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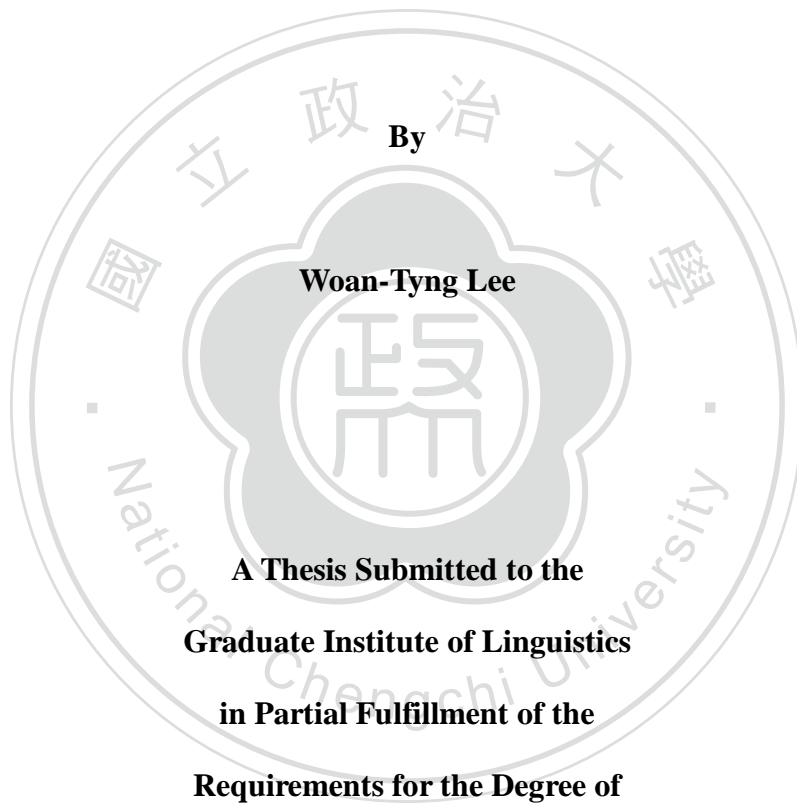
論台灣華語趨向動補語 V 上

On Directional Verb Compound V-shang<sup>4</sup> in Taiwan Mandarin Chinese

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論台灣華語趨向動補語 V 上

**On Directional Verb Compound V-shang<sup>4</sup> in Taiwan Mandarin Chinese**



By

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**A Thesis Submitted to the  
Graduate Institute of Linguistics  
in Partial Fulfillment of the  
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**Master of Arts**

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# 國立政治大學研究所碩士論文提要

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論文提要內容：(共一冊，兩萬五千一十一字，分六章)

本論文藉由動補語後方名詞，依理論架構重新分類趨向動補語 V 上，並探討其前後的搭配詞在分類底下與「上」之間的互動情形。首先，根據 Talmy (2000) 所提出的動態事件理論區辨後方名詞，其乃是具有傳達出動態語意的名詞特徵。其次，並以 V 上的論旨角色作為分類，因而總共得出三種型態的 V 上：[V 上 Ground]，[V 上 Patient]，[V 上 Extent]，藉此看到前方動詞和後方名詞與 V 上之間的緊密關係。除外並以認知語意學角度呈現其三種類型之間具有語意關連，表現出多義詞的演變型態，且符合語法化的過程。



## ABSTRACT

When the morpheme *shang4* ‘up’ 上 is attached to a verb, it composes a V-shang constituent, which is a member of the group of ‘verb-complement’ marking directional motion of the action (Liu, 1983/1998). V-shang signifies the movement of an object through an action from a low position to a higher position within an upward orientation; for instance, a person moves from the ground to the top of a mountain.

The previous studies have listed several extended meanings, besides the basic meaning of motion (Liu, 1998, Jiang, 2003; Pan, 2005; Yu, 2010). Most studies categorize V-shang by mixed criteria of semantic meanings and syntactic functions. Noting the lack of a theoretical basis in the classification of V-shang, this thesis depends on motion-event theory, in which an event is composed of Figure, Motion and Ground, to examine the motion event conducted by V-shang (Talmy, 2000) and Lexical Functional Grammar (Kaplan and Bresnan, 1982; Dowty, 1988; Bresnan and Zaenen, 1990; Bresnan, 2001; Her, 2009) to analyze the syntactic structures of the first verbs and *shang4* in V-shang.

By analyzing the noun phrases following V-shang, the study divides [V-shang NP] into three categories: [V-shang Ground], [V-shang Patient], [V-shang Extent] and observes the verb types in each pattern. There are the changes of semantic meanings from directional motion into resultative state and of orientation from vertical path into horizontal path. Within Lexical Functional Grammar, the verb types of the first verbs in V-shang change from the physical motion verbs which require thematic roles of Theme and Location to the transitive verbs which require thematic roles of Agent and Patient. [V-shang Extent] is the most abstract category of its semantic meaning, and the verb types of the first verbs are less restricted than the verb types in other two categories. The cognitive approach also explains the relationship of the extended meanings in V-shang and *shang4* (Lu, 2011). *Shang4* presents the features of polysemy.

## Chapter 1

### Introduction

The morpheme *shang4* ‘up’ 上 following NPs functions as a locative as seen in the prepositional phrase of *zai zhuo shang* ‘on the table’ 在桌上, and it presents the location of the object. Otherwise, *shang* ‘up’ 上 following a verb is called a verb complement as below (Liu, 1983). Lisi moved from a lower position to a higher position, which was the top of the mountain in (1).

(1) 李四 爬 上 山 了。

Lisi pa shang shan le

Lisi climb up mountain ASP

‘Lisi climbed up the mountain.’

Morphosyntactically, researchers have proposed that the “verb-complement” structure is a “serial-verb” structure in which the first predicate (V1) parallels with the complement (V2) regarded as the second predicate, and that they independently act as verbs (Lu, 1990; Yin, 2010). Verb complements are generally classified into three types: resultative verb complements, directional verb complements and phase verb complements (Chao, 1968; Li & Thompson, 1981).

The members of the directional particles include *shang4* ‘up’ 上, *xia4* ‘down’ 下, *lai2* ‘come’ 來, *qu4* ‘go’ 去, *qilai* ‘upward’ 起來, *jinqu* ‘get in to’ 進去, *guoqu*

‘across’ 過去, and *xiaqu* ‘get down’ 下去, etc (Liu, 1983/1998) . They have similar properties of a semantically directional movement and a syntactically verb-preceding structure. Liu categorizes the directional verb complements into three groups, based on the usage in the changing of the standpoints. *Lai2* ‘come’ 來 and *qu4* ‘go’ 去 compose a group, because the speakers may switch the words owing to the standpoints. In the sentence 老師把張三找來 *Laoshi ba Zhangsan zhaolai* ‘The teacher called John back,’ the location of the teacher is the endpoint of the movement. However, in 張三跑去學校 *Zhangshan paoqu xuexiao* ‘John ran to the school’, the starting point depends on where John is, and the endpoint is the school. *Shang4* ‘up’ 上, *xia4* ‘down’ 下, *qi3* ‘upward’ 起, *jin4* ‘get in to’ 進, *kuo4* ‘across’ 過, *dao4* ‘arrive’ 到, and *kai* ‘open’ 開 show the speaker’s interaction with the location. Then, the above complements can be combined with another complement *lai2* or *qu4*. Thus, in the present study, the group of *shang* complements will be also discussed with *shang* as the basic directional complements.

### 1.1 Motivation and Purpose

*Shang* as a directional verb complement attaches to the preceding verb into a directional verb compound (hereinafter referred to as DVC). Generally, *shang* contains meanings as a verb, a locative and a verb complement. Locative *shang*

presents the prototypical meaning of the spatial position of an object. In regard to *shang* as a verb complement, some researchers have discovered that *shang* expresses polysemous senses. Essentially, *shang* in a verb-complement shows the orientation of an action. The meaning is that the object moves from a lower position to a higher position (Liu, 1998). Some researchers suggest that *shang* shows several extended meanings, and the extended senses of *shang* are adding, closing, starting, and getting to a state, a purpose or a particular number (Shi, 1993; Zhang, 1995; Liu, 1998; Lu, 2011). Further, Shi (1993) and Zhang (1995) added other meanings of *shang*: occurring, containing and accomplishment. Liu (1983) has mentioned that *shang* implies the movement of getting to a place.

Applying the methodology of Principled Polysemy (Evans 2004; Tyler and Evans 2003), Lu (2011) has identified six meanings of *shang*, including ‘vertically attained,’ ‘vertically higher,’ ‘forward,’ ‘attached,’ ‘completive,’ and ‘inceptive.’ In sum, extended meanings can be presented as the following examples in (2).

(2)

- |                              |  |
|------------------------------|--|
| a. <b>Adding</b>             | 戴上帽子<br>dai shang mao-zi<br>‘put on a cap’         |
| b. <b>From open to close</b> | 關上大門<br>guan shang da-men<br>‘close the door’      |
| c. <b>Occurring</b>          | 寫上名字<br>xie shang ming-zi<br>‘write down the name’ |

- d. **Containing** 裝上糧食  
zhuang shang liang shi  
'fill up with food'
- e. **Starting** 愛上音樂  
ai shang yin-yue  
'fall in love with music'
- f. **Accomplishment** 考上大學  
kao shang da-xue  
'pass the university entrance examination'
- g. **Getting to a particular purpose [achieving]** 住上新房子  
zhu shang xin-fang-zi  
'live in a new house'
- h. **Getting to a particular number [obtaining]** 住上兩夜  
zhu shang liang-ye  
'stay for two nights'
- i. **Getting to a state [attaining]** 練上五遍  
lian shang wu-bian  
'practice five times'

Previous studies categorized the usages of *shang* as a complement in different ways, and most of the extended meanings of *shang* are affected by those of preceding verbs. This analysis makes the meanings of *shang* more complex. Liu, Shi, and Zhang believe that the basic meaning of *shang* is related to movement. Extended meanings are from concrete to abstract or from spatial to time, and there are at least six types. Preceding verbs greatly affect the meaning of *shang*, so lexical feature-checking is used in directional compounds. In total, there are ten possible meanings for *shang*, including basic and extended senses.

Yet, when the researchers have to determine the meanings of *shang*, the additional meanings of *shang* in (2) are affected by preceding verbs (Liu, 1999). For example, *shang* in (2a) means ‘to add,’ but *shang* in (2b) means ‘to close.’ It is doubtful whether ‘to add’ and ‘to close’ are meanings ascribable to *shang* or not. Also, (2c) shows that *shang* can imply ‘occurring,’ but the verb *xie* ‘write’ 寫 has the meaning ‘to trace and form characters,’ which inherently implies the sense of the occurrence of words. (2d) indicates that *shang* could mean ‘contain,’ but the meaning must be obtained from the first predicate *zhuang* ‘to contain’ 裝. If *shang* is deleted, the phrasal meanings are not changed. Therefore, *shang* is a neutral word which is influenced by the preceding verbs.

When regarding the V-*shang* pattern (hereinafter referred to as “V-*shang*”) as a verb compound, the previous studies indicate the movement of the figure and also imply the result of a state or action (Fan, 1991; Chen, 1994; Liu, 1998). Generally, V-*shang* can denote three things—a direction, a result of an action, and time reference (Sun and Yuan, 2004). Non-directional meanings may be regarded as a state. A time reference and a result may even function as an aspect. In addition to the usage of vertical movement in (1) above, other usages of *shang* are presented in (3a-b).

(3) a. 李四 戴 上 帽子 了。

Lisi dai shang maozi le

Lisi put on cap ASP

‘Lisi put on the cap.’

b. 這件事 張三 抱怨 上 一年 了。

Zhejianshi zhangsan baoyuan-shang yi-nian le

This thing zhangsan complain one year ASP

Lisi has complained of this thing for one year.

However, the complex analysis of the lexical meaning of *shang* as verb complement is the same as that of the compound meanings of V-*shang*. The categorization of V-*shang* is not unified. Researchers categorized V-*shang* into different kinds of meanings, but some examples do not represent the meaning of the categories into which they are placed, and there are several problems of ambiguity in the explanation of the different categories. Therefore, the main purpose of the present project is to categorize V-*shang* based on a theoretical approach.

## 1.2 The organization of the thesis

This thesis is arranged into six chapters. Chapter 2 will introduce the previous studies of V-*shang* from semantic and syntactic viewpoints. Early studies do not classify V-*shang* by a consistent methodology, so Chapter 3 describes the theoretical framework which is used to categorize V-*shang* in this thesis. The framework will be

based on Talmy's motion-event theory. Chapter 4 demonstrates the three categories of V-shang and the features of NP complement followed by V-shang and motion orientation in each category. Chapter 5 concentrates on the verb types in each category. In order to discuss the relationship between the lexical semantics and syntactic structure of V-shang, this study utilizes Lexical Functional Grammar (LFG) to analyze V-shang. Chapter 6 provides a conclusion containing the main points of the thesis and describes issues for further study.





## Chapter 2

### Literature review of studies of V-shang

The early studies indicated that *shang4* in V-shang showed multiple senses from concrete to abstract or from spatial to temporal. Even though they pointed out the identities of V-shang, the classifications were not unified in a coherent framework. In their studies, each category was investigated with different criteria, including semantics, syntax, or even pragmatics. Semantically, the use of V-shang could be grouped into three general meanings. The first meaning refers to directional movement, which is not controversial in the previous studies, but the descriptions of the other two senses were not clear. The second sense is defined to show a particular result of an action or accomplishment. The third sense may be defined by different researchers. There are kinds of meanings, such as accomplishment of an action, state, the beginning of a new state or on-going time reference.

Further, besides semantic meanings, the previous studies also found the syntactic functions of directional complements. According to their analyses of directional verb complements like *xia4* ‘down’ 下, *qi 3* ‘up’ 起, *hui2* ‘back’ 回, *kuo4* ‘across’ 過, *jing4*

‘get into’ 進, *chu* ‘out’ 出, *dao4* ‘arrive’ 到, and *kai* ‘open’ 開, the syntactic features of V-shang can function as a resultative complement, an aspect marker, or an particle.

In the following sections, section 2.1 will introduce the compound meanings of *shang* in V-shang, including vertical movement, result, and state. Section 2.2 discusses the syntactic status which previous studies have mentioned. And the last section will give a brief conclusion.

## 2.1 Semantic meanings of V-shang

### 2.1.1 Directional movement

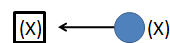
Liu (1998) provided an overall view of DVCs and found that there were three kinds of meanings: directional movement, a result and a state. In Liu (1998), the directional movement can be divided into the vertical movement from low to high and a translational approaching movement as seen in Figure 1.

**Figure 1.** Directional movement of *Shang* (Liu 1998:81)

(a). Vertical movement



(b). Translational movement



Other researchers also suggested other features (Jiang, 2003; Pan, 2005). Jiang (2003) proposed that NP complement followed by V-shang which may convey the directional meaning would indicate a location, for instance, (4) *gaotaijie* ‘high step’ 高台階. This type of *shang* can usually be replaced by *xia4* ‘down’ 下. Both *shang* and *xia* indicate the vertical direction of movement. Pan (2005) named the first category as ‘arrive at a place’ and divided directional *shang* into two subcategories in view of the movement of agent and patient in (4) below. V-shang in (4a) expresses an agentive action.

(4) a. **Agent movement** (Liu 1998:81/Pan 2005:23)

江濤 走 上 高台階，拉了 一下 門鈴。  
 jiangtao zou-shang gaotaijie la-le yi-xia men-ling  
 jiangtao walk up high step pull once doorbell  
 ‘jiangtao walked up the high step and pulled the doorbell.’

b. **Patient movement** (Pan 2005:24)

開完會， 濤他娘 又 端上 一盅酒菜。  
 Kai-wan-hui tao-ta-niang you duan-shang yi-zhong-jiu-cai  
 Finish meeting tao’s mother again bring drink and food

‘After the meeting finished, Tao’s mother brought drink and food again.’

Otherwise, in (4b) above, V-shang has a causative meaning, so the movement indicates the cause of the result. Since location NP follows V-shang, ‘V-shang NP’ can be transferred into the pattern ‘V *dao* ‘到’ NP *shang*’ ; for example, *pao dao shan*

*shang* ‘run up to the mountain’ 跑到山上 form *pao-shang shan* ‘ran up to the mountain’ 跑上山. *Shang* thereupon becomes a locative, and the prepositional phrase of *dao NP shang* ‘up to the mountain’ 到山上 is the complement of the verb. According to its behavior, directional *shang* can act as a directional verb.

Essentially, the researchers suggested that the directional meaning of V-*shang* should be the prototypical meaning, according to the historical point of view, which is concerned with the fact that *shang* was originally derived from its use as a usage verb like *shang shan* ‘climb up the mountain’ 上山.

### 2.1.2 The meaning of result

In the category of the meaning of ‘result,’ Liu (1998) has suggested that the meanings should be regarded as ‘attachment’ and ‘fixed points,’ because V-*shang* can make an object touch another object, such as a container. There are twelve types of verbs collocating with *shang*, for example, *close, cover, adjoin, add, wear, occur, walk, compose, compare and select*, etc. The resultative meaning is concrete, because *shang* is collocated with preceding verbs to represent a meaning.

Liu (1998) also proposed that ‘result’ could be divided into basic result and non-basic result. The basic result is derived from an action with a Natural result; for example, the action of wearing clothes made the object become dressed. A non-basic

result is affected by a subjective or objective influence with the force of Unnatural factors; for instance, the result of being accepted by the college could be influenced.

Jiang (2003) proposed that the category of result attaches to abstract objects rather than to location. *Shang* is no longer able to be substituted with *xia4* ‘down’ 下, and *ba2* 把 can occur with V-*shang* in other word sequence like that in (5). Jiang suggested that only the second type can express the meaning of a person refusing to do an action.

(5) a. 鎖上大門

suo-shang-damen

lock shang door

‘lock the door’

b. 把大門鎖上

ba damen suo-shang

‘lock the door’

Pan (2005) indicated that the subject was placed in a state, and the result of the action can be transcribed by two points of view. The patient was caused to become closed, covered, attached or mixed. The agent is able to come to new states of arriving at a goal, achieving a goal, or running into something. The noun phrases following V-*shang* refer to the patient of the verb rather than to the location. (6) lists the possible verbs collocated with *shang* in this category.

- (6) a. closed state with verbs like *guan* 關, *gua4* 掛, *la* 拉, *he2* 合, and *jie* 接  
 b. covered state with verbs like *ya* 壓, *gai4* 蓋, *zhao4* 罩, and *tian2* 填  
 c. attached state with verbs like *pu* 鋪, *tie* 貼, *chuan* 穿, and *dai4* 戴  
 d. mixed state with verbs like *jia* 加, *bu3* 補, *pei4* 配, and *suan4* 算  
 e. arriving at a goal with verbs *zhui* 追, *gan3* 趕, *gen* 跟  
 f. achieving a goal with verbs *kao3* 考, *dang* 當, *chi* 吃, and *kan4* 看  
 g. encountering something with verbs *yu4* 遇, *gan3* 趕, *peng4* 碰

Also, Yu (2010), in the category of resultative V-shang, has mentioned that stative verbs which are adjoined to *shang* express meanings of degree, such as *hao3* ‘good’ 好, *gui4* ‘expensive’ 貴, *shen* ‘deep’ 深, *gao* ‘tall’ 高, and *da4* ‘big’ 大.

From the points of view of these researchers, it can be observed that the resultative meaning conveyed by V-shang is the same as the main feature of resultative verb complements (RVCs). No matter what the names of their category from previous studies are, their second and third category can be generalized into ‘a result,’ and, the directional movement category can be tested by Thompson (1973)’s analysis, so the semantic meaning of V-shang should be uniform in one sense. The behavior of this kind of V-shang is also similar to the resultative meaning in RVCs

### 2.1.3 The meaning of state

The third category is the most complicated, because different studies categorize it under different names. The present study takes account of the analysis of Liu (1998)

to select ‘a state’ to present the third category. The meanings of a state can refer to the beginning to a new state and to the start of an action. The particular definitions are ‘a state of getting to a number’ and ‘a state of getting to a purpose.’

