Grammaticalization of Directional Complements in Mandarin Chinese

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This study examines the syntactical differences between grammaticalized complements and general complements in Mandarin Chinese. Focusing on four directional complements—*shang* 上 (up), *xia* 下 (down), *qi* 起 (rise), and *chu* 出 (out)—we investigate the grammaticalization of these directional complements in light of image schemata (Talmy 1988, 2000) and aims to review Heine, Claudi & Hünnemeyer's (1991) proposal of grammatical structure. The result shows that the grammaticalization of directional complements can be written as space movement ⇒ space → non-specific space → time → status, which is generally in accordance with the grammatical structure proposed by Heine, Claudi & Hünnemeyer (1991). However, the additional step of space → non-specific space can be observed in the directional complements of modern Chinese.

Key words: grammaticalization, directional complements, image schemata, regular resultative complement, grammaticalized complement

1. Introduction

The term 'grammaticalization' refers to the process whereby lexical terms and constructions become part of a grammar or change in grammatical function. Hopper (1996) has presented a systematic description of the development of grammaticalization, and the subject has been well documented in the academic literature (Meillet 1958[1912], Lehmann 1982, Peyraube 1989, Liu 1993, Liu, Cao & Wu 1995, Heine, Claudi & Hünnemeyer 1991). The present study examines the syntactical differences between grammaticalized complements and general complements by focusing on the grammaticalization of four directional complements in Mandarin Chinese—*shang* 上 (up), *xia* 下 (down), *qi* 起 (rise), and *chu* 出 (out).

Chinese verb structures can be divided into two kinds on the basis of the characteristics of verbs that serve as complements: (i) regular resultative complements; and (ii) grammaticalized complements. With regard to regular resultative complements, the first verb (hereafter V1) and the complement are independent and can described separately; for example, the V1 *chi* and the complement *bao* in *chi bao* 吃飽 'have had

enough' can each stand alone. As for grammaticalized complements, the V1 acts as the verb of the complement, and the complement has no independent structure; that is, the integral argument structure of the verbal complement structure relies on the previous verb.

Traugott & Dasher (2002) contended that there is a unidirectionality in the process of linguistic developments, and that it is therefore possible to observe specific linguistic developments, such as grammaticalization, by examining the synchronic distribution of a linguistic element. In accordance with this view, the present study reveals a tendency to grammaticalization in the four directional complements studied here.

The remainder of this paper is organized as follows. After this introduction, the next section presents a literature review and theoretical background to the study. This is followed by an explication of the two types of Mandarin complements identified here (regular resultative complements and grammaticalized complements). The study then presents an examination of the four directional complements noted above—*shang* 上 (up), *xia* 下 (down), *qi* 起 (rise) and *chu* 出 (out). The paper then concludes with a summary of the major findings.

2. Literature review and theoretical background

Fillmore (1997) noted that the focus of deictic motion verbs (such as 'come' and 'go') can be changed from the speaker to the addressee. Lien (2003) explored the deictic motion verbs *khi³* 去 'go' and *lai⁵* 來 'come' in Taiwanese Southern Min and concluded that they exhibited a development from main verbs to complements to temporal maker to purposive particle. Chen (2006) has also noted that these two verbs can be used to express the speaker subjective evaluation and mood in a non-spatial sense.

Ungerer & Schmid (1996:156-204) discussed locative relationship (such as *over*, *under*, *up*, and *down*) in image schemata. Wu (2003) investigated the motion verb *guo* 過 in Mandarin Chinese and found that *guo* originally meant 'physical passing through space' before metaphoric/metonymic extension and pragmatic enrichment led to the word developing new senses of 'to go beyond a certain norm', or 'excessively', or 'a mistake'. Ma (2004:160) divided directional verbs in Mandarin Chinese into two categories: (i) absolute directional verbs; and (ii) subjective directional verbs. The directions of the first category are intrinsic and independent from the context or the speaker subjective use—for example, *guo* 過 refers to 'physically passing through space' as an absolute directional verb. Verbs such as *chu* 出, *hui* 回, *kai* 開, *qi* 起, *shang* 上, and *xia* 下 also fall into this category.

It is apparent that, during the process of grammaticalization, the development of a deictic motion verb to become a complement is deserving of careful study. The present

study examines the syntactical differences between grammaticalized complements and general complements by investigating the grammaticalization of the four directional complements noted above in the light of image schemata (Talmy 1988, 2000).

