

Directional Verbs in Cantonese: A Typological and Historical Study*

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Talmy (1985, 2000b) classifies languages into verb-framed and satellite-framed languages based on whether path is expressed in the main verb or in the satellite. This study shows that Cantonese makes use of both directional verbs and directional complements to express path, exhibiting characteristics of both types of languages. Scholars suggest that Classical Chinese has undergone a typological shift from a verb-framed language to a satellite-framed language. It is observed that Cantonese differs from Mandarin in two aspects. First, the use of a directional verb to encode agentive motion events is found in Cantonese but not in Mandarin. Second, the degree of fusion between the verb and the directional complement in Cantonese is not as high as Mandarin. This study suggests that the differences can be best construed as various stages of typological transformation and grammaticalization the two dialects have undergone.

Key words: directional verbs, Cantonese, grammaticalization, typology of motion events

1. Talmy's typology of motion events

Talmy (1985, 2000b) suggests that languages are classified into verb-framed languages and satellite-framed languages according to how path is encoded. While path is expressed in the verb in verb-framed languages (e.g. Romance, Semitic, Japanese, Tamil, Polynesian, Bantu, some branches of Mayan, Nez Perce and Caddo), it is specified in the satellite¹ in satellite-framed languages (e.g. most Indo-European minus Romance,

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¹ Talmy (2000b:222) notes that "the satellite to the verb...is the grammatical category of any

Finno-Ugric, Chinese, Ojibwa and Warlpiri).

- (1) La botella salió flotando.
the bottle exit floating
'The bottle exited floating.'
- (2) The bottle floated out.

Examples (1) and (2) show that path is expressed in the main verb *salió* 'to exit' in Spanish and in the verb particle *out* in English.

Scholars have held different views with regard to the typological status of Chinese. According to Talmy (2000b:109), Chinese is a satellite-framed language as path is expressed in a satellite.² For example,

- (3) 瓶子漂出了洞穴。
Píngzi piāo chū le dòngxué.³
bottle float exit ASP cave
'The bottle floated out of the cave.'

constituent other than a nominal or prepositional-phrase complement that is in a sister relation to the verb root. The satellite, which can be either a bound affix or a free word, is thus intended to encompass all of the following grammatical forms: English verb particles, German separable and inseparable verb prefixes, Latin or Russian verb prefixes, Chinese verb complements, Lahu nonhead 'versatile verbs', Caddo incorporated nouns, and Atsugewi polysynthetic affixes around the verb root." In Chinese, a complement is a lexical word which is often a verb or an adjective, and which appears after the main verb, providing information regarding the result or state of an entity. When a directional verb follows a main verb, denoting the direction in which the movement specified by the main verb is carried out, it is traditionally referred to as a directional complement or a satellite in Talmy's term.

² Talmy (2000b:103-109) states that satellites do not require a ground NP whereas prepositions do. Lamarre (2009a) points out that in Chinese prepositional phrases are neatly distributed before or after the verb according to the relationship they bear to the motion (if the prepositional phrase indicates the source or direction, it appears before the verb; if it denotes the goal, it occurs after the verb). In contrast, path satellites or directional complements appear only after the verb. Therefore, the categorical status of prepositions and that of path satellites do not overlap. To put it simply, directional complements are satellites rather than prepositions.

³ *Pinyin*, and *Jyutping*, developed by the Linguistic Society of Hong Kong, will be adopted for the romanizations of Mandarin and Cantonese examples. Also, the following list of abbreviations will be used in the discussion: ACC=accusative case, ASP=aspect marker, CL=classifier, DC=directional complement, DM=disposal marker, DS=different subject marker, GEN=genitive case, IMP=imperative, LOC=localizer, NOM=nominative case, NP=noun phrase, O=object, PF=perfective, PRED=predicate marker, PST=past tense, SFP=sentence-final particle, S=subject, SG=singular, SS=same subject marker, TOP=topic, V=verb and VP=verb phrase.

In example (3), manner is expressed in the main verb *piāo* 漂 ‘to float’ while path is incorporated in the satellite *chū* 出 ‘to exit’.

The following path satellites are listed in Talmy (2000b:109) for Chinese.⁴

<i>qù</i> 去	‘thither’	<i>guò</i> 過	‘across/past’
<i>lái</i> 來	‘hither’	<i>qǐ</i> 起	‘up off’
<i>shàng</i> 上	‘up’	<i>diào</i> 掉	‘off (he ran off)’
<i>xià</i> 下	‘down’	<i>zǒu</i> 走	‘away’
<i>jìn</i> 進	‘in’	<i>huí</i> 回	‘back’
<i>chū</i> 出	‘out’	<i>lǒng</i> 攏	‘together’
<i>dào</i> 到	‘all the way (to)’	<i>kāi</i> 開	‘apart/free’
<i>dào</i> 倒	‘atopple (i.e., pivotally over)’	<i>sàn</i> 散	‘ascatter’

Tai (2003) suggests, on the contrary, that directional complements *quxiang buyu* 趨向補語 should not be considered as satellites because they can serve as a main verb in the sentence. For example,

- (4) John 飛過英吉利海峽。
 John fēi guò Yīngjílì Hǎixiá.
 John fly pass English Channel
 ‘John flew across the English Channel.’ (Tai 2003:309)
- (5) John 過了英吉利海峽。
 John guò le Yīngjílì Hǎixiá.
 John pass ASP English Channel
 ‘John crossed the English Channel.’ (Tai 2003:310)
- (6) *John 飛了英吉利海峽。
 John fēi le Yīngjílì Hǎixiá.
 John fly ASP English Channel
 ‘John flew across the English Channel.’ (Tai 2003:310)

In examples (4) and (5), path is expressed in *guò* 過 ‘to pass’, which functions as a complement in (4) but as a main verb in (5). The grammaticality contrast in (5) and (6) illustrates that *guò* 過 ‘to pass’ in the former can stand alone as a main verb without the manner verb *fēi* 飛 ‘to fly’ while the use of *fēi* 飛 ‘to fly’ without *guò* 過 ‘to pass’ in (6) gives rise to ungrammaticality. Based on the facts presented in (4)-(6), Tai concludes

⁴ Thanks to the reviewer who has drawn my attention to the fact that the list is taken from Chao (1968).

that Chinese is primarily a verb-framed language as it encodes path in a verb.⁵

Another proposal is put forward in Lamarre (2003), in which it is shown that Chinese is neither a verb-framed nor a satellite-framed language. Instead, it exhibits a split system of conflation in that whether path is encoded in the main verb or in the satellite depends on the type of events denoted. Precisely, when encoding an agentive motion event, path is expressed in the satellite; when expressing a self-agentive motion event, path can be specified in the main verb or in the satellite;⁶ and when denoting a non-agentive motion event, there is a tendency to express path in the satellite.⁷

- (7) 我把它扔進了廢紙簍。
Wǒ bǎ tā rēng jìn le fèizhǐlǒu.
I DM it throw enter ASP wastepaper basket
'I threw it into the wastepaper basket.' (Lamarre 2003:6)
- (8) 你回來。
Nǐ huí lái.
you return come
'You come back.' (Lamarre 2003:7)
- (9) 他走回來了。
Tā zǒu huí lái le.
he walk return come SFP
'He walked back.'
- (10) 河水流出來了。
Hé shuǐ liú chū lái le.
river water flow exit come SFP
'The river water flew out.'

⁵ A reviewer has pointed out that *fēi* 飛 'to fly' is mostly used intransitively but in some situations it can take a direct object, as in *wǒ fēi Yīngguó* 我飛英國 'I fly to England', especially if the speaker is a pilot. The occurrence of a nominal after an intransitive verb and the semantic relationship held between the intransitive verb and the nominal seems to be determined by pragmatics or context rather than by syntax. For example, the noun *Yīngguó* 英國 'England' in *fēi Yīngguó* 飛英國 'to fly to England' denotes the destination while *Guótài* 國泰 'Cathy Pacific' in *fēi Guótài* 飛國泰 'to fly Cathy Pacific' represents the instrument. Since the issue is not directly related to the present study, I shall leave it for future exploration.

⁶ Agentive and self-agentive motion events are also referred to as caused and spontaneous motion events (cf. Choi & Bowerman 1991, Matsumoto 2003, Lamarre 2009a).

⁷ However, statistics are not provided for the observations in Lamarre (2003).

Example (7) represents an agentive motion event, a motion event in which the figure, i.e. *tā* 它 ‘it’, is caused by the external force, i.e. *wǒ* 我 ‘I’, to move into the wastepaper basket. The cause of the movement is denoted by the verb *rēng* 扔 ‘to throw’ whereas the path is expressed in the satellite or the directional complement *jìn* 進 ‘to enter’. Examples (8) and (9) involve self-agentive motion events, motion events in which the figure, i.e. *nǐ* 你 ‘you’ or *tā* 他 ‘he’, carries out the movement intentionally. In both examples, *huí* 回 ‘to return’ denotes the semantic component of path. Syntactically, it serves as a main verb in the former but as a complement in the latter. Example (10) illustrates the use of a satellite to encode path in non-agentive motion events, in which the subject might or might not be caused by some unspecified entity to move in a certain direction.

Much effort has been put into investigating the typological status of Mandarin. However, important questions such as how other Chinese dialects express path and whether they behave in the same way as Mandarin are not addressed by scholars. This paper will provide a detailed description of the expression of path in another Chinese dialect — Cantonese, a regional variety of Chinese spoken mainly in the provinces of Guangdong and Guangxi. On the one hand, Cantonese resembles Mandarin in exhibiting both characteristics of verb-framed and satellite-framed languages in expressing path in the main verb or in the satellite. On the other hand, Cantonese shows a number of properties which are not observed in Mandarin such as the use of directional verbs to encode path in agentive motion events.⁸

⁸ Scholars have proposed that Talmy’s binary classification should be expanded to include a third type of languages, namely, equipollently-framed languages (cf. Slobin & Hoiting 1994, Zlatev & Yangklang 2004). In equipollently-framed languages, path and manner are both expressed by equivalent grammatical forms. In the following Thai example from Zlatev & Yangklang (2004:160): *chán dǎn khâam thanǒn khâw paj naj sǎn* I-walk-cross-road-enter-go-in-park ‘I walked across the road and into the park’, while the main verb *dǎn* ‘to walk’ denotes manner, the verbs *khâam* ‘to cross’, *khâw* ‘to enter’ and *paj* ‘to go’ denote non-deictic and deictic path. Similarly, Cantonese also exhibits the use of the serial verb construction. However, it is often difficult to determine whether the verbs in the serial verb construction in Cantonese have the same status. For example, the aspectual marker *zo*² 咗 is attached to the first verb *ning*¹ 擰 ‘to bring’ but not to the second verb *lai*⁴ 嚟 ‘to come’ in *keoi⁵ ning¹ zo² bun² syu¹ lai⁴* 佢擰咗本書嚟 s/he-take-ASP-CL-book-come ‘S/he brought a book’, while the progressive marker *gan*² 緊 is likely to be attached to the second verb *se*² 寫 ‘to write’ than to the first verb or the coverb *jung*⁶ 用 ‘to use’ in *keoi⁵ jung⁶ zo² sau² se² gan² zi⁶* 佢用左手寫緊字 s/he-use-left-hand-write-ASP-character ‘S/he is writing characters with her left hand.’ Because of the difficulty stated above, the present study will follow the bipartite classification of verb-framed and satellite-framed languages proposed by Talmy rather than adopting the tripartite scheme.

2. Previous works on directional verbs and directional complements in Cantonese

Iida (2001) divides directional verbs into two types, namely, the *heoi*³ 去 type and the *soeng*⁵ 上 type. The former includes *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’ while the latter consists of *lok*⁶ 落 ‘to descend’, *jap*⁶ 入 ‘to enter’, *ceot*¹ 出 ‘to exit’, *gwo*³ 過 ‘to pass’, *faan*¹ 翻⁹ ‘to return’ and *maai*⁴ 埋 ‘to approach’. According to Iida, it is possible for *di*¹ 啲 to be combined with members of the *soeng*⁵ 上 type to express comparison (e.g. *jap*⁶ *di*¹ 入啲 ‘to move toward the inside a little bit’) but such a usage is not found in members of the *heoi*³ 去 type (e.g. **lai*⁴ *di*¹ 嚟啲 ‘to move toward the speaker a little bit’). However, it is observed that some members of the *soeng*⁵ 上 type cannot be used with *di*¹ 啲 (e.g. **faan*¹ *di*¹ 翻啲 ‘to move back a little bit’).¹⁰ As a result, the proposed distinction, i.e. the possibility to be used with *di*¹ 啲, fails to differentiate the two types of directional verbs.

