2. Percentages of CSC selection of different groups*

It can be observed that overall, L2 participants exhibited fewer selections of CSC than L1 participants, and the input flood treatment generally failed to promote L2 participants' use of CSC. This finding is in sharp contrast to the prediction of the frequency effect. Besides, the instruction given to the RD group (i.e., pay attention to the distributions of CSC and BEIC in the reading comprehension passages and to discover the rules underlying their distributions) actually results in a decline in CSC selection. A paired sample *t*-test (two-tailed) indicates that this decline is statistically significant ( $t(8) = 3.71, p = 0.0059$ ), suggesting that participants, especially those of the RD group, only noticed BEIC, but not CSC, from the input flood treatment, despite its low frequency in comparison with CSC.

#### 7.6.2.2 Linguistic knowledge: sensitivities to the animacy cue and verbal semantic cue

With regards to participants' sensitivities to linguistic cues (i.e., animacy of the theme-subject and change/non-change of state of the event), the percentages of different groups' CSC selection in each condition are shown in Table 7.4.

Table 7.4.

*Percentages of CSC selection in each condition*

Condition	Inanimate theme Change of state	Animate theme Change of state	Inanimate theme Non-change of state	Animate theme Non-change of state
L1	82.50%	50.00%	25.00%	2.50%
IF Pretest	52.50%	32.50%	12.50%	7.50%
RD Pretest	63.89%	30.50%	13.89%	13.89%
IF Posttest	50.00%	37.50%	20.00%	7.50%
RD Posttest	22.22%	8.30%	5.56%	2.78%

The percentages of L1 participants' CSC selection in each condition can be graphed in Figure 7.3, whereas Figure 7.4 and Figure 7.5 illustrate L2 participants' (both groups) performances in the pretest and the posttest respectively.

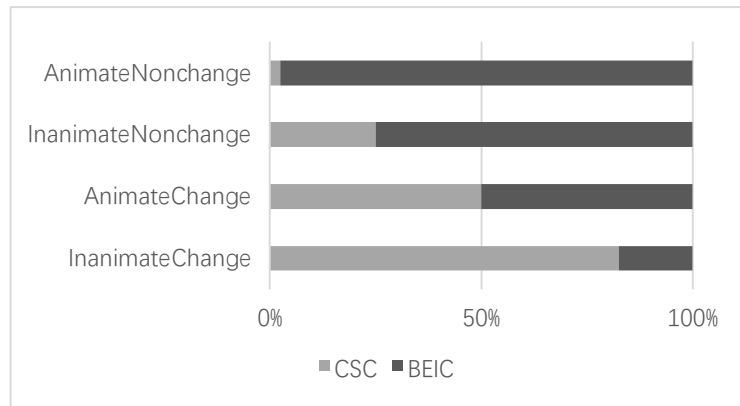


Figure 7.3. L1 participants' construction selection in each condition

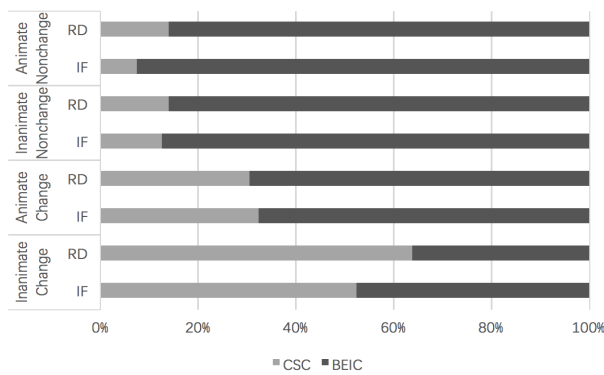


Figure 7.4. L2 participants' construction selection in each condition (pretest)

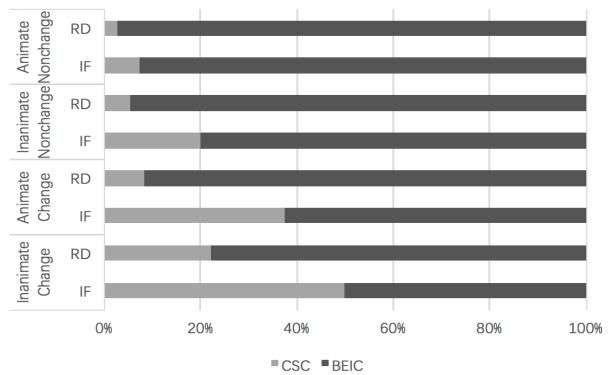


Figure 7.5. L2 participants' construction selection in each condition (posttest)

Striking resemblance can be captured from patterns displayed by Figure 7.3, Figure 7.4 and Figure 7.5: there are noticeable differences between four conditions. It needs to be noted that Figure 7.4 illustrates the results of the pretest, which means L2 participants demonstrate knowledge of the selectional constraints between CSC and BEIC (particularly the sensitivities to the animacy cue and verbal semantic cue), just like native Chinese speakers do, even before the

input flood treatment. After the input flood treatment, this knowledge is by and large retained, despite the drop of RD group's CSC selection.

Mixed-effects logistic regression (GLMER) models (cf. Neuhaus et al., 1992) were employed to test the effects of the animacy cue and the verbal semantic cue on participants' performance. Compared to traditional procedures such as analysis of variance, GLMER models can simultaneously include random effects of participants and items, as well as experimental manipulations as fixed effects. For all analyses, I report coefficients ( $\beta$ ), standard errors,  $t$ -values, and  $p$  values.  $P$  values were calculated by the package LmerTest in R packages. Animacy of the theme-subject (animate/inanimate), together with the event type of verbal semantics (change of state/non-change of state), was entered as fixed factors, both centered. For L1 data, results show main effect of animacy ( $\beta = 1.9477$ ,  $SE = 0.4938$ ,  $t = 3.945$ ,  $p = 8.00e-05$ ) as well as verbal semantics ( $\beta = -3.1898$ ,  $SE = 0.6824$ ,  $t = -4.674$ ,  $p = 2.95e-06$ ). The same main effects are also observed from L2 performance (both groups) in the pretest ( $\beta = 0.8852$ ,  $SE = 0.3983$ ,  $t = 2.222$ ,  $p = 0.0263$  for animacy; and  $\beta = -2.1745$ ,  $SE = 0.4786$ ,  $t = -4.543$ ,  $p = 5.54e-06$  for verbal semantics).

This result suggests that the sensitivities to the animacy of the theme-subjects and to verbal semantics in the selection between CSC and BEIC are inherent among intermediate and advanced Chinese learners, confirming that the change-of-state meaning of the intransitive labile construction has cross-linguistic cognitive foundation.

### 7.6.2.3 Awareness of the linguistic knowledge: think-aloud protocol analysis

Proportions of L2 participants' responses in source attributions for their CSC and BEIC selections are shown in Table 7.5, below.

Table 7.5.

*Proportions of L2 participants' responses in source attributions*

Choice	Group	Total (frequency)	Guess	Intuition	Memory	Rule
CSC	IF	100% (46)	19.57% (9)	47.83% (22)	19.57% (9)	13.04% (6)
	RD	100% (14)	21.43% (3)	42.86% (6)	28.57% (4)	7.14% (1)
BEIC	IF	100% (114)	10.53% (12)	26.32% (30)	7.89% (9)	55.26% (63)
	RD	100% (130)	3.85% (5)	8.46% (11)	6.92% (9)	80.77% (105)

As is shown in Table 7.5, L2 participants' (both groups) CSC selections are primarily based on intuition, whereas BEIC selections are mainly drawn on rule knowledge, suggesting that participants' conscious linguistic knowledge is highly asymmetrical for CSC and BEIC. Overall, they are not aware of when to use CSC, but have a comparatively clear idea as to when to use BEIC. Interestingly, the RD group (input flood with rule discovery group) reported overwhelmingly high proportion of rule knowledge in BEIC selection, in contrast to extremely low proportion of rule knowledge in CSC selection, indicating that with the input flood treatment and the instruction to discover rules, they were virtually only able to discover the rule knowledge underlying BEIC usage. CSC seems to be ignored by them in the rule discovery task, in spite of its high frequency in the input flood materials.

With regards to the specific rule knowledge reported by L2 participants, observable consistency can be captured concerning their BEIC selection. However, the rule knowledges reported for CSC selection are widely divergent.

All L2 participants mentioned the presence of an outside force as the reason for BEIC selection. Samples of this type of responses include:

- (13) It is done by somebody else.  
(The rabbit) does not do it itself.

It is the action of something else.

However, as mentioned earlier (section 7.5.2), there is actually an outside force acting on something on each slide to exclude the interpretation that changes of state occur spontaneously, which essentially makes the construction selection inexplicable by the presence of external force.

There are also two participants who verbalized the effect of verbal semantics and pointed out that action verbs sound better with BEIC.

In contrast, the rule knowledges reported for CSC selection appear to be rather random: except for two participants mentioning “changing the actual thing”, little pattern can be sketched.

The following are some sample verbalizations:

(14) You just do that thing.

It is just that thing, definitely not passive.

He is just drawing it, not doing anything with the picture.

(The finger is) just touching it, without doing anything with it.

She is not doing anything with the actual clothes.

With “just” being the most frequent word, it seems that a rejection strategy has been employed by L2 participants: they only chose CSC when BEIC is definitely not appropriate.

In comparison with L2 participants, the retrospective reports of L1 participants demonstrate less concern about the presence of the outside force, but more attention to the animacy of the theme as well as the emotional connotation of the event (e.g., BEIC tends to carry an inflicative meaning). The contrast between L1 and L2 participants’ awareness of linguistic knowledge reflected in their verbal reports is summarized in the following table.

Table 7.6.

*Frequencies of linguistic knowledges reported by L1 and L2 participants*

Relevant linguistic knowledge	L1 (N=10)	L2 (N=20)
Presence/emphasis of the outside force	2	20
Verbal semantics	4	4
Animacy of the theme	3	0
Emotional connotation of the event	3	1
Others	1	6

*Note.* Many participants (both L1 and L2) mentioned more than one point in their reports. This is the reason why the sum of different categories does not equal to the number of participants.

### 7.7 Discussion and the Revision of Research Questions

First of all, this experiment clearly shows that L2 participants tend to use more BEICs and less CSCs than L1 participants. For the first research question, results from experiment 1 show that the input flood treatment failed to promote L2 participants' preference of CSC. It did raise the use of BEIC among the RD group (input flood with rule discovery group), although this is not the purpose of the present study and the frequency of BEIC in the input flood materials is comparatively low.

As for the second research question, L2 participants demonstrated unexpected sensitivities to the animacy cue and the verbal semantic cue in their choice between CSC and BEIC even before the input flood treatment, suggesting that the linguistic knowledge of the selectional constraints is inherent among L1-English intermediate and advanced Chinese learners. However, results of the think-aloud protocol analysis (including the source attributions) reveal that participants are generally not aware of their linguistic knowledge regarding the animacy of the theme-subject and verbal semantics. Furthermore, with the extra instruction to discover the rules underlying construction selection, the RD group only derived rule knowledge for BEIC from the input flood materials, but not for CSC, despite its high frequency.

Findings for both research questions suggest that L2 participants did not notice CSC in the input flood treatment, and that frequency cannot bring an effect if the form is not noticed. Instead, a counter effect has been observed from the RD group. With the extra instruction for rule discovery, participants of the RD group only noticed the less-frequent BEIC, instead of the more-frequent CSC, from the input flood treatment. The effect of noticing overrides the effect of frequency in this case, or in other words, participants' intake from the input is severely biased.