Category of ‘state’ is more abstract than category of ‘result,’ because it shows the extended aspectual function. It means that the action caused the object to get into a new state, and it also includes an ‘ongoing’ aspect. The verbs include stative verbs like *ai4* ‘love’愛. Mostly, stative verbs can be attached to a directional complement in the category of ‘state’. Stative verbs are used, such as *hao3* ‘good’好 and *re4* ‘hot’熱. *Qilai* ‘up’起來 can be replaced by *shang*. Other stative verbs include twenty-two words, such as *zhang2* ‘long’長, *man4* ‘slow’慢, *mang2* ‘busy’忙, *mei3* ‘pretty’美, *pang4* ‘fat’胖, and *tiao2pi2* ‘naughty’調皮 (Yu, 2010).

Pan (2005) proposed that, in the type of ‘state,’ V-shang indicates that the subject will arrive at a new state; that is, the subject starts doing something or makes a new start. (7) presents three examples which are seldom used in Mandarin Chinese.

#### (7) New state-dynamic particle

- a. 領上            孩子   出去   逃個活命吧! (Pan 2005:32)

ling-shang    hai-zi   chu-qu   tao-ge-huo-ming-ba

bring shang   kids   out   escape survive

‘Bring your kids out and escape to survive’

- b. 幹上 兩年， 他 就 又 可以 買 兩輛車。(Pan 2005:33)

Gan-shang liang-nian ta jiu you keyi mai liang-liang-che

Do shang two years he again can buy two cars

After doing the job for two years, he can buy two cars again.

- c. 這麼快 就 和 姓王的那小子 好上了! (Pan 2005:33)

Zhe-me-kuai jiu he xing-Wang-de-na-xiao-zi hao-shang-le

So fast with name Wang de that guy good shang

‘How quickly she and that guy Wang got together.’

And, semantically, the category of ‘state’ is similar to the category of result in that it also indicates a change of state. In the example of ‘arrive at a new state,’ the types of NP objects also overlap with examples from the resultative V-shang; for example, (7a) shows that the patient is affected by the action of the subject, so it still can indicate result of the action. (7b) presents the action as continuing for a period of time, but Pan argues that it indicates a new state. The last type in (7c) is the most ambiguous and unclear.

Yu (2010) suggested that V-shang with a time reference, as in the sentences in (8a), should be classified as an action of result, which differs from Pan’s classification. And, Yu further regarded time reference as part of the group of quantifiers.

- (8) a. 他 在河水裡 泡上 三天三夜

Ta zai-heshui-li pao-shang santiansanye

He in the river bath three days and nights

‘he took a bath for three days and three nights in the river.’



b. 他 一下 就 愛上 辛棄疾的詞 了。

ta yi-xia jiu ai-shang xinqiji-de-ci le

he immediately love shang xinqiji's poetry

'he immediately fell in love with the poetry of Xinqiji.'

c. 比 過去的 光景 好上 幾倍。

bi guo-qu-de guang-jing hao-shang ji-bei

more (compared) past situation good shang a few times

'the situation is better than that of the past.'

The other feature of 'the beginning of a new state' mentioned by Pan (2005) and Yu (2010) includes the use of adjectives or stative verbs as V1 in V-shang, such as *hao-shang* 'get together' 好上 or *ai-shang* 'love' 愛上. *Hao3* 'good' 好 and *ai4* 'love' 愛 exhibit the states of the actions in (8b-c). The state is the result of the change. After reading the poetry, the person loved the poetry, so 'love' becomes the result state of reading. Therefore, a state could be the result of an old state or be regarded as the beginning of a new state.

In terms of meanings, researchers classify V-shang into three categories. Each researcher observes a small part of V-shang and regards it as a new category. As a whole, previous studies try to explain various meanings of V-shang, but they show inconsistent points of view. Hence, V-shang needs a consistent framework to organize its complex extended meanings.

## 2.2 Syntactic functions of *shang*

Syntactic functions show the status of *shang* in V-*shang*, based on the semantic factors. The previous studies have defined the functions of *shang* in V-*shang*. Fan (1991) categorizes V-*shang* into three patterns according to form and meaning: directional, semi-directional, resultative, and stative. The types of *shang* in V-*shang* with different meanings should each be separately discussed. ***Shang1*** conveys the proto meaning of the object movement. ***Shang2*** presents a particular result from an action of the preceding verbs. ***Shang3*** represents the accomplishment of an action. The feature used to distinguish ***Shang2*** and ***Shang3*** is the volition of the activity of natural or unnatural force. Within Fan's analysis, ***Shang1*** and ***Shang2*** contain concrete senses; however, on the other hand, ***shang3*** exhibits an abstract sense with aspectual features. Each type of *shang* conveys different meanings which can denote their syntactic functions.

Hence, according to Fan's analysis, generally, this study is going to present two sections below. The first section introduces the functions of V-*shang* determined by the content meaning and the functional meaning: resultative complement and verb particle. Then, because previous studies suggested that the aspect marker should be a use of V-*shang* signaling the nature of the event, the second session will introduce their observations.

### 2.2.1 A resultative complement or an abstract particle

Researchers have argued the syntactic functions of *shang* in V-*shang* (Chen, 1994; Zhang, 2000; Lu, 2001). Chen (1994) suggested that the different meanings of *shang* should be shown in different functional parts of speech. One kind of *shang* is a verb presenting the meaning of movement, and it can parallel with verbs containing active movement and passive movement. Another kind of *shang* is a resultative complement presenting the result of an action, and it is only a morpheme rather than a word. And, the preceding verbs mostly contain the stative feature to present psychological and sensual activity. The last kind of *shang* is an abstract particle showing the meanings of ‘starting’ and then ‘ongoing.’

Zhang (2000) indicated that there are three types of directional complement. One type of *shang* functions as a verb, and the other two have no content meaning. One of the two is the directional complement; the other is called ‘directional phrase’ (趨向詞) exhibiting aspectual function. For directional phrases like *shang4* ‘up’ 上, *xia4* ‘down’ 下, *qi3* ‘up’ 起, and *qilai* ‘upward’ 起來, etc, they signal aspectual change and stative change. Lu (2001) also suggested that *shang* in V-*shang* should represent two kinds: a content word and a particle. Thus, due to differences in collocation, *shang* in V-*shang* may function as a concrete content word or as an abstract particle.

In regard to *shang* as a concrete word, *shang* in V-*shang* is regarded as a complement supporting the preceding verbs. In the complement meanings, studies point out two possible types. One is the prototypical type of the directional complement denoting vertical movement. The other indicates the resultative feature in V-*shang*. As the standard examples from previous studies are noun complements of a period of time and numbers with frequency phrases followed by V-*shang* as in (9), *liang-ye* ‘two night’ or *wu-bian* ‘five times’ indicate the consumed time of the action. Thus, quantified time expresses the result of an action.

(9) a. 李四 住上 兩夜  
 Lisi zhu-shang liang-ye  
 Lisi stay-*shang* two night  
 ‘Lisi have stayed for two nights’

b. 李四 練上 五遍  
 Lisi lian-shang wu-bian  
 Lisi practice-*shang* five times  
 ‘Lisi practiced five times’

(9a) and (9b) cannot be collocated with adverb *yizhi* ‘all the time’一直 and progressive *zhengzai* 正在 in (10), because a duration adverb cannot modify a finished work. V-*shang* is not a progressive action, either. Only *yijing* ‘already’已經 can collocate with V-*shang* to show accomplishment.

(10) a. \*李四 一直 住上 兩夜

\*Lisi yizhi zhu-shang liang-ye

‘Lisi stays for two nights all the time’

b.\*李四 正在 練上 五遍

\*Lisi zhengzai lian-shang wu-bian

‘Lisi is practicing five times’

c. 李四 已經 練上 五遍

Lisi yijing lian-shang wu-bian

‘Lisi has already practiced five times’

Thus, some researchers distinguish DVCs and RVCs. Other researchers discussed the similarity between DVCs and RVCs, and they put the directional complements into a board category- RVCs, due to the main feature of their semantic meaning (Li & Thompson, 1983; Shin, 1997; Chen, 2004).

With the respect to the verb-particle features of *shang* in V-*shang*, Bolinger (1971) mentioned that the core meaning of a verb particle contains the meaning of movement and the concept of endpoint. In grammaticalization, verb particles are present not with a content meaning but with an abstract functional meaning. According to Tang (1977) and Chen (2004), verb particles include nine words: *shang4* ‘up’上, *xia4* ‘down’下, *qi3* ‘up’起, *kai* ‘open’開, *dai4* ‘drop’掉, *zou* ‘walk’走, *zhu4* ‘love’住, *dao4* ‘arrive’到, and *chu* ‘out’出. They modify the preceding verb so that it takes an abstract meaning.

Pan (2003) also said that *shang* in *guan-shang-men* ‘close the door’ 關上門 functions as a resultative particle, and the function of *shang* changes to show the situation of the event. Thus, it is important to discuss the aspectual function of V-*shang*. In that *shang* comes to have an abstract use, the status of V-*shang* is an important issue, so the definitions of V-*shang* have been added into the concept of aspect. Their investigations are shown in the following section.

### 2.2.2 Aspect marker

In regard to aspectual markers in Chinese, two standard usages are the perfective aspect and the durative aspect. *le* conveys an accomplishment event which is one of the situational types in Vendler (1957)’s research, while *zai4* and *zhe* signal the durative nature of the event (Comrie, 1976; Chao, 1968; Li and Thompson, 1983).

Some researchers have studied the aspectual function of DVCs (Zhang, 2000; Lu, 2000). Zhang (2000) regarded DVCs as “directional phrases” (趨向詞), because the main function of the complements is to express the aspectual meaning. For instance, *qilai* ‘up’起來 mainly refers to a beginning and continuing state, and *xialai* ‘down’下來 focuses on the continuation of the action. Lu (2000) suggested that *xialai* ‘down’下來 and *xiaqu* ‘go down’下去 signal the durative aspect and agency of the action.

For the aspectual point of view of *shang* in V-*shang*, Zhang (2000) also indicated that the aspect of *shang*, which always follows after a verb, points out the ongoing action. The event of action changes from a static state to a dynamic state. Hence, based on previous studies, the function of *shang* shows a continuing state; as in, for example, the following sentences in (11).

(11) 這麼快 就和 那 姓王 的 小子 好上 (Pan 2005:33)

Zhemekuai jiu han na xing wang de xiaozi haoshang

So fast and that name wang de guy get along with

‘You have gotten along with that guy really quickly.’

Chao (1968) also proposed that aspect suffixes can be in adjacency to the verbs. Such suffixes do not carry content meaning. There are six types of aspect suffixes: the perfective aspect, as in the example of *le* 了; the progressive suffix *zhe* 著; the inchoative aspect *qilai* ‘up’ 起來; the indefinite past aspect, as in *guolai* ‘come’ 過來; reduplication as a tentative aspect; and the successive aspect, as in *xiaqu* ‘down’ 下去.

Chao (1968) regarded the feature of “referring to a continuing state” by *shang* as the successive aspect. Therefore, *shang* seems to show the successive aspect.

Liu (1998), Jiang (2003) and Pan (2003) have proposed that V-*shang* can indicate a state or the beginning of an action. Jiang (2003) investigated that this kind of V-*shang* cannot be attached to *ba3*. Sometimes, the object NP following after V-*shang* is a period of time; sometimes, there is no need to add object NP before the

attachment of *le*. However, most of the examples referred to by Jiang do not appear in Taiwan Mandarin Chinese: for example, the following sentence (12) is not comprehensible in Taiwan.

(12) 他 聽見 院裡 破口罵上 (Jiang 2003:47)

ta tingjian yuan-li pokou ma-shang

he hear yard inside blame

‘He heard someone blaming (someone) in the yard’

After reviewing the studies of syntactic functions of V-shang, we can say that V-shang indicates the completion of an action, and further presents the situational type of accomplishment by showing the resultative meaning in particular sentences like (13). At the end of the action, the helmet is on the head by means of the action of *dai-shang* ‘put on.’ *Tu-shang* ‘apply’ indicates that the person applies body lotion to the skin. V-shang in these sentences exhibits the accomplishment of the action

(13) a. 千萬記住戴上安全帽

qianwan jizhu dai-shang anquanmao

must remember put-on helmet

‘(You) must remember to put on the helmet.’

b. 沐浴 後 即刻 塗上 潤膚乳液

muyu hou jike tu-shang runfuruyi

taking shower after immediately apply body lotion

‘After taking a shower, I immediately apply the body lotion.’



V-shang seems to function as the marker a successive aspect and an inchoative aspect by showing an ongoing action and the beginning of a state. Therefore, the analysis of V-shang is full of paradoxes. The explanation of the classification of V-shang shows mixtures of semantic features and aspectual functions.

### 2.3 Remark

In the lexical meanings of *shang*, with the movement meaning from a low position to a high position, there are nine extended meanings collected from Shi (1993), Zhang (1995), and Liu (1998). Yet, the extended meanings are overlapped by the preceding verb in V-shang, as Liu (1999) has mentioned. In other words, the researchers are still unsure of the extended meanings of *shang*. Thus, it is important to re-think the use of V-shang.

The classification of the phrasal meaning of V-shang can be distinguished by the meaning of movement or non-movement. The sense of movement is in a vertical direction. Non-movement is complex as we combine all of the classifications from the previous studies because researchers have considered the result of an action, a state showing the beginning of change or aspect presenting ‘ongoing’ and ‘accomplishment’ as the features of V-shang. Further to the movement meaning, the ‘non-moving action’ category remains inconsistent. The main problem is due to the

mix in the levels of semantic and syntactic functions, so that different explanations are used to describe V-shang. According to previous studies, the semantic meanings of V-shang exhibit three types: directional movement, result, and state. V-shang meaning 'a state' in China does not show the same usage in Taiwan, but category of 'state' describes the final state of completed action, which can be categorized into category of 'result.' Hence, speaking generally, the meanings of V-shang in Taiwan Mandarin Chinese can be separated into directional and resultative.

Besides the semantic meanings, the functions of *shang* in V-shang may be a complement or verb particle. The nature of event in V-shang represents the complex usage. The complement modifies the action of the preceding verb. The content meaning shows the vertical movement of the action and the ending point of the action. In opposition to the complement, the verb particle is the usage without the content meaning, which describes the situation in which *shang* cannot express the particular meaning but abstract function.

In regard to the types of the aspectual markers, V-shang seems to present perfective, successive, inchoative aspects (Li and Thompson, 1983; Chao, 1968). The features of perfective aspect match the usage of RVCs, but the successive and inchoative aspects usually display the ongoing event or the beginning of a state. Apart from Chao (1968), neither Comrie (1976), Li & Thompson (1983) nor Vendler (1957)

added successive and inchoative situational types in the classification of the aspect. Because of the finished action from the preceding verb, completed V-shang cannot attach to *zhe* ‘in the action of...’ 著 and *zai* ‘at’ 在. As a result, V-shang seems to display a perfective aspect. When V-shang presents an ongoing event and the beginning of an action, it looks like the situational types of ‘successive aspect’ and ‘inchoative aspect.’

Therefore, following the above point of view, *ai-shang* ‘love’ 愛上 and *ma-shang* ‘blame’ 罵上 express the turning point of the completed change. They show perfective aspect which describes the finished turning point from the previous event. For example, *zhongyu* ‘finally’ 終於 in sentence (14) below marks the situation in which Xiaoming tried hard for a long time.

(14) 小美 在 曉明 的 追求 下，終於 愛上 他

Xiaomei zai Xiaoming de zhuiqiu xia, zhongyu ai-shang ta

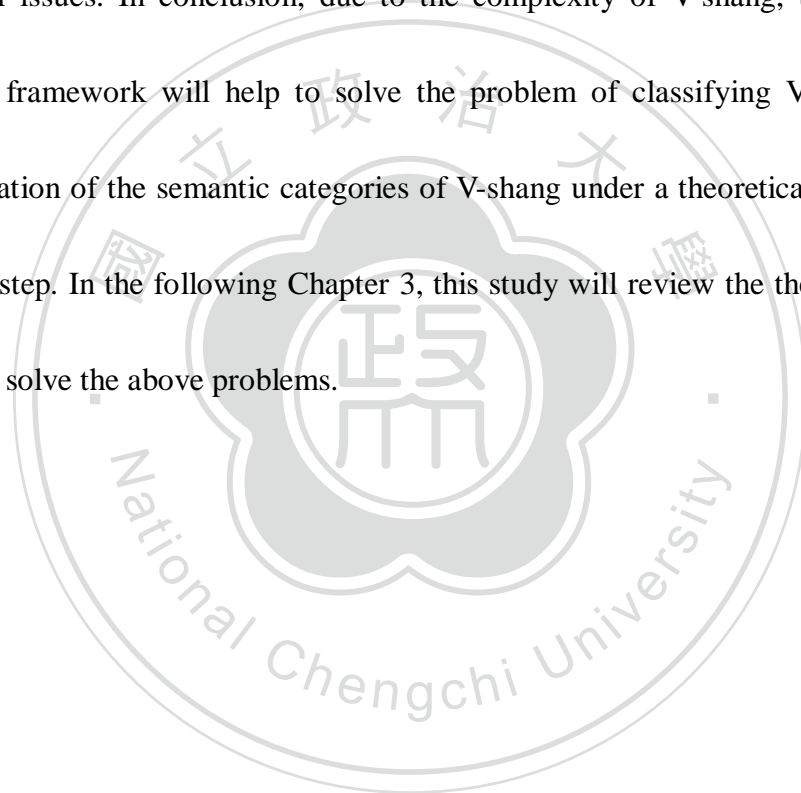
Xiaomei zai Xiaoming de court under finally love him

‘After being courted by Xiaoming’s courting, Xiaomei finally fell in love with him.’

*Ai-shang* ‘love’ 愛上 and *ma-shang* ‘blame’ 罵上 also show the continuing situation, which presents the successive aspect. Also, *ai-shang* refers to the beginning of the state that Mary loves John, which presents the inchoative aspect. Based on Chao (1968)’s study, it is found that *ai-shang* and *ma-shang* may present three kinds of

situational types at the same time. If V-shang contains an aspectual function, more than one aspect can occur in the sentence (Chuang, 2001). Therefore, it is doubtful that V-shang really can denote aspectual functions.

As we have mentioned above, it can be seen that arriving at a definition of *shang* from previous studies is difficult, and the classification of V-shang still contains some paradoxical issues. In conclusion, due to the complexity of V-shang, the use of a systematic framework will help to solve the problem of classifying V-shang. The re-classification of the semantic categories of V-shang under a theoretical framework is the first step. In the following Chapter 3, this study will review the theories which can help to solve the above problems.



## Chapter 3

### Theoretical framework

In order to solve the problems found in the analyses of previous studies, this chapter extends Talmy's theory of motion-event. Talmy (2000)'s theory clearly describes the standard features in a motion-event, and it can be projected into the event portrayed by V-shang. This chapter will introduce the background knowledge of motion event and the way in which the Chinese frame differs from the typology in section 3.1. Section 3.2 introduces Lexical Functional Grammar to bridge the lexical semantics of V-shang with the syntactic structures.

#### 3.1 Motion event

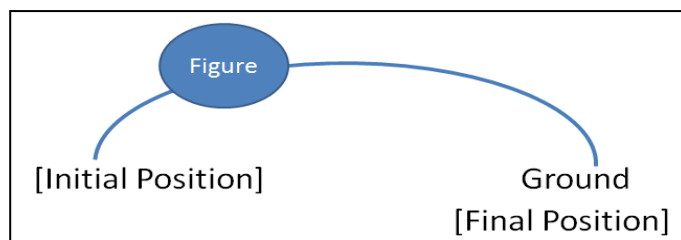
Since the directional complement *shang* indicates an action of movement, the present study explains the movement of a motion event according to Talmy (2000).

The features of a motion event are constrained by three characteristics in a language:

(i) it is *colloquial* in style; (ii) it is *frequent* in occurrence in speech; and (iii) it is *pervasive*. The Motion event in Figure 1 contains central elements, where 'Figure' is a moved object, 'Ground' is the ending point of the motion, and 'Path' is the moving

process. ‘Motion’ is encoded by the predicate, and it refers to the occurrence (MOVE) or nonoccurrence (Be located) which is a translational motion. The motion event excludes “self-contained motion,” which refers to rotation, oscillation and dilation.