Talmy (1988:53) described image schemata in the following terms:

The primary distinction that language marks here is a role difference between the two entities exerting the forces. One force-exerting entity is singled out for focal attention—the salient issue in the interaction is whether this entity is able to manifest its force tendency or, on the contrary, is overcome. The second force entity, correlatively, is considered for the effect that it has on the first, effectively overcoming it or not.

Based on this characterization, Talmy (2000) specified certain factors that had an intrinsic force tendency towards action as 'Agonists' and those that had an intrinsic force tendency towards rest/inaction as 'Antagonists'. According to Talmy (2000) schema, the 'Agonist' is the focal force entity and the 'Antagonist' is the force element that opposes the 'Agonist'. Lakoff (1987) and Kövecses (1990, 2000) stated that this schema is one of the basic image schemata that structure the human conceptual system.

Heine, Claudi & Hünnemeyer's (1991) proposal of grammatical structure is also of direct relevance to the present study. They contended that lexemes (such as the word for the body part *back*) can be used as metaphorical vehicles to convey spatial concepts (such as behind). In this case, the development is from object to space. The latter can then serve as a vehicle for a temporal concept <after>. This stage in the development is thus from space to time. Ultimately, the grammatical structure of the word *back* can be depicted as: object > space > time. The example of *back* is only one instance of a more general grammatical structure that contains other metaphorical conceptions: person > object > activity > space > time > quality. The relationship between these conceptions is metaphorical in nature; as Heine, Claudi & Hünnemeyer (1991:49) observed: "… any one of [these conceptions] may serve to conceptualize any other category to its right." The sequence (space > time > quality) is especially relevant to the development of verbs of motion, and this sequence will be utilized in the present study.

The data for this study were collected from various literary works and dictionaries. They are: Shen 1945 (abbreviated as 'deng', the title of the work accordingly), Lin 1960 (cheng), Abe 1969 (sha trans), Chiung Yao 1975 (meng), Lü 1980 (ba bai), Wang, Jiao & Pang 1987 (han), Lu 1991 (Ah Q), Yoshimoto 1991 (chu), Lao She 1991 (luo), Liu 1997 (sha), Hasegawa, Aihara & Komine 1998 (kodansha), Liu 1998 (qu xiang).

3. Differences between two types of Mandarin complements

From the perspective of syntax, the following differences between regular resultative complements and grammaticalized complements can be identified. First, regular resultative complements are grammatically acceptable, even with an ellipsis of V1. The focus of the verbal complement structure is on the complement (C-focused), as the following examples demonstrate.

(1) 我 吃飽 了。 ⇒ 我 飽 了。 [C centered]
    Wo <u>chi bao</u> le. ⇒ Wo <u>bao</u> le.
    'I have <u>had enough</u>.' ⇒ 'I am <u>full</u>.'

(2) 他 的 話 我 聽懂 了。 ⇒ 我 懂 了。 [C centered]
    Ta de hua wo <u>ting dong</u> le. ⇒ Wo <u>dong</u> le.
    'I <u>heard and understood</u> his words.' ⇒ 'I <u>understood</u> him.'

Example (1) shows that *wo chi bao le* can be uttered as *wo bao le*, with the V1 *chi* 'eat' being omitted and the complement *bao* 'full' standing alone to complete the utterance. This is a complement-focused (C-focused) utterance. Similarly, in example (2), the complement *dong* 'understood' can be used to represent *ting dong* 'understood' and thus carries out its role of being C-focused. In contrast, in the following example (3), the grammaticalized complement cannot exist without V1.

(3) 我 看到 他 了。 ⇒ *我 到 他 了。 [V1 centered]
    Wo <u>kan dao</u> ta le. ⇒ *Wo <u>dao</u> ta le.
    'I caught sight of him.' ⇒ *'I <u>of</u> him.'

Dao 到 can be an argument when a location is attached, such as *hui dao <u>jia li</u>* 回到 <u>家裡</u> 'return <u>home</u>'. The *dao* indicates the accomplishment of an action which however is not a kind of space movement. The semantic bleaching of *dao* in *kan dao* 'caught sight of' (example (3)) shows that *dao* is a grammatical complement. Thus, syntactically, the meaning of *dao* in *kan dao* is totally attached upon the V1 *kan*, and the head of the verbal complement structure is the V1 *kan*.

In summary, the adjective *bao* 'full' (example (1)), the verbs *dong* 'understood' (example (2)) and *dao* 'reach, up to' (example (3)) are the complements. Presumably, the complements of the verbal complement structure are served by adjectives or verbs.