Confronted with these unexpected findings, a question arises automatically as to what leads to the biased noticing. An intuitive answer to this question pertains to the markedness of constructions, i.e., BEIC is marked by 被 *bei* but CSC is not marked, making CSC not so salient as to be noticed in incidental exposure, especially in contrast with the marked BEIC. According to Ellis (2006), non-salient or fragile features are not readily perceived by mere exposure to the language alone. Directed at the effectiveness L2 instruction may achieve, Ellis (2015) argues that in cases where linguistic form lacks perceptual salience and so goes unnoticed (Schmidt, 1990) by learners, or where the L2 semantic/pragmatic concepts to be mapped onto the L2 forms are unfamiliar, additional attention is necessary in order for the relevant associations to be learned. Therefore, some explicit types of instruction are called for to “counteract the L1 attentional biases, thus to make the L2 input really count”.

With the intention to explore an effective instruction that can promote learners' intake of CSC, the research questions of the present study have to be revised to take explicit instruction into consideration. It is in urgent need to see whether explicit instruction can counteract the attentional bias of learners and turn input into intake of CSC, which motivates experiment 2.

## **7.8 Experiment 2**



### 7.8.1 Participants and procedure

30 native English speakers were recruited from intermediate and advanced level Chinese classes at a large state university in the United States and a large university in China (20 males, 10 females, mean age 22.17). Participants were randomly assigned to an input flood group (IF group) and an input flood with explicit instruction group (EI group), 15 people in each group. There are 11 males and four females in the IF group, mean age 22.60, mean years of Chinese study 2.47, and the lengths of exposure in Chinese speaking areas vary from none to 60 months (median: 18 months). Whereas in the EI group, there are nine males and six females, mean age 21.73, mean years of Chinese study 2.83, and the lengths of exposure in Chinese speaking areas range from none to 24 months (median: 18 months).

The procedure is completely the same as experiment 1 except that before the input flood treatment, which appeared to be a mere reading comprehension task for the IF group, the EI group was explicitly told that many English passive sentences need to be expressed as notional passive constructions without any passive marker in Chinese.

### 7.8.2 Results and discussion

#### 7.8.2.1 Percentages of CSC selection

The percentages of different groups' CSC selection are aggregately shown in Table 7.7 (L1 data are those collected in experiment 1).

Table 7.7.

*Percentages of CSC selection of different groups*

Group	Pre	Post
IF	29.17% (SD = 16.14%)	32.50% (SD = 14.79%)
EI	26.67% (SD = 14.15%)	45.00% (SD = 20.62%)
L1	40.00%	

Data can be represented by Figure 7.6.

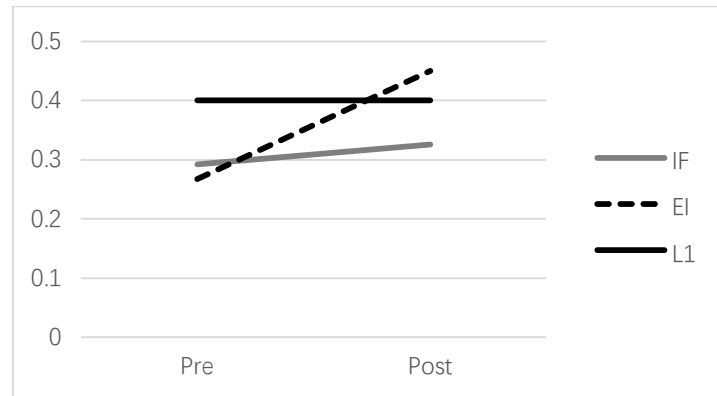


Figure 7.6. Percentages of CSC selection of different groups

Compared to the IF group, it can clearly be observed that the explicit instruction results in an increase in CSC selection among the EI group. A paired sample *t*-test (two-tailed) indicates that this increase is statistically significant ( $t(14) = -3.61, p = 0.0029$ ), confirming that the explicit instruction plays a crucial role in participants' intake of CSC. However, it can also be noticed that the EI group virtually uses more CSC than L1 participants in the posttest, indicating a tendency of overuse.

#### 7.8.2.2 Linguistic knowledge: sensitivities to the animacy cue and the verbal semantic cue

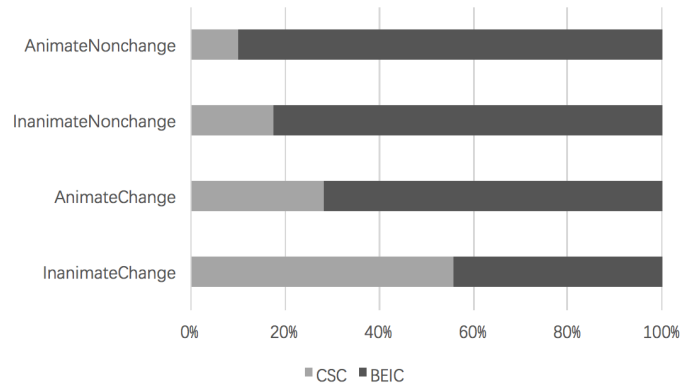
Replicating the findings of experiment 1, the inherent knowledge regarding the selectional constraints between CSC and BEIC (i.e., sensitivities to the animacy cue and the verbal semantic cue) is reflected in the results of the pretest again (L1 data are those collected in experiment 1):

Table 7.8.

*Percentages of CSC selection in each condition*

Condition	Inanimate theme Change of state	Animate theme Change of state	Inanimate theme Non-change of state	Animate theme Non-change of state
L1	82.50%	50.00%	25.00%	2.50%
IF Pretest	55.00%	33.33%	16.67%	11.67%
EI Pretest	56.67%	23.33%	18.33%	8.33%
IF Posttest	63.33%	45.00%	13.33%	8.33%
EI Posttest	70.00%	50.00%	41.67%	18.33%

The percentages of L2 participants' CSC selection in each condition in the pretest can be graphed in Figure 7.7. The effects of animacy and verbal semantics are clearly illustrated.



*Figure 7.7. L2 participants' construction selection in each condition (pretest)*

### 7.8.2.3 Awareness of the linguistic knowledge: think-aloud protocol analysis

Proportions of L2 participants' responses in source attributions for their CSC and BEIC selections are shown in Table 7.9.

Table 7.9.

*Proportions of L2 participants' responses in source attributions*

Choice	Group	Total (frequency)	Guess	Intuition	Memory	Rule
CSC	IF	100% (78)	11.54% (9)	61.54% (48)	16.67% (13)	10.26% (8)
	EI	100% (108)	23.15% (25)	56.48% (61)	11.11% (12)	9.26% (10)
BEIC	IF	100% (162)	16.05% (26)	27.16% (44)	6.79% (11)	50.00% (81)
	EI	100% (132)	25.00% (33)	27.27% (36)	3.03% (4)	44.70% (59)

Results of participants' source attributions replicate the findings of experiment 1 in that CSC selections are primarily based on intuition, whereas BEIC selections are primarily based on rule knowledge: the asymmetry of participants' awareness of their linguistic knowledge still exists.

When it comes to the rule knowledge reported by participants, again, the selection of BEIC is consistently drawn on the belief that BEIC is mandatory if there is an external force acting on something, as mentioned by 29 participants. In contrast, opinions regarding when to use CSC have been extremely diverse. The following are some sample verbalizations:

- (15)
- a. You are touching the screen. (It) does not have to be passive.
  - b. This just focuses on itself, not anything acting on it.
  - c. This is not trying to say anything specific.
  - d. This is not a quick, hard hitting action.
  - e. It changes the actual thing.
  - f. This is not a bad thing.

It can be seen from (15a-d) that the rejection strategy remains to be a major reason underlying CSC selection. Besides, participants also noticed verbal semantics, as shown in (15d) and (15e), and the overall emotional connotation of the event, such as (15f).

The linguistic knowledge reported by participants for CSC and BEIC selection is summarized and categorized altogether in Table 7.10, with L1 data collected in experiment 1 also presented for comparison.

Table 7.10.

*Frequencies of linguistic knowledges reported by L1 and L2 participants*

Relevant linguistic knowledge	L1 (N=10)	L2 (N=30)
Presence/emphasis of the outside force	2	29
Verbal semantics	4	5
Animacy of the theme	3	1
Emotional connotation of the event	3	6
Others	1	9

*Note.* Many participants mentioned more than one point in their reports. This is the reason why the sum of different categories does not equal to the number of participants.

#### 7.8.2.4 Summary

Oriented at the revised research question, results of experiment 2 confirm the conjecture that explicit instruction can counteract the attentional bias between CSC and BEIC, make the input of CSC count, and thus promote the intake of it. This finding is particularly meaningful for classroom teaching if we take into account that the explicit instruction in the experiment is in fact no more than a single sentence. Additionally, previous findings of participants' linguistic knowledge are by and large replicated despite the significant intake of CSC: among intermediate and advanced Chinese learners, the sensitivities to the animacy cue and the verbal semantic cue in construction selection are inherent, albeit not in awareness. Participants failed to demonstrate any consistent conscious knowledge regarding the usage of CSC.

## 7.9 Summary of CSC in Chinese Teaching and Acquisition

The investigation of four series of widely used Chinese language textbooks reveals that CSC is only introduced through the notional passive construction, and generally has not received much attention. Previous studies focusing on Chinese learners' acquisition of Chinese passive expressions show contradictory findings. It remains a mystery as to which construction is being overused between CSC and BEIC. Besides, echoing the tradition of theoretical linguistics, previous discussion is primarily oriented at passive, which is vitually a vague notion in Chinese. Therefore, this chapter advocates an incorporation of the notions of verbal lability and change-of-state construction into pedagogical grammar, a way that can potentially resolve some common confusions amongst Chinese learners.

With results from two experiments, the present study finds that compared to native Chinese speakers, Chinese learners with English as L1 tend to overuse BEIC, and that the acquisition of Chinese change-of-state construction (CSC) can barely benefit from input flood alone. Probably due to the lack of marking, CSC is not perceptually salient in incidental exposure, especially in comparison with the marked 被 *bei* construction, making it much more difficult to be noticed. Frequency effect is thereby overridden. However, the effect of the input flood treatment can be elicited with a little amount of explicit instruction that functions to counteract the attentional bias. In this sense, the indispensable role of explicit instruction in teaching non-salient forms is shed light on. This finding is largely in line with studies arguing the effect of explicit instruction in language teaching (cf. Ellis, 2006; 2015), and also brings to light the difference between L1 acquisition and L2 acquisition (SLA). Assuming language acquisition is always usage-based, involving an accumulation of language experience and the generalization of patterns from such experience, SLA distinguishes itself from L1 acquisition in that it draws on adult conceptual knowledge, and is subject to the influence and interference from preexisting L1

knowledge (Ellis, 2013). For this reason, language forms can be non-salient or fragile in L2 input, but this problem does not exist in L1 acquisition. This is why sometimes L2 input needs to be made to count (as it does in L1 acquisition) by explicit instruction.