**Figure 2.** Talmy (2000) Motion-event frame



Other external elements are associated with Cause of the movement and Manner of the action, which is called co-event. An example can be seen in the sentences in (15) of Talmy (2000): ‘the pencil’ functions as the Figure, and ‘the table’ represents the Ground. Path is shown by ‘on’ or ‘off.’ For example, (15a) presents Motion with the preposition ‘off,’ while (15b) indicates the location with ‘on.’ Manner and Cause are derived from predicates.

- |             |   |  |                                      |
|-------------|---|--|--------------------------------------|
| (15)        | Manner                                  |  | Cause                                |
| a. Motion   | The pencil <b>rolled</b> off the table. |  | the pencil <b>blew</b> off the table |
| b. Location | The pencil <b>lay</b> on the table.     |  | the pencil <b>stuck</b> on the table |

Talmy suggests that the best way to express Co-event is to distinguish subordinate clauses. There are three kinds of Co-event in (16). The main Motion event associated with Cause or Manner contains Figure, Path and Ground. The Figure can be agentive,

non-agentive or even self-agentive. In English, Path is expressed by the prepositions, so this kind of language is regarded as a satellite-framed language.

(16) (Talmy, 2000)

**a. BE<sub>Loc</sub> + Manner**

The lamp lay on the table. = [the lamp WAS<sub>Loc</sub> on the table]  
WITH-THE-MANNER-OF [the lamp lay there].

**b. MOVE + Manner**

i. Nonagentive

The rock rolled down the hill. = [the rock MOVED down the hill]  
WITH-THE-MANNER-OF [the rock rolled]

ii. Agentive

I bounced the keg into the storeroom. = [I MOVED the keg into the storeroom]  
WITH-THE-MANNER-OF [I bounced the keg]

iii. Self-agentive

I ran down the stairs. = [I WENT down the stairs]  
WITH-THE-MANNER-OF [I ran]

**c. MOVE + Cause**

i. Nonagentive

The napkin blew off the table. = [the napkin MOVED off the table]  
WITH-THE-CAUSE-OF [(something) blew on the napkin]

ii. Agentive

I kicked the keg into the storeroom. = [I MOVED the keg into the storeroom]  
WITH-THE-CAUSE-OF [I kicked the keg].





The first predicate expresses the Manner of the action, while the second predicate which is a verb rather than a satellite indicates the Path. Thus, it shows that Chinese combines features from a satellite-framed language as well as from a verb-frame language. A sentence with V-shang and the action verb provides a frame of motion event. Thus, with a directional complement *shang*, Path goes from the lower position to Ground, which is the top of the mountain, and the first verb provides the Cause of the action. The Figure is an Agent. *Lisi* is an Agent and also a causer who makes himself move.

### 3. 2 Thematic roles and Lexical Functional Grammar

In addition to Talmy's elements in motion event, this study also uses thematic roles to modify the NP complement which follows after V-shang, especially the complements with the feature of [-Ground]. And then, this study uses Lexical Functional Grammar (LFG) to map the lexical semantics of V-shang to the syntactic structure.

Thematic relations describe the semantic functions of noun phrases with respect to the action of the verb. Each noun phrase bears at least one thematic role in a sentence (Andrew, 1985). The general characters of thematic roles are given below in (19):

(19) a. **Agent**: deliberately performs the action

Bill ate his soup quietly.

b. **Experiencer**: the entity that receives sensory or emotional input

Susan heard the song.

c. **Patient**: undergoes the action and changes its state

The falling rocks crushed the car.

d. **Theme**: undergoes the action but does not change its state

I put the book on the table.

e. **Time**: the time at which the action occurs

The rocket was launched yesterday.

f. **Location**: the place in which something is situated or takes place

The monster was hiding under the bed.

Dowty (1991) and Bresnan (2001) proposed an implicational hierarchy of the subject; that is, speakers place an Agent into subject position, and then the second preference is the Benefactive, then Theme/Patient, and finally Location as in (20).

(20) Thematic hierarchy: *ag* > *ben* > *go/exp* > *inst* > *pt/th* > *loc*

Dowty (1991) proposed a proto-role approach that two role types are needed to be defined, which are proto-agent and proto-patient. The following are lists of entailments for the two proto-roles.

(21) Proto-Agent entailments and examples (subject NP)

a. volitional involvement: John is being polite to Bill.

b. sentience / perception: John knows/ believes the statement. John sees/ fears Mary.

c. causation: His loneliness causes his unhappiness.

d. movement: He accidentally fell.

e. independent existence: John needs a new car.

Dowty used the semantic entailments to characterize the properties of a Proto-Agent role. The sentence (21a) conveys that a verb entails that the activity of the role is volitional. As in (21b), the entailment of perception and sentience can be found in verbs such as stative perception verbs and stative psych predicates. Causation in (21c) means that the verb causes an event or change of state in another participant. It is often accompanied by movement. Movement, however, can be found alone without causation or volition, as in (21d). Independent existence in (21e) means that the NP is presumed to exist before and after the event and that it is not changed by the action of the verb.

(22) Proto-Patient entailments and examples (object NP)

- a. change of state: John erased the error.
- b. incremental theme: John filled the glass with water.
- c. casually affected: Smoking causes cancer.
- d. stationary relative to another participant: The bullet entered the target.
- e. existence not independent of the event: John built a house.

The entailment (22a) may contain both definite and indefinite changes of state.

Incremental themes are affected objects, and it is entailed upon objects that they undergo a definite change of state. The NP 'the glass' in (22b) refers to an entity which can be used to measure the quantity of water. The entailments in (22c-e) are corresponding counterparts of the entailments of Proto-Agent (22c-e).

Lexical Functional Grammar (LFG) is a non-derivational generative framework.

LFG takes the insight of the mapping between the predicate argument structure and the syntactic structure, so that there is an argument structure (a-structure) linking the lexical semantic structure and the syntactic structure of a predicator (Bresnan and Kaberva, 1989; Bresnan and Zaenen, 1990). In order to conduct this device, LFG states two planes of syntactic representation: functional structure (f-structure) and constituent structure (c-structure) (Kaplan and Bresnan, 1982). The c-structure is represented as a tree configuration, and the f-structure forms grammatical information, such as grammatical features (e.g., SUBJ and OBJ), tense, aspect, person, number, etc. Lexical mapping theory (LMT) is the UG component constraining the linking between a-structure roles and f-structure roles.

Argument functions include SUBJ, OBJ, OBL $\emptyset$  (oblique function), OBJ $\emptyset$  (secondary objects). They are characterized by two binary distinctive features: [+r] ([+r] and [-r] for restricted and unrestricted) and [ $\pm$ o] ([+o] and [-o] for objective and non objective) (Bresnan, 2001; Her, 2009). Grammatical functions show the features of [r] and [o] as follows.

(23) The features of grammatical functions

|                 |          |
|-----------------|----------|
| SUBJ            | [-r, -o] |
| OBJ             | [-r, +o] |
| OBJ $\emptyset$ | [+r, +o] |
| OBL $\emptyset$ | [+r, -o] |

Well-formedness constraints, including the Subject Condition: every predicator must have a subject, and Function-Argument Bi-uniqueness: each a-structure role must be associated with a unique function. They are used to ensure that every sentence has a subject and that two arguments cannot be mapped to the same grammatical function (Bresnan, 2001). Dowty (1988) also proposed the following principle and corollaries in order to appropriately map the proto-roles to the grammatical functions.

(24) Argument Selection Principle:

If the predicate has two grammatical functions, subject and object, the argument with the most proto-agent entailments will be mapped to the subject and the argument having the greatest number of proto-patient entailments will be mapped to the object.

(25) Corollary:

If the two arguments have the same number of proto-agent and proto-patient entailments, either one can be mapped to the subject or to the object.

## Chapter 4

### Three categories of V-shang

There are at least 3,233 items of V-shang data and 160 types of V-shang collocations of different verbs with *shang* in the Academia Sinica corpus<sup>1</sup> which are the main sources of data for this paper. A search for types of V-shang for eight verb-categories, VCL, VC, VK, VJ, VHC, VG, VF, and VD<sup>2</sup>, was carried out on search engines in the Academia Sinica corpus. V-shang as Verb-Complement (VC) where V-shang is transitive showed 2,222 items of data, and Verb-Complement-Location (VCL) where V-shang is followed by a location showed 529 items of data, so items from these categories are used as the majority of data in the present study.

This chapter, based on the discussions presented in Chapter 2 and the frameworks

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<sup>1</sup> Academic Sinica Balanced Corpus of Modern Chinese (中央研究院現代漢語平衡語料庫): <http://db1x.sinica.edu.tw/cgi-bin/kiwi/mkiwi/mkiwi.sh>

<sup>2</sup> Word types on the search engines:

VCL (a verb needs location object), VC (a verb needs an object), VK (a verb attaches to stative verb), VJ (a verb needs two thematic roles, such as <theme, goal>, <experiencer, goal> and <theme, range>), VHC (intransitive verb), VG (a verb connects the subject and object, such as *dang* 'to be' in *wo yao dang ge laoshi* 'I want to be a teacher'), VF (a transitive verb needs the thematic roles <agent, goal>, <agent, goal, theme>), and VD (double object verb).

introduced in Chapter 3, investigates three types of features of V-shang. The features of the three types of V-shang can be reflected in the collocations of the noun phrases following V-shang. That is, the kinds of noun phrases following V-shang provide the basic division of three categories of V-shang: V-shang Ground, V-shang Patient, and V-shang Extent. The description of the complement NP is based on Talmy (2000)'s motion event frame and Andrew (1985)'s thematic relation. In motion events, the movement of *shang* may be separated into [+Ground] NP and [-Ground] NP. The basic category is [+Ground] NP with V-shang.

The first section introduces the criteria of categories in V-shang. Section 4.2 4.3, and 4.4 separately discuss the features in each category of V-shang, [V-shang Ground], [V-shang Patient] and [V-shang Extent], based on motion event theory and the research on aspect. They will analyze the characters of the types of noun phrases following V-shang and the features of the orientation of movement indicated by the different categories of V-shang.

#### **4.1 Criteria of categories in V-shang**

From Talmy's (2000) motion event-frame, motion verbs create motion events and express the movement process from the starting point to the endpoint which is named Ground, so the appearance of Ground is the main criterion for distinguishing whether

V-shang contains sense of motion or not. Object NPs can be divided into [+Ground] NPs and [-Ground] NPs. A Ground with *shang* can be described in *dao4... shang* ‘arrive to’到...上 to indicate the goal of location; for example, *pao-shang shan* 跑上山 ‘run up onto the mountain’ can transfer into ‘*pao dao shan shang*’ 跑到山上. Or, for example, as in (26):

(26) a. 李四 買 了 車票 奔上 火車。

Lisi mai le chepiao ben-shang huoche

Lisi buy ASP ticket run train

‘Lisi bought the tickets and got on the train.’

b. 李四 到 火車 上 了 嗎?

Lisi dao huoche shang le ma?

Lisi on train ASP

‘Has Lisi gotten on the train?’

In contrast, [-Ground] NP may include the object of verbs, quantifiers, and time references. Thematic roles are used to describe the semantic functions of noun phrases with respect to the action of the verb (Dowty, 1991; Andrew, 1985). [+Ground] feature represents Location; the thematic roles with [-Ground] are Patient or Theme following V-shang.

Objects of [+Patient/Theme] undergo the action and the change of state; that is, they are not ending points of movement but are part of [-Ground] NP. Thus, [-Ground] NPs can be divided into [+Patient] NPs and [-Patient] NPs. The way to distinguish



[+Patient] and [-Patient] is to move the NP complement with *ba3* in front of V-shang.

The verb must be an action verb which may be a motion verb, and NPs are the complements of the verbs. Furthermore, objects of [-Patient] NP, which are also part of the [-Ground] groups, consist of a time reference, and the quantifiers. And, they do not undergo a change of state and present the ending point of a motion.

Secondly, there are generally two kinds of Ground: concrete and abstract. The concrete Ground, such as the mountain, with V-shang is the prototypical use of V-shang, and it expresses the physical directional movement from the low position to the high position with movement verbs. On the other hand, an abstract Ground represents a goal, such as the final position of the status, so it is like a metaphorical usage, as in *fei-shang-zhitou* 'become a wife of a rich man' 飛上枝頭. Directional movement no longer expresses vertical but transverse orientation; for instance, someone may bump into trouble.

Thirdly, in order to analyze the orientation of motion in V-shang, the adverb is used to help to distinguish the feature of [+ Path] or [-Path]. Chen and Kuo (2009) have discussed the motion-verb construction. They utilized Talmy's theory of motion event to analyze the motion verb constructions in Chinese novels. There are eight constructions of the combination of manner verbs, path verbs and deictic verbs:

M+P+D, M+P, M+D, P+D, P+P, M, P and D.<sup>3</sup> Of these constructions, only three need manner verbs, and V-shang shows the pattern of M+P. M+P+D and M+D, in particular, are two other ways to examine whether V1 in V-shang is a motion verb or not. That is, a verb which can appear with DVC like *shang4* ‘up’ 上, *xia4* ‘down’ 下, *lai2* ‘come’ 來, *qu4* ‘go’ 去, *qilai* ‘upward’ 起來, *jinqu* ‘get in to’ 進去, *guoqu* ‘across’ 過去, and *xiaqu* ‘get down’ 下去, has the feature of directional indication; hence, it is a motion verb. The descriptions of the adverbials below in (27) are also used to examine Chinese motion expressions.

(27)

a. Adverbs

匆匆地 走

cong cong de zou

‘walk hastily’

b. Adverbial phrases

他以極其迅速敏捷的步伐 走了過來

Ta yi jiqi xunsumingjie de bufa zou le guo lai

he rapid de steps walk le come

‘He walked over with very rapid and swift steps.’

c. Adverbial clauses

我沒跑步, 但走得很快, 走進辦公室

Wo mei paobu dan zou de hen kuai zou jin bangongshi

I not run but walk fast go to office

‘I didn’t run, but walked very fast (when I) walked into the office.’

<sup>3</sup> M=Manner verbs, P=Path verbs (non-deictic), D=deictic verbs (indicating path). Manner verbs refer to the way in which a figure carries out a motion. Path verbs refer to the trajectory over which a figure moves. Deitic verbs indicate path relative to the speaker (Slobin, 2004).

As a verb, either a manner verb or a neutral verb occurs with *shang* to compose a verb-complement, and *shang* becomes a predicate implying the sense of ‘path.’ V-*shang* creates a motion-verb construction and a motion event. That is to say, if *shang* contains the meaning of path, it is a motion-verb construction. Adverbs which modify the direction may help to point out the features of *shang*, like *zhizhidi* ‘straightly’ 直直地 in the sentences in (28).

- (28) a. 李四 直直地 跑上 山  
 Lisi zhizhidi pao-shang shan  
 Lisi straightly run mountain  
 ‘Lisi ran straight up the mountain.’
- b. 今天 股市 直直地 衝上 歷史 最高點  
 jintian gushi zhizhidi chong-shang lishi zui gaodian  
 today stock straightly rose history highest  
 ‘Today, stocks rose straight to the highest point in history.’
- c. 張三 把書 直直地 搬上 台  
 Zhangsan ba shu zhizhidi ban-shang tai  
 Zhangsan ba book straightly move stage  
 ‘Zhangsan moved the book directly on to the stage.’

The sense of ‘directly’ by *zhizhidi* is not accepted here, because it does not show the orientation of the action. These three examples of V-*shang* contain different kinds of Ground. (28a) has a concrete ending point; (28b) has an abstract point in Stock, and (28c) shows the way that the book is moved on to the stage. Thus, in order to find the

directional meaning of *shang*, an adverb *zhizhidi* ‘straightly’ 直直地 which modifies the verb to show the upward direction is used to test whether there is a meaning of path in V-*shang* or not.

Fourthly, since the preceding verb (V1) in V-*shang* can be the cause of the action, the type of the verb in V-*shang* is important. Within the relation between the verbs and the aspect, Vendler (1967) proposed four aspectual categories to distinguish the verb types, including (i) states, (ii) activities, (iii) accomplishment, and (iv) achievement, which can be distinguished by three features: dynamic, punctual and telic.

The dynamic feature divides verbs into dynamic verbs and stative verbs. Stative verbs, including *seem*, *know*, *want* and *be*, are atelic and non-punctual, because there is no inherent duration. Three types of dynamic verbs are distinguished by punctual and telic. ‘Punctual’ verbs can be regarded as instantaneous or as a single point (begin to sing) to differentiate them from those with duration (sing a song). ‘Telic’ represents events with an endpoint. Activity verbs have inherent duration and no particular ending point. Accomplishment descriptions, such as *build a house* and *paint the painting*, are not instantaneous, because the ending point is the completion of the action. Achievement verbs, such as *arrive*, *leave*, *notice* and *recognize*, point out the beginning or the end of the action (Mourelatos, 1981). Achievement and accomplishment can be grouped together as telic events. The duration of time can be

tested by adjoining a time phrase like ‘for a while’ or ‘in a week.’ In Talmy’s theory, the motion verb portrays a motion event. Most of the motion verbs are activity verbs, especially physical verbs.

Teng (1964) and Xu (2008) generally classify verbs into activity verbs which perform an action and stative verbs which perform in a non-dynamic way, like *xihuan* ‘like’ 喜歡, *xiangxin* ‘believe’ 相信, *ai* ‘love’ 愛, and *xiang* ‘think’ 想. A stative verb attaches to *zhe* 著 rather than to *zai* 在 in Mandarin Chinese. On the other hand, there are two kinds of inchoative verbs: absolute, such as ‘die’, ‘get sick’ and ‘graduate’ and scalar, such as, ‘improve’ and ‘grow up.’ Inchoative verbs can only be attached to *zai* 在, and they show the meaning of instant action, without the internal process. In activity verbs, there are two standard movement verbs: verbs of location including *sit*, *stand*, *sleep*, *lie*, *squat*, and *kneel* and verbs of motion including *put*, *leave*, *stop*, *hang*, *plant*, and *move*. The verbs of location are intransitive; the verbs of motion are intransitive. They can attach to the location phrases of *zai* to display the direction, as in (29).

(29) a. 李四 坐 在 地 上

Lisi zuo zai di shang

Lisi sit zai ground on

‘Lisi sat on the ground.’

- b. 李四放書            在    地    上  
 Lisi fang shu        zai    di    shang  
 Lisi put book        zai    ground    on  
 ‘Lisi put the book on the ground.’

Motion verbs are subcategorized into activity verbs, and they are transitive or intransitive. Intransitive forms of motion verbs have a syntactic feature of collocating with location phrases and a semantic meaning of implying the direction. Transitive forms require the enforcement to move their complement object, so *ba3* may precede the NP object with V-shang (Zhang, 1995; Wang, 1995/1999). Moreover, within non-directional meanings, stative verbs and changed verbs are adjoined to *shang*, and behaviors increase the complexity of the verb argument structures while expressing the verb aspect in the sentences containing V-shang.

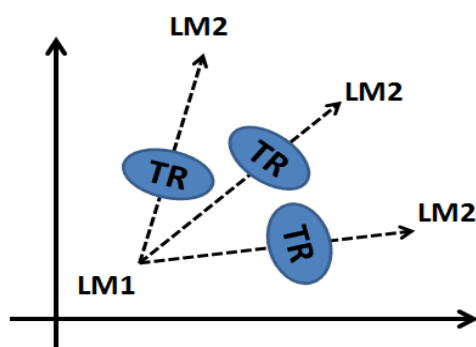
According to Teng (1964) and Xu (2008)’s classification of verb types, the prototypical form expressing the directional sense is composed of a motion verb and a noun phrase pointing out the final position or goal. Physical motion verbs are like *zou3* ‘walk’ 走, *pao3* ‘run’ 跑, *ben* ‘rush’ 奔, and *chong* ‘charge’ 衝. Transitive verbs like *tui* ‘push’ 推, and *ban* ‘move’ 搬 also can be collocated with V-shang. Or even stative verbs which perform in a non-dynamic manner, like *xihuan* ‘like’ 喜歡 and *ai* ‘love’ 愛 also can be collocated with V-shang.