Li (1984) suggested that the meaning of a sentence does not change with ellipsis of V1. In addition, the modifier does not qualify V1, but complements it, which makes the complement the focus of the verbal complement structure. Example (4) illustrates this.

(4) 他<u>比以前</u>長<u>胖</u>了。　　　（他<u>比以前胖</u>了。）　　(Li 1984:8)
　　　Ta <u>bi yi qian</u> zhang <u>pang</u> le.　(Ta <u>bi yi qian pang</u> le.)
　　　'He is fatter now.' (= 'He is growing fatter than before.')

However, we propose a different interpretation from that of Li (1984). As the following example illustrates, the term *toutou* 'secretly' modifies the V1 *pao* 'run', but not the complement *diao* 'out'.

(5) 可是爲什麼它們都要偷偷<u>跑</u>掉，
　　　Keshi weisheme tamen dou yao toutou <u>pao</u> diao,
　　　死在一個我不知道的地方？(sha: 305)
　　　si zai yi ge wo buzhidao de difang?
　　　'Why do they all run away secretly and die somewhere where I am not aware of.'

Example (5) shows that *toutou* 'sceretly' is used to modify the V1 *pao* instead of modifying the C *diao*. If the V1 were taken away in the above example, the sentence would be read as *keshi weisheme tamen dou yao toutou diao* 'Why do they all away secretly', which would completely change the original meaning of example (5) and be ungrammatical. On the other hand, if we delete the C '*diao*', the sentence is read as *keshi weisheme tamen dou yao toutou pao*, the meaning remains the same as that of the original sentence. Thus, a verbal complement structure such as that in example (5) is V1-focused, which can be distinguished from the C-focused verbal complement structure that Li (1984) proposed.

Xue (1985) has pointed out that it is possible to insert *de* 得 between the verb and the regular complement to denote the result or degree. The word *de* is used to modify the result status, as the following example illustrates.

(6) 吃飽　　　⇒　吃<u>得很</u>飽　　　／　吃<u>得都飽了</u>
　　　chi bao　⇒　chi de hen bao　/　chi <u>de dou</u> bao <u>le</u>
　　　'full'　　⇒　'so full'　　　　／　'cannot be any more full'

In example (6), *chi bao* 'full' is modified by *de* and becomes *chi de hen bao* to mean '(someone) is so full that he cannot be any more full'. Xue (1985) also suggested that, if the adjective is the complement, the grammatical validity of the sentence can be tested with the adjective modifier *hen* 很, but that it would be inappropriate to test the sentence if the verb functions as the complement. In this case, as example (7) illustrates, *le mei* 了沒 can be inserted for testing.

(7) 聽懂   ⇒   <u>聽了沒懂</u>
  ting dong   ⇒   ting <u>le mei</u> dong
  'heard and understood'   ⇒   'heard but not understand'

In example (7), following the insertion of *le mei* within *ting dong* ('heard and understood'), the phrase is still grammatical. However, example (8) does not pass this test.

(8) 看到   ⇒   *看<u>了沒</u>到
  kan dao   ⇒   *kan <u>le mei</u> dao
  'looked and saw'   ⇒   *'looked but not see'

In example (8), it is ungrammatical to insert *le mei* within *kan dao* 'looked and saw', because *dao* strongly clings to its V1 *kan* 'see'. It is apparent that grammaticalized complements are more syntactically restrictive than regular complements.

Table 1 summarizes the differences between regular resultative complements and grammaticalized complements. Directional complements function as both grammaticalized complements and general complements.

Table 1: Differences between regular resultative complements and grammaticalized complements

	Regular resultative complement	Grammaticalized complement
Argument structure analysis	Applicable for description	C relies on the previous verb
Syntactic structure center	C centered	V1 centered
Syntactic restriction	−	+

4. Examination of directional complements

4.1 Directional complement *shang*

As the following examples show, the *shang* in "we climbed <u>up</u> the top of the mountain", and in example (10) "it climbed up my arm" can still be sustained when V1, which shows the manner of movement, is omitted.

(9) 我們登<u>上</u>山頂，北京城就看得清清楚楚了。(han: 283)
  Women deng <u>shang</u> shanding, Beijingcheng jiu kan de qingqing chuchu le.
  'We climbed <u>up</u> the top of the mountain and saw Beijing Town clearly.'

(10)　它突然快速移動⋯爬<u>上</u>了我的手臂。(sha: 24)
　　　 Ta turan kuaisu yidong … pa <u>shang</u> le wo de shoubei.
　　　 'It suddenly moved quickly and climbed <u>up</u> my arm.'