When it comes to learners' linguistic knowledge of the selectional constraints between CSC and BEIC, results from the think-aloud protocol (including source attributions) analysis suggest that the sensitivities to the animacy cue and the verbal semantic cue are inherent, albeit not in awareness, among L1-English intermediate and advanced Chinese learners. The awareness of this part of linguistic knowledge can hardly be raised by intentional rule discovery. This finding confirms the hypothesized cross-linguistic cognitive base of the change-of-state construction (cf. Chapter 5), and can be aligned with Chinese infants' L1 acquisition of CSC and BEIC (cf. Peng & Xu, 2011), but it remains unknown why participants were not aware of the linguistic knowledge whatsoever.

In the last place, it has to be pointed out the limitations involved with the present study that call for future research. Due to practical reasons, participants and test items are fairly limited in number in both experiments, and the participants of Experiment 2 were recruited from the United States and China, presumably leading to unwanted variability. Although some consistent findings have been observed, it is highly necessary to increase the sample size for a more reliable result. Another limitation pertains to the modalities used in the present study. The input flood treatment in both experiments happened in the written modality, whereas the binary forced-choice tasks were conducted orally with written texts present, so it is of interest to see what if the treatment is brought into the auditory modality. The final point worth further exploration concerns participants' awareness of the linguistic knowledge detected regarding the selectional

constraints between CSC and BEIC. It is currently unclear why they are not aware of this knowledge whatsoever.

Based on the current findings, it can be tentatively concluded that some explicit instruction can help learners use CSC and BEIC more like native Chinese speakers. Such explicit instruction can occur both in Chinese language textbooks and classroom teaching, and can be very brief as the purpose is just to have learners notice the form. The distributional constraints are not necessarily covered as this knowledge is inherent among learners.



## CHAPTER 8 CONCLUSIONS

Although researchers have been discussing the property of Chinese verbs to be used transitively and intransitively for decades, attempts trying to apply ergative theory, unaccusative theory, notions of causative/anticausative, and voice system (passive/active/middle) into Chinese virtually all face the challenge of delineating the phenomena perspicuously. In contrast, referring to the transitive/ intransitive usage only, the notion of verbal lability is clear in its reference and transparent for the phenomenon described by it.

Based on character-based investigation of historical data, it is shown that verbal lability in Chinese can be incorporated into the typology of labile verbs. Cross-linguistically, labile verbals prototypically denote change-of-state events because the complex event structure of change-of-state events gives way to two competing ways of profiling, realized as the transitive structure and the intransitive structure respectively. In Caucasian languages and Indo-European languages, verbal lability occurs when causative/anticausative is not morphologically marked, and negatively correlates with the degree of grammaticalization of causative/anticausative. As a representative of isolating languages wherein neither causative nor anticausative is marked, Chinese exhibits an extensively large group of labile verbals. Almost all change-of-state events can be expressed transitively or intransitively by labile verbals.

Nevertheless, as a radial category, the prototype of labile verbals has central members and peripheral members. Central members are more symmetric in terms of their transitive and intransitive distribution, and thus are more labile, whereas peripheral members have a primary use between transitive and intransitive. The degree of lability is determined by the likelihood of spontaneous occurrence of the event. If the change-of-state event typically occurs spontaneously,

the object is more likely to be profiled as the trajector, which leads to an intransitive structure without an agent. On the other hand, If the change-of-state event is likely to be caused by outside force, then the agent tends to be profiled as the trajector, resulting in a transitive structure.

The 被 *bei* construction (BEIC) in Chinese owes its origin to the intransitive labile construction (change-of-state construction, CSC for short). From the verbal sense of ‘to receive’, the meaning of the character 被 has been mapped onto subjective perception, and derived the meaning of ‘affectedness’. Accordingly, the object of 被 *bei* extended from NPs (entities) to VPs and clauses (events). Therefore, BEIC in Modern Mandarin can roughly be represented as ‘affectee + 被 *bei* + event’, in which the event is not necessarily a change of state.

Together with its grammaticalization, BEIC is continuously becoming more frequent and free from constraints in Chinese. However, up till now, the frequency of it still cannot be compared with CSC, but interestingly, it has caught much more attention than CSC in Chinese teaching. Results from two experiments show that intermediate and advanced Chinese learners with English as L1 significantly use more BEIC and less CSC than native Chinese speakers, and this situation cannot be changed with mere exposure. Possibly due to the difference in terms of the markedness, CSC is much more difficult to be noticed than BEIC, rendering explicit instruction necessary to counteract the attentional bias. Importantly, it is also shown that the selectional constraints between these two constructions do not need to be taught, confirming that the prototype of CSC is inherent in human cognition.

## REFERENCES

- Aldridge, E. (2015). Ergativity and unaccusativity. In R. Sybesma (Eds.), *Encyclopedia of Chinese language and linguistics*. Brill Online.  
[http://referenceworks.brillonline.com/entries/encyclopedia-of-chinese-language-and-linguistics/ergativity-and-unaccusativity-COM\\_000173](http://referenceworks.brillonline.com/entries/encyclopedia-of-chinese-language-and-linguistics/ergativity-and-unaccusativity-COM_000173).
- Allerton, D. J. (2002). *Stretched verb constructions in English*. London: Routledge.
- Anderson, S. (1976). On the notion of subject in ergative languages. In C. Li. (Eds.), *Subject and topic* (pp. 1–24). New York: Academic Press.
- Arcodia, G. F. (2007). Chinese: A language of compound words? In F. Montermini, G. Boyé, & N. Hathout (Eds.), *Selected proceedings of the 5th Décembrettes: Morphology in Toulouse* (pp. 79-90). Somerville, MA: Cascadilla Proceedings Project.
- Barnes, B. K. (1985). *The pragmatics of left detachment in spoken standard French*. Amsterdam: Benjamins (Pragmatics & Beyond VI:3).
- Barsalou, L. W., Huttenlocher, J., & Lamberts, K. (1998). Basing categorization on individuals and events. *Cognitive Psychology*, 36, 203–272.
- Baxter, W. H. & Sagart, L. (1998). Word Formation in Old Chinese. In J. L. Packard (Eds.), *New approaches to Chinese word formation* (pp. 35-75). Berlin-New York: Mouton de Gruyter.
- Blank, A. & Koch, P. (Ed.). (1999). *Historical semantics and cognition*. Berlin: Mouton de Gruyter.
- Bloomfield, L. (1933). *Language*. New York: Henry Holt.
- Bo, X., & Zhan, W. (2006). 汉语被字句的约束条件与机器翻译中英语被动句的处理 Hanyu beiziju de yueshu tiaojian yu jiqi fanyizhong yingyu beidongju de chuli [The constraints

- of Chinese bei sentences and the computer translation of English passive sentences]. In F. Xing (Eds.), *汉语被动表述问题研究新探索 Hanyu beidong biaoshu wenti yanjiu xin tansuo [New developments in the studies of Chinese passives]*(pp. 1-17). Wuhan, China: Huazhong Normal University Press.
- Brugman, C. M. (1983). *The story of 'over'*. Bloomington, Indiana: Indiana University Linguistics Club.
- Burzio, L. (1986). *Italian syntax: A government-binding approach*. Dordrecht: Foris.
- Bybee, J. L. (2006). *Frequency of use and the organization of language*. Oxford, UK: Oxford University Press.
- Bybee, J. L. (2010). *Language, usage, and cognition*. Cambridge: Cambridge University Press.
- Bybee, J. L. (2012). Usage-based theory and exemplar representations of construction. In T. Hoffmann & T. Graeme (Eds.), *The Oxford handbook of construction grammar* (pp.49-69). New York: Oxford University Press. Available at <https://www.unm.edu/~jbybee/downloads/Bybee2013UBTandExRep.pdf>.
- Carter, R. (1988). Compositionality and polesemy. In B. Levin, & C. Tenny (Eds.), *On linking: Papers by Richard Carter* (pp.167-204). MIT Lexicon Project Working Paper no. 25. Department of Linguistics and Philosophy, MIT, Cambridge, Mass.
- Chafe, W. (1976). Givenness, contrastiveness, definiteness, subjects, topics, and point of view. In C. N. Li (Eds.), *Subject and topic* (pp. 27-55). New York: Academic Press.
- Chafe, W., & Tannen, D. (1987). The relation between written and spoken language. *Annual Review of Anthropology*, 16, 383-407.

- Chao, Y.-R. (1959). 汉语的歧义现象 Hanyu de qiyi xianxiang [Ambiguity in Chinese]. In S. Egerod, E. Glahn, & B. Karlgren (Eds.), *Studia serica Bernhard Karlgren dedicata* (pp.1-3). Danmark: E. Munksgaard.
- Chao, Y.-R. (1968). *A grammar of spoken Chinese*. Berkeley and Los Angeles: University of California Press.
- Chen, P. (1999). *Modern Chinese: history and sociolinguistics*. New York: Cambridge University Press.
- Chen, X. (2013). *中国艺术经典 Zhongguo yishu jingdian [Classics of Chinese art] Vol.4*. Beijing: Theatrical Publishing House of China.
- Chen, Y. (2016, May). *A construction-based account of the Chinese middle construction*. Paper presented at the 28th North American Conference on Chinese Linguistics. Abstract retrieved from [http://media.wix.com/ugd/a6646b\\_1746514d8536488f9801f8dfd858bf76.pdf](http://media.wix.com/ugd/a6646b_1746514d8536488f9801f8dfd858bf76.pdf)
- Cheng, L. L.-S., & C-T. J. Huang. (1994). On the argument structure of resultative compounds. In M. Y. Chen, & Ovid J. L. Tzeng (Eds.), *In honor of William S-Y. Wang: Interdisciplinary studies on language and language change* (pp. 187-221). Taipei: Pyramid Press.
- Cheung, S. H.-N., Liu, S.-Y., & Shih, L.-L. (1994). *A Practical Chinese grammar*. Hong Kong: The Chinese University Press.
- Chomsky, N. (1957). *Syntactic structures*. The Hague: Mouton.
- Chomsky, N. (1972). *Language and mind*, enlarged edition. New York: Harcourt Brace Jovanovich.
- Chomsky, N. (1979). *Language and responsibility*. New York: Pantheon Books.

- Chomsky, N. (1981). On the representation of form and function. *The Linguistic Review*, 1, 3-40.
- Chomsky, N. (1986). *Knowledge of language*. New York: Praeger.
- Chomsky, N. (1988). *Language and problems of knowledge*. Cambridge: The MIT Press.
- Cikoski, J. S. (1978). An outline sketch of sentence structures and word classes in Classical Chinese—Three essays on Classical Chinese grammar I. *Computational Analyses of Asian & African Languages*, 8, 17-152.
- Clark, M. (1974). Passive and ergative in Vietnamese. In L. D. Nguen (Eds.), *South-East Asian linguistic studies* (pp. 75-88). Canberra: ANU, Pacific Linguistics.
- Cole, P. (1987). Null object in Universal Grammar. *Linguistic Inquiry*, 18, 597-612.
- Croft, W. (1991). *Syntactic categories and grammatical relations*. Chicago, IL: University of Chicago Press.
- Croft, W. (1994). The semantics of subjecthood. In M. Yaguello (Eds.), *Subjecthood and subjectivity* (pp. 29-75). Paris: Ophrys.
- Croft, W. (1998). Event structure in argument linking. In M. Butt & W. Geuder (Eds.), *The projection of arguments: lexical and compositional factors* (pp.21-63). Stanford, CA: CSLI Publications.
- Croft, W. (2001). *Radical construction grammar: Syntactic theory in typological perspective*. Oxford, UK: Oxford University Press.
- Croft, W. (2012). *Verbs: Aspect and causal structure*. Oxford, UK: Oxford University Press.
- Croft, W., & Cruse, D. A. (2004). *Cognitive linguistics*. Cambridge: Cambridge University Press.