Based on the criteria of classifying V-shang, the following section will separately analyze the categories of V-shang, in view of their NP complements, which have the features of [+Ground], [+Patient] and [-Patient], and the direction of the path expressed by V-shang. Then, the analysis of the preceding verbs in V-shang will be discussed in Chapter 5.

## 4.2 V-shang Ground

According to the trajector(TR)-landmark(LM) configuration, a physical lower-position landmark (LM) and a physical higher-than-LM position trajectory (TR) are involved as vertical dimensions of space. The higher-than-LM position TR is designated as the prototypical sense of *shang* in Mandarin Chinese (Tyler and Evans, 2003; Kim, 2005). In a dynamic trajectory, *shang* shows the movement from a lower-position LM1 to a higher-position LM2. Figure 3 shows that the path or trajectory is a movement with an upward orientation.

**Figure 3.** The schema of upward orientation of *shang* adapted from Tyler and Evans (2003)



*Shang* portrays that **tr**, *wo* ‘I,’ physically moves from the lower-landmark (LM1) to the higher-landmark (LM2). Complement NP following V-*shang* reveals the final location of **tr** (Tyler and Evans, 2003; Kim, 2005). In (30), *Wo* ‘I’ is **tr** which has moved from the lower place (LM1) to the top of the mountain (LM2).

(30) 我爬上山頂了

wo pa-shang shan-ding le

I climb-shang mountain top le

‘I climbed (up) onto the top of the mountain.’

As the sentence in (30) shows, the **tr**, *wo* ‘I,’ follows a trajectory in space with effort by means of climbing elaborated by the verb *pa2* ‘climb’ 爬, and finally vertically attains the concrete GOAL, which is coded by *shan-ding* ‘the top of mountain’ 山頂. The top of the mountain signals a SURFACE, the nature of which allows the **tr** to stand firmly. Hence, the concept of ‘vertically attained’ is demonstrated in V-*shang* (Lu, 2011), and, furthermore, the pattern of the concept is in the form of the profile of the ascending motion trajectory PATH.

According to Talmy (2000), motion verbs create the frame of a motion event.

When the preceding verb (V1) in V-*shang* conveys vertical elevation and Ground points out the endpoint of the trajectory, the vertical movement in V-*shang* demonstrates the directional meaning.



### 4.2.1 NP Ground

Ground NP can be a concrete ending point or an abstract status (Lu, 2011).

Concrete noun phrases with motion verbs indicate the Ground of an ending point.

Concrete locations are places like vehicle (31a), mountain (31b), and table (31c), so

that there is an image that the ‘figure’ moves up to the Surface, which is the same as

the meaning of V-shang in ‘Vertically attained’ (Lu, 2011). These kinds of noun

phrases can follow *shang* independently to compose a conventional VP constituent, as

to the right side of (31). *Shang* functions as a verb, and the location is the complement of *shang* (Lu, 1990).

(31)

- |                            |   |                            |
|----------------------------|---|----------------------------|
| a. 奔上火車                    | → | 上火車                        |
| ben-shang huoche           |   | shang huoche               |
| ‘run up to the train’      |   | ‘get on the train’         |
| b. 跑上山                     | → | 上山                         |
| pao-shang shan             |   | shang-shan                 |
| ‘run up onto the mountain’ |   | ‘climb up to the mountain’ |
| c. 跳上台階                    | → | 上台階                        |
| tiao-shang taijie          |   | shang taijie               |
| ‘jump onto the stage’      |   | ‘on the stage’             |

On the other hand, abstract Ground noun phrases present the achievement of a goal,

even though these movement verbs are still dynamic. Some verbs can attach to both

concrete NP and abstract NP, such as *tui* ‘push’ 推 in (32). (32a) presents a concrete location- ‘shore;’ (32b) shows an abstract goal- ‘peak in the history.’

(32) a. 海水 把 浪 推上岸

Haishui ba lang tui-shang an

Sea ba wave push-up shore

‘The (power of the) sea pushed the waves (up) onto the shore.’

b. 把 股價指數 推上 歷史高峰。

ba gujia-zhishu tui-shang lishi-gaofeng

ba stock average push up highest peak in history

‘Push the stock average to the highest point in history.’

An abstract Ground following after *V-shang* conveys a goal or situation. These phrases show positive states which correspond to the meaning of *shang* with the meaning of going forward to the goal like ‘time pace’ and ‘academic level’ in the following (33).

(33) a. 積極的 跟上 時代的 腳步

Jiji de gen-shang shidai de jiaobu

actively catch up times pace

‘Actively catch up with the pace of the times.’

b. 我們 幾乎要 追上 開發國家 的 學術水準 了

women jihu yao zhui-shang kaifa-guojia de xueshu-shuizhun le

we almost overtake developed countries academic level ASP

‘We will soon overtake the academic level of developed countries.’

Sometimes, a concrete Ground may well have two different meanings: a vague or general Goal. The usage of ‘vertically higher’ in V-shang depends on V1 profiling only the upward PATH or the manner of vertical elevation (Lu, 2011), such as *sheng-shang* ‘rise’ 昇上, *fu-shang* ‘float’ 浮上, and *fei-shang* ‘fly’ 飛上. The following NP is always exhibited by a general location like *tiankong* ‘sky’ 天空. For instance, *fei-shang zhitou* ‘fly onto the branch of the tree’ 飛上枝頭 first refers to a location, ‘branch of tree.’ V-shang includes a concrete GOAL that involves a SURFACE. It also develops an additional meaning which implies that a woman married a rich man.

Semantically, the concrete NP is the highlight on the final point of the motion path, so it indicates not only the upward path but also the final state in the motion path. The usage of highlighting Ground of the whole movement process presents a metaphorical concept: metonym - Part to Whole (Lakoff & Johnson, 2003). The Ground of a concrete NP or an abstract NP marks the ending point of the action path or a final goal. Within the directional meaning, a concrete NP conveys the directional movement toward the ending point, while an abstract NP expresses the achievement of a goal.

#### 4.2.2 Path of V-shang Ground

This study finds that the Path of V-shang in the motion event indicates the

direction of a movement. As the last chapter mentioned, *shang* demonstrates a movement of upward orientation. Based on the analysis of attaching V-*shang* to the adverb *zhizhidi* ‘straightly,’ if V-*shang* can attach to *zhizhidi* ‘straightly,’ it has the feature of [+path]. Generally, physical motion verbs like *zou* ‘walk’ 走, *pao3* ‘run’ 跑 and *chong* ‘charge’ 衝, or *pa2* ‘climb’ 爬 show the character of [+Path].

*Pao-shang* in sentence (34) can be attached to the adverb.

(34) 李四 直直地 跑上 山 了.

Lisi *zhizhidi* pao-shang-shan- le

Lisi straightly run-up-mountain-asp

‘Lisi straightly ran up on (to the top of) mountain.’

Verbs expressing vertical elevation, such as *da* ‘take’ 搭, *ben* ‘rush’ 奔, *tui* ‘push’ 推, and *ban* ‘move’ 搬, can collocate with *zhizhidi* ‘straightly’ to show the upward orientation. The classification is as the following in Table 1.

**Table 1.** Path in V-*shang* with Ground

|         |                               |                              |
|---------|-------------------------------|------------------------------|
| [+path] | <i>pao-shang</i> 跑上‘run up’   | <i>sheng-shang</i> 升上‘raise’ |
|         | <i>tiao-shang</i> 跳上‘jump up’ | <i>deng-shang</i> 登上‘get to’ |
|         | <i>pa-shang</i> 爬上‘climb up’  | <i>yue-shang</i> 躍上‘jump on’ |
|         | <i>ta-shang</i> 踏上‘step on’   | <i>tui-shang</i> 推上‘push’    |
|         | <i>kua-shang</i> 跨上 ‘mount’   | <i>ben-shang</i> 奔上‘sprint’  |
|         | <i>fei-shang</i> 飛上‘fly’      | <i>ban-shang</i> 搬上‘move’    |
|         | <i>shi-shang</i> 駛上‘drive to’ | <i>tai-shang</i> 抬上‘lift’    |

|         |   |   |
|---------|---|---|
|         | <i>qiang-shang</i> 搶上‘rob’<br><i>zuo-shang</i> 坐上‘sit’  | <i>ji-shang</i> 擠上‘squeeze’<br><i>chong-shang</i> 衝上‘sprint’  |
| [-path] | <i>zhui-shang</i> 追上‘chase’<br><i>gen-shang</i> 跟上‘follow up’<br><i>kan-shang</i> 趕上‘follow up’ | <i>kao-shang</i> 考上‘get into’<br><i>xuan-shang</i> 選上‘select’ |

[-Path] category contains *zhui-shang* ‘chase something in order to follow’ 追上, *gen-shang* ‘follow up’ 跟上, *kan-shang* ‘follow up’ 趕上, *kao-shang* ‘apply to the school’ 考上, and *xuan-shang* ‘choose’ 選上. The abstract NP following [-Path] verbs is intangible, like a status or a goal, so it also presents the meaning of a new state. *kao-shang* and *xuan-shang* in (35) cannot reach to location Ground, but an abstract goal, which is similar to ‘Vertically attained’ mentioned by Lu (2011). The status of achievement is seen to be a Surface.

- (35) a. 我們 兩個 同時 考上 同一間學校  
 women liangge tongshi kao-shang tongyijian-xuexiao  
 we two simultaneously get into same school  
 ‘Both of us passed the test to get into the same school at the same time.’
- b. 老師 選上 市議員 後, 辭去 教職  
 laoshi xuan-shang shi-yi-yuan hou, ci-qu jiao-zhi  
 teacher elect councilor after resign job of teaching  
 ‘After the teacher was elected councilor, he resigned (from) his teaching job.’

### 4.3 V-shang Patient

The complement of V-shang cannot attach to location Ground. In this category, the NP object is a Patient directly affected by a verb and undergoes a change of state. It can be tested by *ba3* 把; for example, in V-shang with Patient NP, the Patient complement can be fronted, as in (36b). *Shang* still attaches to the preceding verb in V-shang to form a constituent.

- (36) a. 美麗的 蝴蝶姑娘, 穿上 了 彩色的 衣裳  
 meili de hudie-guniang, chuan-shang le caise de yishang  
 beautiful butterfly girl wear ASP colorful clothes  
 ‘The beautiful butterfly girl put on the colorful clothes.’
- b. 美麗的 蝴蝶姑娘 把 衣服 穿上  
 meilide hudie-guniang ba yifu chuan-shang
- c. \*上衣裳  
 \*shang yi shang

Without *shang*, the verb and the object can be a grammatical phrase like *chuan yifu* ‘wear clothes’ 穿衣服, but it is ungrammatical for *shang* to be independently attached to a Patient, as in, for instance, the ungrammatical sentence in (36c).

At the level of semantics, *shang* cannot express a vertical sense, because Patient follows V-shang. The verb compound combination of V1 and *shang* portrays two events; one is the action from V1, and the other is the event conducted by *shang* to show the completed state of action of V1. Generally, V-shang with Patient presents a

resultative meaning and *shang* in [V-*shang* Patient] is more abstract than *shang* in [V-*shang* Ground].

In regard to the situational type, V-*shang* with Patient mainly conducts the sense of accomplishment. The *shang*-omitted pattern only indicates the action form V1, while [V-*shang* Patient] indicates that the action of V1 is finished, as in (37a). It can be tested by a subjunctive sentence as in (37b).

- (37) a. 李四 在屋頂上 綁(上) 竹籠  
 Lisi zai-wuding-shang bang-(shang) zhulong  
 Lisi on roof tie basket  
 ‘Lisi tied the basket onto the roof.’
- b. \*李四 在屋頂 綁上 竹籠， 竹籠 卻 在地上  
 \*Lisi zai-wuding bang-shang zhulong, zhulong que zai-di-shang  
 ‘Lisi tied the basket onto the roof, but the basket was on the ground.’

A Patient (basket) has been moved up onto the roof, so the subjunctive sentence should be the description of the final state of the Patient. As such, (37b) is ungrammatical, because, logically, the action should be finished due to the depiction of the state with the use of *shang*.

#### 4.3.1 NP Patient

The thematic roles of the object position are Patient or Theme. Patient undergoes the action and changes its state like ‘the car’ in the sentence of ‘the falling rocks

crushed the car.’ Theme undergoes the action but does not change its state; for example, ‘the book’ in the sentence ‘I put the book on the table.’ Here, we use ‘Patient’ to refer to both Patient and Theme. In (38), *maozi* ‘hat’ 帽子 is a Theme without a change of state.

(38) a. 李四 戴 上 帽子 了。

Lisi dai shang maozi le

Lisi put on cap ASP

‘Lisi put on the cap.’

Some abstract noun phrases can also be used in V-shang Patient. For example, in (39), the twelfth point, competition finals and the vacancy fill the object position.

(39) a. 今天 還是 有 攀上 12 點 的 機會。

jintian haishi you pan-shang 12dian de jihui

‘There is still a chance it will reach 12 points.’

b. 把 這一個球隊 帶上 決賽

ba zheyige-qiudui dai-shang juesai

ba this team take finals

‘Take the team to the finals.’

c. 他 大概 以為 坐著 等 就 可以 排上 候補 了

ta dagai yiwei zuozhe deng jiu keyi pai-shang houbu le

he probably think sit wait can fill in vacancy

‘He probably thought that he could (just) sit and wait (so as to be able) to fill the vacancy.’



In addition to the noun phrases of the concrete Patient like *yifu* ‘clothes’ 衣服 and abstract goal *wanglu* ‘internet’ 網路 mentioned above, there are also some idiomatic usages of [V-shang Patient]. The examples in (40) present non-literal meanings. The phrase *hua-shang denghao* ‘draw an equal mark’ 畫上等號 can mean to draw equal marks or to point out that one thing is equated with the other thing. And, *hua-shang xiuzhifu* ‘draw a rest’ 劃上休止符 non-literally means to stop doing something.

(40) Idiomatic usage

- a. 工作的 意義，並不能 完全 與 金錢 畫上 等號。  
 gongzuo de yiyi, bingbuneng wanquan yu jinqian hua-shang denghao  
 work meaning cannot totally with money draw equal mark  
 ‘(Talking about) the meaning of work, (you) can’t totally equate it with the (amount of) money that you are paid.’
- b. 對 湖人隊 來說， 等於是 為 霸業 劃上 休止符。  
 Dui hurendui laishuo, dengyu shi wei baye hua-shang xiuzhifu  
 For Lakers equate for achievement draw a rest  
 ‘For the Lakers, it was tantamount to achieving a rest.’

#### 4.3.2 Path of V-shang Patient

The path in [+Path] verbs in V-shang is not only upward in its orientation but also presents a horizontal movement. *You Shang wangxia shua-shang* ‘from top to down paint’ 由上往下刷上 is grammatical; that is, *shua-shang* ‘paint’ 刷上 does not

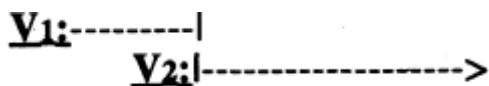
portray vertical movement. A horizontal orientation may be conducted by V-shang with Patient, because, in viewing the whole of the verb types in this category, we find that the verbs highlight the action of body parts. For instance, ‘paint the wall’ is an action carried out by the hand rather than one carried out by the whole body, so horizontal movement is used to illustrate the trajectory.

#### 4.3.3 Resultative meaning

For V-shang with Patient, *shang* implies the state of the endpoint. It can be tested by *buduandi* ‘continually’ 不斷地 which is an atelic marker. In the event that *buduandi* ‘continually’ 不斷地 appears with V-shang, it makes an ungrammatical sentence, so this situation proves the telic event of V-shang. For example, even though *buduandi dai-shang maozi* ‘continually put on the cap’ 不斷地戴上帽子 is acceptable, the sentence conveys that the actor has put the hat on the head several times. The sentence shows the resultative meaning in V-shang with Patient.

When we refer to the resultative meaning, the resultative meaning in English shows a strict complementary relation between the first verb (V1) and the second verb (V2) in verb compounds, and there is a required semantic constraint (Goldberg, 1992). That is, the endpoint of the first action is simultaneously the starting point of the state caused by the second verb. The concept is portrayed in (41).

## (41) Action and Cause



For instance, sentence (42a) cannot be interpreted as meaning that John beat Mary in the morning and that Mary didn't die until the evening; instead, it only entails that Mary died immediately as John beat her. Contrary to English, either a consecutive or a detached reading is a possible interpretation for the similar sentence (42b) in Chinese. Lisi may not die immediately.

(42) a. John beat Mary to death.

b. 張三打死李四

Zhangsan da-si Lisi

Zhangsan beat-dead Lisi

Zhangsan beat Lisi to death.

In Mandarin Chinese, the resultative verb compounds (RVCs) show a cause-result relationship between V1 and V2 (Chang, 1993). The semantic schema of RVCs generally presents two composite events: V1 signals the initial event and V2 denotes the result event caused by V1. The relationship between the two events in RVCs with respect to time may be drawn as the following schema in (43). For example, a RVC *la-kai* 'pull-open' 拉開 is composed of both the action and the result of the action. The action is to pull, and the result is that the door is open.



(45) a. 李四 戴 上 帽子 了。

Lisi dai shang maozi le

Narration 1: Lisi put on the cap.

Narration 2: the cap was on Lisi's head.

b.\*李四 戴 上 帽子 了，但 帽子 沒 在頭上。

Lisi dai shang maozi le dan maozi mei zai-tou-shang

'Lisi put on the cap, but the hat was not on (his) head.'

The sentence (45) points out the final position of the object 'hat,' that is, on Lisi's head, so it is ungrammatical that the hat was not on Lisi's head. Thus, 'put on the hat' demonstrates the first event. And, the second event is shown by *shang*. Even though *shang* is not an action like *ku* 'cry' 哭 in *da-ku* 弄哭 'hit-cry,' *shang* conveys the completed state in the same meaning as in the usage of *wan2* 'finished' 完 in *kan-wan* 看完 'read-finished.' *kan-wan* implies the end of the first action- reading; likewise, *dai-shang* reveals the finishing of the action of putting on. That is, V-*shang* is similar to the complementary type of RVC cause-result relationship.

Thus, Li and Thompson (1989) proposed that RVCs should include DVCs, phase RVCs, and metaphorical RVCs. DVCs is in the group under RVCs, because DVC and RVC cannot be reduplicated to show a delimitative aspect, for example, *lakai-lakai* 'pull-open pull-open' 拉開拉開 is unacceptable. Therefore, according to the syntactic behavior and resultative meaning, DVCs and RVCs have great similarity.

*Shang* in [V-*shang* Patient] tends to lose the lexical meaning of directional movement, because if *shang* is omitted, [V Patient] is still grammatical. A resultative state in V-*shang* with Patient is presented, since it emphasizes the state after the action of [V Patient]. Resultative meaning is similar to the meaning of ‘arrival at a new state.’ [V-*shang* Patient] indicates the ending result of the action.

#### 4.4 V-*shang* Extent

In the third category, according to Talmy’s motion event theory, the complement NP is not a Ground, which points out a location. Also, the complement is not a Patient NP, because the complement NP including a frequency phrase, such as *yi-hsuan* ‘a circle’ 一圈 or a time phrase, such as *yi-nian* ‘a year’ 一年 as in the sentence in (46a) cannot be passivized and used in a *ba*-construction. The quantity expressed by the time reference or the frequency phrase shows the state of the action of V1. The omission of *shang* still makes a grammatical sentence as in (46b).

(46) a. 這件事 張三 抱怨 上 一年 了。

Zhejianshi zhangsan baoyuan-**shang** yi-nian le

This thing zhangsan complain one year ASP

‘Zhangsan has complained of this thing for one year.’

b. 這件事 張三 抱怨 了 一年 了。

Zhejianshi zhangsan baoyuan - **le** yi-nian

‘Zhangsan has complained of this thing for one year.’

Some adverbs, such as *yi3jing* ‘already’ 已經 and *zheng3zheng3* ‘totally’ 整整 shown in (47), may be put in front of [V-shang Time] to highlight the total time spent. Thus, the semantic meaning demonstrates the resultative meaning in showing the completed event from V1.