He (2000) discusses the various word orders exhibited in a sequence that involves a main verb (V), an aspectual suffix (ASP), one or more than one directional complement (DC) and an object (O) such as V-ASP-DC (e.g. *soeng*⁵ *zo*² *heoi*³ 上咗去 ascend-ASP-go ‘ascended and away from the speaker’), V-ASP-DC-DC (e.g. *haang*⁴ *zo*² *ceot*¹ *heoi*³ 行咗出去 walk-ASP-exit-go ‘walked out and away from the speaker’), V-DC-O (e.g. *geoi*² *hei*² *biu*¹ *jyu*⁵ 舉起標語 lift-rise-sign ‘to lift up the sign’) and V-ASP-DC-O (e.g. *haang*⁴ *zo*² *soeng*⁵ *lau*² 行咗上樓 walk-ASP-ascend-floor ‘walked upstairs’). He further proposes a syntactic structure from which the various word orders are derived. In the proposed structure, the main verb and the first directional complement are under the same branch, a combination which is a sister to the second directional complement. For example, *tiu*³ *lok*⁶ *heoi*³ 跳落去 jump-descend-go ‘to jump down and away from the speaker’ is schematically represented as: [_V [_V *tiu*³ *lok*⁶] *heoi*³]. The question that immediately arises is why *lok*⁶ 落 ‘to descend’ and the main verb *tiu*³ 跳 ‘to jump’ form a unit instead of *lok*⁶ 落 ‘to descend’ and *heoi*³ 去 ‘to go’ as it is impossible to say **tiu*³ *lok*⁶ 跳落 jump-descend ‘to jump down’. *Lok*⁶ *heoi*³ 落去 descend-go ‘to descend and away from the speaker’ in *tiu*³ *lok*⁶ *heoi*³ 跳落去 jump-descend-go ‘to jump down and away from the speaker’ is referred to as a compound directional complement in Cheung (2007). If an aspectual suffix is to appear, it will appear between the main verb *tiu*³ 跳

⁹ The character for *faan*¹ ‘to return’ should be 返. However, the use of 翻 has become increasingly popular. In this study, the character 翻 rather than 返 will be used to refer to *faan*¹ with the meaning of ‘to return’.

¹⁰ In addition to members of the *heoi*³ 去 type, i.e. *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’, *faan*¹ 翻 ‘to return’, *dou*³ 到 ‘to arrive’ and *hei*² 起 ‘to rise’ also cannot be combined with *di*¹ 啲 to express comparison.

‘to jump’ and the compound directional complement *lok⁶ heoi³* 落去 descend-go ‘to descend and away from the speaker’, as in *tiu³ zo² lok⁶ heoi³* 跳咗落去 jump-ASP-descend-go ‘jumped down and away from the speaker’. The position in which *zo²* 咗 appears further suggests that *lok⁶* 落 ‘to descend’ and the main verb *tiu³* 跳 ‘to jump’ do not form a unit but *lok⁶* 落 ‘to descend’ and *heoi³* 去 ‘to go’ do. The presence of an object further complicates the picture. While *zo²* 咗 appears after the verb *haang⁴* 行 ‘to walk’ in *haang⁴ zo² soeng⁵ lau²* 行咗上樓 walk-ASP-ascend-floor ‘walked upstairs’, it occurs after the directional complement *hei²* 起 ‘to rise’ in *geoi² hei² zo² biu¹ jyu⁵* 舉起咗標語 lift-rise-ASP-sign ‘lifted up the sign’. The different positions in which *zo²* 咗 appears seem to suggest that the relationship between the verb and the directional complement differs depending on the type of motion events that is involved, i.e. self-agentive vs. agentive motion events. Therefore, the different word orders exhibited might not be derived from a single underlying structure as proposed by He.

Cheung (2007) is one of the few comprehensive studies on directional complements in Cantonese, in which twelve directional complements are divided into three types of simple directional complements *jiandan de fangxiang buyu* 簡單的方向補語. The three types of simple directional complements are as follows:¹¹

Table 1: Cheung’s (2007) three types of simple directional complements

Type 1	Type 2	Type 3
<i>lai⁴</i> 嚟 ‘to come’	<i>soeng⁵</i> 上 ‘to ascend’	<i>faan¹</i> 翻 ‘to return’
<i>heoi³</i> 去 ‘to go’	<i>lok⁶</i> 落 ‘to descend’	
	<i>ceoi¹</i> 出 ‘to exit’	
	<i>jap⁶</i> 入 ‘to enter’	
	<i>hoi¹</i> 開 ‘to depart’	
	<i>maat⁴</i> 埋 ‘to approach’	
	<i>gwo³</i> 過 ‘to pass’	
	<i>hei²</i> 起 ‘to rise’	
	<i>dou³</i> 到 ‘to arrive’	

Two or three simple directional complements can be further combined to form a compound directional complement *fuhe de fangxiang buyu* 複合的方向補語. In a compound directional complement that is made up of two simple directional complements (hereafter referred to as double directional complements), a Type 2 complement or a Type 3 complement is followed by a Type 1 complement. The nineteen possible combinations

¹¹ Scholars have different opinions with regard to the number of core directional verbs. Li Xinkui et al. (1995) include *dai¹* 低 ‘low’ in addition to the ones in Table 1 while Yuan (1995) excludes *dou³* 到 ‘to arrive’.

of double directional complements are listed in Table 2 below:¹²

Table 2: Double directional complements in Cantonese¹³

Type 1	Type 2									Type 3
	<i>soeng</i> ⁵ 上 'to ascend'	<i>lok</i> ⁶ 落 'to descend'	<i>ceot</i> ¹ 出 'to exit'	<i>jap</i> ⁶ 入 'to enter'	<i>hoi</i> ¹ 開 'to depart'	<i>maai</i> ⁴ 埋 'to approach'	<i>gwo</i> ³ 過 'to pass'	<i>hei</i> ² 起 'to rise'	<i>dou</i> ³ 到 'to arrive'	<i>faan</i> ¹ 翻 'to return'
<i>lai</i> ⁴ 嚟 'to come'	+	+	+	+	+	+	+	+ ¹⁴	+	+
<i>heoi</i> ³ 去 'to go'	+	+	+	+	+	+	+	- ¹⁵	+	+

For compound directional complements that contain three simple directional complements (hereafter referred to as triple directional complements), a Type 3 complement is followed by a Type 2 and a Type 1 complement.¹⁶ The fourteen possible

¹² Cheung (2007:119-122) does not mention *gwo*³ *lai*⁴ 過嚟 pass-come 'to pass over and toward the speaker' and *gwo*³ *heoi*³ 過去 pass-go 'to pass over and away from the speaker'. But since they are possible combinations, we shall include them in our discussion. On the other hand, Cheung (2007) includes *dou*³ *lai*⁴ 到嚟 arrive-come 'to arrive and toward the speaker' and *dou*³ *heoi*³ 到去 arrive-go 'to arrive and away from the speaker' as possible combinations of double directional complements. However, it is observed that *dou*³ 到 'to arrive' behaves differently from the others. In particular, simple directional complements which can appear in double directional complements can also occur in triple directional complements except for *dou*³ 到 'to arrive' and *hei*² 起 'to rise', of which the latter is seldom used even as a double directional complement as noted in Cheung. Therefore, it is not clear whether *dou*³ 到 'to arrive' in *haang*⁴ *dou*³ *lai*⁴ 行到嚟 walk-arrive-come 'to walk toward the speaker' and *haang*⁴ *dou*³ *heoi*³ 行到去 walk-arrive-go 'to walk away from the speaker' is a genuine directional complement or a complement marker. However, without further evidence, we shall include them in this study.

¹³ '+' indicates that the combination is possible whereas '-' means the combination is not possible.

¹⁴ According to Cheung (2007:121), *hei*² *lai*⁴ 起嚟 rise-come 'to rise and toward the speaker', as in *tiu*³ *hei*² *lai*⁴ 跳起嚟 jump-rise-come 'to jump up and toward the speaker', is seldom used as a double directional complement. Because of its low frequency of use, *hei*² *lai*⁴ 起嚟 rise-come 'to rise and toward the speaker' will be excluded from the following discussion on compound directional complements.

¹⁵ As noted in Cheung (2007:121), the use of *hei*² *heoi*³ 起去 rise-go 'to rise and away from the speaker' as a double directional complement does not seem to exist in Cantonese. But such a use is found in other dialects. Cf. fn.24.

¹⁶ Although *ning*¹ *faan*¹ *hei*² *lai*⁴ 擰翻起嚟 bring-return-rise-come 'to bring back up and toward the speaker' seems to be as good as the other triple directional complements such as *ning*¹ *faan*¹ *gwo*³ *lai*⁴ 擰翻過嚟 bring-return-pass-come 'to bring back over and toward the speaker', *faan*¹ *hei*² *lai*⁴ 翻起嚟 differs from triple directional complements in a number of ways. For example, the former does not allow a theme object to appear after the verb and before it such

combinations of triple directional complements are shown in Table 3 below:

Table 3: Triple directional complements in Cantonese

<i>faan</i> ¹ <i>soeng</i> ⁵ <i>lai</i> ⁴ 翻上嚟 return-ascend-come	<i>faan</i> ¹ <i>soeng</i> ⁵ <i>heoi</i> ³ 翻上去 return-ascend-go
<i>faan</i> ¹ <i>lok</i> ⁶ <i>lai</i> ⁴ 翻落嚟 return-descend-come	<i>faan</i> ¹ <i>lok</i> ⁶ <i>heoi</i> ³ 翻落去 return-descend-go
<i>faan</i> ¹ <i>ceot</i> ¹ <i>lai</i> ⁴ 翻出嚟 return-exit-come	<i>faan</i> ¹ <i>ceot</i> ¹ <i>heoi</i> ³ 翻出去 return-exit-go
<i>faan</i> ¹ <i>jap</i> ⁶ <i>lai</i> ⁴ 翻入嚟 return-enter-come	<i>faan</i> ¹ <i>jap</i> ⁶ <i>heoi</i> ³ 翻入去 return-enter-go
<i>faan</i> ¹ <i>hoi</i> ¹ <i>lai</i> ⁴ 翻開嚟 return-depart-come	<i>faan</i> ¹ <i>hoi</i> ¹ <i>heoi</i> ³ 翻開去 return-depart-go
<i>faan</i> ¹ <i>maai</i> ⁴ <i>lai</i> ⁴ 翻埋嚟 return-approach-come	<i>faan</i> ¹ <i>maai</i> ⁴ <i>heoi</i> ³ 翻埋去 return-approach-go
<i>faan</i> ¹ <i>gwo</i> ³ <i>lai</i> ⁴ 翻過嚟 return-pass-come	<i>faan</i> ¹ <i>gwo</i> ³ <i>heoi</i> ³ 翻過去 return-pass-go

As noted above, Cheung's (2007) discussion is one of the few comprehensive studies on directional complements found in the literature. It has drawn our attention to a number of interesting phenomena associated with directional complements such as the position of the aspect marker and the position of the directional complement in relation to a common noun object and a locative object and the order of simple directional complements in a compound directional complement. However, no discussion is provided to explain the above observations.

Yiu (2005) is to this day the most comprehensive study on the syntactic and semantic characteristics of directional verbs and directional complements in Cantonese. She addresses a number of issues raised but unexplained in Cheung (2007). For example, she divides the twelve directional verbs into three types, according to the component of a movement they project for, namely, source, path, and goal. She further shows that the order in which the simple directional complements appear reflects the temporal sequence in which a movement takes place. In addition, Yiu probably is the first one who has brought attention to the causative or agentive use of directional verbs in Cantonese (e.g. *lok*⁶ *dai*¹ *go*³ *coeng*¹ *lim*² 落低個窗簾 descend-low-CL-curtain 'to lower the curtain'), a use which indicates that the theme object is caused to move in the direction denoted by the directional verb. However, since the focus of her study is primarily on Cantonese,

as **ning*¹ *bun*² *syu*¹ *faan*¹ *hei*² *lai*⁴ 擰本書翻起嚟 bring-CL-book-return-rise-come 'to bring the book back up and toward the speaker', whereas the latter does, as in *ning*¹ *bun*² *syu*¹ *faan*¹ *gwo*³ *lai*⁴ 擰本書翻過嚟 bring-CL-book-return-pass-come 'to bring the book back over and toward the speaker'. Moreover, *faan*¹ *hei*² *lai*⁴ 翻起嚟 can not be used in the potential construction, e.g. **ning*¹ *dak*¹/*m*⁴ *faan*¹ *hei*² *lai*⁴ 擰得/唔翻起嚟 bring-can/not-return-rise-come 'can/cannot bring back up and toward the speaker', an option that is available to triple directional complements such as *ning*¹ *dak*¹/*m*⁴ *faan*¹ *gwo*³ *lai*⁴ 擰得/唔翻過嚟 bring-can/not-return-pass-come 'can/cannot bring back over and toward the speaker'. Therefore, *faan*¹ *hei*² *lai*⁴ 翻起嚟 is not considered a triple directional complement. Also, *dou*³ 到 'to arrive' cannot appear in triple directional complements and is excluded here.

some of the proposals made therein need to find further support from other Chinese dialects and languages.¹⁷

From the above discussion, it can be observed that previous works often focus on the syntactic and semantic characteristics associated with directional complements. Not much attention has been given to the core usage and meaning of directional verbs, i.e. their use as a main verb and their expression of the directional meaning, a task that will be undertaken in the next section.