- Csábi, S. (2004). A cognitive linguistic view of polysemy in English and its implications for teaching. In M. Archard, & S. Niemeier (Eds.), *Cognitive linguistics, second language acquisition, and foreign language teaching* (pp. 233- 256). Berlin: Mouton de Gruyter.
- Cysouw, M. (2008). Generalizing scales. In M. Richards, & A. L. Malchukov (Eds.), *Scales* (pp. 379-396). Leipzig: Institut für Linguistik, Universität Leipzig.
- Dai, Y. (2013). 汉语作为第二语言的无标记被动句习得研究 *Hanyu zuowei di'eryuyan de wubiaoji beidongju xide yanjiu [Acquisition of Chinese unmarked passive construction in Chinese as second language ]* (Master's thesis, Hunan Normal University). Retrieved from <http://cdmd.cnki.com.cn/Article/CDMD-10542-1013215945.htm/>
- DeLancey, S. (1984). Notes on agentivity and causation. *Studies in Language*, 8, 181-213.
- Dienes, Z. (2004). Assumptions of subjective measures of unconscious mental states: Higher order thoughts and bias. *Journal of Consciousness Studies*, 11, 25–45.
- Dienes, Z., & Scott, R. (2005). Measuring unconscious knowledge: Distinguishing structural knowledge and judgment knowledge. *Psychological Research*, 69, 338–351.
- Dixon, R. M. W. (1979). Ergativity. *Language*, 55(1), 59-138.
- Dixon, R. M. W. (1994). *Ergativity*. Cambridge: Cambridge University Press.
- Dong, X. (2002). 词汇化：汉语双音词的衍生和发展 *Cihuihua: Hanyu shuangyinzi de yansheng he fazhan [Lexicalization: The emergence and development of Chinese disyllabic words]*. Chengdu: Sichuan Nationalities Publishing House.
- Dong, X. (2015). 上古汉语叙事语篇中由话题控制的省略模式 *Shanggu hanyu xushi yupian zhong you huati kongzhi de shenglv moshi [Topic-controlled ellipsis pattern in Ancient Chinese]*. *Zhongguo Yuwen [Studies of the Chinese Language]*, (4), 306-314.

- D'souza, J. (1986). Language modernization in a sociolinguistic area. *Anthropological Linguistics*, 28(4), 455-471.
- Dubois, J., Giacomo-marcellesi, M., & Guespin, L. (1973). *Dictionnaire de linguistique*. Paris: Larousse.
- Eckman, F. R. (1977). Markedness and the Contrastive Analysis Hypothesis. *Language Learning*, 27(2), 315-330.
- Ellis, N. C. (2002). Frequency effects in language acquisition: A review with implications for theories of implicit and explicit language acquisition. *Studies in Second Language Acquisition*, 24, 143-188.
- Ellis, N. C. (2006). Selective attention and transfer phenomena in L2 acquisition: Contingency, cue competition, salience, interference, overshadowing, blocking, and perceptual learning. *Applied Linguistics*, 27, 164–94.
- Ellis, N. C. (2015). Implicit and explicit language learning: Their dynamic interface and complexity. In P. Rebuschat (Eds.), *Implicit and explicit learning of languages* (pp. 3-23). Amsterdam: John Benjamins. [Implicit\\_AND\\_Explicit\\_Learning\\_EllisPreprint.pdf](#)
- Ellis, N. C., & Cadierno, T. (2009). Constructing a second language. Introduction to the Special Section. *Annual Review of Cognitive Linguistics*, 7, 111-139.
- Ellis, N. C., & O'Donnell, M. B. (2011). Robust Language Acquisition—an Emergent Consequence of Language as a Complex Adaptive System. In L. Carlson, C. Hölscher, & T. Shipley (Eds.), *Proceedings of the 33rd Annual Conference of the Cognitive Science Society* (pp. 3512-3517). Austin, TX: Cognitive Science Society.



- Ellis, N. C., & O'Donnell, M. B. (2012). Statistical construction learning: Does a Zipfian problem space ensure robust language learning? In J. Rebuschat & J. Williams (Eds.), *Statistical learning and language acquisition* (pp. 265-304). Berlin: Mouton de Gruyter.
- Ellis, N. C., O'Donnell, M. B., & Römer, U. (2014). Second Language Verb-Argument Constructions are Sensitive to Form, Function, Frequency, Contingency, and Prototypicality. *Linguistic Approaches to Bilingualism*, 4(4), 405-431. [Secondlanguageconstructions\\_LAB#2preprint.pdf](#)
- Ellis, N. C., O'Donnell, M., & Römer, U. (2015). Usage-based language learning. In B. MacWhinney, & W. O'Grady (Eds.), *The handbook of language emergence* (pp. 163-180). Hoboken: Wiley-Blackwell.
- Emanatian, M. (1993). *Figure-ground reversal in grammar*. Paper presented at the third International Cognitive Linguistics Association Conference. Leuven, 18-23 July.
- Ericsson, K. A., & Simon, H. A. (1993). *Protocol analysis: Verbal reports as data* (Rev. Ed.). Cambridge, MA: MIT Press.
- Ferguson, C. (1968). Language development. In J. Fishman, F. Charles, & J. Das Gupta (Eds.), *Language problems of developing nations* (pp. 27-35). New York: Wiley.
- Fillmore, C. J. (1975). An alternative to checklist theories of meaning. *BLS*, 1, 123-131.
- Fillmore, C. J. (1985). Frames and the semantics of understanding. *Quaderni de Semantica*, 6(2), 222-253.
- Fries, C. (1945). *Teaching and learning English as a foreign language*. Ann Arbor: University of Michigan Press.
- Fu, Sinian. (1918). 怎样作白话文 *Zenyang zuo baihuawen* [How to write vernacular Chinese]. 新潮 *Xin Chao* [New Trend], 1(2).

- Gabor, N. T. (1998). From the ideal of unity to the practice of heterogeneity: Modernization Processes in the Hungarian language community. *Hungarian Studies*, 13(1), 1-12.
- Gao, S. (2006). 从语法化的角度看语言点的安排——以“了”为例 Cong yufahua de jiaodu kan yuyandian de anpai——yi 'le' wei li [On the arrangement of language points from the angle of grammaticalization: A case study of 'le']. *语言教学与研究 Yuyan Jiaoxue yu Yanjiu [Language Teaching and Linguistic Studies]*, (5), 60-66
- Geeraerts, D. (1989). Prospects and problems of prototype theory. *Linguistics*, 27, 587-612.
- Gianollo, C. (2014). Labile verbs in Late Latin. *Linguistics*, 52(4), 945-1002.
- Givon, T. (1991). Isomorphism in the grammatical code: Cognitive and biological considerations. *Studies in Languages*, 15, 85-114.
- Goldberg, A. E. (1995). *Constructions: A construction grammar approach to argument structure*. Chicago: University of Chicago Press.
- Goldberg, A. E. (2003). Constructions: A new theoretical approach to language. *Trends in Cognitive Science*, 7, 219—224.
- Goldberg, A. E., Casenhiser, D., & Sethuraman, N. (2004). Learning argument structure generalizations. *Cognitive Linguistics*, 15, 289-316.
- Gonzalez-Marquez, M., Becker, R. B., & Cutting, J. E. (2007). An introduction to experimental methods for language researchers. In M. Gonzalez-Marquez, I. Mittelberg, S. Coulson, & M. J. Spivey (Eds.), *Methods in cognitive linguistics* (pp. 53-86). Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Gropen, J., Pinker, S., Hollander, M., Goldberg, R., & Wilson, R. (1989) The learnability and acquisition of the dative alternation in English. *Language*, 65(2), 203-257.

- Gundel, J. K. (1976). Topic-comment structure and the use of *tože* and *takže*. *Slavic and East European Journal*, 19, 174–176.
- Guo, Y., & Guo, C. (2008). *中国古代文学史 Zhongguo gudai wenxueshi [A history of ancient Chinese history]* Vol.1. Beijing: Beijing Normal University Press.
- Haiman, J. (1980). The iconicity of grammar. *Language*, 56(3), 515-540.
- Haiman, J. (1983). Iconic and economic motivation. *Language*, 59(4), 781-819.
- Haiman, J. (1985a). *Iconicity in syntax*. Amsterdam & Philadelphia: John Benjamins.
- Haiman, J. (1985b). *Natural syntax*. Cambridge: Cambridge University Press.
- Halliday, M. A. K., & Hasan, R. (1976). *Cohesion in English*. London: Longman Group Ltd.
- Harada, N. (2015). Power in modernization of language and literature in eighteenth-century Britain and Modern Japan. *Journal of Literature & Librarianship*, 4(1), 20-32. Available at: <http://iafor.org/journal-of-literature-and-librarianship-volume-4-issue-1>
- Harris, Z. (1951). *Methods in structural linguistics*. Chicago: University of Chicago Press.
- Hashimoto, M. (1987). 汉语被动式的历史·区域发展 Hanyu beidongshi de lishi: Quyu fazhan [The history of Chinese passive construction: Areal Development]. *中国语文 Zhongguo Yuwen [Studies of the Chinese Language]*, (6), 36-49.
- Haspelmath, M. (1987). Transitivity alternations of the anticausative type. Arbeitspapier n. 5. *Institut für Sprachwissenschaft, Köln*, 1-51.
- Haspelmath, M. (1993). More on the typology of inchoative/causative verb alternations. In B. Comrie, & M. Polinsky (Eds.), *Causatives and transitivity* (pp. 87–120). Amsterdam & Philadelphia: John Benjamins.

- Hatch, E., & Wagner-Gough, J. (1976). Explaining sequence and variation in second language acquisition. *Papers in Second Language Acquisition, Language Learning (Special Issue, 4)*, 39-57.
- He, X. (2005). *On the patient-subject construction in Chinese* (Unpublished doctoral dissertation). University of Hong Kong, Hong Kong. Retrieved from <http://hub.hku.hk/bitstream/10722/26775/6/FullText.pdf?accept=1>.
- He, Y. (2008). A study of the phenomena of Europeanization in Modern Chinese Grammar. *Shijie Hanyu Jiaoxue [Chinese Teaching in the World]*, (4), 16-31.
- Heidinger, S. (2014). The persistence of labile verbs in the French causative-anticausative alternation. *Linguistics*, 52, 1003-1024.
- Horvath, A. (1990). Tradition and modernization: Educational consequences of changes in Hungarian society. *International Review of Education*, 36(2), 207-217.
- Hu, Shih. (1917). 文学改良刍议 Wenxue gailiang chuyi [A preliminary discussion of literature reform]. 新青年 *Xin Qingnian [New Youth]*, 2(5).
- Huang, C.-R. (1991). Certainty in functional uncertainty. *Journal of Chinese Linguistics* 20, 247-287.
- Huang, C.-T. & Liu, N. (2014). 新兴非典型被动式“被 XX”的句法与语义结构 Xinxing feidianxing beidongshi "beiXX" de jufa yu yuyi jiegou [The syntax and semantics of the new non-canonical *beiXX* construction]. 语言科学 *Yuyan Kexue [Linguistic Science]*, 13(3), 225-241.
- Huang, C.-T. J. (1984a). On the distribution and reference of empty pronouns. *Linguistic Inquiry*, 15, 531-574.
- Huang, C.-T. J. (1984b). On the typology of zero anaphora. *Language Research*, 20, 35-105.