- (47) 整整            喜歡上        一年  
 zhengzheng    xihuan-shang    yinian  
 totally        like                one year  
 ‘He has liked her for a whole year.’

#### 4.4.1 NP Extent

According to Dowty (1991) and Her (2009), quantifiers can be represented by a thematic role ‘Extent’ coined by Dowty and Her. Extent has been categorized into quality extent and quantity extent (Halliday 1967, Teng 1985). As a semantic role, ‘Extent’ is also referred to as ‘Range’ by Halliday (1964) and Teng (1975) or as ‘Domain’ by Huang (1993). As a thematic role, Extent functions as a measure element of verbs (Dowty, 1991). For instance, ‘five pounds’ in the sentence of ‘this item weighs five pounds’ is not an adjunct, because if the noun phrase is omitted, the sentence will become ungrammatical.

For the rank of the thematic roles, Extent is on the same level as Location, which is the least prominent role in the thematic hierarchy (Huang, 1993) in (48). However,

the noun phrases of location and extent are directly dominated by V-shang, so the role of the object as extent should be inserted.

(48) Revised thematic hierarchy:

ag > ben > go/exp > inst > pt/th > loc/**ext**

Extent has different features from Patient and Theme. Extent has a general interpretation, but Patient has a specific interpretation. In addition, Extent is the effect of the verbal process, but Patient is the object which undergoes the process or event. Theme refers to a concrete object, while Extent can be a measure amount (Xie, 2010).

In regard to the general types of Extent, they can be categorized into quantity extent and quality extent. Quality extent specifies the verb, while quantity extent adds specification with measure elements (Halliday, 1967).

(49) a. He played tennis.

b. He played five games.

The Extent 'tennis' in (49a) is a quality extent due to the specification of the extension of the verbal process. The Extent 'five games' in (49b) is a quantity extent since it specifies the scope of the process with a measure element.

According to Jackson (1990), duration can be qualified as one kind of Extent. Jackson stated that the circumstantial role, which provides the setting of a proposition, often concerns place or time. Extent shows the features of a circumstantial role,



whose reference does not really participate in the verbal process but rather forms part of the setting for the verb. There are three kinds of circumstances of time: position, frequency, and duration. Duration concerns the measurement of time. The following sentences are presented as examples of duration. ‘Three days’ in (50a) indicates the period of time. (50b) is about the beginning of the period, and (50c) is the ending of the period.

- (50) a. He was ill *for three days*.  
 b. Julian had acted very strangely *since the tragedy*.  
 c. It would probably last *until the evening*.

V-shang needs a range of quantities in V-shang Extent. Extent possibly includes frequency, such as *yi-hsuan* ‘a circle’ 一圈 and *yi-bian* ‘once’ 一遍, and a time phrase as duration, such as *yi-nian* ‘a year’ 一年 and *liang-xiao-shi* ‘two hours’ 兩小時. For quantity Extent, there are phrases of duration time and numeral quantifiers. Time NP indicates the whole of the time spent on the action of V1; that is, it indicates the resultative time consumed by the action. It shows the grammaticalizational pattern from the meaning of space and of time, and it is a metaphorical usage (Lakoff & Johnson, 2003).

Quantifiers also attach to V-shang. In previous studies, V-shang with quantifiers is regarded as the pragmatic use, the beginning of the state or even the result. However,

in fact, quantifiers used with V-shang indicate the spending of the time required for the action, because the action which is quantified by frequency phrases is equal to the time that a person has to spend when performing it. V-shang with Extent shows frequency of action which is equal to the period of time. That is to say, the usage of frequency phrases in quantifiers is another important issue in (51). They would show the frequency of the action rather than mark the actual time of doing the action, but the quantity of the action is equal to the consuming time.

(51) a. 在 中日職棒對抗賽 的 功勞簿上 記上 一筆。

zai zhongri-zhibang-duikangsai de gonglaobu-shang ji-shang yibi

on Chinese-Japan baseball contest merits on record one

‘Record one merit from the baseball contest between Chinese and Japan.’

b. 林聖偉 上前 補上 一腳

linshengwei shang-qian bu-shang yijiao

Lin go forward add a kick

‘Lin Shengwei kicked a person.’

c. 讓 我 再 見上 一眼

rang wo zai jian-shang yiyen

let me again take a look

‘Let me take a look again.’

d. 以色列 湊上 一腳

Israel cou-shang yijiao

Israel join a feet

‘Israel joined the organization.’

*Shang* also can be omitted in the structure, but V-*shang* with Extent signals the resultative time of an action. Generally, [V-*shang* Patient] highlights the resultative state after an action, and [V-*shang* Extent] marks the time. The former emphasizes the new state, while the latter emphasizes the old information.

#### 4.4.2 Path of V-*shang* Extent

The adverb *zhizhidi* ‘straightly’ 直直地 is used to test the upward orientation of V-*shang*. As *zhizhidi* ‘straightly’ 直直地 collocates with the physical verb in V-*shang*, the sentences in (52a) with a time reference and in (52b) with a frequency phrase are doubtful. *Zhizhidi* ‘straightly’ 直直地 seems to specifically modify the erect body when a person is running, because there is no concrete landmark at the end of the movement. (52c) illustrates a person walking forward to make a kick, so *zhizhidi* ‘straightly’ 直直地 demonstrates transverse movement.

(52) a. ?他 直直地 跑上 一天

? ta zhizhidi pao-shang yitian

he run a day

‘he ran all day’

b. ? 他 直直地 跑上 兩圈。

? ta zhizhidi pao-shang liangquan

he run two circle

he ran two laps.’

c. 林聖偉 直直地 補上 一腳

linshengwei zhizhidi bu-shang yijiao

Lin-Shengwei go forward add a kick

In addition, *zhizhidi* ‘straightly’ 直直地 cannot modify stative verbs, such as *xihuan-shang* ‘like’ 喜歡上 and *ai-shang* ‘love’ 愛上. [-Path] verbs including *kao-shang* ‘apply to the school’ 考上 and *xuan-shang* ‘selected’ 選上 in the first category or *guan-shang* ‘close’ 關上 and *lianluo-shang* ‘contact’ 連絡上 in the second category cannot be modified by *zhizhidi* ‘straightly’ 直直地.

As a result, the path in V-shang with Extent no longer expresses a vertical orientation. Physical verbs with *shang* still need to collocate with a concrete location to signal the vertical meaning. Physical verbs in V-shang followed by Extent cannot create the sense of directional movement. Hence, V-shang here only shows a resultative meaning with perfective aspect. In regard to non-physical verbs containing the Path feature, V-shang is based on non-physical verbs to express transverse movement, no matter whether Patient or Extent is attached.

#### 4.4.3 The sense of V-shang Extent

For V-shang, except for the directional meaning and resultative meaning, other usages are easily regarded as abstract state, particle or even aspectual marker. *Shang* also presents a continuing state from a stative state into a dynamic state, and it is

always collocated with verbs with continuing meaning, such as *ma-shang* ‘blame’ 罵上 (Zhang, 2000). Other researchers also have proposed that V-shang can indicate a state or the beginning of an action. The meanings of a state can refer to the beginning of a new state and the start of an action (Liu, 1998; Jiang, 2003; Pan, 2003). The particular definitions are ‘getting to a number’ like *zhu hang liang-ye* ‘stay for two nights’ 住上兩夜 and ‘getting into a state’ like the phrase *lian shang wu-bian* ‘practice five times’ 練上五遍 (Liu, 1998). These examples of conveying the continuing state or of getting to a number are concerned in ‘V-shang with Extent.’

In previous studies, researchers have also analyzed the aspectual feature of V-shang, because it can present the nature of events (Zhang, 2000; Lu, 2000; Chao, 1968; Liu, 1998; Jiang, 2003; Pan, 2003). For example, *xialai* ‘down’ 下來 and *xiaqu* ‘down’ 下去 not only convey a directional meaning, but they also can signal that the action is going to be continuous. Inchoative aspect is used to refer to the example like *qilai* ‘upward’ 起來, and it indicates the beginning of the state (Chao, 1968). The previous studies all indicated the continuing state of *shang*, so the durative aspect can be used to express the successive situational type, for instance, *shui-shang yi-zheng-tian* ‘sleep (the) whole day’ 睡上一整天.

From the present study, the meaning in V-shang with Extent is also abstract, which is not directional movement in [V-shang Ground] or a result of attachment in

[V-shang Patient]. For the Extent NP, it has the sense of getting to the degree as same as Liu's study. The feature of *shang* in [V-shang Extent] may be similar to *dao4* 'arrive' 到, because they have same meaning of 'getting to' and functions of following after the verb. However, *dao4* 'arrive' 到 can collocate with verb types which are more than verbs with *shang*, such as a grammatical phrase of *wen-dao* 'smell' 聞到 but ungrammatical phrase of *wen-shang* 'smell' 聞上.

Besides, *dao4* 'arrive' 到 is also regarded as a phase verb complement (hereafter referred to as PVC). The present study also found that V-shang with Extent shows a similarity with phase, because Extent as the complement of V-shang shows the features of a circumstantial role, whose reference forms the setting of the internal time for the verb (Jackson, 1990). And, the concept of phase conveys the whole event or a phase of it, as in the sentence in (53), where an event time interacts with a speech time or reference time (Cheng, 1997).

(53) 李四 穿 好 衣服 了。

Lisi chuan-hao-yifu -le

Lisi wear-well-cloth-asp

'Lisi put on the clothes.'

In (53), the phase verb complement *hao3* highlights the time structure of the action, and the internal feature of the sentence is related to the time (Jian, 1997). Similarly, *tu-guo-youqi* 'painted' point out the completed action' 塗過油漆.

Some studies have proposed that some verb-complements should be categorized into PVCs: *qilai* ‘upward’起來, *xiaqu* ‘down’下去, *guo4* ‘across’過, *wan2* ‘over’完, *dao4* ‘arrive’到, and *hao3* ‘finished’好 (Chao, 1968; Cheng, 1997; Chung, 2001). Chao (1968) has suggested that *zhe* ‘in the action of...’著, *dao4* ‘arrive’到, *jian4* ‘see’見, *wan2* ‘over’完 and *guo4* ‘across’過 should be located after the verb to express the phase of the action rather than a result or purpose, for instance, (54). Then, *zhe* ‘in the action of...’著, *dao4* ‘arrive’到, *jian4* ‘see’見, and *wan2* ‘over’完 also show part of the features of RVCs to express the result of the action of V1.

(54) 我碰到(了)一件怪事

Wo peng-dao-(le) yijian guaishi

Wo bump-into-Asp a piece thing

‘There is a weird thing.’

Cheng (1997) also suggested that PVCs should be *V-laiV-qu* V 來 V 去 (for repetition), *qilai* 起來 (for inchoation), *xiaqu* 下去 (for succession), *wan2* 完 (for finishing an action), *zhe* 著 (for progression), *diao4* 掉 (for loss), and *guo4* 過 (for experience). PVCs portray the phase of completed resultative event from the beginning to the endpoint. The similarity between the phase and the verb complements is that verb complements following the verbs show the change of time. The feature of time can be discovered through Extent; no matter whether a frequency phrase or time reference is collocated after V-shang, they all stand for the consumed

time. Aspect refers to the internal temporal constituency, but phase is about the state of the action (Chuang, 2001).

After we separately examine the types of V-shang, [V-shang Patient] has the same character of resultative meaning as RVCs; [V-shang Extent] also shows the same function of indicating the phase of the action as PVCs, such as *dao4* ‘get to’ 到. Besides, [V-shang Ground] is the prototype of DVCs. Shin (1997) has proposed that “RVCs, DVCs and PVCs should have the same function of expanding the meaning of the head verb and consequently changing the nature of the VP.” Because three types of verb complements share the same distinctive features in grammar, it is unnecessary to consider them to be contrastive categories.

#### 4.5 Summary

In the view of the early studies, *shang* is a directional verb complement containing several extended meanings. V-shang contains different functions within the semantic and syntactic levels. Based on Talmy’s motion event theory, the present study observes the complement NPs following the preceding verbs of V-shang. And, the semantic meanings should be changed from directional movement into resultative achievement.



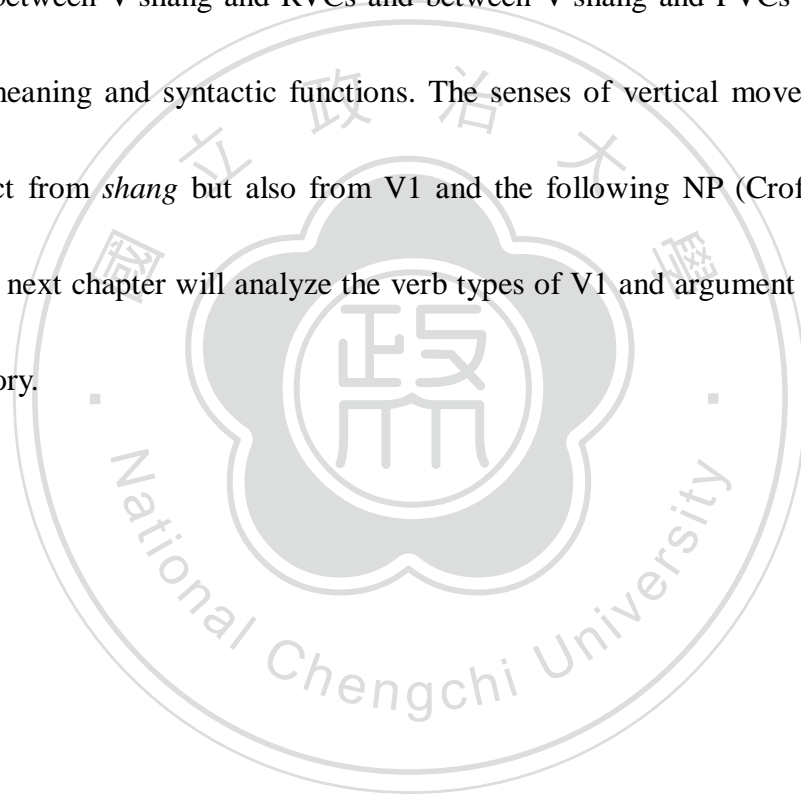
V-shang with Ground shows the vertical movement of Figure from the lower-landmark toward the higher-landmark with the meaning of directional motion. The final landmark is the so-called Ground. This category expresses the directional meaning. The concrete Ground NPs are the majority, and Path expresses vertical orientation. Some patterns with [-Path] feature no longer indicate concrete Ground but an abstract goal. A Ground may indicate a concrete location or an abstract goal attached to V-shang.

In the category of V-shang with Patient, which does not indicate location, the transitive verb, V1, plays an important role. Patient is conserved in the verb compound, because even the absence of *shang* in [V-shang NP] is still grammatical. Thus, *shang* in [V-shang Patient] becomes more abstract than *shang* in [V-shang Ground]: V-shang only conserves a resultative meaning and expresses accomplishment, and the resulting phenomenon of behavior of ‘attaching some object’ shows the feature of the resultative verb complements (RVCs). The movement of path would be transverse rather than vertical.

The third category, [V-shang Extent], contains two kinds of complement NP: time reference and frequency phrases. The required thematic role of V-shang is Extent. Extent is different from Theme and Patient, because it is a measure amount. [V-shang Extent] expresses the meaning of whole consuming time and lets V-shang associate

with the phase time of action. *Shang* here shows the similar feature of the phase verb complements (PVCs), especially *dao4* ‘get to’ 到, because of their abstract semantic meaning and syntactic function of pointing phase time.

Under the analysis of a theoretical framework based on Talmy’s motion-event theory, this study categorizes three types of V-*shang*. The study also finds some similarity between V-*shang* and RVCs and between V-*shang* and PVCs according to semantic meaning and syntactic functions. The senses of vertical movement do not only project from *shang* but also from V1 and the following NP (Croft, 2001; Lu, 2011). The next chapter will analyze the verb types of V1 and argument structures in each category.



## Chapter 5

### Analyzing the verbs in three types of V-shang

After V-shang has been categorized within the framework of Talmy (2000)'s motion-event theory in Chapter 4, the thesis found that there are three kinds of V-shang on account of the variation in the NP complement following V-shang: [V-shang Ground], [V-shang Patient] and [V-shang Extent]. However, their differences lie not only in the types of the noun phrases, but also in the way in which *shang* collocates with the preceding verbs (V1) in V-shang. Thus, this chapter mainly analyzes the argument structures of V-shang occurring within the three types. And, this issue is related to the thematic roles acquired by V1 and *shang*. The analysis will also help us to understand the character of *shang*.

### 5.1 Verbs in V-shang Ground

#### 5.1.1 Verb types in V-shang Ground

In the first category of V-shang with Ground NP, this thesis finds the preceding verb (V1) and *shang* have the following combination in the Academia Sinica corpus. Basically, the verb type of V1 is an action verb (Teng, 1964; Xu, 2008), especially

physical motion verbs. The patterns of V-shang Ground are presented in Appendix A (Part I). According to Talmy (2000)'s motion-event theory, physical motion verbs easily express the meaning of movement, so the main verb types collocating with Ground are physical motion verbs like *pao3* 'run' 跑, *fei* 'fly' 飛, and *chong* 'head or go' 衝, *ben* 'rush' 奔, or *pa2* 'climb' 爬. Also, other verbs with vertical elevation are like *tai2* 'carry' 抬 and *ban* 'move' 搬. They can be modified by *zhizhidi* 'straightly' 直直地 to convey the upward movement. For instance in (55):

- (55) a. 李四 直直地 爬 上 山 了。  
 Lisi zhizhidi pa shang shan le  
 Lisi straightly climb up mountain ASP  
 'Lisi straightly climbed up onto the top of the mountain.'
- b. 李四 把 東西 直直地 搬 上 樓 了  
 Lisi ba dongxi zhizhidi ban-shang-lou le  
 Lisi ba things straightly move-up-floor-asp  
 'Lisi has straightly moved the things up to the upper floor.'

On the other hand, V-shang which cannot be modified by *zhizhidi* 'straightly' 直直地 are with a [-Path] feature, such as *kao-shang* 'test' 考上, *xuan-shang* 'select' 選上, *zhui-shang* 'chase something in order to follow' 追上, *gen-shang* 'follow up' 跟上, and *gan-shang* 'follow up' 趕上. These kinds of V-shang can attach to reachable objects and unreachable goals, as in (56).

- (56) 我們 現代化 應該 是 趕上 時代潮流  
 women xiandaihua yinggai shi gan-shang shidai-chaoliu  
 our modernization should catch up time trend  
 ‘Our modernization should catch up (with) the trend of the times.’

### 5.1.2 The argument structure of V-shang Ground

In regard to the argument structure of V-shang with Ground NP from the sentences in (55-56) above, V-shang needs a subject and an endpoint, so it essentially requires two thematic roles, Theme and Locative. A Theme role portrays the entity that is moved by the action or event denoted by the predicate. If we take *pa-shang* ‘climb up onto something’ 爬上 for example, the first predicate (V1) *pa2* ‘climb’ 爬 originally requires two thematic roles: Theme and Location, because the subject is affected by the action *pa2* ‘climb’ 爬 in sentence (57). And, it should attach to a preposition phrase *dao4* ‘arrive’ 到 with a location. According to Dowty (1991), ‘Lisi’ undergoes the action only and does not change his state. Hence, ‘Lisi’ can be assigned a Theme role.

- (57) a. 李四 爬 到山上 了。  
 Lisi pa dao-shan-shang le  
 Lisi climb up mountain ASP  
 ‘Lisi climbed up onto the top of the mountain.’  
 b. *pa2* <Theme, Locative>

On the other hand, when we analyze the sentence in (60) with *shang* as its predicate, we can find that *shang* needs a subject as its Theme and a Locative complement as its object. ‘Johnson’ is also the same as ‘Lisi’ in (59) that both undergo the action but do not change their state, so *shang* may have a Theme role in the subject position.