3. Characteristics of directional verbs in Cantonese¹⁸

As noted in the last section, the study of Cheung (2007) includes the following twelve directional verbs: *soeng*⁵ 上 ‘to ascend’, *lok*⁶ 落 ‘to descend’, *ceot*¹ 出 ‘to exit’, *jap*⁶ 入 ‘to enter’, *hoi*¹ 開 ‘to depart’, *maai*⁴ 埋 ‘to approach’, *gwo*³ 過 ‘to pass’, *hei*² 起 ‘to rise’, *dou*³ 到 ‘to arrive’, *faan*¹ 翻 ‘to return’, *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’. He further divides them into three types. However, no justification has been provided regarding the criteria adopted for the classification. This study will focus on the same group of directional verbs¹⁹ and classify them into two groups based on whether the location of the speaker is involved in defining the direction. While the direction of *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’ is defined in relation to the location of the speaker,²⁰ the orientation point of the other directional verbs does not involve the location of the speaker. The former are referred to as deictic directional verbs whereas the latter are non-deictic directional verbs (cf. Lamarre 2008 and 2009a, Liu 2008). For example,

- (11) 佢嚟/去辦公室。
Keoi⁵ lai⁴/heoi³ baan⁶gung¹sat¹.
s/he come/go office
‘S/he comes/goes to the office.’

¹⁷ Yuan (1995) is a detailed study on directional verbs and directional complements in Cantonese. However, the discussion focuses primarily on self-agentive motion events, details of which have been already outlined in this section. Therefore, a further elaboration of the article is not provided.

¹⁸ The Cantonese examples in this study were constructed by the author and their acceptability was checked against by speakers of Cantonese whose age ranges from twenty to seventy. The variety of Cantonese reflected in the examples represents the variety spoken in Hong Kong.

¹⁹ The directional verbs examined in this study belong to the group of verbs of inherently directed motion in Levin & Rappaport Hovav (1992).

²⁰ Thanks to the reviewer who has drawn my attention to the fact that if the subject is *ngo*⁵ 我 ‘I’, the deictic reference would become the location of the addressee.

- (12) 佢上三樓。
 Keoi⁵ soeng⁵ saam¹ lau².
 s/he ascend third floor
 ‘S/he ascends to the third floor.’

The directional verbs *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’ in (11) indicate that the movement is toward and away from the location of the speaker, i.e. *baan*⁶*gung*¹*sat*¹ 辦公室 ‘the office’, while the directional verb *soeng*⁵ 上 ‘to ascend’ in (12) specifies an upward movement toward the location denoted by the locative object *saam*¹ *lau*² 三樓 ‘the third floor’ and does not involve the location of the speaker.

There are three characteristics that distinguish the above directional verbs from verbs such as *hai*² 喺 ‘to be at’, *hoeng*³ 向 ‘to face’, *sing*¹ 升 ‘to rise’, *dit*³ 跌 ‘to drop’, *haang*⁴ 行 ‘to walk’ and *tiu*³ 跳 ‘to jump’, which denote state, direction, and movement. The three characteristics are: (i) the expression of motion, (ii) the ability to take a locative object, and (iii) the potential to form compound directional complements.

3.1 Expression of motion

The characteristic of expressing motion differentiates the twelve directional verbs in this study from verbs which indicate location or state such as *hai*² 喺 ‘to be at’ and *hoeng*³ 向 ‘to face’.

- (13) 佢上咗/過/緊三樓。
 Keoi⁵ soeng⁵ zo²/gwo³/gan² saam¹ lau².
 s/he ascend ASP ASP ASP third floor
 ‘S/he ascended/has ascended/is ascending to the third floor.’
- (14) *本書喺咗/過/緊書架。
 Bun² syu¹ hai² zo²/gwo³/gan² syu¹gaa².
 CL book be at ASP ASP ASP bookshelf
 ‘The book was/has been/is being on the bookshelf.’
- (15) *個窗向咗/過/緊後院。
 Go³ coeng¹ hoeng³ zo²/gwo³/gan² hau⁶gyun².
 CL window face ASP ASP ASP backyard
 ‘The window faced/has faced/is facing the backyard.’

One characteristic of movement verbs is that they can always be used with an aspectual suffix, such as the perfective aspectual suffix *zo*² 咗, which denotes the completion of an

event, the experiential suffix *gwo*³ 過, which emphasizes the notion of having undergone a certain experience in the past, and the progressive aspectual suffix *gan*² 緊, which specifies the continuation of an event. In example (13), *soeng*⁵ 上 ‘to ascend’ specifies an upward movement, while in examples (14) and (15), neither *hai*² 喺 ‘to be at’ nor *hoeng*³ 向 ‘to face’ implies any movement. Instead, *hai*² 喺 ‘to be at’ indicates the location of the book, i.e. on the bookshelf, while *hoeng*³ 向 ‘to face’ denotes the state of the window, i.e. it is facing the backyard. As a result, only the directional verb *soeng*⁵ 上 ‘to ascend’ in (13) can be used with *zo*² 咗, *gwo*³ 過 and *gan*² 緊 whereas *hai*² 喺 ‘to be at’ and *hoeng*³ 向 ‘to face’ in (14) and (15) cannot.²¹

3.2 Ability to take a locative object

The second characteristic that differentiates the directional verbs studied from verbs such as *dit*³ 跌 ‘to fall’ and *saang*¹ 生 ‘to grow’, which also denote direction, is that the former, in general, can take a locative object whereas the latter cannot.

- (16) 佢上三樓。
*Keoi*⁵ *soeng*⁵ *saam*¹ *lau*².
 s/he ascend third floor
 ‘S/he ascends to the third floor.’
- (17) 佢跌*(落)水。
*Keoi*⁵ *dit*³ *(*lok*⁶) *sei*².
 s/he fall descend water
 ‘S/he falls into the water.’
- (18) 啲樹枝生*(上)屋頂。
*Di*¹ *syu*⁶ *zi*¹ *saang*¹ *(*soeng*⁵) *uk*¹ *deng*².
 CL branch grow ascend house top
 ‘The branches grow up to the top of the house.’

Although the verbs *soeng*⁵ 上 ‘to ascend’, *dit*³ 跌 ‘to fall’ and *saang*¹ 生 ‘to grow’ all denote direction, i.e. an upward movement in the cases of *soeng*⁵ 上 ‘to ascend’ and *saang*¹ 生 ‘to grow’ and a downward movement in the case of *dit*³ 跌 ‘to fall’, only *soeng*⁵ 上 ‘to ascend’ can be immediately followed by the locative object *saam*¹ *lau*² 三樓 ‘the third floor’, whereas *dit*³ 跌 ‘to fall’ and *saang*¹ 生 ‘to grow’ cannot be followed by the locative objects *sei*² 水 ‘the water’ and *uk*¹ *deng*² 屋頂 ‘the roof top’. Instead, a

²¹ The ability to be used with *zo*² 咗, *gwo*³ 過 and *gan*² 緊 is also observed in the other eleven directional verbs.

directional complement, i.e. *lok*⁶ 落 ‘to descend’ and *soeng*⁵ 上 ‘to ascend’, is used to introduce the locative object.²²

The characteristic of taking a locative object also differentiates most of the directional verbs of this study from movement verbs such as *haang*⁴ 行 ‘to walk’, *tiu*³ 跳 ‘to jump’, *paa*⁴ 爬 ‘to climb’, etc.

- (19) 佢行*(入)房。
Keoi⁵ haang⁴ *(jap⁶) fong².
s/he walk enter room
‘S/he walks into the room.’
- (20) 佢跳*(過)張檯。
Keoi⁵ tiu³ *(gwo³) zoeng¹ toi².
s/he jump pass CL table
‘S/he jumps over the table.’
- (21) 佢爬*(上)閣樓。
Keoi⁵ paa⁴ *(soeng⁵) gok³lau².
s/he climb ascend attic
‘S/he climbs up to the attic.’

In examples (19)-(21), the verbs *haang*⁴ 行 ‘to walk’, *tiu*³ 跳 ‘to jump’ and *paa*⁴ 爬 ‘to climb’ are referred to as verbs of manner of motion in Levin & Rappaport Hovav (1992), and they denote the manner in which the movements are carried out. For example, *haang*⁴ 行 ‘to walk’, *tiu*³ 跳 ‘to jump’ and *paa*⁴ 爬 ‘to climb’ all involve the use of feet. While *haang*⁴ 行 ‘to walk’ and *paa*⁴ 爬 ‘to climb’ specify that the feet are constantly in contact with some kind of surface, *tiu*³ 跳 ‘to jump’ implies that the feet are in contact with the surface at the starting point and at the endpoint of the movement but are lifted up in the air, having no contact with the surface along the path. These movement verbs differ from directional verbs in that no direction is encoded in them and they cannot themselves take a locative object.²³ As a result, they have to rely on the use of a

²² Except for *hei*² 起 ‘to rise’ and *hoi*¹ 開 ‘to depart’, the other ten directional verbs can be followed by a locative object. Moreover, Yiu (2005) notes that without a given context it is unnatural to omit the locative object of non-deictic directional verbs, e.g. *??keoi*⁵ *soeng*⁵ *zo*² 佢上咗 s/he-ascend-ASP ‘S/he ascended’. Such omission, nevertheless, is fine with deictic directional verbs, e.g. *keoi*⁵ *lai*⁴ *zo*² 佢嚟咗 s/he-come-ASP ‘S/he came’. A similar observation is made in Lamarre (2009a) for Mandarin.

²³ It might be argued that *haang*⁴ 行 ‘to walk’, *tiu*³ 跳 ‘to jump’, and *paa*⁴ 爬 ‘to climb’ can be immediately followed by a locative object without the use of a directional complement, e.g. *haang*⁴ *saan*¹ 行山 walk-mountain ‘hiking’, *tiu*³ *seoi*² 跳水 jump-water ‘water-diving’ and

following directional complement, i.e. *jap*⁶ 入 ‘to enter’, *gwo*³ 過 ‘to pass’ and *soeng*⁵ 上 ‘to ascend’, to specify the direction of the movement and to serve as a link between them and the locative object.

3.3 Potential to form compound directional complements

The third characteristic that distinguishes the directional verbs studied from verbs that denote location, state, or direction is that a non-deictic directional verb can be followed by a deictic directional complement.²⁴ Furthermore, a non-deictic directional complement and a deictic directional complement can be combined to form a compound directional complement. In contrast, verbs which denote location, state, or direction in general cannot be followed by a deictic directional complement. Neither can they be combined with a deictic directional complement to form a compound directional complement.²⁵ For example,

- (22) 佢就快上嚟/去(三樓)。
 Keoi⁵ zau⁶ faai³ soeng⁵ lai⁴/heoi³ (saam¹ lau²).
 s/he then quick ascend come/go third floor
 ‘S/he will soon ascend and toward/away from the speaker (to the third floor).’

*paa*⁴ *saan*¹ 爬山 climb-mountain ‘mountain-climbing’. However, examples such as these refer only to the types of activities rather than a specific instance of the activities. In other words, *haang*⁴ *saan*¹ 行山 ‘hiking’, *tiu*³ *seoi*² 跳水 ‘water-diving’ and *paa*⁴ *saan*¹ 爬山 ‘mountain-climbing’ are compounds rather than verb-object phrases. Therefore, the use of a directional complement to link up the verb with the locative object is not necessary. In contrast, if the direction of *haang*⁴ 行 ‘to walk’, *tiu*³ 跳 ‘to jump’ and *paa*⁴ 爬 ‘to climb’ is to be specified, the use of a directional complement is required as in *haang*⁴ *soeng*⁵/*lok*⁶ *saan*¹ 行上/落山 walk-ascend/descend-the mountain ‘to walk up/down the mountain’, *tiu*³ *lok*⁶ *seoi*² 跳落水 jump-descend-water ‘to jump down into the water’ and *paa*⁴ *soeng*⁵ *saan*¹ 爬上山 climb-ascend-mountain ‘to climb up the mountain’.

²⁴ All non-deictic directional verbs, except for *hei*² 起 ‘to rise’ and *dou*³ 到 ‘to arrive’, can be followed by either of the two deictic directional complements, i.e. *lai*⁴ 嚟 ‘to come’ or *heoi*³ 去 ‘to go’. However, the combinations of *qilai* 起來 and *qiqu* 起去 are found in other Chinese dialects such as Minnan and Guizhou Dafanghua (cf. Li 1998).

²⁵ Although some verbs which denote manner and movement such as *paa*⁴ 爬 ‘to climb’ might be combined with *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’, as in *paa*⁴ *lai*⁴/*heoi*³ 爬嚟/去 crawl-come/go ‘to crawl toward the speaker or away from the speaker’, the resulting combination cannot function as a compound complement of a main verb, e.g. **haang*⁴ *paa*⁴ *lai*⁴/*heoi*³ 行爬嚟/去 walk-crawl-come/go.