- Huang, C.-T. J. (1987). Remarks on empty categories in Chinese. *Linguistic Inquiry*, 18, 321-337.
- Huang, C.-T. J. (1989). 中文的两种及物动词和两种不及物动词 Zhongwen de liangzhong jiwu dongci he liangzhong bujiwu dongci [Two kinds of transitive verbs and intransitive verbs in Chinese], In *Proceedings of the 2nd World Congress of Chinese Language Studies* (39-59). Taipei: World Chinese Language Association.
- Huang, C.-T. J., Li, Y.-H. A., & Li, Y. (2009). *The syntax of Chinese*. New York: Cambridge University Press.
- Humboldt, W. (1825). *Über die Entstehung der grammatischen Formen und ihren Einfluss auf die Ideenentwicklung*. Berlin: Abhandlungen der Akademie der Wissenschaften zu Berlin.
- Hymes, D., & Fought, J. (1981). *American structuralism*. Janua Linguarum, Series Maior 102. The Hague: Mouton.
- Jiang, L. (1999/2000). 汉语使役与被动兼用探源 Hanyu shiyi yu beidong jianyong tanyuan [The convergence of causative and passive in Chinese]. In L. Jiang (Eds.), *近代汉语探源 Jindai hanyu tanyuan [Explore the origin of Middle Chinese]* (pp. 221-236). Beijing: The Commercial Press.
- Jiang, S. (2002). “给”字句、“教”字句表被动的来源 'Gei' zi ju, 'jiao' zi ju biao beidong de lai yuan [The origin of the 'gei' construction and the 'jiao' construction expressing passive]. In *语言学论丛 Yuyanxue luncong [Papers on linguistics] Vol. 26* (pp. 159-177). Beijing: The Commercial Press.

- Jiang, S. (2009). *The semantic structure of Chinese classifiers and its implications for linguistic relativity* (Unpublished doctoral dissertation). Department of East Asian Languages & Literatures, University of Hawaii at Manoa, Hawaii.
- Jing-Schmidt, Z. (2015). The place of linguistics in CSL teaching and teacher education: Toward a usage-based constructionist to constructional stratification. *Journal of the Chinese Language Teachers Association*, 50(3), 1-22.
- Jing-Schmidt, Z., Peng, X., & Chen, J.-Y. (2015). From corpus analysis to grammar instruction: Toward a usage-based constructionist approach to constructional stratification. *Journal of the Chinese Language Teachers Association*, 50(2), 1-30.
- Kasper, G. (1998). Analysing verbal protocols. *TESOL Quarterly*, 32(2), 358–362.  
<http://dx.doi.org/10.2307/3587591/>
- Keenan, E. L. (1985). Passive in the world's languages. In Shopen, T. (Eds.), *Language typology and syntactic description, Vol. 1: Clause Structure* (pp. 243-281). Cambridge: Cambridge University Press.
- Kemmer, S. (1993). *The middle voice*. Amsterdam/Philadelphia: Benjamins.
- Kern, M. (2010). Early Chinese literature, Beginnings through Western Han. In S. Owen (Eds.), *The Cambridge history of Chinese literature, Volume I: To 1375* (pp. 1-115). Cambridge: Cambridge University Press.
- Klaiman, M. H. (1991). *Grammatical voice*. Cambridge: Cambridge University Press.
- Krashen, S. (1985). *The input hypothesis: issues and implications*. London and New York: Longman.
- Krashen, S. D. (1985). *The input hypothesis: Issues and implications*. New York: Longman.

- Kubler, C. C. (1985). *A study of Europeanized grammar in modern written Chinese*. Taipei: Student Book Store.
- Kulikov, Leonid. (2003). The labile syntactic type in a diachronic perspective: The case of Vedic. *SKY Journal of Linguistics*, 16, 93–112.
- Kuno, S. 1972. Functional sentence perspective: A case study from Japanese and English. *Linguistic Inquiry*, 3, 269-320.
- Lado, R. (1957). *Linguistics across cultures: Applied linguistics for language teachers*. Ann Arbor: University of Michigan Press.
- Lakoff, G. (1970). *Irregularity in syntax*. New York: Holt, Rinehart & Winston.
- Lakoff, G. (1977). Linguistic Gestalts. *CLS*, 13, 225-235.
- Lakoff, G. (1982). Categories: An essay in cognitive linguistics. In The Linguistic Society of Korea (Eds.), *Linguistics in the morning calm: Selected papers from SICOL-1981* (pp. 139-193). Seoul: Hanshin.
- Lakoff, G. (1987). *Women, fire, and dangerous things: What categories reveal about the mind*. Berkeley: University of California Press.
- Lakoff, G., & Johnson, M. (1980). *Metaphors we live by*. Chicago: Chicago University Press.
- Lakoff, G., & Johnson, M. (1999). *Philosophy in the flesh: The embodied mind and its challenge to Western thought*. New York: Basic Books.
- Lambrecht, K. (1994). *Information structure and sentence form: Cambridge studies in linguistics*. Cambridge, UK: Cambridge University Press.
- Langacker, R. W. (1987). *Foundations of cognitive grammar*, vol. 1. Stanford: Stanford University Press.

- Langacker, R. W. (1988). A usage-based model. In B. Rudzka-Ostyn (Eds.), *Topics in cognitive linguistics* (pp.27-161). Amsterdam and Philadelphia: John Benjamins.
- Langacker, R. W. (1991). *Foundations of cognitive grammar, vol. 2, Descriptive application*. Stanford: Stanford University Press.
- Langacker, R. W. (2008). *Cognitive grammar: A basic introduction*. New York: Oxford University Press.
- Lasnik, H., & Lohndal, T. (2013). Brief overview of the history of generative grammar. In M. D. Dikken (Eds.), *The Cambridge handbook of generative syntax* (pp.26-60). Cambridge: Cambridge University Press.
- Lau, D. C. (1993). Meng tzu 孟子 (Mencius). In M. Loewe (Eds.), *Early Chinese texts: A bibliographical guide* (pp. 331–335). Berkeley: Society for the Study of Early China; Institute of East Asian Studies, University of California, Berkeley.
- Lee, L. Ou-fan. (1973). *The Romantic generation of Modern Chinese writers*. Cambridge, Massachusetts: Harvard University Press.
- Lemmens. M. (1998). *Lexical perspectives on transitivity and ergativity*. Amsterdam/Philadelphia: John Benjamins Publishing Company.
- Letuchij, A. (2004). Lability of verbs and its relations to verb meaning and argument structure (based on the data of Indo-European, Arabic, Turkic, and other languages). *Vortrag beim LENCA-2-Symposium an der Universität Kasan* (pp.11–14). Retrieved from <http://www.ksu.ru/conf/LENCA-2/187.rtf>, abgerufen 2.9.2005.
- Letuchiy, A. (2009). Towards typology of labile verbs: lability vs. derivation. In Epps, P. & A. Arkhipov (Eds.), *New challenges in typology: Transcending the borders and re ning the distinctions* (pp.247–268). Berlin & New York: Mouton de Gruyter.



- Letuchiy, A. (2015). Historical development of labile verbs in modern Russian. *Linguistics*, 53(3), 611-647.
- Levin, B. & Rappaport, T. (1988). Lexical subordination. *CLS*, 24, Part I, 275-289.
- Levin, B. (1985). Lexical semantics in review: An introduction. In B. Levin (Eds.), *Lexical semantics in review.: Lexicon project working papers I*. Cambridge, Mass.: MIT Center for Cognitive Science.
- Levin, B. (1993). *English verb classes and alternations*. Chicago: University Press of Chicago.
- Levin, B. (2009). *Lexical semantics of verbs III: causal approaches to lexical semantic representation*. Course LSA 116, UC Berkeley. Available at <http://web.stanford.edu/~bclevin/lsa09causapp.pdf>.
- Levin, B., & Rappaport Hovav, M. (2005). *Argument Realization*. Cambridge, UK: Cambridge University Press.
- Li, C., & Thompson, S. (1976). Subject and topic: a new typology of language. In Charles N. Li (Eds.), *Subject and topic* (pp.457-489). New York: Academic Press.
- Li, C., & Thompson, S. (1981). *Mandarin Chinese: a functional reference grammar*. Berkeley: University of California Press.
- Li, J. (1924/2007). *新著国语文法 Xin zhu guoyu wenfa [New Chinese Grammar]*. Changsha, Hunan: Hunan Education Publishing House.
- Li, J. (1933/1986). *比较文法 Bijiao wenfa [Contrastive grammar]*. Beijing: Zhonghua Book Company.
- Li, Y.-C. (1994). 汉语主题与主语之辩 Hanyu zhuti yu zhuyu zhi bian [The distinction between topic and subject in Chinese]. In 第三届世界华语语文教学研讨会论文集理论与分析篇（上册） *Disanjie shijie huayuwen jiaoxue yantaohui lunwenji lilun yu fenxi*

- pian (shangce) [Proceeding of 3th Conference of World Chinese Language Association: Theory and analysis] Vol. 1. (pp. 19-28). Taipei: World Chinese Press.*
- Li, Y.-H. (1990). *Order and constituency in Mandarin Chinese*. Dordrecht: Kluwer.
- Liem, N.-D. (1969). *Vietnamese grammar: A combined tagmemic and transformational approach*. Canberra: Australian National University.
- Lippert, W. (2001). Language in the modernization process: The integration of Western concepts and terms into Chinese and Japanese in the nineteenth century. In M. Lackner, I. Amelung, & J. Kurtz (Eds.), *New terms for new ideas. Western knowledge and lexical change in late imperial China* (pp. 57-66). Leiden, Netherlands: Brill.
- Liu, L. H. (1995). *Translingual practice: literature, national culture, and translated modernity-China, 1900-1937*. Stanford, California: Stanford University Press.
- Liu, X. (2000). 对外汉语教育学引论 *Duiwaihanyu jiaoyuxue yinlun [An introduction to the study of teaching Chinese as a second language]*. Beijing: Beijing Yuyan Wenhua Daxue Chubanshe [Beijing Language and Culture University Press].
- Ljutikova, E. A. (2002). *Russkie labil'nye glagoly v tipologičeskoj perspective [Russian labile verbs in typological perspective]*. Handout for a paper presented at the conference “Lomonosovskie čtenija”. Moscow: Moscow State University.
- Lu, F. (2005). 对外汉语教学语法的层级划分与项目排序问题 *Duiwaihanyu jiaoxue yufa de cengji huafen yu xiangmu paixu wenti [The foundation and arranging sequence of the basis sentence pattern in teaching Chinese as a second language]*. *Yuyan Wenzhi Yingyong [Applied Linguistics]*, 4, 80-86.