(58) a. 強森 上 樓 了

Johnson shang-lou le

Johnson up-floor-asp

‘Johnson went up (to the next) floor.’

b. *shang* <Theme, Location>

When these two predicates are synthesized into a compound, their argument structure is conserved under the principle of thematic hierarchy. This phenomenon of the synthesis of V1 and *shang* can be explained by Lexical Functional Grammar (LFG). Based on an argument structure (a-structure) linking the lexical semantic structure and the syntactic structure of a predicator (Bresnan and Kaberva, 1989; Bresnan and Zaenen, 1990), LFG states two planes of syntactic representation: functional structure (f-structure) and constituent structure (c-structure) (Kaplan and Bresnan, 1982). The c-structure is represented as a tree configuration, and the f-structure is formed of grammatical information, such as grammatical features (e.g., SUBJ and OBJ). Dowty (1988) and Bresnan (2001) propose an implicational hierarchy of the subject; that is, speakers place an Agent into the subject position most

frequently, and the second preference is the Benefactive, then Theme/Patient, and finally Locative as in (59).

(59) Thematic hierarchy:

*ag > ben > go/exp > inst > pt/th > loc*

Argument functions include SUBJ, OBJ, OBL $\theta$  (oblique function), OBJ $\theta$  (secondary objects). They are characterized by two binary distinctive features:  $[\pm r]$  ( $[+r]$  and  $[-r]$  for restricted and unrestricted) and  $[\pm o]$  ( $[+o]$  and  $[-o]$  for objective and non objective) (Bresnan, 2001; Her, 2009). The restriction of thematic roles is distinguished by  $[\pm r]$ , and SUBJ and OBJ are unrestricted. On the other hand, the objective functions marked by  $[\pm o]$  distinguish the group of OBJ and OBJ $\theta$  from the other group of SUBJ and OBL $\theta$ . The intrinsic features of grammatical functions and the hierarchy of marked argument functions by Her (2009) are as shown in (60):

(60) Markedness hierarchy of argument functions:

SUBJ ( $-r -o$ ) > OBJ ( $-r +o$ ) / OBL $\theta$  ( $+r -o$ ) > OBJ $\theta$  ( $+r +o$ )

Two other lexical mapping rules in (61) and (62) below show the universal scheme of morphosyntactic classification of argument structure roles (Bresnan and Kanerva, 1989). Further, (63) shows a unified mapping principle (UMP) (Her 1999, 2003, 2007, 2009). Her (2009) suggested that the UMP indicates elsewhere conditions under which a non-subject or a non-patient role should be assigned a restricted oblique function.

(61) Intrinsic morphosyntactic classification of thematic roles (IC):

$\theta$ ,  $\theta = pt/th$

[-r]

(62) Default morphosyntactic classification of thematic roles (DC):

$\theta$ ,  $\theta \neq \theta^{\wedge}$  (theta hat)

[+r]

(63) Unified Mapping Principle (UMP):

Map each role in a-structure to the highest compatible\* AF available+.

\*An AF is compatible **if** it contains no conflicting features.

+An AF is available **if** it is not fully specified by a role and not linked to a higher role.

In (61), patient/theme is encoded as an unrestricted function like SUBJ or OBJ.

Elsewhere condition in (62) states the generalization that a non-logical subject, and a non-patient-like role is typically assigned a thematically restricted oblique function.

And, further, a more prominent role favors a more prominent AF (Her, 2009). And

well-formedness constraints, including the Subjection Condition: every predicator

must have a subject, and Function-Argument Biuniqueness: Each a-structure role

must be associated with a unique function, are used to ensure that every sentence has

a subject and that two arguments cannot be mapped to the same grammatical function

(Bresnan 2001). In an instance from Her (2009):

(64) 張三 坐 在台上。

Zhangshan zuo zai tai-shang.

John sit on stage-top

‘John is sitting on the stage.’



*sit* < x y > <x=th, y=loc>

IC: [-r]

DC: [+r]

---

S/O OBL/OBJ $\theta$

UMP: S OBL

In this sentence, *zuo* ‘sit’ requires two thematic roles defined by proto-patient entailment (Dowty, 1988). The actor of *zuo* undergoes the action but does not change its state, so it is a thematic role of Theme. Locative is in a group of not non-Theme/Patient and is assigned a [+r]. The next is to analyze motion verbs like *fei* ‘fly.’ *fei* requires two thematic roles. An Theme like ‘Lisi’ may appear in the subject position as in the following sentences in (65). *Fei* ‘fly’ 飛 has the syntactic structure of < th, loc>.

(65) a. 李四飛 到天上 了。

Lisi fei dao-tian-shang le

‘Lisi flew (up) to the sky.’

*fei* < th, loc>

A verb compound is composed of two predicates. The second predicate originates from directional verbs, and V1 is the motion verb. In the interaction between grammatical relation and thematic relation, the roles are omitted in use, and the grammatical relation shifts to react to this situation. Her (2007) has proposed the

argument structure mismatches in RVCs within the composition of the causative predicate and the resultative predicate. The first causative predicate makes RVCs express the causative or non-causative meaning, so different semantic meanings trigger different syntactic structures. The mismatching situation happens because the thematic role of V2 merges with the roles of V1 to compose a composite role (Her, 2007). No matter what the composition is manipulated, the outcome will only keep two roles mapping to the subject and object position. That is, the suppression device would absorb one of the composing roles. For a logical consequence of one-to-one mapping, Her (2007) suggests that it should be considered universally motivated and constrained by the mapping principle.

Thus, when we go back to analyzing a V-shang structure like *fei-shang*, the mapping process will be as in (66) below. The syntactic structure of *fei-shang* requires two thematic roles. A Theme is conserved in the subject position, and a Locative is required in the object position. In the composite roles, the proper role is conserved.

(66) a. 李四/氣球 飛上 天 了。

Lisi/the ballon fei-shang-tian- le

‘Lisi/The ballon flew (up) to the sky.’

b. V1: *fei* <th, loc>

V2: *shang* <th, loc>

↓ ↓

VV: *fei-shang* < th loc >

*fei-shang* < *x*     *y* > (*x=th*, *y=loc*)

IC:                                 [ -*r* ]

DC:                                 [ +*r* ]

---

S/O    OBL/OBJ $\emptyset$

UMP:                                S        OBL

Other verbs with a vertical elevation like *tai2* ‘carry’ 抬 and *ban* ‘move’ 搬 require three thematic roles: Agent, Theme and Locative, as in the sentence *Lisi ban dong-xi dao loushang* 李四搬東西到樓上 ‘Lisi has moved the things to the upper floor.’ Sentence (67) shows that V-shang may have the syntactic structure <*ag*, *th*, *loc*>. Both Locative and Theme are conserved in V-shang.

(67) a. 李四 把 東西 搬 上 樓 了

Lisi    ba dong-xi    ban-shang-lou    le

Lisi    ba things    move-up-floor-asp

‘Lisi has moved the things to the upper floor.’

b. V1: *ban*                     <*ag*,    *th*,    *loc*>

V2: *shang*                    <*ag/th*,            *loc*>

↓        ↓        ↓

VV: ban-shang                <*ag*,    *th*,    *loc*>

However, if three roles seek to co-occur in the sentence, it has to be in a ba-construction. Without a ba construction, there are only two roles in a V-shang sentence, such as <*ag*, *th*>, <*ag*, *loc*> and <*th*, *loc*> . In V-shang with Ground, the

locative role takes priority in the selection of the structure, so the structure of  $\langle ag, th \rangle$  in *ban-shang yixiangpijiou* ‘move up a box of beer’ 搬上一箱啤酒 will be included in the second category of V-shang with Patient.

Another two examples are shown below. The answer in the conversation (68) shows the syntactic structure of  $\langle ag, loc \rangle$  required by V-shang, and the Theme role is omitted. This type of structure only occurs in the dialogue, so the category of V-shang Ground would only include the second type of argument structure  $\langle th, loc \rangle$  in (69).

(68) A: 東西呢

dong-xi ne?

things ne?

‘Where are the things?’

B: 李四搬上樓了

Lisi ban-shang-lou le

Lisi move-up-floor-asp

‘Lisi has moved the things to the upper floor.’

The sentence (69) shows that Theme and Locative role are conserved. An Agent role is omitted, so V-shang affords two thematic roles  $\langle th, loc \rangle$ .

(69) 東西 搬 上 樓 了

dong-xi ban-shang-lou le

things move-up-floor-asp

‘(Someone) moved the things to the upper floor.’

As a result, V-shang with Ground can demonstrate an argument structure:  $\langle th, loc \rangle$ . *Shang* is assigned the structure of  $\langle th, loc \rangle$ . When V1 requiring three thematic roles is compounded with *shang*, V-shang needs three roles. However, only  $\langle th, loc \rangle$  is collected in this category. When V1 requiring two thematic roles is synthesized with *shang*, V-shang also shows the structure of  $\langle th, loc \rangle$ .

## 5.2 Verb types in V-shang Patient

### 5.2.1 Verb types in V-shang Patient

In the corpus, we find that the number of instances of V-shang with Patient NP has more than other two categories. Only transitive verbs can be assigned in the V1 position, because V-shang requires a Patient complement under the proto-patient entailments of Dowty (1988): change of state, incremental theme, casually affected, stationary relative to another participant and existence not independent of the event. The patterns of V-shang with Patient contain [+path] feature and [-path] feature as in Appendix A (Part II). In the group of [+Path], the verb types of V1 attaching to *shang* comprise two groups: one group contains only two thematic roles in (70a), and the other group needs three thematic roles in the action frame in (70b).

(70) a. 牆 上 刷上 白粉

Qiang shang shua-shang baifen

Wall paint on white

‘(someone) paint the wall white.’

b. 李四 在屋頂上 綁上 竹籠。

Lisi zai-wuding-shang bang shang zhulong

Lisi on roof tie basket

‘Lisi tied the basket onto the roof.’

The verbs requiring three thematic roles have the meaning of ‘taking/adding (Patient/Theme) to (location).’ The Location (concrete) or Goal (abstract) is the same as the Ground, so speakers can choose a Theme or a Ground to map to the object position; that is, verbs requiring three thematic roles may appear in [V-shang Patient] or in [V-shang Ground]. For example, as we have mentioned above, *ban* ‘move’ in the sentence of *Lisi ban dong-xi dao loushang* 李四搬東西到樓上 ‘Lisi has moved the things to the upper floor’ can show this character. The sentence can also be *Lisi ban-shang lou* ‘Lisi has moved to the upper floor’ or *Lisi ban- shang dong-xi* ‘Lisi has moved the things.’ Another example in (71) shows that the mountain is Ground in (71a) and that the package is Patient in (71b).

(71) a. 揹上 山

bei-shang shan

put on mountain

‘carry the pack up the mountain’

- b. 揸上 背包  
 bei-shang beibao  
 put on back backpack  
 ‘put the backpack on your back’

In regard to [-Path] verbs, the examples of ‘presenting X to Goal’ are verbs showing the psychological orientation in mind in (72). An Agent gives the object to people with a higher social status. *Shang* is used to highlight this meaning rather than *xia* ‘down.’ The verbs with the meaning of ‘operating X’ are in (73).

- (72) a. 主動 報上 服務名稱  
 zhudong bao-shang fuwu-mingcheng  
 spontaneously report affiliation  
 ‘spontaneously tell the server affiliation’
- b. 十年前 我 奉上 父母 的 生活費  
 shinian-qian wo feng-shang fumu de shenghuofei  
 ten years ago I give parents allowance  
 ‘Ten years ago, I was able to profer an allowance to my parents.’
- (73) a. 突然 關上 了 房門。  
 turan guan-shang le fangmen  
 suddenly close ASP door  
 ‘He suddenly closed the door.’
- b. 大師 說完， 閉上 眼睛  
 dashi shuowan, bi-shang yanjing  
 master finish talking close eyes  
 ‘After finishing talking, the master closed his eyes.’

- c. 每晚 就寢前 會 鎖上 帆腳索  
 meiwān jiūqǐn-qian huì suo-shang fānjiǎosuo  
 every night before go to bed will lock bow line  
 ‘Every night before going to bed, he locks the bow line.’

And verbs with the meaning of ‘connecting X’ are in (74). In [V-shang Ground], there are two kinds of verbs which cannot be used: stative verbs and disyllable verbs.

However, disyllabic verbs, like those in (74b), can be used in the structure.

- (74) a. 經 申請 後，即可 連上 網際網路  
 jīng shēnqǐng hòu, jìkě lián-shàng wǎngjièwǎnglù  
 through apply after can connect internet  
 ‘After applying, we can connect to the internet.’
- b. 最後 聯絡上 台北 的 巨獅創意科技  
 zuìhòu liánluò-shàng Tāipei de jùshī-chuàngyì-kejì  
 finally connect Taipei jushi technology company  
 ‘Finally, we were able to establish contact with the Taipei Jushi Technology Company.’

Activity verbs and stative verbs can both appear in the group of [-Path], such as *peng-shang* ‘run into’ in (75a) and *xihuan-shang* ‘like’ in (75b). However, in V-shang with Ground, stative verbs cannot function as V1.

- (75) a. 這把年紀 也 會 碰上 感情困擾  
 zhèbaniánjì yě huì pèng-shàng gǎnqíng-kunrao  
 this age also can run into love problems  
 ‘At this age, we can still run into love problems.’



- b. 喜歡上            網際網路  
 xihuan-shang    wangjiwanglu  
 like                internet  
 ‘(Someone) like(s) the internet.’

Also, sense verbs in stative verbs, as in (76), can be used with *shang*, and the actor becomes the Experiencer. Therefore, the constraint in [V-*shang* Patient] becomes more flexible than the constraint in [V-*shang* Ground].

- (76) 他的眼睛        盯上        了    兩個    龐然大物  
 Ta-de-yanjing    ding-shang    le    liangge    pangrandawu  
 his eyes        stare at        ASP    two        huge things  
 ‘He stared at two huge things.’

### 5.2.2 The argument structure of V-*shang* Patient

A Patient role portrays the ‘undergoer’ of the action or event denoted by the predicate. When the NP complement is Patient rather than Locative as the thematic role of V-*shang*, the phrase presents the resultative meaning. If *shang* is omitted in the sentence, it is still a grammatical sentence. In the sentence in (77), *dai4* ‘put on’ 戴 as a verb requires two thematic roles: Agent and Patient.

- (77) a. 李四 戴    帽子    了。  
 Lisi    dai    maozi    le  
 Lisi    put on    cap    ASP  
 ‘Lisi put on the cap.’

|      |            |            |            |                        |
|------|------------|------------|------------|------------------------|
| b.   | <i>tai</i> | < <i>x</i> | <i>y</i> > | ( <i>x= ag, y=pt</i> ) |
| IC:  |            |            |            | [- <i>r</i> ]          |
| DC:  |            | _____      |            |                        |
|      |            | S/O/...    | S/O        |                        |
| UMP: |            | S          | O          |                        |

Here is the test that the argument structure of *shang* remains <*th, loc*>, because the subject would be a Theme which undergoes the action with no change of state. As a proto-patient, the incremental theme, is assigned [-*r*] in IC, and the Agent is unmarked. On the basis of the UMP, the Agent is mapped to the subject, and the Theme to the object. The suppression device based on LMT is conducted in (78).

(78) 李四 戴 上 帽子 了。

Lisi dai shang maozi le

Lisi put on cap ASP

‘Lisi put on the cap.’

V1: *dai* <*ag, pt*>

V2: *shang* <*th, loc*>



VV: dai-shang < *x* *y* > (*x= ag, y=pt*)

|      |  |         |     |               |
|------|--|---------|-----|---------------|
| IC:  |  |         |     | [- <i>r</i> ] |
| DC:  |  | _____   |     |               |
|      |  | S/O/... | S/O |               |
| UMP: |  | S       | O   |               |

The argument structure  $\langle ag, loc \rangle$  makes an ungrammatical sentence; for example, \**Lisi dai shang luo* ‘Lisi put on (the hat) and go upstairs’ \*李四戴上樓了. However, if we change *dai4* ‘put on’ 戴 to *dai4* ‘carry’ 帶, it will be a grammatical sentence, because *dai4* ‘carry’ 帶 requires three thematic roles  $\langle ag, th, loc \rangle$ . *Dai4* ‘carry’ 帶 is the same as *tui* ‘push’ 推. As mentioned in 5.1, these kinds of verbs belong to V-shang with Ground or V-shang with Patient. However, *dai4* ‘put on’ 戴 only requires two thematic roles, so only  $\langle ag, pt \rangle$  is the best result.

In the category of V-shang with Patient, the subject position needs an actor to finish the behavior, so an Agent role can be mapped to the subject position. For the object position, the Patient role is the ‘undergoer’ of the action denoted by the V-shang. Patient is attributed from V1.

The above sentence (78) can express the accomplishment of the action, and it also can indicate that the ‘hat’ has been put on the head. V-shang with Patient conducts the resultative meaning, which is similar to the sense in RVCs. In an RVC, there is a group of compounds which need the combination between the two thematic roles from V1 and Theme from V2. For example, examples of V2 in RVCs are *hao3* ‘finished’好, *jian4* ‘see’見, *zhe* 著, *tiao4* ‘drop’掉, *zhu4* ‘live’住, and *dong4* ‘move’動 (Wang, 1995). Especially, *hao3* ‘finished’好 can take the place of *shang*, and a possible pair is shown in (79) in which (79a) and (79b) express the same sense.

(79) a. 李四 穿 上 衣服 了。

Lisi chuan-shang-yifu -le

Lisi wear-up-clothes-asp

‘Lisi put on the clothes.’

b. 李四 穿 好 衣服 了。

Lisi chuan-hao-yifu -le

Lisi wear-well-clothes-asp

‘Lisi put on the clothes.’

### 5.3 Verb types in V-shang Extent

#### 5.3.1 Verb types in V-shang Extent

There seems to be no restriction on the types of verb which may fill in V1 of V-shang with Extent, such as time phrase *yitian* ‘a day’ 一天 or frequency phrase *liangquan* ‘two circle’ 一圈. Stative verbs are seldom used in this pattern, even though grammatical sentences, such as the sentence of *ta xihuan zhegeren xihuan-shang yinien le* ‘He likes this person for a year’ 他喜歡這個人喜歡上一年了 can be made. The physical motion verb, *pao3* ‘run’, is usually used in V-shang with Extent like the example in (80a). Some activity verbs like *baoyuan* ‘complain’ in (80b) can also attach to Extent. That V-shang replaces a location with an Extent complement indicates the time spent in the performance of the action of V1.

(80) a. 他 跑上 一天/兩圈

ta pao-shang yitian/ liangquan

he run a day/ two circle

‘He ran all day/ two laps.’

b. 這件事 張三 抱怨 上 一年 了

Zhejianshi zhangsan baoyuan- shang -yi-nian le

This thing zhangsan complain - one year ASP

‘Zhangsan has complained of this thing for one year.’

Some special verbs used in this category are the consuming verbs, such as *hua* ‘spend’ 花 and *fei4* ‘spend’ 費 in (81). The quantity of time points out the period of the consumed time. The time spent on performing the action does not indicate the action of V1 but other predicates like (81a); the women spent several hours on working.

(81) a. 有些女人 會 花上 幾個小時 一起 工作

youxie-nuren hui hua-shang jige-xiaoshi yiqi gongzuo

some women will spend several hours together work

‘Some women spent several hours working together.’

b. 形成 往往 要 費上 好幾年 的 時間

xingcheng wangwang yao fei-shang haojinian de shijian

development usually need spend several years time

‘It usually takes many years to develop (something).’

The time expressed by Extent depends on different kinds of V1 to show the semantic meanings. V-shang with Extent represents the state of the action and conveys the resultative meaning.

### 5.3.2 The argument structure of V-shang Extent

Apart from the first and second type of *shang* in V-shang, Extent is required by *shang* in V-shang Extent. The scope of degree can be attached to V-shang to convey the meaning of resultative quantity. According to Dowty (1991) and Her (2009), the thematic role is called Extent. And, Extent should be at the same level as Location, which is the least prominent role in the thematic hierarchy (Huang, 1993) in (82); that is, it has to be assigned the feature of [+r] as a Locative.

(82) Revised thematic hierarchy:

*ag > ben > go/exp > inst > pt/th > loc/ext*

Because most kinds of V1 occurring in V-shang Ground and V-shang Patient can also be used in this category, it can be seen that the argument structure of *shang* is changed from the Locative to the Extent, on a basis of the consistent structures of V1. Thus, *shang* here has the structure of  $\langle th, ext \rangle$ . The evidence from the Chinese historical novel,  $\langle Jingpingmei \rangle$  金瓶梅<sup>4</sup>, shows that *shang* as a predicate attaches to the quantity, the girl's age, as follows.