- (23) 佢就快行上嚟/去(三樓)。
 Keoi⁵ zau⁶ faai³ haang⁴ soeng⁵ lai⁴/heoi³ (saam¹ lau²).
 s/he then quick walk ascend come/go third floor
 ‘S/he will soon walk up and toward/away from the speaker (to the third floor).’
- (24) *本書喺嚟/去書架。
 Bun² syu¹ hai² lai⁴/heoi³ syu¹gaa².
 CL book be at come/go bookshelf
 ‘The book is on the bookshelf.’
- (25) *個窗向嚟/去後院。
 Go³ coeng¹ hoeng³ lai⁴/heoi³ hau⁶gyun².
 CL window face come/go backyard
 ‘The window faces the backyard and toward/away from the speaker.’
- (26) *佢跌嚟/去水。
 Keoi⁵ dit³ lai⁴/heoi³ seoi².
 s/he fall come/go water
 ‘S/he falls into the water and toward/away from the speaker.’
- (27) *啲樹枝生嚟/去屋頂。
 Di¹ syu⁶zi¹ saang¹ lai⁴/heoi³ uk¹ deng².
 CL branch grow come/go house top
 ‘The branches grow toward the top of the house and toward/away from the speaker.’
- (28) *架火箭就快升嚟/去天空。
 Gaa³ fo²zin³ zau⁶ faai³ sing¹ lai⁴/heoi³ tin¹hung¹.
 CL rocket then quick rise come/go sky
 ‘The rocket will soon be launched toward the sky and toward/away from the speaker.’

In example (22), the main verb *soeng⁵* 上 ‘to ascend’ can be followed by the complements *lai⁴* 嚟 ‘to come’ and *heoi³* 去 ‘to go’, which specify whether the speaker is or is not at the destination of the movement. Example (23) shows that the combinations of *soeng⁵lai⁴* 上嚟 ascend-come ‘to ascend and toward the speaker’ and *soeng⁵heoi³* 上去 ascend-go ‘to ascend and away from the speaker’ can function as a complement of the main verb *haang⁴* 行 ‘to walk’. It should be noted that when *lai⁴* 嚟 ‘to come’ or *heoi³* 去 ‘to go’ are combined with the non-deictic directional verbs or non-deictic directional complements, the locative objects can be omitted without giving rise to ungrammaticality. The presence

of the locative object serves to pinpoint the location of the speaker, without which the deictic directional complement indicates only that the movement is toward the speaker (in the case of *lai*⁴ 嚟 ‘to come’) or away from the speaker (in the case of *heoi*³ 去 ‘to go’). In examples (24)-(28), none of the verbs, i.e. *hai*² 喺 ‘to be at’, *hoeng*³ 向 ‘to face’, *dit*³ 跌 ‘to fall’, *saang*¹ 生 ‘to grow’ and *sing*¹ 升 ‘to rise’, can be followed by either of the two deictic directional complements. Neither can they be combined with a deictic directional complement to form a compound directional complement.²⁶

4. The use of directional verbs in Cantonese

This section will examine the use of Cantonese directional verbs in self-agentive and agentive motion events. In a self-agentive motion event, the subject refers to a volitional entity which carries out the movement at his/her own will, while the object (if any) denotes a location. In an agentive motion event, the subject is an agent who causes another entity to move in a certain direction and the orientation point might or might not manifest itself as a locative object in the sentence.

4.1 Self-agentive motion events

In a self-agentive motion event, the directional verb denotes the direction of the movement undergone by the subject or theme. A movement is made up of three components, namely, the source, the path, and the goal, as illustrated in Figure 1.

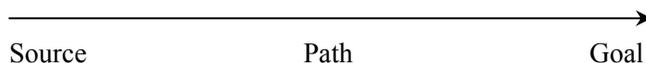


Figure 1: Three components of a movement

²⁶ The verbs and the deictic directional complements in (24)-(28) cannot be combined to form compound directional complements. Therefore, examples such as **bun*² *syu*¹ *fong*³ *hai*² *lai*⁴ *syu*¹ *gaa*² 本書放嚟嚟書架 CL-book-put-at-come-bookshelf ‘The book is placed on the bookshelf and toward the speaker’, **go*³ *coeng*¹ *ceoi*¹ *hoeng*³ *lai*⁴ *hau*⁶ *’jyun*² 個窗吹向嚟後院 CL-window-blow-face-come-backyard ‘The window faces the backyard and toward the speaker as a result of X’s blowing on it’, **keoi*⁵ *tiu*³ *dit*³ *heoi*³ *seoi*² 佢跳跌去水 s/he-jump-fall-go-water ‘S/he jumps into the water and away from the speaker’, **di*¹ *syu*⁶ *zi*¹ *faat*³ *saang*¹ *heoi*³ *uk*¹ *deng*² 啲樹枝發生去屋頂 CL-branches-grow-grow-go-roof top ‘The branches grow toward the roof top and away from the speaker’, **gaa*³ *fo*² *zin*³ *zau*⁶ *faat*³ *se*⁶ *sing*¹ *heoi*³ *tin*¹ *hung*¹ 架火箭就快射升去天空 CL-rocket-then-soon-shoot-rise-go-sky ‘The rocket will soon be launched toward the sky and away from the speaker’ are ungrammatical.

The source is the location in which a movement starts; the path is the course of the movement; and the goal is the location at which the movement ends. The meaning of a directional verb thus includes an inherently specified source (such as *hei*² 起 ‘to rise’), goal (such as *dou*³ 到 ‘to arrive’, *faan*¹ 翻 ‘to return’, *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’) or path (such as *soeng*⁵ 上 ‘to ascend’, *lok*⁶ 落 ‘to descend’, *ceot*¹ 出 ‘to exit’, *jap*⁶ 入 ‘to enter’, *hoi*¹ 開 ‘to depart’, *maat*⁴ 埋 ‘to approach’, *gwo*³ 過 ‘to pass’).²⁷ In Cantonese, one of the ways to express comparison is by using the classifier *di*¹ 啲 after adjectives such as *gou*¹ *di*¹ 高啲 ‘higher’. Table 4 below shows that directional verbs in the left-hand column, i.e. those whose meaning includes an inherently specified path, can be used with *di*¹ 啲 but those in the right-hand column, i.e. those whose meaning involves an inherently specified source and goal, cannot.²⁸

Table 4: Directional verbs and *di*¹ 啲

Directional verbs compatible with <i>di</i> ¹ 啲	Directional verbs incompatible with <i>di</i> ¹ 啲
<i>soeng</i> ⁵ 上 ‘to ascend’	<i>hei</i> ² 起 ‘to rise’
<i>lok</i> ⁶ 落 ‘to descend’	<i>dou</i> ³ 到 ‘to arrive’
<i>ceot</i> ¹ 出 ‘to exit’	<i>faan</i> ¹ 翻 ‘to return’
<i>jap</i> ⁶ 入 ‘to enter’	<i>lai</i> ⁴ 嚟 ‘to come’
<i>hoi</i> ¹ 開 ‘to depart’	<i>heoi</i> ³ 去 ‘to go’
<i>maat</i> ⁴ 埋 ‘to approach’	
<i>gwo</i> ³ 過 ‘to pass’	

A comparison can be made only when two or more than two entities are involved. A path involves a number of points or locations traversed by the theme. As a result, the height (e.g. *soeng*⁵ *di*¹ 上啲 ‘higher’), the closeness (e.g. *maat*⁴ *di*¹ 埋啲 ‘closer’), etc., of those points can be compared. In contrast, directional verbs in the right-hand column involve only one single point, i.e. the source or the goal; therefore, a comparison between the points is impossible. Moreover, the difference in the inherently specified component of a movement projected by directional verbs is also exemplified in their locative object. Except for *hoi*¹ 開 ‘to depart’ and *maat*⁴ 埋 ‘to approach’, the rest in the left-hand column can have a locative object which denotes the path of a movement (cf. (29)-(33)) while those in the right-hand column, except for *hei*² 起 ‘to rise’, can only have a goal object (cf. (34)-(37)).

²⁷ Lamarre (2008) notes that in Mandarin *qi* 起 ‘to rise’ is source-oriented while *shàng* 上 ‘to ascend’ is goal-oriented.

²⁸ As noted in §2 above, a similar observation is made in Iida (2001).

- (29) 佢上緊樓梯。
Keoi⁵ soeng⁵ gan² lau⁴ tai¹.
s/he ascend ASP staircase
'S/he is ascending along the staircase.'
- (30) 佢落緊樓梯。
Keoi⁵ lok⁶ gan² lau⁴ tai¹.
s/he descend ASP staircase
'S/he is descending along the staircase.'
- (31) 佢出咗閘。
Keoi⁵ ceot¹ zo² zaap⁶.
s/he exit ASP gate
'S/he exited through the gate.'
- (32) 佢入咗閘。
Keoi⁵ jap⁶ zo² zaap⁶.
s/he enter ASP gate
'S/he entered through the gate.'
- (33) 佢過咗海。
Keoi⁵ gwo³ zo² hoi².
s/he pass ASP sea
'S/he crossed the sea.'
- (34) 佢到咗辦公室。
Keoi⁵ dou³ zo² baan⁶ gung¹ sat¹.
s/he arrive ASP office
'S/he arrived at the office.'
- (35) 佢翻咗辦公室。
Keoi⁵ faan¹ zo² baan⁶ gung¹ sat¹.
s/he return ASP office
'S/he returned to the office.'
- (36) 佢嚟咗我屋企。
Keoi⁵ lai⁴ zo² ngo⁵ uk¹ kei⁵.
S/he come ASP my house
'S/he came to my house.'
- (37) 佢去咗我屋企。
Keoi⁵ heoi³ zo² ngo⁵ uk¹ kei⁵.
s/he go ASP my house
'S/he went to my house.'

The locative object of *soeng*⁵ 上 ‘to ascend’, *lok*⁶ 落 ‘to descend’ and *ceot*¹ 出 ‘to exit’ can also refer to the source of a movement.²⁹

- (38) 佢上咗水。
Keoi⁵ soeng⁵ zo² sei².
s/he ascend ASP water
‘S/he ascended from the water (to the shore).’
- (39) 佢落咗車。
Keoi⁵ lok⁶ zo² ce¹.
s/he descend ASP car
‘S/he moved out from the car.’
- (40) 佢出咗課室。
Keoi⁵ ceot¹ zo² fo³sat¹.
s/he exit ASP classroom
‘S/he exited from the classroom.’

In the above self-agentive examples, path is denoted by the directional verbs, a characteristic which is associated with verb-framed languages. The next section discusses the use of directional verbs to encode path in agentive motion events, a use of directional verbs which is in general not exhibited in Mandarin and which has not been systematically studied by scholars.

4.2 Agentive motion events

In an agentive motion event, the directional verb refers to the action which is carried out intentionally by the agent subject and which causes the theme object to move in a certain direction, as illustrated in (41)-(46) below:³⁰

²⁹ When *hoi*¹ 開 ‘to depart’ appears in the compound form *lei*⁴*hoi*¹ 離開 ‘to leave’, it can be followed by a locative object which denotes the source of the movement *lei*⁴*hoi*¹ *baan*⁶*gung*¹*sat*¹ 離開辦公室 leave-office ‘to leave the office’.

³⁰ *Maai*⁴ 埋 ‘to approach’, *gwo*³ 過 ‘to pass’, *dou*³ 到 ‘to arrive’, *faan*¹ 翻 ‘to return’ and *lai*⁴ 嚟 ‘to come’, in general, do not take a theme object. Therefore, they are excluded from the discussion here. Also, in some cases, when a directional verb is followed by a theme object, a metaphorical meaning rather than a directional meaning is conveyed. For example, *hei*² 起 ‘to rise’ in *hei*² *san*¹ 起身 rise-body ‘to get up’ expresses the meaning of causing the body to be in an upright position. However, in *hei*² *gaan*¹ *uk*¹ 起間屋 rise-CL-house ‘to build a house’, *hei*² 起 expresses the metaphorical meaning of ‘to build’ rather than the directional meaning of ‘to rise’. Metaphorical meanings of directional verbs are excluded from the discussion here.