- Lu, J. (1994). 外国人学汉语的语法偏误分析 *Waiguoren xue hanyu de yufa pianwu fenxi* [Grammar error analysis of Chinese learning as a second language]. *Yuyan Jiaoxue yu Yanjiu [Foreign Language Teaching and Research]*, 1, 122-132.
- Lu, J. (2004). 有关被动句的几个问题 *Youguan beidongju de jige wenti* [Some issues of passive sentences of Mandarin Chinese]. *汉语学报 Hanyu Xuebao [Chinese Linguistics]*, 11, 9-15.
- Lu, Xun. (1931/1981). 鲁迅与瞿秋白关于翻译的通信 *Lu Xun yu Qu Qiubai guanyu fanyi de tongxin* [Correspondence about translation between Lu Xun and Qu Qiubai]. In Liu Jingzhi (Eds.), *翻译论集 Fanyi Lunji [Analects on Translation]* (pp. 11-17). Hong Kong: Joint Publishing.
- Luka, B. J. (1999). *Familiarity breeds consent: Is structural facilitation evidence for the implicit knowledge of syntactic structures?* (Unpublished doctoral dissertation). University of Chicago. Dissertation abstracts International, 60(6-B), 2973.
- Lv, J. (1980). 唐明之间汉语被动式 *Tang Ming zhi jian hanyu beidongshi* [Chinese passive expressions from the Tang dynasty to the Ming dynasty]. *河南师范大学学 Henan Shifan Daxue Xuebao [Journal of Henan Normal University]*, (2), 80-88.
- Lv, S. (1987). 说“胜”和“败” *Shuo "sheng" he "bai"* [On win and defeat]. *中国语文 Zhongguo Yuwen [Studies of the Chinese Language]*, (1), 1-5.
- Lv, S., & Zhu, D. (1952/1979). *语法修辞讲话 Yufa xiuci jianghua [Speeches on grammar and rhetorics]*. Beijing: China Youth Publishing House.
- Lyons, J. (1968). *Introduction to theoretical linguistics*. Cambridge, England: Cambridge University Press.

- Lyons, J. (1977). *Semantics*. Cambridge: Cambridge University Press.
- Ma, J. (1898). *马氏文通 Ma shi Wentong [Ma's guide to the written language]*. Shanghai: The Commercial Press.
- Maslova, E., & Bernini, G. (2006). Sentence topics in the language of Europe and beyond. In G. Bernini & M. L. Schwartz (Eds.), *Pragmatic organization of discourse in the languages of Europe. Empirical approaches to language topology* (pp. 67-120). New York: Mouton de Gruyter.
- McEnery, A., & Xiao, Z. (2007). Parallel and comparable corpora: What is Happening? In G. James & G. Anderman (Eds.), *Incorporating corpora: The linguist and the translator* [G. Anderman & M. Rogers (Eds.), *Translating Europe series*] (pp. 18-31). Clevedon: Multilingual Matters.
- McEnery, A., Xiao, Z. & Mo, L. (2003) Aspect marking in English and Chinese: using the Lancaster Corpus of Mandarin Chinese for contrastive language study. *Literary and Linguistic Computing*, 18(4), 361-378.
- McEnery, A., Xiao, Z., & Tono, Y. (2006). *Corpus-based language studies: An advanced resource book* [C. Candlin and R. Carter (Eds.), *Routledge Applied Linguistics Series*]. London: Routledge.
- McMillion, A. (2006). *Labile verbs in English: Their meaning, behaviour, and structure* (Unpublished doctoral dissertation). University of Stockholm, Stockholm.
- Mei, T.-L. (1991). 从汉代的“动，杀”，“动，死”来看动补结构的发展——兼论中古时期起词的施受关系的中立化 Cong handai de "dong, sha", "dong, si" lai kan dongbujiegou de fazhan: Jianlun Zhonggu shiqi qici de shishouguanxi de zhonglihua [On the development of resultative verb compound from the "verb + kill" and "verb + die"

- structures in Han Dynasty: Also on the neutralization of the thematic roles of inchoative verbs in Middle Chinese]. *Yuyanxue Luncong [Essays on Linguistics]*, 16, 112-136.
- Mitra, A. (2001-2003). *Linguistics*. Retrieved from [http://horizons-2000.org/2.%20Ideas%20and%20Meaning/Topics/linguistics/right.html#\\_Toc17652608/](http://horizons-2000.org/2.%20Ideas%20and%20Meaning/Topics/linguistics/right.html#_Toc17652608/)
- Mosel, U. (1985). Ergativity in Samoan. *Arbeiten des Kölner Universalien-Projekts*, 61. AKUP. Köln: Institut für Sprachwissenschaft, Universität zu Köln.
- Murray, R. W. (2006). The place of historical linguistics in the age of structuralism. In S. Auroux (Eds.), *History of the language sciences Vol. 3*. (pp.2430-2444). Berlin, German: de Gruyter.
- Nedjalkov, V. P., & Jaxontov, S. E. (1983). Tipologiya rezul'tativnyx konstrukcij [Typology of resultative constructions]. In V. P. Nedjalkov (Eds.), *Tipologiya rezul'tativnyx konstrukcij. (rezul'tativ, stative, passiv, perfekt) [Typology of resultative constructions (resultative, stative, passive, perfective)]* (pp. 5-41). Leningrad: Nauka.
- Nedjalkov, V. P., & Sil'nickij, G. G. (1969/1973). The typology of morphological and lexical causatives. In F. Keifer (Eds.), *Trends in Soviet theoretical linguistics* (pp. 1-32). Dordrecht: Reidel. (Reprinted from )
- Neuhaus, J. M., Hauck, W. W., & Kalbfleisch, J. D. (1992). The effects of mixture distribution misspecification when fitting mixed-effects logistic models. *Biometrika*, 79, 755-762.
- Newell, A., & Simon, H. A. (1972). *Human problem solving*. Englewood Cliffs, NJ: Prentice Hall.
- Nichols, J. (1984). Direct and oblique objects in Chechen-Ingush and Russian. In Plank, F. (Eds.), *Objects* (pp. 183-209). London: Academic Press.

- Nichols, J. (1986). On form and content in typology. In Lehmann, Winfred P. (Eds.), *Language typology 1985* (pp.141-162). Amsterdam: John Benjamins [Current Issues in Linguistic Theory 47].
- Nida, E. A. (1966). Principles of Translation as Exemplified by Bible Translating. In Reuben A. Brower, (Eds.), *On translation*. New York:Oxford University Press, 11-31.
- Norman, J. (1982). 汉语和阿尔泰语互相影响的四项例证 Hanyu he aertai yu huxiang yingxiang de si xiang lizheng [Four pieces of evidence demonstrating the mutual influence of Chinese and Altaic languages]. *Tsing Hua Journal of Chinese Studies*, 14(1), 243-247.
- Norman, J. (1988). *Chinese*. Cambridge, UK: Cambridge University Press.
- Ochs Keenan, E., & Schieffelin, B. (1976). Topic as a discourse notion: A study of topic in the conversations of children and adults. In C. N. Li (Eds.), *Subject and topic* (pp. 27-55). New York: Academic Press.
- O'Grady, W. (2013). *The syntax files*. Department of Linguistics, University of Hawaii at Manoa.
- Onishi, K. (2004). 施受同辞刍议——《史记》中的“中性动词”和“作格动词” Shishoutongci chuyi: *Shiji* zhong de 'zhongxing dongci ' he 'zuoge dongci' [A preliminary discussion of the alternation between agent and patient: Neutral verbs and ergative verbs in *Shiji*]. In K. Takashima & S. Jiang (Eds.), *Meaning and form: Essays in Pre-Modern Chinese Grammar* (pp. 375-394). Muenchen: Lincom Europa
- Ota, T. (2003). *中国语历史文法 Zhongguoyu lishi wenfa [Historical grammar of Chinese]*. Beijing: Peking University Press.
- Otsuka, Y. (2000). *Ergativity in Tongan* (Unpublished doctoral dissertation). University of Oxford, Oxford. Retrieved from <http://www2.hawaii.edu/~yotsuka/thesis.html>.

- Öztina, S. (2009). *Effects of input flood and negative evidence on learning of 'make/do' collocations: A study with seventh grade Turkish EFL students* (Unpublished doctoral dissertation). Anadolu University Institute of Educational Sciences, Eskisehir, Turkey.
- Pan, W. (2001a). “字”与 Word 的对应性(上) 'Zi' yu word de duiyingxing (shang) [The correspondence between 'character' and 'word' (Part I)]. *Journal of College of Chinese Language and Culture of Jinan University*, (3), 42-51.
- Pan, W. (2001a). “字”与 Word 的对应性 (下) 'Zi' yu word de duiyingxing (shang) [The correspondence between 'character' and 'word' (Part I)]. *Journal of College of Chinese Language and Culture of Jinan University*, (3), 42-51.
- Pan, W. (2006). 字本位理论的哲学思考 Zibenwei lilun de zhexue sikao (Philosophical Thinking of character-based theory). *Yuyan jiaoxue yu yanjiu (Language teaching and research)*, 3, 36-45.
- Peng, S. (2006). 留学生汉语被动句输出情况的调查研究 Liuxuesheng hanyu beidongju shuchu qingkuang de diaocha yanjiu [Survey study of output of Chinese passive sentences of foreign students]. 云南师范大学学报 *Yunan Shifan Daxue Xuebao [Journal of Yunnan Normal University]*, 6, 13-17.
- Perlmutter, D. (1978). Impersonal passives and the unaccusative hypothesis. In *Proceedings of the 4th Annual Meeting of the Berkeley Linguistics Society* (pp. 157-190). Berkeley: Berkeley Linguistics Society.
- Peyraube, A. (2000). Westernization of Chinese grammar in the 20<sup>th</sup> century: Myth or reality? *Journal of Chinese Linguistic*, (28), 1- 26.
- Pine, J. M., & Lieven, E. V. M. (1993). Reanalyzing rote-learned phrases: Individual differences in the transition to multi-word speech. *Journal of Child Language*, 20, 551–571.

- Pine, J. M., & Lieven, E. V. M. (1997). Slot and frame patterns in the development of the determiner category. *Applied Psycholinguistics*, 18, 123–138.
- Pine, J. M., Lieven, E. V. M., & Rowland, C. F. (1998). Comparing different models of the development of the English verb category. *Linguistics*, 36, 807–830.
- Pinker, S. (1989). *Learnability and cognition: The acquisition of argument structure*. Cambridge, Mass.: MIT Press.
- Qu, Y.-F. (1994). *Object noun phrase dislocation in Mandarin Chinese* (Unpublished doctoral dissertation). University of British Columbia, British Columbia, Canada.
- Rappaport, M., & Levin, B. (1988). What to do with theta roles. In W. Wilkins (Eds.), *Syntax and semantics 21: Semantic roles* (pp.7-36). New York: Academic Press.
- Rebuschat, P., Hamrick, P., Sachs, R., Riestenberg, K., & Ziegler, N. (2013). Implicit and explicit knowledge of form-meaning connections: Evidence from subjective measures of awareness. In J. M. Bergsleithner, S. N. Frota, & J. K. Yoshioka, (Eds.), *Noticing and second language acquisition: Studies in honor of Richard Schmidt* (pp. 255–275). Honolulu: University of Hawai‘i, National Foreign Language Resource Center.
- Reinhart, T. (1982). Pragmatics and linguistics: An analysis of sentence topics. *Philosophica*, 27, 53-94.
- Römer, U., O’Donnell, M., & Ellis, N. C. (2013). Using COBUILD grammar patterns for a large-scale analysis of verb-argument constructions: Exploring corpus data and speaker knowledge (pp. 43-71). In M. Charles, N. Groom & S. John (Eds.), *Corpora, grammar, text and discourse: In honour of Susan Hunston*. Amsterdam: John Benjamins.
- Rosch, E. (1975a). Cognitive reference points. *Cognitive Psychology*, 7, 532-547.