(83) 青梅 年 約 不 上 二 九

Qingmei nian yue bu shang erjiu

Qingmei age about not *shang* eighteen

‘Qingmei is not over 18 years old.’

<sup>4</sup> The data are from Academic Sinica Tagged Corpus of Early Mandarin Chinese (中央研究院近代漢語標記語料庫): <http://db1x.sinica.edu.tw/cgi-bin/kiwi/pkiwi/pkiwi.sh>

According to the  $\theta$ -Criterion, the mapping between thematic roles and syntactic arguments must be strictly one-to-one, so the composite role has to suppress one of its thematic roles when it is mapped to a grammatical function (Her, 2009). The complement NP changes from Ground to Extent, so the thematic role varies from Location to Extent. In the example of *pao-shang* ‘run’ in (84):

(84) a. 他 跑上 兩圈。

ta pao-shang liangquan

he run two circle

‘He ran two laps.’

b. V1: *pao3* <th, loc>

V2: *shang4* <th, ext>

VV: *pao-shang* <th, ext> or <th, loc>

*pao-shang* < x y > (x=th, y=ext)

IC: [-r]

DC: [+r]

---

S/O/... OBL/OBJ $\emptyset$

UMP: S OBL

A Theme is assigned the feature of [-r] in IC, and the Extent is assigned the feature [+r] in DC. According to the UMP, the Theme is mapped to the subject, and the Extent is to the OBL. The suppression happens in the composite roles. The result shows that an Extent or a Locative is able to fill the object position. This result can be

associated with the first category of V-shang with Ground. That is, when the thematic roles of *shang* show the structure of  $\langle th, ext \rangle$ , it gives V-shang the ability to attach to an Extent. The sentence (85) presents another test, of the verb *chuan* ‘wear’ 穿, which would need two thematic roles  $\langle ag, th \rangle$ . An Agent role for volitional actor, and a Patient role for the undergoer of the action. Extent is chosen to map to the object position of V-shang.

(85) a. 這件事 張三 穿 上 治 一年 了  
 Zhejianshi zhangsan chuan- shang -yi-nian le  
 This thing zhangsan wear - one year ASP  
 ‘Lisi has worn (something) for one year.’

b. V1: *chuan*

$\langle ag, pt \rangle$

V2: *shang4*

$\langle th, ext \rangle$

VV: *chuan-shang*

$\langle th, ext \rangle$

*chuan-shang*

$\langle x, y \rangle$  ( $x=th, y=ext$ )

IC:

$[-r]$

DC:

$[+r]$

---

S/O/... OBL/OBJ $\emptyset$

UMP:

S OBL

From the above three categories, the first verbs (V1) in V-shang with Ground are motion verbs in physical verbs, and they mostly show the argument structure of  $\langle th,$



*loc*>. In the category of V-shang Patient, there are [+Path] verbs with the behavior of ‘attachment,’ and the argument structure is <*ag, pt*>. And, the last category is flexible of collocating with the first verb in V-shang. The verbs occurring in the first and second category can adjoin to *shang* in V-shang Extent.

Also, there is the variation of argument structure of *shang*. The argument structure of *shang* of <*th, loc*> or <*th, ext*> determines the structure of V-shang. The first type of <*th, loc*> is presented in [V-shang Ground] and [V-shang Patient]; <*th, ext*> is presented in [V-shang Extent]. From Chapter 4, the semantic meanings of V-shang present the variation of directional movement in [V-shang Ground], result in [V-shang Patient] and abstract sense in [V-shang Extent]. And, the difference between three categories can be explained by polysemy approach.

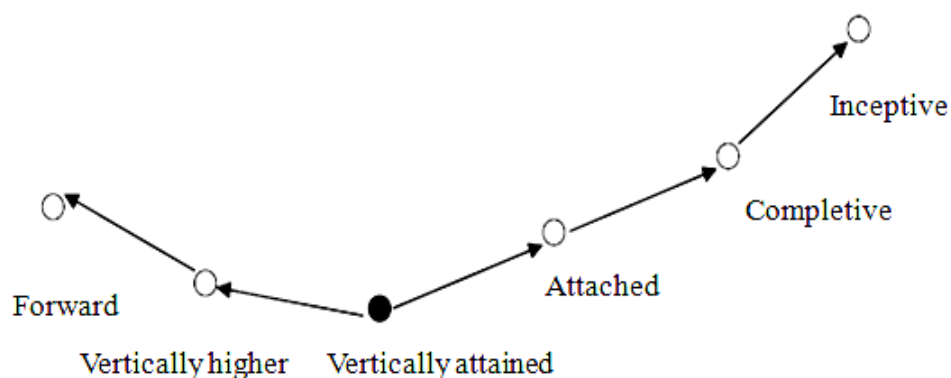
#### 5.4 Polysemy

From above result, the study found the change of semantic meanings and argument structures in three categories. However, the characters in three categories are related. According to Lu (2011)’s study of analyzing *shang* in V-shang within the cognitive approach, Lu has suggested that the extended senses of *shang* should project from the proto meaning into two ways. The researchers use the assignation of spatial relation to describe a vertical motion. The TR of higher-than-LM position is

designated as the prototypical sense of *shang* in Mandarin Chinese (Tyler and Evans, 2003; Kim, 2005).

Figure 4 demonstrates the relationship between the extended sense of *shang* in V-*shang*, so it shows the schema of polysemy rather than homonym. Polysemy indicates a group of words which have same spelling, pronunciation and related senses. For example, the word ‘*mouth*’ means either the orifice on one's face or the opening of a river. Homonym represents a group of words which also have same spelling and pronunciation but unrelated senses, such as the word *desert* meaning ‘to abandon’ or indicating ‘arid region.’ And, from Lu’s study, *shang* is similar to polysemy.

**Figure 4.** The organization of the core sense of *shang* (Lu, 2011)



Lu (2011) claims six senses of *shang*. The prototypical sense of *shang* refers to ‘vertically attained,’ which describes both the vertical motion and the resultative state of that figure in arriving at a concrete surface. This meaning is defined by V1 of a

vertical elevation that involves effort, such as *pa-shang* ‘climb’ 爬上, and the following noun phrases associated with a (near-)horizontal surface. Another feature of ‘vertically higher’ portrays the vertical elevation of a primary figure as the most important element in the conceptual scene. A verb of vertical elevation involves relatively less physical effort in ‘vertically higher’ than verbs of ‘vertically attained’ such as *fei* ‘fly’ 飛 below.

(86) 連人帶傘 飛上 天空

lian-ren-dai-san fei-shang tiankong

with-person-bring-parachute float-shang sky

“(He) floated up onto the sky along with his parachute.”

‘Forward’ develops from ‘vertical attainment’ to express non-vertical motion, such as *gan-shang* ‘follow up’ 趕上. ‘Vertically higher,’ ‘vertically attained’ and ‘forward’ from Lu’s analysis are matched to the category of [V-shang Ground]. *Shang* profiles an upward orientation within different levels of a trajectory. The direction is from the vertical to the horizontal.

‘Attained’ encodes the resultant state of a figure being attached to a surface. For example, *shua-shang* ‘brush’ 刷上 portrays a human agent applying a brush to a SURFACE to produce a result on it. The fifth sense is ‘completive.’ This sense notes the final state of a primary figure being in contact with another entity, as a result of the verbal process, such as *guan-shang* ‘close’ 關上. *Guan-shang damen* ‘close the

door' 關上大門 profiles the endpoint of the process of closing and the contact between two entities. Because *shua-shang* 'brush' and *guan-shang* 'close' require a Patient complement, they are in the category of [V-shang Patient] presenting a resultative meaning. In Lu's study, the last sense is 'inceptive,' which describes the beginning of a mental state, collocating with the verbs of mental contiguity, such as *ai4* 'love' 愛. 'Inceptive' is adopted from 'completive,' and the sense is highly schematic in an abstract domain

Lu's research analyzes the semantic meaning of V1 to portray the figure of *shang*. The development of meanings originates from the prototypical vertical movement in two directions. One way is the change in the movement orientation, while the other is the contact with the surface of the complement. The location of the former is concerned with the ending point, and the latter emphasizes the contacted surface; thus, the argument structure of *shang* remains the Locative role. As we mentioned in the last chapter, Extent includes duration and quantity, and expresses the consumed action time from V1 in V-shang, which is metaphorical usage from space to time (Lakoff & Johnson, 2003), so the lexical semantics projects to thematic roles from the Locative to the Extent. Thus, the related senses present the polysemy character of *shang*. Also, the collocation in the three categories of V-shang can be observed in classical novels in Chinese history.

## 5.5 Historical viewpoints on V-shang

Before the Chin and the Han Dynasty, no V-shang compound appears in the Sinica corpus of Old Mandarin Chinese<sup>5</sup>. *Shang* functioned as a verb and paralleled the other verb. A ‘Verb -Verb’ structure occurred in this period. The only possible construction in Chin (秦) was *niu yang xia lai* ‘the cows and goats came down.’ 牛羊下來 (Pan, 1980; Zhao, 2010), and most researchers regard it as the structure of paralleled verbs which can be added a conjunction between *xia4* ‘down’ 下 and *lai2* ‘come’ 來.

The period from the end of Han dynasty (漢) to Song dynasty (宋) represents the period of Middle Mandarin Chinese. In this long period, the Tang dynasty (唐) marks a division point in history. Before the Tang Dynasty, from the final part of the Han Dynasty (漢) to the Weijing (魏晉), V-shang with a NP complement was not used frequently. In <*Shishouxinyu*> 世說新語, only one example of V-shang is given, *tiao-shang-shuan* ‘jump on to the boat’ 跳上船, and it shows [V-shang Ground] structure with the meaning of directional movement.

<sup>5</sup> Academic Sinica Tagged Corpus of Old Chinese (中央研究院上古漢語標記語料庫): <http://db1x.sinica.edu.tw/cgi-bin/kiwi/akiwi/akiwi.sh>

(87) 行 百里 不 去 , 遂 跳上船 <世說新語>

Xing baili bu qu, sui tiao-shang-chuan  
walk hundred miles not leave then jump on baot

‘(The monkey) walked in a hundred miles. It did not leave (where). Finally, it jumped on the boat.’

According to Pan (1980) and Zhao (2010), in the Tang Dynasty (唐), there was an abundance of patterns of V-shang with Patient in the texts. Also, in the Song Dynasty (宋), people frequently used V-shang with Patient NP. Some standard examples from classical novels in ancient history are presented as follows. The complements of V-shang in (88a) and (88b) are fronted, while the complement in (88c) follows V-shang.

(88)a. 以草敷上, 遂生此坐 <祖堂集>

yi cao fu-shang, sui sheng ci zuo

use straw put on then person this sit

‘(Someone) put the straw on (the ...) and sat on it.’

b. 今 畫 現圖 一鋪 送上 <入唐求法尋禮行記>

jin hua xiantu yipu song-shang

now draw painting together give

‘(Someone) drew the painting and gave it to (someone).’

c. 身穿金甲, 接上頭牟 <敦煌變文選>

shen chuan jinjia, jie-shang toumou

body wear armor put on helmet

‘(Someone) put on a suit of armor and a helmet.’

## d. 吹上寒枝 &lt;全宋詞&gt;

chui-shang han zhi

blow cold branches of the plant

‘The cold wind blew the branches of the plant.’

Another sentence in (88d) shows the ambiguous use of V-shang Ground or V-shang Patient, because the branches of the plant may indicate the endpoint of the process of being blown by the wind, or that the branches of the plant are blown by the wind.

In the Early Mandarin Chinese of the Yuan (元), Ming (明) and Chin (清) Dynasties, there are 2112 items of data in the Sinica corpus, and there are 303 data in Yuan, 792 data in Ming, and 1028 data in Chin<sup>6</sup>. Thus, the increasing number shows the mature development of [V-shang NP]. There is a high percentage of occurrence of [V-shang Patient], but [V-shang Ground] rarely appears in the texts. That is to say, the resultative meaning makes great influence on the [V-shang NP] structure. In the Yuan, there are 303 items of data, and we see V-shang in references like <Yuankanzaju>元刊雜劇, <Guanhanqingxiqiji>關漢卿戲曲集, and <Shuihuchuan>水滸傳, etc.

V-shang with Patient is present to a high percentage. They are tested by omitting *shang*, and they are grammatical, as in *guanfangmen* ‘close the door’ 關房門 in (89a). The patterns of V-shang in (89) are still used in the modern Chinese corpus.

<sup>6</sup> Academic Sinica Tagged Corpus of Early Mandarin Chinese (中央研究院近代漢語標記語料庫): <http://db1x.sinica.edu.tw/cgi-bin/kiwi/pkiwi/pkiwi.sh>

(89) a. 關上房門 便要睡 (關漢卿戲曲集)

Guan-shang fangmen bianyao shui  
close door then sleep

‘(Someone) closed the door and then slept.’

b. 穿上 束帶朝章(元刊雜劇)

chuan-shang shudaichaozhang  
put on clothes

‘(Someone) put on the clothes.’

c. 莊客 點上燈火 (水滸傳)

zhuangke dian-shang denghuo  
guest light up light

‘The guest lit the light.’

In the Ming, references from <Yongledaxixiquji>永樂大戲戲曲集, <Xiyouji>西遊記, <Jinpingmei>金瓶梅 and <Pingyaochuan>平妖傳 contain 792 items of data of V-shang. V-shang with Patient also frequently occurred, as in some examples in (90a-c). *zou-shang* ‘report’ 奏上, *wu-shang* ‘play’ 舞上 and *chi-shang* ‘eat’ 吃上 require a Patient role. *Zou-shang* ‘report’ 奏上 is an example that *shang* cannot be omitted. That is, ‘Tang King’ represents a goal, which is the function of Ground. The upward orientation expresses physical respect to the king. *chi-shang* ‘eat’ 吃上 in (90b) attaches to an exaggerated complement. V-shang with Extent is also used in the text; for example, (90c), a quantifier is attached after V-shang *wu-shang* ‘play’ 舞上.



(90) a. 叫 外公 奏上 唐王 (西遊記)

jiao waigong zou-shang tang wang

ask grandfather complaint Tang-King

‘(Someone) asked his grandfather to complain to the Tang King’

b. 吃上三十來大金鍾 (平妖傳)

chi-shang sanshilai dajinzhong

eat thirty golden clock

‘(Someone) ate thirty golden clocks.’

c. 把大門槓子舞上一回 (平妖傳)

ba damengangzi wu-shang yihui

ba gatepost play once

‘(Someone) played on the bar of the main gate once.’

In the Ching, there are 1028, including novels like <Honglouloumeng> 紅樓夢, <Xingshiyinyuan> 醒世姻緣 and <Rulinwaishi> 儒林外史, which show great use of V-shang. The variation of V-shang with Extent appeared in Early Chinese as in (91).

Quantifier NPs attached to [V shang].

(91) a. 花上幾百錢 (紅樓夢)

hua-shang jibaiqian

spend hundreds dollars

‘(Someone) spent hundreds of dollars’

b. 添上這一百棍 (儒林外史)

tian-shang zheyibaigun

add this one hundred hit

‘(Someone) hit ( someone) one hundred times’

c. 屏杯也得買上四隻 (醒世姻緣)

bingbei yede mai-shang sizhi

cup must buy four

‘(Someone) had to buy four cups’

The sentence in (91a) uses consuming verb, *hua-shang* ‘spend’ 花上, with the quantity of money. *Tian-shang-zheyibaigun* ‘hitting one hundred more times’ 添上這一百棍 in (91b) and *mai-shang-sizhi* ‘buy four’ 買上四隻 present V-shang with Extent roles.

As a result, it is found that the complement to which V-shang can attach changes from the concrete endpoint to a measure element. Hopper & Traugott (2003) have proposed the process that leads lexemes from concrete to abstract or from lexical to grammatical as one of grammaticalization. The process presents a uni-directional way of decline, and not all kinds of lexical items can undergo grammaticalization. ‘Cline’ is the basic feature of grammaticalization, and it indicates a natural pathway of evolvement of lexical items or a continuum from a source lexeme (e.g., a lexical item) to a target lexeme (e.g., a grammatical item). Abstractness of meaning is another apparent character which can be used to analyze the lexeme. Thus, the variation from space to time presents a grammaticalization process.

This study observes that, in Old Mandarin Chinese, V-shang developed in a serial verb construction. The above analysis suggests there should be semantic change and

an alternation of prototypical meaning. The resultative meaning occurring in V-shang Patient happened in middle Chinese. V-shang with Extent occurred in early Mandarin Chinese. Compatible with Hopper & Traugott (2003)'s grammaticalization process, in Old Chinese, prototypical meanings as a verb functioned in a serial verb construction, and extended meanings developed from the original use. In the same result as the idea in the last section within the cognitive polysemy approach, V-shang generates a lexical semantic meaning from 'vertically higher' to other extended usages. The complements following V-shang also change from Ground to Patient and Extent. The related meanings show the feature of polysemy rather than homonym.

## 5.6 Summary

During the process of historical development, the independent *shang* has the function of V-shang compound. The NP complement following V-shang change from being the concrete endpoint to being a measure element including quantity or duration of time. The above analysis exhibits the change of the syntactic structures of V-shang and of *shang*. *Shang* has the structures of  $\langle th, loc \rangle$  and  $\langle th, ext \rangle$ . And, the argument structure of V-shang should be  $\langle th, loc \rangle$ ,  $\langle ag, pt \rangle$  and  $\langle th, ext \rangle$ . As the lexical item assigns the argument structure, the structure presents the function of a predicate. Thus, apart from previous studies, *shang* in V-shang functions as a predicate rather than as

an abstract particle. This evidence points out the proof of the viewpoint of the VV compound in V-shang (Lu, 1991). Also, from the last chapter, we found that V-shang is polysemy with related extended meanings rather than homonym with unrelated extended meanings.



## Chapter 6

### Conclusion

In the view of the early studies, *shang* is a directional verb complement containing several senses as a polysemous word, and V-*shang* also contains different functions within semantic and syntactic levels. In order to theoretically analyze the meaning of V-*shang*, the present study utilizes Talmy's motion event theory to observe the collocating features of V-*shang*. And, we find that the semantic meanings should be changed due to the presence of different preceding verbs and attached complement noun phrases.

V-*shang* with Ground portrays the vertical movement of Figure from the lower-landmark to the higher landmark. The final landmark is the so-called Ground, so the argument structure of V-*shang* Ground is  $\langle th, loc \rangle$ . In the collocations of V-*shang*, V1 are always physical motion verbs. *Shang* in the category of V-*shang* Ground and V-*shang* Patient requires two thematic roles: Theme and locative.

V-*shang* with Patient expresses a resultative meaning and the accomplishment of the action from V1, and the phenomenon shows the same the semantic meaning as that of the resultative verb complement. The movement of the orientation is not

vertical but transverse. The verb types of V1 become transitive action verbs or stative verbs. However, the argument structure, due to the Patient complement originating from V1, is encoded as <ag, pt>.

[V-shang Extent] contains two kinds of complement NP: time references and frequency phrases, which are called Extent in this study. Meaning in this category is abstract, but it may be similar to the phase verb complement *dao4* ‘get to’ 到 to conveying the sense of ‘getting to.’ The restrictions on V1 in V-shang compounds are lesser than those in the other two categories. The required thematic roles of V-shang are Theme and Extent; hence, *shang* expressing the extended meanings requires the thematic roles of Theme and Extent.

From Lu (2011), the division of V-shang develops in two directions. One direction concerns the ending point, and the other emphasizes the contacted surface. The argument structure of *shang* remains the Locative role in the division. It is a metaphorical usage from space to time (Lakoff & Johnson, 2003). As a result, based on Hopper & Traugott (2003)’s grammaticalization theory, it is found that *shang* becomes grammatically abstract.