It is apparent that this kind of *shang* is a C-focused regular resultative complement that contains an upward movement in its meaning; that is, the direction is included in its meaning. The image schema of such *shang* is illustrated in Figure 1.
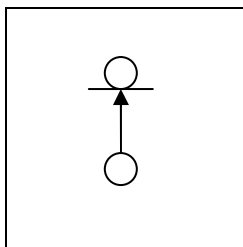
Figure 1: Schema of *shang*

The following examples of *shang* are also instructive. In example (11), although the *shang* keeps an upward direction in *ta ba xiuzi wan shang* 'she rolled <u>up</u> her sleeves', the sentence is incomplete if V1 *wan* 'roll' is omitted—that is, *ta ba xiuzi shang* 'she up her sleeves'. It is apparent that this *shang*, unlike the *shang* in examples (9) and (10), is a grammaticalized complement.

(11)　她把袖子挽<u>上</u>，準備洗菜做飯。(han: 283)
　　　 Ta ba xiuzi wan <u>shang</u>, zhunbei xi cai zuo fan.
　　　 'She rolled <u>up</u> her sleeves and prepared to make a meal.'

In example (12), the meaning of *zhui shang* 'catch up' contains a horizontal movement, but not an upward direction. As a result, its upward direction is 'bleached', and the spatial extension of 'catching up' with the person is produced.

(12)　他剛走，你趕緊走幾步還能追<u>上</u>他。(han: 289)
　　　 Ta gang zou, ni ganjin zou ji bu hai neng zhui <u>shang</u> ta.
　　　 'He just left, and you can still catch <u>up</u> with him if you hurry.'

In example (13), *guan shang* 'closed' implies neither upward direction nor horizontal direction; rather, it indicates the closed condition of the door (which can be further extended to mean 'joining').

(13) 他和依依回到了房裡，關上了門。(meng: 75)
Ta he Yiyi hui dao le fang li, guan <u>shang</u> le men.
'Yiyi and he went back to their room and closed the door.'

The non-directional implication is obvious in example (14) with respect to *kao shang* 'passed' and in example (15) with respect to *mai shang* 'bought'. In both cases, the words indicate the fulfilment of a goal.

(14) 他兒子是前年考上大學的。(han: 287)
Ta erzi shi qiannian kao <u>shang</u> daxue de.
'His son passed the college entrance exam in the previous year.'

(15) 今天買上新車，就算是生日吧。(luo: 43)
Jintian mai <u>shang</u> xinche, jiu suan shi shengri ba.
'Although today is not my birthday, I bought a new car as present.'

Examples (16) and (17) have nothing to do with direction; however, they do indicate time. In example (16), *chou shang* (*yan*) means the time to 'begin to smoke' and in example (17), *ai shang* refers to the starting-point of 'falling in love'. They both indicate the time to start a new movement or a condition.

(16) 你不是想戒煙嗎，怎麼又抽上了？(han: 283)
Ni bu shi xiang jie yan ma, zenme you chou <u>shang</u> le?
'Didn't you try to quit smoking? How come you started to smoke again?'

(17) 他愛上了一位女演員。(han: 283)
Ta ai shang le yi wei nüyanyuan.
'He fell in love with an actress.'

It should be noted that, in examples (14)-(17), the meanings of 'fulfilling', 'finishing', and 'starting' are irrelevant to space, but they are relevant to the conceptual territory of 'time'. This is discussed in further detail later in the paper.

Example (18) shows that *kan shang* 'have a crush on' contains a meaning of condition, not a meaning of starting; it is extended into an idiom of romance.

(18) 這新來的公蛐蛐會不會也看上了富有的母蛐蛐？(sha: 204)
Zhe xin lai de gong ququ hui bu hui ye kan <u>shang</u> le fuyou de mu ququ?
'Did the new-coming male cricket have a crush on the rich female cricket?'

Moreover, it should be noted in examples (16) and (17), that 'begun smoking' and

'fell in love with' cannot have *de* 得 or *bu* 不 inserted because of its syntactic restriction. It is thus apparent that *shang* with the meaning of 'starting' is more grammaticalized, whereas *shang* with the meaning of 'beginning' (in time and condition) can be explained as 'becoming' (in the sense of beginning some condition and maintaining it continuously). The *shang* with the meaning of: (i) 'beginning' in 'time and condition' and (ii) 'beginning' in 'continuing' is shown in Figure 2.
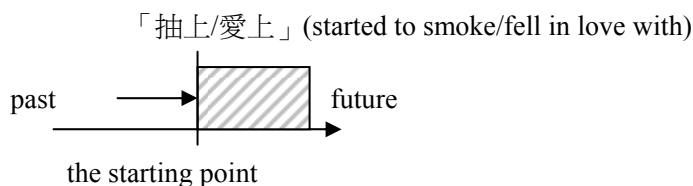
「抽上/愛上」(started to smoke/fell in love with)

past ⟶ ▨ future

the starting point

Figure 2: Schema of *shang* (starting in <time and condition>)

4.2 Directional complement *xia*

The directional complement *xia* 下 'down' has a similar development. As example (19) indicates, the *xia* in *zou xia lou* 'walking down the stairs' can be sustained even without the V1 *zou* 'walk' to indicate its movement.