- Rosch, E. (1975b). Cognitive representations of semantic categories. *Journal of Experimental Psychology: General*, 104, 192-233.
- Rosch, E. (1977). Human categorization. In N. Warren (Eds.), *Studies in cross-cultural psychology. Vol. 1* (pp. 3-49). London: Academic Press.
- Rosch, E. (1978). Principles of categorization. In E. Rosch & B. Lloyd (Eds.), *Cognition and categorization* (pp. 27-48). Hillsdale, NJ: Lawrence Erlbaum.
- Rosch, E., & Mervis, C. B. (1975). Cognitive representations of semantic categories. *Journal of Experimental Psychology: General*, 104, 192-233.
- Rosch, E., Mervis, C. B., Gray, W. D., Johnson, D. M., & Boyes-Braem, P. (1976). Basic objects in natural categories. *Cognitive Psychology*, 8, 382-439.
- Saffran, J. R., Aslin, R. N., & Newport, E. L. (1996). Statistical learning by 8-month-old infants. *Science*, 274, 1926-1928.
- Saussure, F. D. (1916/1959). In C. Bally, & A. Sechehaye (Eds.), *Course in general linguistics*. New York: The Philosophical Library, INC.
- Schafer, F. (2009). The causative alternation. *Language and Linguistics Compass*, 3(2), 641-681.
- Schmidt, R. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 206-26.
- Schmidt, R. (1993). Awareness and second language acquisition. *Annual Review of Applied Linguistics* 13, 206-226.
- Sharwood-Smith, M. (1993). Input enhancement in instructed SLA: Theoretical bases. *Studies in Second Language Acquisition*, 15(2), 165-179.
- <http://dx.doi.org/10.1017/S0272263100011943/>

- Shen, G. (2011). Chinese language and the modern: Contemplating Chinese in the East Asian linguistic environment. *A selection of essays on Oriental Studies of ICIS, 1*, 93-102.
- Shen, Y., & Sybesma, R. (2010). 语法结构标记“给”与动词结构的衍生关系 Jufa jiegou biaoji gei yu dongci jiegou de yansheng guanxi [The derivational relation between the syntactic marker gei and several verbal constructions]. *Zhongguo Yuwen [Studies of the Chinese Language]*, (3), 222-237.
- Shen, Y., & Sybesma, R. (2012). 作格动词的形式和作格结构的构造 Zuoge dongci de xingshi he zuoge jiegou de gouzao [The property and structure of unaccusative verbs]. *Shijie Hanyu Jiaoxue [Chinese Teaching in the World]*, (3), 306-321.
- Shi, D. (1992). *The nature of topic comment constructions and topic constructions in Mandarin Chinese* (Unpublished doctoral dissertation). University of Southern California, Los Angeles.
- Shi, D. (1998). 汉语主题句的特征 Hanyu zhutiju de tezheng [The nature of Chinese topics]. Beijing: Modern Foreign Language Press.
- Shi, D. (2000). Topic and topic-comment constructions in Mandarin Chinese. *Language*, 76 (2), 383-408.
- Shi, D. (2003). 汉语动词前受事短语的句法地位 Hanyu dongci qian shoushi duanyu de jufa diwei [The syntactic status of the themes before verbs]. *中国语文研究 Zhongguo Yuwen Yanjiu [Study of the Chinese Language]*, 2: 15-23.
- Shi, D., & Tang, S.-W. (1999). *Some notes on the so-called 'pseudo-passives' in Chinese*. Handout of talk given at the Linguistic Society of Hong Kong Annual Research Forum, The Chinese University of Hong Kong.

- Shi, Y. (2002). *The establishment of Modern Chinese Grammar: The formation of the resultative construction and its effects*. Amsterdam - Philadelphia: John Benjamins.
- Shyu, S. (1995). *The syntax of focus and topic* (Unpublished doctoral dissertation). University of California, Los Angeles.
- Song, Y. (2009). 汉语作格动词的历史演变与动结式的语法化 Hanyu zuoge dongci de shili yanbian yu dongjieshi de yufahua [The diachronic evolution of Chinese ergative verbs and the grammaticalization of resultative verb compounds]. In F. Wu & X. Cui (Eds.), 语法化与语法研究 *Yufahua yu yufa yanjiu* [Studies on grammaticalization and grammar] Vol. 4. (pp. 347-360). Beijing: The Commercial Press.
- Sridhar, S. N. (1988). Language modernization: Structural and sociolinguistic aspect. In E. Biltzarra (Eds.), *Conference on the Basque Language, Vol. 1: Description of the language* (pp. 351-362). Victoria-Gasteiz: Eusko Jauriaritzaren Argitalpen-Zerbitzu Naguisa.
- Storch, N. (2010). Chapter 15: Researching grammar. In B. Paltridge & Aek Phakiti (Eds.), *Continuum companion to research methods in applied linguistics* (pp. 205-221). London & New York: Continuum International Publishing Group.
- Su, D. (2011). 构式语块教学法的实质——以兼语句教学及实验为例 Goushi yukuai jiaoxuefa de shizhi: Yi jianyuju jiaoxue ji shiyan wei li [The essence of the construction-chunking approach: An empirical study on teaching the Chinese pivotal sentence patters]. 汉语教学与研究 *Yuyan Jiaoxue yu Yanjiu* [Language Teaching and Linguistic Studies], 148(2), 16-22.
- Su, D., & Lu, J. (2010). “构式-语块”句法分析法和教学法 "Goushi- yukuai" jufa fenxifa he jiaoxuefa [The construction-chunking approach for syntactic analysis and second

- language teaching]. *世界汉语教学 Shijie Hanyu Jiaoxue [Journal of Chinese Teaching in the World]*, 24(4), 557-567.
- Sung, K.-M. (1994). *Case assignment under incorporation* (Unpublished doctoral dissertation). University of California, Los Angeles.
- Tai, J. H.-Y. (1984). Verbs and times in Chinese: Vendler's four categories. In D. Testen, V. Mishra & J. Drogo (Eds.), *Papers from the parasession on lexical semantics, Chicago Linguistic Society 20* (pp. 289-296). Chicago: Chicago Linguistic Society.
- Tai, J. H.-Y. (1993). Iconicity: Motivations in Chinese grammar. In M. Eid, & G. Iverson (Eds.), *Principles and Prediction: The Analysis of Natural Language* (pp. 153-174). Amsterdam: John Benjamins Publishing Company.
- Tai, J. H.-Y. (1994). Chinese classifier systems and human categorization. In M. Chen, & O. Tseng (Eds.), *Honor of Professor William S-Y. Wang: Interdisciplinary studies on language and language change* (pp.479-494). Zenda: Pyramid Publishing Company.
- Tai, J. H.-Y., & Wang, L. Q. (1990). A semantic study of the classifier Tiao. *Journal of the Chinese Language Teachers Association*, XXVI (1), 35-56.
- Talmy, L. (1976). Semantic causative types. In M. Shibatani (Eds.), *Syntax and semantics 6: the grammar of causative constructions* (pp.43-116). New York: Academic Press.
- Tang, S.-W. (2006). Hanyu beidongju de sange jufa wenti [Three syntactic issues of Chinese passives]. In F. Xing (Eds.), *Hanyu beidong biaoshu wenti yanjiu xin tansuo [New developments in the studies of Chinese passives]*(pp. 22-99). Wuhan, China: Huazhong Normal University Press.
- Tang, T. C. (1988). 国语语法的主要论题：兼评李讷与汤逊著《汉语语法》 Guoyu yufa de zhuyao lunti: Jianping Li Ne yu Tangxun zhu *Hanyu Yufa* [Primary issues of Mandarin

- grammar: Also review *Mandarin Chinese* by Li & Thompson]. In *汉语词法句法论集 Hanyu cifa jufa lunji [Collection of studies on Chinese morphology and syntax]* (pp. 149-240). Taipei: Student Book Co. Ltd.
- Tang, Y. (1988). 唐至清的“被”字句 Tang zhi Qing de 'bei'ziju [The *bei* construction from the Tang dynasty to the Qing dynasty]. *中国语文 Zhongguo Yuwen [Studies of the Chinese Language]*, (6), 459-468.
- Tao, H., & Thompson, S. A. (1994). The Discourse and Grammar Interface: Preferred Clause Structure in Mandarin Conversation. *Journal of Chinese Language Teachers Association*, XXIX(3), 1-34.
- Taylor, J. R. (1989). *Linguistic categorization*. Oxford: Clarendon Press.
- Taylor, J. R. (2008). Prototypes in cognitive linguistics. In P. Robinson, & N. C. Ellis (Eds.), *Handbook of cognitive linguistics and second language acquisition* (pp. 39-65). New York: Routledge.
- Thomason, S. G., & Kaufman, T. (1988). *Language contact: Creolization, and genetic linguistics*. Berkeley: University of California Press.
- Ting, J. (2006). The middle construction in Mandarin Chinese and the presyntactic approach. *Concentric: Studies in Linguistics*, 32(1): 89-117.
- Tsao, F. F. (1978). Anglicization of Chinese morphology and syn- tax in the past two hundred years. *Studies in English Literature and Linguistic*, (4), 41-54.
- Tsao, F.-F. (1990). *Sentence and clause structure in Chinese: A functional perspective*. Taipei: Student Bok Co.
- Tsao, F.-F. (1995). 主题在汉语中的功能研究：迈向语段分析的第一步 *Zhuti zai hanyu zhong de gongneng yanjiu: Maixiang yudianfenxi de diyibu [On the function of topic in*

- Chinese: The first step towards discourse analysis*]. Beijing: Yuwen Chubanshe (Language and Literature Press).
- Tsunoda, T. (1981). Split Case-marking Patterns in Verb-types and Tense/Aspect/ Mood. *Linguistics*, 19, 389-438.
- Tsunoda, T. (1985). Remarks on Transitivity. *Journal of Linguistics*, 21, 385-396.
- Tyler, A. (2012). *Cognitive linguistics and second language learning-theoretical basics and experimental evidence*. New York and London: Taylor & Francis Group.
- van Dijk, T. A. (1977). Sentence topic and discourse topic. *Papers in Slavic Philology*, 1, 49-61.
- Van Oosten, J. (1985). *The nature of subjects, topics and agents: A cognitive explanation*. Bloomington, Indiana: Indiana University Linguistic Club.
- Verspoor, M. H., & Lowie, W. (2003). Making sense of polysemous words. *Language Learning*, 53, 547-586.
- Wang, J., & Xu, C. (2015). Cue competition between animacy and word order: Acquisition of Chinese notional passives by L2 learners. *Open Journal of Modern Linguistics*, 5, 213-224.
- Wang, L. (1943/1985). *中国现代语法 Zhongguo Xiandai Yufa [Chinese Modern Grammar]*. Beijing: Commercial Press.
- Wang, L. (1944/1984). *中国语法理论 Zhongguo yufa lilun [Theories of Chinese Grammar]*. Beijing: Zhonghua Book Company.
- Wang, L. (1958/2004). *汉语史稿 Hanyu shigao [Lectures on the history of Chinese]*. Beijing: Zhonghua Book Company.
- Wang, P. (2010). From spatiallocation to eventual sequentiality: A cognitive approach to the evolution of aspectual system in Chinese (Unpublished doctoral dissertation).