## Appendix A

### Part 1: Verb types in V-shang with Ground

|         |  |  |
|---------|--|--|
| [+path] | 跑上 <i>pao-shang</i> 'run up'<br>跳上 <i>tiao-shang</i> 'jump up'<br>爬上 <i>pa-shang</i> 'climb up'<br>跨上 <i>kua-shang</i> 'mount'<br>登上 <i>deng-shang</i> 'get to'<br>躍上 <i>yue-shang</i> 'jump on'<br>駛上 <i>shi-shang</i> 'drive'<br>浮上 <i>fu-shang</i> 'float'<br>升上 <i>sheng-shang</i> 'raise'<br>湧上 <i>yong-shang</i> 'gush'<br>引上 <i>yin-shang</i> 'pull'<br>翻上 <i>fan-shang</i> 'turn over' | 坐上 <i>zuo-shang</i> 'sit'<br>衝上 <i>chong-shang</i> 'sprint'<br>奔上 <i>ben-shang</i> 'sprint'<br>踏上 <i>ta-shang</i> 'step on'<br>飛上 <i>fei-shang</i> 'fly'<br>攻上 <i>gong-shang</i> 'attack'<br>搬上 <i>ban-shang</i> 'move'<br>抬上 <i>tai-shang</i> 'lift'<br>擠上 <i>ji-shang</i> 'squeeze'<br>搶上 <i>qiang-shang</i> 'rob'<br>推上 <i>tui-shang</i> 'push' |
| [-path] | 追上 <i>zhui-shang</i> 'chase'<br>跟上 <i>gen-shang</i> 'follow up'<br>趕上 <i>kan-shang</i> 'follow up'   | 考上 <i>kao-shang</i> 'get into'<br>選上 <i>xuan-shang</i> 'select'  |

### Part 2: Verb types in V-shang with Patient

|         |   |  |
|---------|---|--|
| [+path] | 穿上 <i>chuan-shang</i> 'put on'<br>戴上 <i>dai-shang</i> 'put on'<br>帶上 <i>dai-shang</i> 'bring'<br>繫上 <i>ji-shang</i> 'tie'<br>罩上 <i>zhao-shang</i> 'cover' | 畫上 <i>hua-shang</i> 'draw'<br>劃上 <i>hua-shang</i> 'draw'<br>繪上 <i>hui-shang</i> 'draw'<br>打上 <i>da-shang</i> 'type'<br>簽上 <i>qian-shang</i> 'sign' |
|---------|---|--|

|                                   |                                  |
|-----------------------------------|----------------------------------|
| 換上 <i>huan-shang</i> 'change'     | 列上 <i>lie-shang</i> 'list'       |
| 套上 <i>tao-shang</i> 'put on'      | 記上 <i>ji-shang</i> 'note'        |
| 蓋上 <i>gai-shang</i> 'cover'       | 寫上 <i>xie-shang</i> 'write'      |
| 蒙上 <i>meng-shang</i> 'cover'      | 刻上 <i>ke-shang</i> 'carve'       |
| 紮上 <i>zha-shang</i> 'tie'         | 印上 <i>yin-shang</i> 'print'      |
| 繞上 <i>rao-shang</i> 'tie'         | 押上 <i>ya-shang</i> 'put'         |
| 纏上 <i>chan-shang</i> 'wind'       | 點上 <i>dian-shang</i> 'light'     |
| 綁上 <i>bang-shang</i> 'tie'        | 種上 <i>zhong-shang</i> 'plant'    |
| 蹬上 <i>deng-shang</i> 'tread on'   | 攀上 <i>pan-shang</i> 'climb'      |
| 排上 <i>pai-shang</i> 'make a line' | 騎上 <i>qi-shang</i> 'ride'        |
| 綴上 <i>zhui-shang</i> 'tie'        | 裝上 <i>zhuang-shang</i> 'package' |
| 別上 <i>bie-shang</i> 'put on'      | 刷上 <i>shua-shang</i> 'paint'     |
| 補上 <i>bu-shang</i> 'add'          | 塗上 <i>tu-shang</i> 'paint'       |
| 附上 <i>fu-shang</i> 'add'          | 吊上 <i>diao-shang</i> 'hang'      |
| 貼上 <i>tie-shang</i> 'add'         | 掛上 <i>gua-shang</i> 'hang'       |
| 黏上 <i>nian-shang</i> 'stick'      | 勾上 <i>gou-shang</i> 'hang'       |
| 鋪上 <i>pu-shang</i> 'add'          | 拉上 <i>la-shang</i> 'pull'        |
| 擦上 <i>ca-shang</i> 'apply'        | 墜上 <i>zhui-shang</i> 'fall'      |
| 封上 <i>feng-shang</i> 'seal'       | 提上 <i>ti-shang</i> 'carry'       |
| 夾上 <i>jia-shang</i> 'clip'        | 砌上 <i>qi-shang</i> 'build'       |
| 接上 <i>jie-shang</i> 'attach'      | 釘上 <i>ding-shang</i> 'nail'      |
| 著上 <i>zhou-shang</i> 'draw'       | 籠上 <i>long-shang</i> 'coop'      |
| 混上 <i>hun-shang</i> 'mix'         | 奉上 <i>feng-shang</i> 'give'      |
| 捧上 <i>peng-shang</i> 'hold up'    | 獻上 <i>xian-shang</i> 'give'      |
| 拴上 <i>shuan-shang</i> 'tie'       | 送上 <i>song-shang</i> 'send'      |



|         |   |   |
|---------|---|---|
|         | 摸上 <i>mo-shang</i> 'touch'<br>扣上 <i>kou-shang</i> 'buckle'<br>按上 <i>an-shang</i> 'press'<br>披上 <i>pi-shang</i> 'pick'<br>撈上 <i>lao-shang</i> 'gain'<br>撞上 <i>zhuang-shang</i> 'bump'<br>派上 <i>pai-shang</i> 'send (a person)'<br>挑上 <i>tiao-shang</i> 'pick up'   | 架上 <i>jia-shang</i> 'decorate'<br>佈上 <i>bu-shang</i> 'decorate'<br>澆上 <i>jiao-shang</i> 'sprinkle'<br>噴上 <i>pen-shang</i> 'spurt'<br>嵌上 <i>kan-shang</i> 'inlay'<br>擺上 <i>bai-shang</i> 'place'<br>攜上 <i>bei-shang</i> 'carry'<br>找上 <i>zhao-shang</i> 'look for'   |
| [-path] | 哼上 <i>heng-shang</i> 'groan'<br>襲上 <i>xi-shang</i> 'attack'<br>碰上 <i>peng-shang</i> 'bump into'<br>遇上 <i>yu-shang</i> 'bump into'<br>對上 <i>dui-shang</i> 'meet'<br>報上 <i>bao-shang</i> 'tell'<br>治上 <i>zhi-shang</i> 'heal'<br>聯絡上 <i>lianluo-shang</i> 'contact'<br>連上 <i>lian-shang</i> 'contact'<br>吃上 <i>chi-shang</i> 'eat'<br>搭上 <i>da-shang</i> 'accost'<br>煮上 <i>zhu-shang</i> 'cook'<br>泡上 <i>pao-shang</i> 'make'<br>攪拌上 <i>jiaoban-shang</i> 'stir'<br>喜歡上 <i>xihuan-shang</i> 'like'<br>愛上 <i>ai-shang</i> 'love'<br>迷上 <i>mi-shang</i> 'crazy about' | 盯上 <i>ding-shang</i> 'stare'<br>見上 <i>jian-shang</i> 'meet'<br>看上 <i>kan-shang</i> 'like'<br>合上 <i>he-shang</i> 'close'<br>鎖上 <i>suo-shang</i> 'lock'<br>關上 <i>guan-shang</i> 'close'<br>閉上 <i>bi-shang</i> 'close'<br>闔上 <i>he-shang</i> 'close'<br>開上 <i>kai-shang</i> 'open'<br>過上 <i>guo-shang</i> 'pass'<br>惹上 <i>re-shang</i> 'provoke'<br>卯上 <i>mao-shang</i> 'exert'<br>叮上 <i>ding-shang</i> 'sting'<br>猛上 <i>meng-shang</i> 'exert'<br>堵上 <i>du-shang</i> 'plug'<br>交上 <i>jiao-shang</i> 'make up with'<br>染上 <i>ran-shang</i> 'addict to' |

## References

- Andrew, Avery. 1985. The major functions of the noun phrase. *Language Typology and Syntactic Description. Vol I: Clause Structure*, ed. by Timothy Shopen, 62-154. Cambridge: Cambridge University Press.
- Bresnan, Joan. 2001. *Lexical-Functional Syntax*. Oxford: Blackwell.
- Bresnan, Joan, and Jonni, Kanerva, 1989. Locative inversion in Chichewa: A case study of factorization in grammar. *Linguistic Inquiry*, 20, 1-50.
- Bresnan, Joan, and Annie, Zaenen. 1990. Deep unaccusativity in LFG. In *Grammatical relations: A cross-theoretical perspective*. Edited by K. Dziwirek, P. Farrell and E. M. Bikandi. 45-57. Stanford CA: CSLI Publications/Stanford Linguistics Association.
- Bolinger, Dwight. 1971. *The Phrasal Verb in English*. Cambridge: Harvard University Press.
- Chao, Yuen-Ren. 1968. *A Grammar of Spoken Chinese*. Berkeley: University of California Press.
- Chang, Shen-Min. 1993. V-Qi (Lai) Compounds in Mandarin Chinese. Proceedings of

- PACFoCoL I (1993): Pacific Asia Conference on Formal and Computational Linguistics, 62-81.
- Chen, Chang-Lai (陳昌來). 1994. Tan donghou quxiangdongci xingzhi- jiantan quxiang dongci yanjiu de fangfa [On the characteristics of directional verbs preceded by verbs – approaches in the research of directional verbs] 談動後趨向動詞性質-兼談趨向動詞研究的方法. *Yantai Shifanxueyuan Xuebao (Zhe She ban)*, 4, 64-70.
- Chen, Yi-Jing (陳怡靜). 2004. Xiandai hanyu dongci houzhi chengfen zhi yufa yiyi yu jiaoxue paixu [The syntactic meanings and teaching sequency of the verb complement in Modern Chinese ]現代漢語動詞後置成分之語法意義與教學排序. Master's Thesis, National Taiwan Normal University.
- Chen, Liang, and Jiansheng Guo. 2009. Motion events in chinese novels: Evidence for an equi-pollently-framed language. *Journal of Pragmatics* 41, 1749-1766.
- Cheng, Liang-Wei (鄭良偉). 1997. *Taiwanese and Mandarin Structures and Their Development* [台語、華語的結構與動向]. Taipei: Yuan-Liou Publishing Co.
- Chuang, Shu-Wen (莊舒文). 2001. The Co-Occurrence of Phase and Aspect. Master's Thesis, National Taiwan Normal University.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University.

- Croft, William. 2001. *Radical Construction Grammar: Syntactic Theory in Typological Perspective*. Oxford: Oxford University Press.
- Dowty, David. 1988. On the Semantic Content of the Notion “Thematic Roles”. *Properties, Types and Meaning. Vol. II: Semantic Issues*, ed. by Gennaro Chierchia, Barbara Partee and Raymond Turner, 69-131. Dordrecht: Kluwer Academic Publishers.
- Dowty, David. 1991. Thematic proto-roles and argument selection. *Language*, 67 (3), 574-619.
- Evans, Vyvyan. 2004. *The Structure of Time: Language, Meaning and Temporal Cognition*. Amsterdam; Philadelphia: John Benjamins.
- Fan, Xiao (范晓). 1991. V-shang ji qi gou cheng de jushi [V-shang and sentences with V-shang] V 上及其構成的句式. *Yingkou Shizhuan Xuebao*, 1.
- Goldberg, Adele, E. 1992. In Support of a Semantic Account of Resultatives. *CSL Technical Report*, 92-163.
- Halliday, M.A.K. 1964. Comparison and translation, In M.A.K. Halliday, M.McIntosh and P. Strevens, *The Linguistic Sciences and Language Teaching*. London: Longman.
- Her, One-Soon. 1999. Interaction of thematic structure and syntactic structures: On Mandarin Dative Alternations. *Chinese Languages and Linguistics V*:

- interaction of form and function*, ed. by Y. Yin et al., 373-412. Place: Academia Sinica.
- Her, One-Soon. 2003. Chinese inversion constructions within a simplified LMT. *Journal of Chinese Linguistics, Monograph Series Number 19: Lexical-Functional Grammar Analysis of Chinese*, edited by Adams Bodomo and Kang Kwong Luke, 1-31.
- Her, One-Soon. 2007. Argument-function mismatches in Mandarin resultatives: A lexical mapping account. *Lingua 117*, 221-246.
- Her, One-Soon. 2009. Apparent subject-object Inversion in Chinese. *Linguistics*, 47(5), 1143-1181.
- Hopper, Paul J., and Elizabeth Traugott. 2003. *Grammaticalization*. Cambridge: Cambridge University Press.
- Huang, Chu-Ren. 1993. Mandarin Chinese and the lexical mapping theory: A Study of the interaction of morphology and argument changing. *Bulletin of the Institute of History and Philology*, 62(2), 337-388.
- Huang, C.-T. James. 1984. Phrase structure, lexical integrity and Chinese compounds. *Journal of the Chinese Teachers' Association*, 19(2), 53-48.
- Jackson, Howard. 1990. *Grammar and Meaning: A Semantic Approach to English Grammar*. New York: Longman.

- Jian, Yu-Wen (簡玉玟). 1997. Meaning and teaching of post-verbal directional components in Mandarin. Master's Thesis, National Taiwan Normal University.
- Jiang, Hua (蔣華). 2003. A tentative exploration of the grammaticalization of tendency Verb “shang.” *Dongfang Luntan*, 5, 45-48.
- Kaplan, Ronald M., and Joan Bresnan. 1982. Lexical-Functional Grammar: A formal system for grammatical representation, in J. Bresnan (ed.), *The Mental Representation of Grammatical Relations*. Cambridge, Ma: MIT Press.
- Kim, Huey-Chia. 2005. Semantic networks of shang and xia in Mandarin Chinese: a cognitive linguistics analysis. Master's Thesis, Providence University.
- Lakoff, George, and Mark Johnson. 2003. *Metaphors We Live By*. Chicago and London: The University of Chicago Press.
- Li, Charles N., and Sandra A. Thompson. 1981. *Mandarin Chinese: A functional reference grammar*. Berkeley: University of California Press.
- Liu, Guang-He (劉廣和). 1999. Shuo “shang2, xia2...qilai2” jiantan quxiang buyu- dongqushi [On “shang2, xia2 ...qilai2” and directional complements – The directional meaning] 說”上 2 下 2...起來 2” 兼談趨向補語-動趨式. *Hanyu Xuexi*, 2, 11-14.
- Liu, Yue-Hua (劉月華). 1983. *Shiyong Xiandai Hanyu Yufa* [Practical Modern

- Chinese Grammar] 實用現代漢語語法. Waiyu Jiaoxue yu Yanjiu Chubanshe.
- Liu, Yue-Hua (劉月華). 1998. *Quxiang Buyu Tongshi [General explanation of directional complements]* 趨向補語通釋. Beijing: Beijing Language and Culture University.
- Lu, Jian-Ming (陸儉明). 1990. Shubu jiegou de fuzaxing—“xiandai hanyu buyu yanjiu ziliao” xu [The complexity of the complement structure - on modern Chinese complement data- preface] 述補結構的複雜性—“現代漢語補語研究資料”序. *Yuyan Jiaoxue Yu Yanjiu*, 1, 13-20.
- Lu, Ying-Shun (盧英順). 2001. Lun quxiangdongci wenti 論趨向動詞問題. *Xuzhou: Xuzhou shifan daxue xuebao*, 27(1), 39-44.
- Lu, Louis Wei-Lun. 2011. A cognitive linguistic approach to Mandarin spatial terms: The case of *shang* as a verbal complement. Paper presented at the Proceedings of the 12<sup>th</sup> Chinese Lexical Semantics Workshop. Taipei, National Taiwan University.
- Pan, Hai-Feng (潘海峰). 2005. Donghou ‘shang’ de yufahua guocheng he V-shang jiegou de yufa yuyi wenti jiegou [Grammaticalization of Shang and the structure problems of syntax and semantics in V-shang ] 動後‘上’的語法化過程和 V 上結構的語法語義問題結構. Master’s Thesis, Shanghai Shifan Daxue.

- Pan, Yun-Zhong (潘允中). 1980. Hanyu dongbu jiegou de fazhan [The development of Chinese verb-complement] 漢語動補結構的發展. *Zhongguoyuwen 1*.
- Mourelatos, Alexander P. D. 1981. Pre-Socratic origins of the principle that there are no origins from nothing. *Journal of Philosophy*, 78 (11), 649-665.
- Shi, Xi-Yao (史錫堯). 1993. Dongci hou 'shang' 'xia' de yuyi he yuyong [The semantics and pragmatics of shang/xia preceded by verbs] 動詞後 '上' '下' 的語意和語用. *Hanyu Xuexi*, 4, 5-8.
- Shin, Yong. 1997. The grammatical functions of verb complements in Mandarin Chinese. *Linguistics*, 35, 1-24.
- Sun, Fei, and Ding, Yuan. 2004. A study and review of tendency verbs since 1990's. *Journal of Liuzhou Vocational & Technical College*, 4, 33-41.
- Talmy, Leonard. 2000. *Toward a Cognitive Semantics: Typology and Process in Concept Structuring, Vol II*. Cambridge, London: The MIT Press.
- Teng, Shou-Hsin. 1964. *A Semantic Study of Transitivity Relation in Chinese*. Berkley: University of California Press.
- Teng, Shou-Hsin. 1975. *A Semantic Study of Transitivity Relations in Chinese*. Berkley, California: University of California Press.
- Thompson, Sandra, A. 1973. Resultative verb compounds in Mandarin Chinese: A



case for lexical rules. *Language*, 49(2), 361-379.

Tyler, Andrea, and Vyvyan Evans. 2003. *The semantics of English prepositions: Spatial scenes, embodied meaning and cognition*. Cambridge, New York: Cambridge University Press.

Vendler, Zeno. 1967. Verbs and times. *Linguistics in Philosophy*. Ithaca, NY: Cornell University Press.

Wang, Hui. 2005. A construction-based approach to Chinese lexical semantics. *Computational Linguistics and Chinese Language Processing* 10(4): 495-508.

Wang, Hong-Ci (王紅旗). 1995. Valency of resultative verb compounds. *Studies on Valent Grammar in Modern Chinese*, ed. Shen, Yang and Zheng, Ding-yuan, 144-167. Beijing: Beijing University Press.

Wang, Hong-Ci (王紅旗). 1999. Dongqushi shubu jiegou peijia yanjiu [Valency of directional verb compounds] 動趨式述補結構配價研究. *Language Studies*, 36(1), 142-151.

Xie, Yi-Ting. 2010. On the Thematic Role Extent in Mandarin Chinese. Master's Thesis, National Chengchi University.

Xu, Xiu-Xia. 2008. Collocation and Application of Chinese Verb Classification. Master's Thesis, National Taiwan Normal University.

Yin, Hui. 2010. The so-called Chinese VV compounds- a continuum between lexicon

and syntax. Paper presented at the Proceedings of the 2010 Annual Conference of the Canadian Linguistics Association.

Yu, Hui-Rong (于輝榮). 2010. V-shang ji qi xiangguan wenti yanjiu [Research related to V-shang] V 上及其相關問題研究. Master's Thesis, Shanghai Shifan Daxue.

Zhang, Yan-Chun (張燕春). 1995. V shang/xia” zhong “shang/xia” de yiyi he V de leibie [The meanings and categories of verbs in V-shang/xia and shang/xia] V 上/下” 中 “上/下” 的意義和 V 的類別. *Gannan Shifanxueyuan Xuebao*, 4, 25-28.

Zhang, Yi-Sheng (張誼生). 2000. *Xiandai hanyu xuci* [The particles in modern Chinese] 現代漢語虛詞. Shanghai, Huadongshifandaxue.

Zhao, Bing-Li (趙並麗). 2010. Gudai hanyu “V+shang” geshi de yanbian [The change of V-shang in old Chinese] 古代漢語 “V+上” 格式的演變. *Zhangchundaxue Xuebao*, 20, 37-38.