(19) 下樓　(ba bai: 498)
　　 xia lou
　　 '(Walking) down the stairs.'

This therefore belongs to the category of C-focused regular resultative complement, with a meaning of a downward movement. Nevertheless, *xia chuan* 下船 can mean both 'jumping from the boat' (that is, 'leaving the boat') and 'jumping to the boat' (that is, 'jumping on board'). It is apparent that *xia* (in spatial movement) can either emphasize a starting-point or a termination (as shown in Figure 3).
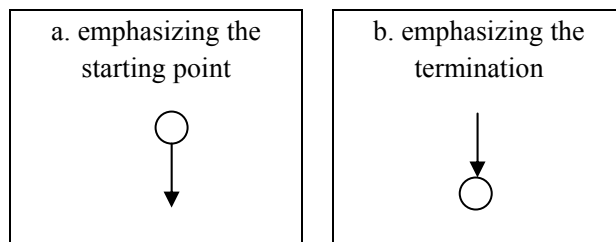
a. emphasizing the starting point	b. emphasizing the termination
◯↓	↓◯

Figure 3: Schema of *xia*

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In example (20), because the *xia* in *tang xia* 'lie down' does not indicate the termination (where to lie down), its V1 cannot be omitted. This is a transition from a regular resultative complement to a grammaticalized complement.

(20)　他付過地保二百文酒錢，忿忿的躺<u>下</u>了。(Ah Q: 110)
　　　Ta fu guo dibao er bai wen jiuqian, fenfen de tang <u>xia</u> le.
　　　'He paid the hoodlum two hundred dollars for wine and lay <u>down</u> angrily.'

In example (21), *liu xia le yanlei* 'tears running down' can be rendered as *liu le yanlei* 流了眼淚 'tears running', but not as *yanlei xia le* *眼淚下了 'tears down'. It is thus apparent that *xia* has extended into a V1-focused grammaticalized complement. These two examples ((20) and (21)) retain a downward movement in their meanings.

(21)　流<u>下</u>了眼淚。(kodansha: 1703)
　　　Liu <u>xia</u> le yanlei.
　　　'Tears running <u>down</u>.'

With regard to *zhai xia* 'took off' in example (22) and *ning xia* 'picked up' in example (23), it is apparent that they do not totally lose their downward movement. However, it can be observed that there is a transformation in meaning in that both *yanjing* 'glasses' and *qingcai* 'vegetable' are removed or taken away. It is apparent that the meaning of *xia* has been extended from emphasizing a 'starting point' to mean 'removing'.

(22)　他摘<u>下</u>老花眼鏡，眼睛離開書本，沈思起來。(han: 340)
　　　Ta zhai <u>xia</u> laohua yanjing, yanjing likai shuben, chensi qilai.
　　　'He took <u>off</u> his long-sighted glasses, moved his eyes away from the book, and started to ponder.'
(23)　他便趕緊拔起四個蘿蔔，擰<u>下</u>青菜，兜在大襟裡。(Ah Q: 59)
　　　Ta bian ganjin ba qi si ge luobo, ning <u>xia</u> qingcai, dou zai dajin li.
　　　'He picked <u>up</u> four radishes and some vegetables quickly, and carried them in his clothes.'

In the examples given below—(24) 'stabbed', (25) 'left', (27) 'bought', and (28) 'settled'—the meanings have lost direction in the movement. In (24), *hunshen shi cidao chuan xia de kulong* 'all over his body were stab wounds from a sharp knife' indicates marks left on a tangible object 'body', whereas in (25), *zhe jian shi zai wo de naohai li liu xia le shenke de yinxiang* 'this event left a deep impression in my mind' indicates an

abstract idea 'left' on an intangible object 'mind'.

(24) 渾身是刺刀穿<u>下</u>的窟窿。(Nihongo Chugokugo Taio Hyogen Yoreishu IV79)
Hunshen shi cidao chuan <u>xia</u> de kulong.
'All over his body were holes stabbed by a sharp knife.'