- (41) 佢上咗三箱貨喺個架(度)。
 Keoi⁵ soeng⁵ zo² saam¹ soeng¹ fo³ hai² go³ gaa² (dou⁶).
 s/he ascend ASP three CL goods at CL shelf LOC
 ‘S/he moved three boxes of goods up onto the shelf.’
- (42) 佢落咗糖喺杯咖啡(度)。
 Keoi⁵ lok⁶ zo² tong⁴ hai² bui¹ gaa³ fe¹ (dou⁶).
 s/he descend ASP sugar at CL coffee LOC
 ‘S/he put sugar into the cup of coffee.’
- (43) 佢出咗三張牌喺檯(度)。
 Keoi⁵ ceot¹ zo² saam¹ zoeng¹ paai² hai² toi² (dou⁶).
 s/he exit ASP three CL card at table LOC
 ‘S/he put three cards onto the table.’
- (44) 佢入咗啲錢喺個信封(度)。
 Keoi⁵ jap⁶ zo² di¹ cin² hai² go³ seon³ fung¹ (dou⁶).
 s/he enter ASP CL money at CL envelope LOC
 ‘S/he put the money into the envelope.’
- (45) 佢開咗架船去碼頭(度)。
 Keoi⁵ hoi¹ zo² gaa³ syun⁴ heoi³ maa⁵ tau⁴ (dou⁶).
 s/he depart ASP CL ship go pier LOC
 ‘S/he sailed the ship to the pier.’
- (46) 啲洗粉去咗啲漬出嚟。
 Di¹ sai² fan² heoi³ zo² di¹ zik¹ ceot¹ lai⁴.
 CL detergent go ASP CL stain exit come
 ‘The detergent removed the stain.’

In (41)-(46), except for the orientation point of *heoi*³ 去 ‘to go’ in (46) which is manifested as the compound directional complement *ceot*¹ *lai*⁴ 出嚟 ‘to exit and toward the speaker’, those of the others are spelt out as the objects of the preposition *hai*² 喺 ‘at’ or are introduced by a directional complement such as *heoi*³ 去 ‘to go’ in (45).³¹ That the directional verbs in (41)-(46) function as a main verb can be

³¹ It is noted above that the meaning of *hei*² 起 ‘to rise’ is source-oriented. As a result, it cannot have a goal object. On the other hand, *hei*² 起 ‘to rise’ can have a prepositional phrase which appears in front of it, indicating the location at which the change of state takes place, e.g. *keoi*⁵ *hai*² *dei*⁶ *haa*⁵ *dou*⁶ *hei*² *zo*² *san*² 佢喺地下度起咗身 s/he-at-floor-LOC-rise-ASP-body ‘S/he got up from the floor.’ The prepositional phrase *hai*² *dei*⁶ *haa*⁵ *dou*⁶ 喺地下度 at-floor-LOC ‘on the floor’, however, cannot occur after *hei*² *san*¹ 起身 rise-body ‘to get up’, referring to the

seen by their use with the perfective aspectual suffix *zo²* 咗. Furthermore, they can also have a complement, as in (47)-(51), or a verbal particle,³² as in (52).

- (47) 佢上漏咗三箱貨嘅個貨架(度)。
 Keoi⁵ soeng⁵ lau⁶ zo² saam¹ soeng¹ fo³ hai² go³ fo³ gaa² (dou⁶).
 s/he ascend leave out ASP three CL goods at CL goods shelf LOC
 ‘S/he moved three boxes of goods less up onto the shelf.’
- (48) 佢落錯咗包鹽嘅杯咖啡(度)。
 Keoi⁵ lok⁶ co³ zo² baau¹ jim⁴ hai² bui¹ gaa³ fe¹ (dou⁶).
 s/he descend wrong ASP CL salt at CL coffee LOC
 ‘S/he wrongly put the packet of salt in the cup of coffee.’
- (49) 佢出多咗三張牌嘅檯(度)。
 Keoi⁵ ceot¹ do¹ zo² saam¹ zoeng¹ paai² hai² toi² (dou⁶).
 s/he exit more ASP three CL card at table LOC
 ‘S/he put three more cards onto the table.’
- (50) 佢入翻十蚊嘅個信封(度)。
 Keoi⁵ jap⁶ faan¹ sap⁶ man¹ hai² go³ seon³ fung¹ (dou⁶).
 s/he enter return ten dollar at CL envelope LOC
 ‘S/he put ten dollars back into the envelope.’
- (51) 佢開遲咗架船去碼頭(度)。
 Keoi⁵ hoi¹ ci⁴ zo² gaa³ syun⁴ heoi³ maa⁵ tau⁴ (dou⁶).
 s/he depart late ASP CL ship go pier LOC
 ‘S/he sailed the ship to the pier late.’
- (52) 啲洗粉去晒啲漬出嚟。
 Di¹ sai² fan² heoi³ saai³ di¹ zik¹ ceot¹ lai⁴.
 CL detergent go all CL stain exit come
 ‘The detergent removed completely the stain.’

destination after the change of state takes place. Another point to note is that it also seems possible to say that *hoi¹* 開 ‘to depart’ and *heoi³* 去 ‘to go’ in the above examples express the metaphorical meanings of ‘to sail’ and ‘to remove’. However, since a simple/compound directional complement can be used in the sentences to denote the destination (cf. (45)-(46) and (51)-(52)), I shall assume that *hoi¹* 開 ‘to depart’ in (45) and (51) and *heoi³* 去 ‘to go’ in (46) and (52) specify physical movements.

³² According to Matthews & Yip (1994), verbal particles are grammatical words whose functions resemble those of phrasal verbs in English.

The basic word order in Cantonese is SVO. When the resultant state of the object is to be highlighted, the disposal construction is used. In the Cantonese disposal construction, the patient object is moved to the preverbal position and is marked by the disposal marker *zoeng*¹ 將. The preposed object has to be specific while the verb cannot be bare. One major difference between Cantonese and Mandarin in the use of the disposal construction is that the verb has to be transitive in the former but can be transitive or intransitive in the latter. For example, when a transitive verb such as *daa*² 打 ‘to hit’ in Cantonese or *dǎ* 打 ‘to hit’ in Mandarin is involved in the disposal construction, the Cantonese sentence *keoi*⁵ *zoeng*¹ *zek*³ *man*¹ *daa*² *sei*² *zo*² 佢將隻蚊打死咗 s/he-DM-CL-mosquito-hit-die-ASP ‘S/he killed the mosquito by hitting it’ and the Mandarin equivalent *tā bǎ wénzi dǎ sǐ le* 他把蚊子打死了 he-DM-mosquito-hit-die-SFP ‘He killed the mosquito by hitting it’ are both acceptable. In contrast, Mandarin allows an intransitive verb to be used as the main verb in the disposal construction *tā bǎ ge zéi pǎo diào le* 他把個賊跑掉了 he-DM-CL-thief-run-away-SFP ‘He let the thief run away’, whereas Cantonese does not, **keoi*⁵ *zoeng*¹ *go*³ *caak*² *zau*² *lat*¹ *zo*¹ 佢將個賊走甩咗 s/he-DM-CL-thief-run-away-ASP ‘S/he let the thief run away’. The use of the directional verbs in the disposal constructions in (53)-(58) suggests that the directional verbs resemble transitive verbs when they are used causatively. For example,

- (53) 佢將三箱貨上漏咗喺個架(度)。
*Keoi*⁵ *zoeng*¹ *saam*¹ *soeng*¹ *fo*³ *soeng*⁵ *lau*⁶ *zo*² *hai*² *go*³ *fo*³
 s/he DM three CL goods ascend leave out ASP at CL goods
*gaa*² (*dou*⁶).
 shelf LOC
 ‘S/he moved three boxes of goods less up onto the shelf.’
- (54) 佢將包鹽落錯咗喺杯咖啡(度)。
*Keoi*⁵ *zoeng*¹ *baau*¹ *jim*⁴ *lok*⁶ *co*³ *zo*² *hai*² *bui*¹ *gaa*³ *fe*¹ (*dou*⁶).
 s/he DM CL salt descend wrong ASP at CL coffee LOC
 ‘S/he wrongly put the packet of salt into the cup of coffee.’
- (55) 佢將三張牌出錯咗喺檯(度)。
*Keoi*⁵ *zoeng*¹ *saam*¹ *zoeng*¹ *paai*² *ceot*¹ *co*³ *zo*² *hai*² *toi*² (*dou*⁶).
 s/he DM three CL card exit wrong ASP at table LOC
 ‘S/he wrongly put three cards onto the table.’
- (56) 佢將十蚊入翻喺個信封(度)。
*Keoi*⁵ *zoeng*¹ *sap*⁶ *man*¹ *jap*⁶ *faan*¹ *hai*² *go*³ *seon*³ *fung*¹ (*dou*⁶).
 s/he DM ten dollar enter return at CL envelope LOC
 ‘S/he put ten dollars back into the envelope.’

- (57) 佢將架船開遲咗去碼頭(度)。
 Keoi⁵ zoeng¹ gaa³ syun⁴ hoi¹ ci⁴ zo² heoi³ maa⁵tau⁴ (dou⁶).
 s/he DM CL ship depart late ASP go pier LOC
 ‘S/he sailed the ship to the pier late.’
- (58) 啲洗粉將啲漬去晒出嚟。
 Di¹ sai²fan² zoeng¹ di¹ zik¹ heoi³ saai³ ceot¹ lai⁴.
 CL detergent DM CL stain go all exit come
 ‘The detergent removed completely the stain.’

The semantic roles borne by the subject and the object of a directional verb in self-agentive and agentive motion events are summarized in Table 5 below:

Table 5: The semantic roles borne by the subject and the object of a directional verb

Arguments of directional verb	Subject	Object
Types of motion events		
Self-agentive	Theme	Locative
Agentive	Agent	Theme

This section has shown that directional verbs can be used to encode path in both self-agentive and agentive motion events, a characteristic which is exemplified in verb-framed languages. It will be illustrated in §5 that Cantonese also exhibits the characteristic of satellite-framed languages in expressing path in a satellite or a directional complement.

5. The use of simple directional complements in Cantonese

In addition to functioning as a main verb, a directional verb can also appear after another verb as a complement in self-agentive and agentive motion events.

5.1 Self-agentive motion events

In self-agentive motion events, the main verb denotes the manner in which the movement is carried out. The simple directional complement denotes the direction of the movement and provides the movement with an endpoint either by introducing a locative object for the main verb (in cases of non-deictic directional complements)³³ or

³³ It is mentioned in fn.22 that the directional verbs *hei²* 起 ‘to rise’ and *hoi¹* 開 ‘to depart’ cannot take a locative object. Such a property is also exhibited when they function as a simple directional complement. Therefore, they are excluded from the discussion on self-agentive motion events.

by defining the direction of the movement in relation to the speaker's location (in cases of deictic directional complements). While the theme subject is the entity that undergoes a change of location, the locative object often represents the goal of the movement.

- (59) 佢跑咗*(上)三樓。
 Keoi⁵ paau² zo² *(soeng⁵) saam¹ lau².
 s/he run ASP ascend third floor
 'S/he ran up to the third floor.'
- (60) 佢跑咗*(落)三樓。
 Keoi⁵ paau² zo² *(lok⁶) saam¹ lau².
 s/he run ASP descend third floor
 'S/he ran down to the third floor.'
- (61) 佢行咗*(出)客廳。
 Keoi⁵ haang⁴ zo² *(ceot¹) haak³teng¹.
 s/he walk ASP exit living room
 'S/he walked out into the living room.'
- (62) 佢行咗*(入)房。
 Keoi⁵ haang⁴ zo² *(jap⁶) fong².
 s/he walk ASP enter room
 'S/he walked into the room.'
- (63) 佢跳咗*(埋)呢邊。
 Keoi⁵ tiu³ zo² *(maai⁴) nei¹ bin¹.
 s/he jump ASP approach this side
 'S/he jumped to this side.'
- (64) 佢行咗*(過)辦公室。³⁴
 Keoi⁵ haang⁴ zo² *(gwo³) baan⁶gung¹sat¹.
 s/he walk ASP pass office
 'S/he walked over to the office.'

³⁴ It is not clear why, when *gwo³ 過* expresses the meaning of 'to pass', *zo² 咗* appears after the V-*gwo³ 過* combination such as *keoi⁵ haang⁴ gwo³ zo² baan⁶gung¹sat¹* 佢行過咗辦公室 s/he-walk-pass-ASP-office 'S/he walked past the office'; and when *gwo³ 過* means 'to pass over' such as *keoi⁵ haang⁴ zo² gwo³ baan⁶gung¹sat¹* 佢行咗過辦公室 s/he-walk-ASP-pass over-office 'S/he walked over to the office', *zo² 咗* occurs between the verb and *gwo³ 過* 'to pass over'.

- (65) 佢爬*(到)咗山頂。³⁵
 Keoi⁵ paa⁴ *(dou³) zo² saan¹ deng².
 s/he climb arrive ASP hill top
 ‘S/he climbed to the top of the hill.’
- (66) 佢游咗*(翻)岸邊。
 Keoi⁵ jau⁴ zo² *(faan¹) ngon⁶ bin¹.
 s/he swim ASP return shore side
 ‘S/he swam back to the shore.’
- (67) 佢跑咗*(嚟)終點。
 Keoi⁵ paau² zo² *(lai⁴) zung¹dim².
 s/he run ASP come finishing line
 ‘S/he ran to the finishing line and toward the speaker.’
- (68) 佢跑咗*(去)終點。
 Keoi⁵ paau² zo² *(heoi³) zung¹dim².
 s/he run ASP go finishing line
 ‘S/he ran to the finishing line and away from the speaker.’