Department of East Asian Languages & Literatures, University of Hawaii at Manoa,  
Hawaii.

- Wang, Y. (2004). 不同母语类型留学生表达汉语句子的比较 Butong muyu leixing liuxuesheng biaoda hanyu juzi de bijiao [The comparison of the production of Chinese sentences in foreign students whose native languages are different in typology]. *Xinli Xuebao [Acta Psychologica Sinica]*, 36(3), 274-280.
- Wang, Z. (2004a). 被动表述对自主动词和非自主动词的选择 Beidong biao shu dui zizhu dongci he feizizhu dongci de xuanze [Selection of volitional and nonvolitional verb in passive statement]. *汉语学习 Hanyu xuexi [Chinese Language Learning]*, 6, 17-22.
- Wang, Z. (2004b). 韩国留学生被动表述的偏误分析 Hanguo liuxuesheng beidong biao shu de pianwu fenxi [The analysis of mistakes in passive study for South Korean students studying abroad]. *云南师范大学学报 Journal of Yunnan Normal University (Teaching Chinese as a Foreign Language)*, (4), 11-15.
- Wang, Z. (2005). 日本留学生被动表述的偏误分析 Riben liuxuesheng beidong biao shu de pianwu fenxi [The analysis of mistakes in passive study for Japanese students studying abroad]. *大连民族大学学报 Journal of Dalian Nationalities University*, 7(2), 47-51.
- Wells, R. S. (1947). Immediate constituents. *Language*, 23, 81-117.
- White, J. P. (2008). *The effect of input-based instruction type on the acquisition of Spanish accusative CLITICS* (Unpublished doctoral dissertation). The Department of Modern Languages and Linguistics, Florida State University, Florida. Retrieved from <http://diginole.lib.fsu.edu/cgi/viewcontent.cgi?article=5189&context=etd/>

- White, L. (2003). On the nature of interlanguage representation: Universal Grammar in the second language. In C. Doughty and M. Long (Eds.), *Handbook of second language acquisition* (pp. 19-42). Oxford, UK: Blackwell.
- Wong, W. (2005). *Input enhancement: From theory and research to the classroom*. New York: McGraw-Hill.
- Wu, F. (2004). 敦煌变文 12 种语法研究 *Dunhuang bianwen shier zhong yufa yanjiu [Twelve grammar patterns in Bianwen]*. Kaifeng: Henan University Press.
- Wu, M., & Zhou, X. (2005). 意义被动句与“被”字句习得难度比较 *Yiyi beidongju yu "bei"ziju xide nandu bijiao [Comparison of acquisition difficulty of notional passive sentences and bei sentences]*. *Hanyu Xuexi [Chinese Language Learning]*, 1, 62-65.
- Wu, X. (2009). 从认知语义学的角度看上古汉语的“作格动词” *Cong renzhiyuyixue de jiaodu kan shanggu hanyu de 'zuoge dongci' [An investigation on the 'ergative verbs' in Pre-Qin Chinese from the viewpoint of cognitive semantics]*. *清华中文学报 Qinghua Zhongwen Xuebao [Tsing Hua Journal of Chinese Literature]*, 2, 161-198.
- Xiao, R. (2015). Contrastive corpus linguistics: cross-linguistic contrast of English and Chinese. In B. Zou, S. Smith & M. Hoey (Eds.), *Corpus linguistics in Chinese contexts* (pp. 35-62). New York, NY: Palgrave Macmillan.
- Xiao, X. (2002). 外国学生汉字偏误分析 *Waiguo xuesheng hanzi pianwu fenxi [Foreign students' Chinese character error analysis]*. *世界汉语教学 Shijie Hanyu Jiaoxue [Chinese Teaching in the World]*, 2, 79-85.
- Xiong, J. (2013). *Chinese middle constructions: Lexical middle formation* (Unpublished doctoral dissertation). University of Hong Kong, Hong Kong. Retrieved from <https://hub.hku.hk/bitstream/10722/196077/2/FullText.pdf>.



- Xu, H. (1997). 三音节语词单位说略——兼论现代汉语词汇中的音节走势和“三音化”倾向  
Sanyinjie yuci danwei shuolve: Jianlun xiandai hanyu cihui zhong de yinjie zoushi he  
'sanyinhua' qingxiang [A brief introduction to three-syllable word: Also on the  
development of Chinese words toward three syllables]. *山东理工大学学报 Shandong  
Ligong Daxue Xuebao [Journal of Shandong University of Technology]*, (3), 70-74.
- Xu, J. (1999). 两种保留宾语句式及相关句法理论问题 Liangzhong baoliu binyu jushi ji  
xiangguan jufa lilun wenti [Some theoretical issues of the two types of Chinese ‘retained  
object’ constructions]. *当代语言学 Dangdai Yuyanxue [Contemporary Linguistics]*,  
(1), 16-29.
- Xu, J. (2001). “及物性”特征与相关的四类动词 'Jiwuxing' tezheng yu xiangguan de silei  
dongci [‘Transitivity’ and four classes of relevant verbs]. *语言研究 Yuyan Yanjiu  
[Studies in Language and Linguistics]*, (3), 1-11.
- Xu, L. & Liu, D. (1998). *话题的结构与功能 Huati de jiegou yu gongneng [Topic: Structural  
and Functional Analysis]*. Shanghai: Shanghai Education Press.
- Xu, L. & Liu, D. (2007). *话题的结构与功能（增订版） Huati de jiegou yu gongneng  
(zengdingban) [the form and function of topic (revised edition)]*. Shanghai: Shanghai  
Education Press.
- Xu, L. (1986). Free empty category. *Linguistic Inquiry*, 17, 75-93.
- Xu, L. (2015). *Topic prominence*. In W. S.-Y. Wang, & C. Sun (Eds.), *The Oxford handbook of  
Chinese linguistics* (pp. 393-403). New York: Oxford University Press.
- Xu, L., & Langendoen, T. (1985). Topic structure in Chinese. *Language*, 61, 1-27.

- Xu, T. (2004). 汉语研究方法论初探 *Hanyu yanjiu fangfalun chutan* [In the methodology of Chinese study]. Beijing: The Commercial Press.
- Yang, B., & He, L. (1992). 古汉语语法及其发展 *Guhanyu yufa ji qi fazhan* [Old Chinese Grammar and its development]. Beijing: The Chinese Press.
- Yang, S. (1924/1956). 古书疑义举例续补 *Gushu yiyi juli xubu* [Complement to the examples of the doubtful points in ancient books]. In Y. Yu, S. Liu, S. Yang, S. Ma, & W. Yao (Eds.), 古书疑义举例五种 *Gushu yiyi juli wuzhong* [Five types of examples of doubtful points in ancient books](pp. 185-245). Beijing: Zhonghua Book Company.
- Yang, S. (1999). 从非宾格动词现象看语义与句法结构之间的关系 *Cong feibingedongci xianxiang kan yuyi yu yufa jiegou zhijian de guanxi* [On the relationship between syntax and semantics from the perspective of unaccusative verbs]. *当代语言学 Dangdai Yuyanxue* [Contemporary Linguistics], (1), 30-62.
- Ye, F., & Xu, T. (1997). 语言学纲要 *Yuyanxue gangyao* (Outline of linguistics). Beijing: Peking University Press.
- Yip, P.-C., & Don, R. (2004). *Chinese: A comprehensive grammar*. New York, NY: Routledge.
- Yip, P.-C., & Don, R. (2015). *Chinese: A comprehensive grammar. 2nd Edition*. New York, NY: Routledge.
- Yu, G., & Si, H.-Y. (2008). The definition of Chinese middle construction: Concurrent research on differentiation of NP + V-Qilai + AP structures. *Studies in Language and Linguistics*, (1), 69-78.
- Yu, N. (1995). Towards a definition of unaccusative verbs in Chinese. In Camacho, J. & L. Choueiri (Eds.), *Proceedings of the Sixth North American Conference on Chinese Linguistics, Vol. 1* (pp. 339-353). Los Angeles, CA: University of Southern California.

- Yu, Z. (1984). 论古汉语补语的移位 Lun guhanyu buyu de yiwei [On the displacement of complements in Classical Chinese]. *Yuyan Yanjiu [Studies in Language and Linguistics]*, 6(1), 104-113.
- Zadrapa, L. (2011). *Word-class flexibility in Classical Chinese: Verbal and adverbial use of nouns*. Leiden, Netherlands: Brill.
- Zeng, L. (2009). 现代汉语作格现象研究 *Xiandai hanyu zuoge xianxiang yanjiu [Ergativity in Mandarin Chinese]*. Beijing: Minzu University of China Press.
- Zhang, H. (2005). 汉语“被”的语法化 Hanyu "bei" de yufahua [Grammaticalization of *bei* in Chinese]. In Wu, F. (Eds.), *汉语语法化研究 Hanyu yufahua yanjiu [A study of grammaticalization in Chinese]* (pp. 281-294). Beijing, China: The Commercial Press.
- Zhang, J., Xie, N., Wang, S., Li, Y., & Zhang, T. (2010). 汉语水平考试研制报告 Hanyu shuiping Kaoshi yanzhi baogao [Report of Chinese Proficiency Test designing]. *中国考试 Zhongguo Kaoshi [China Examinations]*, 9, 38-44
- Zhang, L. (2009). 现代汉语作格结构的生成语法解释 Xiandai hanyu zuoge jiegou de shengcheng yufa jieshi [A generative grammar account to ergative structures in Contemporary Chinese]. *现代语文 Xiandai Yuwen [Modern Chinese]*, (8), 27-29.
- Zhang, L. (2016). A character-based constructional approach to Chinese imperfective aspect markers 在 *zai* and 着 *zhe*. *Acta Linguistica Asiatica*, 6(1), 59-79.
- Zhang, Z. (1953). *汉语语法常识 Hanyu yufa changshi [Elementary knowledge of Chinese grammar]*. Beijing: Chinese Youth Publishing House.
- Zhao, A. (2009). “被”字句的语法化及被字式的发展 "Bei" zi de yufahua ji beizishi de fazhan [The grammaticalization of *bei* and the development of the *bei* construction]. *洛阳师范*

- 学院学报 *Luoyang Shifan Xueyuan Xuebao [Journal of Luoyang Normal University]*,  
27(1), 122-125.
- Zhou, F. (1961). 中国古代语法：造句编 *Zhongguo gudai yufa: zaoju bian [A Historical grammar of Ancient Chinese, Part 1: Syntax]*. Taipei: Academia Sinica, Institute of History and Philology.
- Zhou, H., & Jin, H. (2004). 英汉被动句的使用限制 *Ying Han beidongju de shiyong xianzhi [Comparison of passive voice between English and Chinese]*. 孝感大学学报 *Journal of Xiaogan University*, 24(1), 59-61.
- Zhou, W., & Xiao, X. (2009). 基于语料库的外国学生“被”字句习得研究 *Jiyu yuliaoku de waiguo xuesheng 'bei'ziju xide yanjiu [A study on the acquisition of 'bei' sentence]*. *Journal of College of Chinese Language and Culture, Jinan University*, (2), 44-50.
- Zhou, Y. (1986). Modernization of the Chinese language. *International Journal of Sociology of Language*, 59, 7-24.
- Zipf, G. K. (1935). *The psycho-biology of language: An introduction to dynamic philology*. Cambridge, MA: The M.I.T. Press.