(25) 這件事在我的腦海裡留<u>下</u>了深刻的印象。(Liu & Pan 1996:462)
Zhe jian shi zai wo de naohai li liu <u>xia</u> le shenke de yinxiang.
'This event left a deep impression on my mind.'

(26) 孩子剛生<u>下</u>三個月，就送到托兒所去了。(han: 341)
Haizi gang sheng <u>xia</u> san ge yue, jiu song dao tuoersuo qu le.
'Three months after the baby was born, he was sent to a daycare center.'

(27) 他把那批貨全部買<u>下</u>了。(han: 341)
Ta ba na pi huo quanbu mai <u>xia</u> le.
'He bought the whole batch of products.'

(28) 結婚的日子定<u>下</u>了，可是還什麼都沒準備。(qu xiang: 151)
Jiehun de rizi ding <u>xia</u> le, keshi hai sheme dou me zhunbei.
'The date of marriage is settled, but nothing has been prepared yet.'

(29) 快讓美影小姐住<u>下</u>。(chu: 7)
Kuai rang Meiying xiaojie zhu <u>xia</u>.
'Let Miss Mikage settle <u>down</u> straight away.'

Examples (26), (27), and (28) show a fulfilment of a movement that results in a stable condition. The terms *sheng xia* 'born' in example (26), *mai xia* 'bought' in example (27), and *ding xia* 'settled' in example (28) all indicate nothing about the location. They contain the concept of a stable condition after finishing. In example (29), *zhu xia* 'settle down' specifies a dynamic state changing to a static state.

In summary, examples (24)-(29) are all extended from the *xia* emphasizing a termination. Among them, 'born', 'bought', and 'settled' combine the concepts of 'finishing' and 'condition'. They cannot accept the insertion of *de* and/or *bu*. If these are inserted into *mai xia* 'bought' or *zhu xia* 'settled', the meaning will take on a connotation of 'possible'—for example: *yi bai wan mai de/bu xia yi mu tian* 一百萬買得/不下一畝田 'One million could/could not buy an acre field' and *zhe wuzi zhu de/bu xia wu ge ren* 這屋子住得/不下五個人 'This house could/could not accommodate five people'.

The process of the grammaticalized *xia* can thus be summarized as follows: downward movement ⇒ remove <space> or downward movement ⇒ remain → a stable condition after finishing → a stable condition after staying. This will be elaborated in the section of concluding remarks.

4.3 Directional complement *qi*

The directional component *qi* is different from *shang* and *xia* because *qi* is often collocated with *lai* 來 (such as in *zhan qi lai* 站起來, meaning 'stand up') and serves as a grammaticalized complement in most cases. It is used as a regular resultative complement in only some lexicalized expressions—such as the ceremonial imperative '*Qi* 起!' (to instruct a worshipper to get up).

In examples (30) and (31) (below), *na qi* 'took' and *ti qi* 'picked up', *qi* means that the agent picks something up, and the patients, clothes or braids, are moved upward. *Qi* cannot be used alone; that is, it is not possible to say *yifu qi le* 'clothes up', because *qi* functions as the directional complement of V1 and belongs to a grammaticalized complement.

(30) 秀貞從桌上拿起了一件沒做完的衣服，朝我身上左比右比。(cheng: 45)
Xiuzhen cong zhuo shang na <u>qi</u> le yi jian mei zuo wan de yifu, chao wo shen shang zuo bi you bi.
'Xiuzhen took the unfinished clothes from the table and compared it to me.'

(31) 「騙誰！」宋媽撇嘴說著，又提起我的辮子。「你媽梳頭是有名的手緊，瞧！還能讓你玩散了！…」(cheng: 130)
"Pian shei!" Song Ma pie zui shuo zhe, you ti <u>qi</u> wode bianzi. "Ni ma shu tou shi youming de shou jin, qiao! hai neng rang ni wan san le!"
'"Don't lie to me," Song Ma says and picked <u>up</u> my braid. "Your mother makes the tightest braids. Look, you have made it loose."'

In example (32), an unergative verb, *zhan qi* 'rose' indicates an upward movement, in addition to its essential meanings relating to space and the concept of 'appear'.

(32) 大廳中央站起了一個又黑又高的中年人。(qu xiang: 316)
Dating zhongyang zhan <u>qi</u> le yi ge you hei you gao de zhongnianren.
'A black tall man in his middle age rose from the center of the lobby.'