In examples (59)-(68), the action verbs *paau*² 跑 ‘to run’, *haang*⁴ 行 ‘to walk’, *tiu*³ 跳 ‘to jump’, *paa*⁴ 爬 ‘to climb’, and *jau*⁴ 游 ‘to swim’ are the main verbs in the sentences, specifying the manner in which the movements are carried out. They cannot introduce a locative object. Instead, a directional complement is used as a link between the main verb and the locative object. It should be noted that in these self-agentive sentences, the action verb can be omitted without giving rise to ungrammaticality, while the presence of the directional complement is necessary. On the other hand, the locative object after a non-deictic directional complement, in general, cannot be omitted while that after a deictic one can be.³⁶

The directional complements *soeng*⁵ 上 ‘to ascend’, *lok*⁶ 落 ‘to descend’, *ceot*¹ 出 ‘to exit’, *jap*⁶ 入 ‘to enter’ and *gwo*³ 過 ‘to pass’ can introduce a path object.³⁷ For example,

- (69) 佢跑緊上樓梯。
 Keoi⁵ paau² gan² soeng⁵ lau⁴tai¹.
 s/he run ASP ascend staircase
 ‘S/he is running up along the staircase.’

³⁵ Instead of appearing after the main verb, *zo*² 咗 follows the verb and the directional complement *dou*³ 到 ‘to arrive’.

³⁶ It is mentioned in fn.22 that the same contrast is observed in non-deictic and deictic directional verbs.

³⁷ Please refer to (29)-(33) for the introduction of a path object by these five directional verbs.

- (70) 佢跑緊落樓梯。
Keoi⁵ paau² gan² lok⁶ lau⁴ tai¹.
s/he run ASP descend staircase
'S/he is running down along the staircase.'
- (71) 佢跑咗出閘。
Keoi⁵ paau² zo² ceot¹ zaap⁶.
s/he run ASP exit gate
'S/he ran out through the gate.'
- (72) 佢跑咗入後閘。
Keoi⁵ paau² zo² jap⁶ zaap⁶.
s/he run ASP enter gate
'S/he ran in through the gate.'
- (73) 佢游咗過河。
Keoi⁵ jau⁴ zo² gwo³ ho⁴.
s/he swim ASP pass river
'S/he swam across the river.'

The directional complements *soeng*⁵ 上 'to ascend', *lok*⁶ 落 'to descend' and *ceot*¹ 出 'to exit' can also introduce a locative object which indicates the source of the movement.³⁸ For example,

- (74) 佢跳咗上水。
Keoi⁵ tiu³ zo² soeng⁵ seoi².
s/he jump ASP ascend water
'S/he jumped up from the water (to the shore).'
- (75) 佢跳咗落車。
Keoi⁵ tiu³ zo² lok⁶ ce¹.
s/he jump ASP descend car
'S/he jumped out from the car.'
- (76) 佢走咗出課室。
Keoi⁵ zau² zo² ceot¹ fo³ sat¹.
s/he run ASP exit classroom
'S/he ran out from the classroom.'

³⁸ Please refer to (38)-(40) for the introduction of a source object by these three directional verbs.

5.2 Agentive motion events

In agentive motion events, the co-event verb indicates the cause of the movement which is instigated by the agent subject and which brings about the change of location of the theme object. The simple directional complement specifies the direction of the movement undergone by the theme object that follows. Locative objects are often not involved.³⁹

- (77) 佢打落咗三架戰機。
Keoi⁵ daa² lok⁶ zo² saam¹ gaa³ zin³gei¹.
s/he hit descend ASP three CL rival plane
'S/he shot down three rival planes.'
- (78) 佢踢出咗一個波。
Keoi⁵ tek³ ceot¹ zo² jat¹ go³ bo¹.
s/he kick exit ASP one CL ball
'S/he kicked out one ball.'
- (79) 佢射入咗三球。
Keoi⁵ se⁶ jap⁶ zo² saam¹ kau⁴.
s/he shoot enter ASP three ball
'S/he shot in three balls.'
- (80) 佢推開咗張檯。
Keoi⁵ teoi¹ hoi¹ zo² zoeng¹ toi².
s/he push depart ASP CL table
'S/he pushed away the table.'
- (81) 佢拉埋咗張檯。
Keoi⁵ laai¹ maai⁴ zo² zoeng¹ toi².
s/he pull approach ASP CL table
'S/he pulled the table close to a certain location.'
- (82) 佢拉過啲張檯。
Keoi⁵ laai¹ gwo³ di¹ zoeng¹ toi².
s/he pull pass CL CL table
'S/he pulled the table past a certain location a little bit.'

³⁹ The directional complement *soeng*⁵ 上 'to ascend' often expresses a metaphorical meaning when it is followed by a theme object, e.g. *oi*³ *soeng*⁵ *Hon*⁴ *kek*⁶ 愛上韓劇 'to fall in love with Korean movies' while *dou*³ 到 'to arrive' can hardly be followed by a theme object. Therefore, they are excluded here.

- (83) 佢執起咗張紙。
 Keoi⁵ zap¹ hei² zo² zoeng¹ zi².
 s/he pick rise ASP CL paper
 ‘S/he picked up the piece of paper.’
- (84) 佢擰翻咗張檯。
 Keoi⁵ ning¹ faan¹ zo² zoeng¹ toi².
 s/he bring return ASP CL table
 ‘S/he brought back the table.’
- (85) 佢帶嚟咗好多麻煩。⁴⁰
 Keoi⁵ daai³ lai⁴ zo² hou²do¹ maa⁴faan⁴.
 s/he bring come ASP much trouble
 ‘S/he brought much trouble.’
- (86) 間公廠排去咗好多污水。
 Gaan¹ gung¹cong² paai⁴ heoi³ zo² hou²do¹ wu¹sei².
 CL factory discharge go ASP much polluted water
 ‘The factory discharged much polluted water.’

There are three major differences exhibited in the use of the simple directional complement in self-agentive and agentive motion events. First, the verb and the simple directional complement do not form a compound in the former but they do in the latter. Such a contrast can be shown by the different positions in which the aspectual suffix *zo²* 咗 appears. In self-agentive motion events, the verb and the simple directional complement, except for *dou³* 到 ‘to arrive’, do not form a compound and *zo²* 咗 appears between them. In agentive motion events, the verb and the simple directional complement form a compound and *zo²* 咗 occurs after the compound. Second, the former involves a theme subject and a locative object while the latter has an agent subject and a theme object, a pattern of semantic roles that is also exhibited in directional verbs, as shown in Table 5. Third, the omission of the main verb is possible in the former, but is, in general, not allowed in the latter.⁴¹ The above differences suggest that different structures are

⁴⁰ It might be argued that *lai⁴* 嚟 ‘to come’ in *daai³ lai⁴* 帶嚟 bring-come ‘to bring and toward the speaker’ might express a metaphorical meaning rather than a directional meaning. However, since a locative object can be added to indicate the location to which the trouble was brought, it is assumed that *lai⁴* 嚟 ‘to come’ expresses a directional meaning in (85) (cf. (94)).

⁴¹ There are exceptions in which the omission of the co-event verb is possible in sentences that express agentive motion events. For example, in *se⁶ jap⁶ zo² jat¹ go³ bo¹* 射入咗一個波 shoot-enter-ASP-one-CL-ball ‘shot in a ball’, the verb or the complement can be omitted without giving rise to ungrammaticality (e.g. *se⁶ zo² jat¹ go³ bo¹* 射咗一個波 shoot-ASP-one-CL-ball ‘shot a ball’ and *jap⁶ zo² jat¹ go³ bo¹* 入咗一個波 enter-ASP-one-CL-ball ‘shot in a ball’).

involved in the two kinds of motion events, as illustrated schematically in Figure 2 below:

$$\begin{array}{l} \text{Self-agentive} \left\{ \begin{array}{l} [\text{Theme subject} + [\text{VP} [\text{Main verb} + \text{zo}^2 \text{ 咗}] + [\text{Directional complement} \\ + \text{Locative object}]]] \end{array} \right. \\ \\ \text{Agentive} \left\{ \begin{array}{l} [\text{Agent subject} + [\text{VP} [\text{Main verb} + \text{Directional complement} + \text{zo}^2 \text{ 咗}] \\ + [\text{Theme object}]]] \end{array} \right. \end{array}$$

Figure 2: Two structures exhibited in self-agentive and agentive motion sentences

In the above examples of agentive motion events, the goal of the movement is implied but not explicitly specified. If the destination of the theme object is to be stressed, the verb-directional compound can be restructured as the verb complement construction in which the co-event verb is followed by the theme object, which is in turn followed by the directional complement and the locative object.

- (87) 佢打咗三架戰機落海。
Keoi⁵ daa² zo² saam¹ gaa³ zin³gei¹ lok⁶ hoi².
s/he hit ASP three CL plane descend sea
'S/he shot three planes down into the sea.'
- (88) 佢踢咗一個波出界。
Keoi⁵ tek³ zo² jat¹ go³ bo¹ ceot¹ gaai³.
s/he kick ASP one CL ball exit boundary
'S/he kicked a ball out of the sideline.'
- (89) 佢射咗三球入門。
Keoi⁵ se⁶ zo² saam¹ kau⁴ jap⁶ mun⁴.
s/he shoot ASP three ball enter goal
'S/he shot three balls into the goal.'
- (90) 佢拉咗張檯開去。
Keoi⁵ laai¹ zo² zoeng¹ toi² hoi¹ heoi³.
s/he pull ASP CL table depart go
'S/he pushed the table away from here.'
- (91) 佢拉咗張檯埋牆。
Keoi⁵ laai¹ zo² zoeng¹ toi² maa⁴ coeng⁴.
s/he pull ASP CL table approach wall
'S/he pulled the table close to the wall.'

- (92) 佢拉咗張檯過呢邊。
 Keoi⁵ laai¹ zo² zoeng¹ toi² gwo³ nei¹ bin¹.
 s/he pull ASP CL table pass this side
 ‘S/he moved the table over to this side.’
- (93) 佢擰咗張檯翻屋企。
 Keoi⁵ ning¹ zo² zoeng¹ toi² faan¹ uk¹kei⁵.
 s/he bring ASP CL table return home
 ‘S/he brought the table back home.’
- (94) 佢帶咗好多麻煩嚟(呢度)。
 Keoi⁵ daai³ zo² hou²do¹ maa⁴faan⁴ lai⁴ (nei¹dou⁶).
 s/he bring ASP much trouble come here
 ‘S/he brought much trouble to here.’
- (95) 間公廠排咗好多污水去河度。
 Gaan¹ gung¹ cong² paai⁴ zo² hou²do¹ wu¹seoi² heoi³ ho⁴ dou⁶.
 CL factory discharge ASP much polluted water go river LOC
 ‘The factory discharged much polluted water into the river.’

Although *lai⁴* 嚟 ‘to come’ and *heoi³* 去 ‘to go’ can be combined with the main verb to form a compound word (cf. (85) and (86)), it is more natural for them to appear after the theme object, as shown in (98) and (99). Furthermore, the simple directional complements *lai⁴* 嚟 ‘to come’ and *heoi³* 去 ‘to go’ can only be combined with a small number of verbs to form a compound.⁴² For example,

⁴² Besides *daai³* 帶 ‘to bring’, it is hard to come up with another verb which can be combined with *lai⁴* 嚟 ‘to come’ to form a compound. On the other hand, the V-*heoi³* 去 compounds might also include *sat¹heoi³* 失去 ‘to lose’, *ceoi⁴heoi³* 除去 ‘to remove’, *gaam²heoi³* 減去 ‘to subtract’, compounds which are lexicalized and cannot be restructured as a verb-object-complement-(locative object) construction. It seems that V-*lai⁴* 嚟/*heoi³* 去 compounds are more often used in a formal context such as news reports than in daily conversations. Therefore, they might have entered Cantonese as a result of influence from Mandarin. On the other hand, J. Wang (2006) observes that there is a strong tendency for *lai⁴* 來 ‘to come’ and *qu⁴* 去 ‘to go’ in *Zhuzi Yulei* 朱子語類, which is a collection of discussions between the Southern Song neo-Confucian philosopher Zhuxi 朱熹 and his disciples, to occur in the sentence-final position, a phenomenon which is identical to that found in Cantonese. Therefore, it is possible that such a characteristic observed in *Zhuzi Yulei*, i.e. the tendency for *lai⁴* 來 ‘to come’ and *qu⁴* 去 ‘to go’ to occupy the sentence-final position, has been preserved in Cantonese.

of compound directional complements which consist of two simple directional complements, only the former exhibits the use of compound directional complements that are made up of three simple directional complements.

6. The use of compound directional complements in Cantonese

A compound directional complement is a complement which consists of two or three simple directional complements.⁴³ The order in which the simple directional complements are combined is fixed with the non-deictic directional complement(s) preceding the deictic one. Similar to simple directional complements, compound directional complements are used in self-agentive and agentive motion events to denote path. On the other hand, compound directional complements differ from the simple directional complements in that the former and the verb do not form a compound while the latter and the verb might.