The more abstract the appearing object, the more the meaning of *qi* is 'bleached' and the more it will be extended to intangible space. In example (33), the objects for the verb *yang qi* 'appear' are wrinkles; they have lost their upward direction and retain only a meaning of 'emerge' (that is, waiting to appearing → emerge). In examples (34) and (35), *xiang qi* 'name' and *gou qi* 'memory' are also extended into intangible space.

(33) 枯瘦的臉上漾<u>起</u>無數的皺紋，衝他笑了笑。(sha trans: 25)

Kushou de lian shang yang <u>qi</u> wushu de zhouwen, chong ta xiao le xiao.

'Numerous wrinkles appeared in his skinny face when he smiled at him.'

(34) 我花了相當時間才想<u>起</u>這個曾從祖母口中聽到過的名字。(chu: 4)

Wo hua le xiangdang shijian cai xiang <u>qi</u> zhe ge zeng cong zumu kouzhong ting dao guo de mingzi.

'It took me a while to recall the name I have heard from my grandmother.'

(35) 她的每一句話，勾<u>起</u>了我對往事的回憶。(han: 265)

Ta de mei yi ju hua, gou <u>qi</u> le wo dui wangshi de huiyi.

'Every word she said aroused my memory of the past.'

In example (36), the *qi* marks the beginning of the movement as the song is *chui qi* 'played' with a trumpet, and is then extended into the territory of time. However, unlike other *qi*, it cannot take the insertion of "~de/bu~".

(36) 他拿起小號，又吹<u>起</u>了那支優美動聽的曲子。(han: 265)

Ta na qi xiaohao, you chui <u>qi</u> le na zhi youmei dongting de quzi.

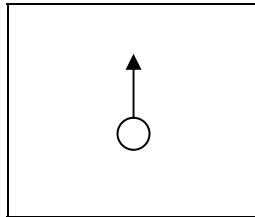'He took a trumpet and played that euphonious tune again.'

Figure 4: Schema of *qi*

4.4 Directional complement *chu*

The last directional complement for examination is *chu* 出. As shown in example (37) (below), the V1 *zou* 'walk' in *zou chu* 'walked out' explains the manner of *chu*. The location that follows after *chu* is characteristic—just as the V1 in *pao chu* 跑出 'ran out' and *pa chu* 爬出 'climb out'.

(37) 我剛走<u>出</u>家門，就下起雨來了。(han: 47)
　　　Wo gang zou <u>chu</u> jiamen, jiu xia qi yu lai le.
　　　'When I just walked <u>out</u> of the door, it started to rain.'

The argument structure can be described as $(x< >) (x<y>) \rightarrow (x<y>)$, and it can be speculated that *chu* belongs to the category of regular resultative complement. For example, *zou* 走 can stand alone with no theme indicated: $(x< >)$. However, *chu* 出 requires an agent: $(x<y>)$. The structure *zou chu* 走出 allows the completion of $(x<y>)$, which combines an unergative verb and an unaccusative verb.

Example (38) refers to taking an object out of a container, and it therefore indicates a movement with direction in space.

(38) 我…隨手便把粉包煙拿起來打開，抽<u>出</u>裡面的洋畫。(cheng: 138)
　　　Wo…suishou bian ba fenbaoyan na qi lai da kai, chou <u>chu</u> limian de yanghua.
　　　'I reached for a tobacco box, opened it, and took <u>out</u> a cigarette.'

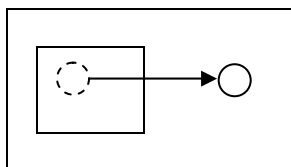*Chu* showing spatial movement is illustrated in Figure 5.

Figure 5: Schema of *chu*

The meaning of *chu* alters when the following location is not tangible. In example (39), because *chu* is followed by an intangible noun 'danger', and because 'escaping from danger' means 'escaping from a dangerous situation', *chu* can be regarded as the *chu* extended to an abstract concept.

(39) 就憑四條這麼不體面的人與牲口，他想，居然能逃<u>出</u>危險。(luo: 63)
　　　Jiu ping si tiao zheme bu timian de ren yu shengkou, ta xiang, juran neng tao <u>chu</u> weixian.
　　　'With only these four despicable people and livestock, he could escape from danger, he thought.'

In example (40) *lian shang fang chu le guangcai* 'refulgence appeared on her face', the location is a tangible noun *lian* 'face', but what actually appears is intangible (the *guangcai* or 'refulgence' on the face). The *chu* means appear out of nothing.

(40) 一談起文學，她的臉上立刻放出了光彩。(han: 44)

Yi tan qi wenxue, ta de lian shang like fang chu le guangcai.