6.1 Self-agentive motion events

In a self-agentive motion event, the main verb denotes the manner in which the movement is carried out by the theme subject while the compound directional complements denote the spatial configuration of the trajectory traversed by the theme subject.

- (100) 佢跑咗上嚟/去(三樓)。
Keoi⁵ paau² zo² soeng⁵ lai⁴/heoi³ (saam¹ lau²).
s/he run ASP ascend come/go third floor
'S/he ran up here/there (to the third floor).'
- (101) 佢跑咗落嚟/去(三樓)。
Keoi⁵ paau² zo² lok⁶ lai⁴/heoi³ (saam¹ lau²).
s/he run ASP descend come/go third floor
'S/he ran down here/there (to the third floor).'
- (102) 佢行咗出嚟/去(客廳)。
Keoi⁵ haang⁴ zo² ceot¹ lai⁴/heoi³ (haak³teng¹).
s/he walk ASP exit come/go living room
'S/he walked out here/there (to the living room).'

⁴³ The discussion of compound directional complements in this study follows the classification of simple directional complements in Cheung (2007). Please refer to §2 for further details on Cheung's classification.

- (103) 佢行咗入嚟/去(睡房)。
 Keoi⁵ haang⁴ zo² jap⁶ lai⁴/heoi³ (seoi⁶fong²).
 s/he walk ASP enter come/go bedroom
 ‘S/he walked into here/there (into the bedroom).’
- (104) 佢跑咗開嚟/去(張檯度)。
 Keoi⁵ paau² zo² hoi¹ lai⁴/heoi³ (zoeng¹ toi² dou⁶).
 s/he run ASP depart come/go CL table LOC
 ‘S/he ran away to here/there (to the table).’
- (105) 佢企咗埋嚟/去(張檯度)。
 Keoi⁵ kei⁵ zo² maai⁴ lai⁴/heoi³ (zoeng¹ toi² dou⁶).
 s/he stand ASP approach come/go CL table LOC
 ‘S/he stood close to here/there (to the table).’
- (106) 佢行咗過嚟/去(辦公室)。
 Keoi⁵ haang⁴ zo² gwo³ lai⁴/heoi³ (baan⁶gung¹sat¹).
 s/he walk ASP pass come/go office
 ‘S/he walked over here/there (to the office).’
- (107) 佢行到嚟/去學校。⁴⁴
 Keoi⁵ haang⁴ dou³ lai⁴/heoi³ (hok⁶haau⁶).
 s/he walk arrive come/go school
 ‘S/he arrived here/there (at the school).’
- (108) 佢游咗翻嚟/去(岸邊)。
 Keoi⁵ jau⁴ zo² faan¹ lai⁴/heoi³ (ngon⁶bin¹).
 s/he swim ASP return come/go shore side
 ‘S/he swam back here/there (to the shore).’

In the above examples, the subjects bear the role of theme, whose movements are of concern, whereas the optional objects indicate the destinations of the movements. While the non-deictic complements provide information regarding the spatial configurations of the movements, *lai⁴* 嚟 ‘to come’ and *heoi³* 去 ‘to go’ indicate whether the movement is toward or away from the speaker. Co-event verbs are used to specify the manner in which the movements are carried out and can be omitted.

⁴⁴ It is unnatural to insert *zo²* 咗 between the verb *haang⁴* 行 ‘to walk’ and the double directional complement. However, based on the situations observed in other double directional complements, it will be assumed that *dou³ lai⁴/heoi³* 到嚟/去 arrive-come/go ‘to arrive here/there’ and the verb do not form a compound.

As mentioned above, *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’ have an implied speaker orientation point while the non-deictic directional verbs lack it. In the former, unless the location of the speaker is stressed, a locative object, and more specifically one that denotes the goal of the movement, need not appear after the deictic directional complement. In the latter, the orientation point is defined in relation to a physical location which is indicated by a locative object. As a result, the locative object of a non-deictic directional complement, in general, cannot be omitted. With the presence of *lai*⁴ 嚟 ‘to come’ or *heoi*³ 去 ‘to go’ as the last member in a compound directional complement, a locative object becomes optional after the compound directional complement.

The following examples illustrate the use of triple directional complements in self-agentive motion events.

- (109) 佢跑咗翻上嚟/去(三樓)。
 Keoi⁵ paau² zo² faan¹ soeng⁵ lai⁴/heoi³ (saam¹ lau²).
 s/he run ASP return ascend come/go third floor
 ‘S/he ran back up here/there (to the third floor).’
- (110) 佢跑咗翻落嚟/去(三樓)。
 Keoi⁵ paau² zo² faan¹ lok⁶ lai⁴/heoi³ (saam¹ lau²).
 s/he run ASP return descend come/go third floor
 ‘S/he ran back down here/there (to the third floor).’
- (111) 佢行咗翻出嚟/去(客廳)。
 Keoi⁵ haang⁴ zo² faan¹ ceot¹ lai⁴/heoi³ (haak³teng¹).
 s/he walk ASP return exit come/go living room
 ‘S/he walked back out here/there (to the living room).’
- (112) 佢行咗翻入嚟/去(睡房)。
 Keoi⁵ haang⁴ zo² faan¹ jap⁶ lai⁴/heoi³ (seoi⁶fong²).
 s/he walk ASP return enter come/go bedroom
 ‘S/he walked back in here/there (to the bedroom).’
- (113) 佢行咗翻開嚟/去(張檯度)。
 Keoi⁵ haang⁴ zo² faan¹ hoi¹ lai⁴/heoi³ (zoeng¹ toi² dou⁶).
 s/he walk ASP return depart come/go CL table LOC
 ‘S/he walked away back here/there (to the table).’
- (114) 佢企咗翻埋嚟/去(張檯度)。
 Keoi⁵ kei⁵ zo² faan¹ maai⁴ lai⁴/heoi³ (zoeng¹ toi² dou⁶).
 s/he stand ASP return approach come/go CL table LOC
 ‘S/he stood back close to here/there (to the table).’

- (115) 佢行咗翻過嚟/去(辦公室)。
 Keoi⁵ haang⁴ zo² faan¹ gwo³ lai⁴/heoi³ (baan⁶gung¹sat¹).
 s/he walk ASP return pass come/go office
 ‘S/he walked back over here/there (to the office).’

The Type 3 directional complement *faan*¹ 翻 ‘to return’ is added to the double directional complements to derive the triple directional complements, indicating that the movement is oriented back to the location from which the theme subjects have moved away at an earlier time; the Type 2 directional complements provide information regarding the spatial configurations of the movements; and the Type 1 complements *lai*⁴ 嚟 ‘to come’ and *heoi*³ 去 ‘to go’ define the direction of the movement in relation to the location of the speaker, appearing in the outermost position. The co-event verbs in the above self-agentive motion sentences describe the manner in which the movements are carried out.

6.2 Agentive motion events

In an agentive motion event, the co-event verb refers to the cause instigated by the agent subject, which leads to the change of location of the theme object, while the compound directional complement specifies the direction of the movement. The following examples illustrate the use of double directional complements in agentive motion events.⁴⁵

⁴⁵ When a theme object is present, it appears between *hei*² 起 ‘to rise’ and *lai*⁴ 嚟 ‘to come’, e.g. *ning*¹ *hei*² *bun*² *syu*¹ *lai*⁴ 擰起本書嚟 pick-rise-CL-book-come ‘to pick up the book’, rather than after the main verb as in the cases of other double directional complements, e.g. *ning*¹ *bun*² *syu*¹ *soeng*⁵ *lai*⁴ 擰本書上嚟 pick-CL-book-ascend-come ‘to pick up the book’. On the other hand, a reviewer has pointed out that sentences in which *hei*² *lai*⁴ 起嚟 ‘to rise and to come’ occurs after an object such as *pou*² *zek*³ *gung*¹ *zai*² *hei*² *lai*⁴ 抱隻公仔起嚟 carry-CL-stuffed animal-rise-come ‘to lift up the stuffed animal’ should not be ruled out. However, the occurrence of a locative object after *hei*² *lai*⁴ 起嚟 ‘to rise and to come’, i.e. *?pou*² *zek*³ *gung*¹ *zai*² *hei*² *lai*⁴ *toi*² *dou*⁶ 抱隻公仔起嚟檯度 carry-CL-stuffed animal-rise-come-table-LOC ‘to lift the stuffed animal up to the table’, sounds awkward. In contrast, the occurrence of a locative object after a double directional complement is allowed, e.g. *ning*¹ *bun*² *syu*¹ *soeng*⁵ *lai*⁴ *toi*² *dou*⁶ 擰本書上嚟檯度 pick-CL-book-ascend-come-table-LOC ‘to pick the book up here to the table’. Since *hei*² *lai*⁴ 起嚟 ‘to rise and to come’ exhibits properties that are different from double directional complements, it is highly likely that *hei*² *lai*⁴ 起嚟 ‘to rise and to come’ is not a double directional complement and is excluded here. Please refer to Yiu (2008) for a discussion on the comparison between *hei*² *lai*⁴ 起嚟 ‘to rise and to come’ and double directional complements.

- (116) 佢搬咗啲貨上嚟/去(貨架)。
 Keoi⁵ bun¹ zo² di¹ fo³ soeng⁵ lai⁴/heoi³ (fo³ gaa²).
 s/he move ASP CL goods ascend come/go (goods shelf)
 ‘S/he moved the goods up here/there (onto the shelf).’
- (117) 佢搬咗啲貨落嚟/去(樓下)。
 Keoi⁵ bun¹ zo² di¹ fo³ lok⁶ lai⁴/heoi³ (lau⁴ haa⁶).
 s/he move ASP CL goods descend come/go (downstairs)
 ‘S/he moved the goods down here/there (to downstairs).’
- (118) 佢揸咗架船出嚟/去(海中心)。
 Keoi⁵ zaa¹ zo² gaa³ syun⁴ ceot¹ lai⁴/heoi³ (hoi² zung¹ sam¹).
 s/he drive ASP CL ship exit come/go (sea center)
 ‘S/he sailed the ship out here/there (to the deep water).’
- (119) 佢搬咗啲貨入嚟/去(貨倉)。
 Keoi⁵ bun¹ zo² di¹ fo³ jap⁶ lai⁴/heoi³ (fo³ coeng¹).
 s/he move ASP CL goods enter come/go (warehouse)
 ‘S/he moved the goods into here/there (to the warehouse).’
- (120) 佢泊咗架船開嚟/去(碼頭)。
 Keoi⁵ paak³ zo² gaa³ syun⁴ hoi¹ lai⁴/heoi³ (maa⁵ tau⁴).
 s/he anchor ASP CL ship depart come/go (pier)
 ‘S/he anchored the ship over here/there (at the pier).’
- (121) 佢泊咗架船埋嚟/去(碼頭)。
 Keoi⁵ paak³ zo² gaa³ syun³ maai⁴ lai⁴/heoi³ (maa⁵ tau⁴).
 s/he anchor ASP CL ship approach come/go (pier)
 ‘S/he anchored the ship close to here/there (to the pier).’
- (122) 佢揸咗架巴士過嚟/去(車房)。
 Keoi⁵ zaa¹ zo² gaa³ baa¹ si² gwo³ lai⁴/heoi³ (ce¹ fong⁴).
 s/he drive ASP CL bus pass come/go (garage)
 ‘S/he drove the bus over here/there (to the garage).’
- (123) 佢還咗本書翻嚟/去(圖書館)。
 Keoi⁵ waan⁴ zo² bun² syu¹ faan¹ lai⁴/heoi³ (tou⁴ syu¹ gun²).
 s/he return ASP CL book return come/go (library)
 ‘S/he returned the book back here/there (to the library).’

In the above examples, the co-event verb is followed by the theme object which is, in turn followed by a double directional complement and an optional locative object.

The following examples show the use of triple directional complements in agentive motion events.