'Once she talked about literature, refulgence appeared on her face immediately.'

In example (41), *xiao chu le sheng* 'burst into laughter' is similar. In example (42), *kan chu wo de yanfan* 'seen my weariness' refers to observing an unpleasant facial expression through vision. In example (43), *you chu zui hao chengji* 'made the best time' means a good time that presents a fulfillment of a goal.

(41) 她小聲地議論著，最後竟笑出了聲。(han: 47)

Ta xiaosheng di yilun zhe, zuihou jing xiao chu le sheng.

'She judged with low voice, but burst into laughter at last.'

(42) 若不是看出我的厭煩，絕不輕易把問題移開。(deng: 180)

Ruo bu shi kan chu wo de yanfan, jue bu qingyi ba wenti yi kai.

'If he had not seen my weariness, he would never have moved away the problem easily.'

(43) 這次游泳比賽，她游出了一百米自由泳的最好成績。(han: 51)

Zhe ci youyong bisai, ta you chu le yi bai mi ziyouyong de zui hao chengji.

'In this swimming contest, she made the best record in the one-hundred-meter freestyle.'

Finally, the process of the grammaticalization of *chu* can be expressed as: movement <from inside to outside> ⇒ remove <from inside to outside> → appear • find • fulfill <out of nothing>.

5. Conclusion

The present paper has examined the grammaticalization of the directional complements *shang* 上 (up), *xia* 下 (down), *qi* 起 (rise), and *chu* 出 (out) in the light of image schemata with examples taken from literary works and dictionaries. The research purpose was to review Heine, Claudi & Hünnemeyer's (1991) proposal of grammatical structure (based on the study of languages other than Chinese), whereby it has been contended that lexemes (such as the word for the body part *back*) can be used as metaphorical vehicles to convey spatial concepts. The conclusions of the present study with regard to the grammaticalized processes of *shang*, *xia*, *qi*, and *chu* in Mandarin Chinese are summarized in Table 2:

As shown in Table 2, *shang*, *xia*, *qi*, and *chu* originally referred to spatial move-ments, but developed to convey other concepts. In particular, it is apparent that there is a development of *shang*, *xia*, *qi*, and *chu* from space movement ⇒ space → non-specific space → time → status. This process reflects the tendency of grammaticalization from space > time > quality, as described by Heine, Claudi & Hünnemeyer (1991). However, an additional step of "space → non-specific space" can be observed from the directional complements of Mandarin Chinese *shang*, *xia*, *qi*, and *chu*.

Grammaticalized complements differ from general complements due to their disparities in semantics and syntax. The phenomenon of semantic 'bleaching' can be observed during the process of grammaticalization. However, there are more syntactical restrictions for grammaticalized complements. Finally, it is concluded that directional complements in modern Chinese language extend from space to time horizontally as well as vertically, as is evident from *shang*, *xia* and *qi*.

Table 2: The grammaticalized processes of *shang*, *xia*, *qi*, *chu* in Mandarin Chinese

Comp.	regular resultative complement ⇒ grammaticalized complement
shang	upward movement ⇒ patient/joint → the fulfillment of aim → start (space ⇒ space → time → time, condition)
xia	downward movement ⇒ remove \<space> ⇒ remain → a stable condition after finishing → a stable condition after staying (space ⇒ concrete → non-concrete → non-concrete)
qi	upward → appear → start (space → non-concrete → time)
chu	movement \<from inside to outside> ⇒ remove \<from inside to outside> → appear • find • fulfill \<out of nothing> (space ⇒ non-concrete → non-concrete)

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漢語方向補語的語法化現象

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　　本文旨在探討漢語裡語法化補語和一般補語在句法上的不同。針對「上」「下」「起」「出」這四個方向補語我們檢視方向補語的語法化現象，Talmy (1988, 2000) 所提出的意象圖示和 Heine, Claudi & Hünnemeyer (1991) 的語法結構理論是本文的理論基礎。研究結果顯示方向補語的語法化現象可以用「空間上的移動 ⇒ 空間 → 非特定空間 → 時間 → 狀態」的演進規則來表示，這個規則大致上和 Heine, Claudi & Hünnemeyer 於 1991 年所提出的語法結構理論裡的規則相符合，不過漢語又突顯出「空間 → 非特定空間」這個演進的步驟，這是 Heine 等人研究的語料中所未顯示的，也是漢語方向補語的特點。

關鍵詞：語法化，意象圖式，方向補語，一般結果補語，語法化補語