- (124) 佢搬咗啲貨翻上嚟/去(貨架)。
 Keoi⁵ bun¹ zo² di¹ fo³ faan¹ soeng⁵ lai⁴/heoi³ (fo³ gaa²).
 s/he move ASP CL goods return ascend come/go (goods shelf)
 ‘S/he moved the goods back up here/there (onto the shelf).’
- (125) 佢搬咗啲貨翻落嚟/去(樓下)。
 Keoi⁵ bun¹ zo² di¹ fo³ faan¹ lok⁶ lai⁴/heoi³ (lau⁴ haa⁶).
 s/he move ASP CL goods return descend come/go (downstairs)
 ‘S/he moved the goods back down here/there (to downstairs).’
- (126) 佢揸咗架船翻出嚟/去(海中心)。
 Keoi⁵ zaa¹ zo² gaa³ syun⁴ faan¹ ceot¹ lai⁴/heoi³ (hoi² zung¹ sam¹).
 s/he drive ASP CL ship return exit come/go (sea center)
 ‘S/he sailed the ship back out here/there (to the deep water).’
- (127) 佢搬咗啲貨翻入嚟/去(貨倉)。
 Keoi⁵ bun¹ zo² di¹ fo³ faan¹ jap⁶ lai⁴/heoi³ (fo³ coeng¹).
 s/he move ASP CL goods return enter come/go (warehouse)
 ‘S/he moved the goods back into here/there (to the warehouse).’
- (128) 佢泊咗架船翻開嚟/去(碼頭)。
 Keoi⁵ paak³ zo² gaa³ syun⁴ faan¹ hoi¹ lai⁴/heoi³ (maa⁵ tau⁴).
 s/he anchor ASP CL ship return depart come/go (pier)
 ‘S/he anchored the ship back over here/there (at the pier).’
- (129) 佢泊咗架船翻埋嚟/去(碼頭)。
 Keoi⁵ paak³ zo² gaa³ syun⁴ faan¹ maa⁴ lai⁴/heoi³ (maa⁵ tau⁴).
 s/he anchor ASP CL ship return approach come/go (pier)
 ‘S/he anchored the ship back close to here/there (at the pier).’
- (130) 佢揸咗架車翻過嚟/去(車房)。
 Keoi⁵ zaa¹ zo² gaa³ baa¹ si² faan¹ gwo³ lai⁴/heoi³ (ce¹ fong⁴).
 s/he drive ASP CL bus return pass come/go (garage)
 ‘S/he drove the car back over here/there (to the garage).’

The structures exhibited by compound directional complements in sentences that encode self-agentive and agentive motion events are schematically represented in Figure 4 below:

$$\begin{array}{l}
 \text{Self-agentive} \left\{ \begin{array}{l} [\text{Theme subject} + [\text{VP} [\text{Main verb} + \text{ASP}] + [\text{Compound directional} \\ \text{complement} + (\text{Locative object})]] \end{array} \right. \\
 \\
 \text{Agentive} \left\{ \begin{array}{l} [\text{Agent subject} + [\text{VP} [[\text{Main verb} + \text{ASP}] + [\text{Theme object}]] + \\ [\text{Compound directional complement} + (\text{Locative object})]] \end{array} \right.
 \end{array}$$

Figure 4: Structures exhibited by compound directional complements in self-agentive and agentive motion sentences

Figure 4 shows that in both types of motion events, the compound directional complement and the main verb do not form a compound, a possibility that exists when simple directional complements are used to express path in agentive motion events (cf. Figure 3). As a result, an aspectual suffix follows immediately after the main verb and before the compound directional complement.

Sections 3-6 have provided a detailed description of the characteristics of directional verbs and the use of directional verbs and directional complements (including both simple and compound ones) in Cantonese. It is demonstrated that Cantonese exhibits both characteristics of verb-framed and satellite-framed languages in encoding path in the verb or in the satellite. In the next section, two issues will be addressed. First, how does Cantonese fit into Talmy's typology of motion events? Second, how are the differences exhibited by Cantonese and Mandarin accounted for?

7. Discussion

Lamarre (2003) notes that one major difference between Chinese and verb-framed languages such as Japanese and French is that an agentive motion event is expressed by a combination of a co-event verb and a path satellite in Chinese but by a single path verb in Japanese and French.

- (131) ... doraibuwei ni kuruma-o ireta
garage at car-ACC enter
'...drove the car into a garage...'

- (132) Je vais sortir la voiture du garage.
I will exit the car from-the garage
'I will drive the car out from the garage.'

The Japanese path verb *ireru* 'to enter' in (131) and the French path verb *sortir* 'to exit' in (132) express the meaning of causing X, i.e. the car, to move in a certain direction, i.e. into the garage and out from the garage. However, path verbs such as *jìn* 進 'to enter' in

Chinese lack such an agentive use (cf. (133)). Instead, a combination of a co-event verb and a directional complement such as *fàng* 放 ‘to put’ and *jìn* 進 ‘to enter’ is used (cf. (134)).

- (133) *他進了信在信封裡。
 Tā jìn le xìn zài xìnfēng li.
 he enter ASP letter at envelope inside
 ‘He put the letter into the envelope.’
- (134) 他把信放進了信封裡。
 Tā bǎ xìn fàng jìn le xìnfēng li.
 he DM letter put enter ASP envelope inside
 ‘He put the letter into the envelope.’

In contrast, Cantonese stands out from Mandarin in having a group of path verbs which exhibits the agentive use.

- (135) 佢入咗封信嘅信封。
 Keoi⁵ jap⁶ zo² fung¹ seon³ hai² seon³fung¹.
 s/he enter ASP CL letter at envelope
 ‘S/he put the letter into the envelope.’
- (136) 佢放咗封信入信封。
 Keoi⁵ fong³ zo² fung¹ seon³ jap⁶ seon³fung¹.
 s/he put ASP CL letter enter envelope
 ‘S/he put the letter into the envelope.’

Examples (135) and (136) illustrate that Cantonese has an option of encoding path in a main verb or in a directional complement in agentive motion events.

Table 6 below summarizes the ways in which path is expressed in self-agentive and agentive motion events in Cantonese and Mandarin.

Table 6: Expression of path in self agentive and agentive motion events in Cantonese and Mandarin

	Cantonese		Mandarin	
	Verb-framed	Satellite-framed	Verb-framed	Satellite-framed
Self-agentive motion events	✓ (佢入咗閘)	✓ (佢行咗入房)	✓ (你回來)	✓ (他走回來了)
Agentive motion events	✓ (佢入咗封信嘅信封)	✓ (佢放咗封信入信封)		✓ (他把信放進了信封裡)

In Table 6, it is shown that both Cantonese and Mandarin can express path in a verb or in a directional complement in self-agentive motion events. The two dialects, however, differ significantly in encoding path in agentive motion events. While Cantonese can use a single directional verb or a combination of a co-event verb and a directional complement to denote an agentive motion event, only the latter is allowed in Mandarin. The question that immediately arises is why directional verbs in Cantonese exhibit an agentive use but those in Mandarin do not.

Scholars (cf. Li 1993, Xu 2006, Ma 2008, Peyraube 2009) have shown that Classical Chinese underwent a typological change from a verb-framed language to a satellite-framed language. For example, *chū* 出 ‘to exit’ in Classical Chinese could be used to denote path in self-agentive and agentive motion events, uses which are identical to those observed in directional verbs in Cantonese.

- (137) 既醉而出.... (*Shījīng* 詩經 220)⁴⁶
 Jì zuì ér chū...
 already drunk and go-out
 ‘If they, when drunk, go out (retire)...’
- (138) 我出我車.... (*Shījīng* 詩經 168)
 Wǒ chū wǒ jū...
 we bring-out our carriage
 ‘We bring out our carriages...’

Example (137) denotes a self-agentive motion event and *chū* 出 ‘to exit’ indicates the movement undergone by the subject. Example (138) refers to an agentive motion event and *chū* 出 ‘to exit’ expresses the meaning of causing the object *wǒ jū* 我車 ‘our carriages’ to move from the inside to the outside. The striking similarity between Cantonese and Classical Chinese in terms of the use of directional verbs in agentive motion events suggests that although both are descendants of the same ancestral language, Cantonese has retained more characteristics of Classical Chinese than Mandarin. In particular, while the use of directional verbs in self-agentive motion events has been preserved in both dialects, the corresponding agentive use has been kept in Cantonese but has become obsolete in Mandarin. As a result, the verb complement construction (such as *gǎn chū* 趕出 ‘to expel’) is the only way used in Mandarin to express the agentive meaning originally conveyed by directional verbs in Classical Chinese, an option which is still available in Cantonese. The picture which emerges from the above

⁴⁶ Examples (137) and (138) are taken from Xu (2006:65), according to whom the pronunciations of 出 are different when expressing a self-agentive event and an agentive event, i.e. *chū* vs. *chūi*.

discussion is that Classical Chinese, as claimed by scholars, was a verb-framed language and it underwent a typological shift to a satellite-framed language. Being descendants of Classical Chinese, Cantonese has progressed slower than Mandarin in becoming a satellite-framed language. It is further noticed that both Cantonese and Classical Chinese are largely monosyllabic while Mandarin is increasingly disyllabic,⁴⁷ a contrast which seems to be correlated with the availability of the agentive use. For example, some monosyllabic adjectives in Cantonese can also be used as a main verb denoting change of state in agentive events such as *gon¹ zo² di¹ saam¹* 乾咗啲衫 dry-ASP-CL-shirt ‘dried the clothes’. However, such an agentive use is not observed in disyllabic adjectives such as **gon¹ zeng⁶ go³ dei⁶* 乾淨個地 clean-CL-floor ‘to clean the floor’. Furthermore, one of the factors that contributed to the rise of the verb complement construction in Classical Chinese was the disappearance of the causative use of verbs (cf. Mei 1991, Jiang 2000), a process during which causation, which was originally expressed by a monosyllabic element, has gradually been conveyed by a disyllabic complex predicate. If our speculation that syllabicity correlates with the causative use turns out to be true, it would help explain why Mandarin – which is becoming disyllabic – lacks it, while Cantonese – which is basically monosyllabic – exhibits it.

Croft et al. (2010) illustrate that the languages they have examined (including Bulgarian, Japanese, Icelandic, Dutch, and English) use more than one of Talmy’s types to encode complex events. For example, Japanese, a verb-framed language according to Talmy (2000b), uses a number of strategies to express directed motion events, including the satellite framing construction, compounding and coordination.

- (139) *Watashi wa ie ni kake-konda.*⁴⁸
 I TOP house to run-go.into:PST
 ‘I ran into the house.’ (Croft et al. 2010:218, ex.(79a))
- (140) *Bin ga doukutsu no naka ni ukande-itta.*
 bottle NOM cave GEN inside to float-go:PST
 ‘The bottle floated to the inside of the cave.’ (Croft et al. 2010:218, ex.(80a))

⁴⁷ Masini (1993:121) notes that in (1649) *Shuihuzhuan* 水滸傳, (1765) *Hongloumeng* 紅樓夢 and (1840) *Ernu yingxiong zhuan* 兒女英雄傳, the ratio between monosyllables and polysyllables is approximately 1:1. The ratio stays more or less the same in (1935) *Luotuo Xiangzi* 駱駝祥子, but has increased drastically in the literary works written after 1949, in which the ratio between monosyllables and polysyllables is 14.2% and 85.8% (of which 73.7% are disyllables).

⁴⁸ Croft et al. (2010) note that a *te*-compound *hashitte-haitta* ‘run-went into’ can also be used in this example. However, the one with an *i*-compound is more pervasive and more natural.

- (141) *Watashi wa taru o korogashi te chikashitsu ni ireta.*
I TOP barrel ACC roll and basement to put.into:PST
'I rolled the barrel into the basement.' (Croft et al. 2010:219, ex.(87))

Moreover, Croft et al. propose adding two new types, i.e. symmetrical framing⁴⁹ and double framing languages, to Talmy's two-way classification. Symmetrical framing is proposed to encompass serial verb languages in which both event and frame are expressed in forms that may occur as predicates on their own. It further consists of three sub-types: serial strategy, compounding, and coordination. Mandarin is used by the authors to illustrate the use of the serial strategy to express the core schema and the co-event. For example,

- (142) 他們跑出來了。
Tāmen pǎo chū lái le.
they run exit come SFP
'They came running out.'

In the above example, the verb *pǎo* 跑 'to run' expresses manner while the directional complements *chū* 出 'to exit' and *lái* 來 'to come' denote the non-deictic and the deictic path. All of them can occur as predicates on their own, as illustrated in the following examples:

- (143) 他們還在跑。
Tāmen hái zài pǎo.
they still run
'They are still running.'
- (144) 他出了教室。
Tā chū le jiàoshì.
he exit ASP classroom
'He exited from the classroom.'
- (145) 他來了。
Tā lái le.
he come SFP
'He came.'

⁴⁹ Symmetrical framing includes the use of two single verbs in serial verb languages, the use of a compound verb in bipartite verb languages and the use of two preverbs in Jaminjungan languages. It is equivalent to the equipollently framing proposed by some scholars (cf. Slobin & Hoiting 1994, Slobin 2004, Zlatev & Yangklang 2004).

According to Croft et al. (2010), compounding is more grammaticalized than the serial strategy. The forms that express the core schema and the co-event in the former are morphologically bound or more tightly integrated than those in the latter. The compounding strategy is used in Kiowa. For example,

- (146) ð:pàl sép cándé-à: nò pàhí: bà-t^háday.
 nearer rain reach-come and.DS clearly get.wet.PF
 ‘The rain is coming closer and it is clear we shall get wet.’ (Croft et al. 2010:207, ex.(27))

In the above example, the path component is expressed by *cánde* ‘to reach’ and the deictic component by *-à:* ‘to come’, and together the two form a compound.

The third sub-type of symmetrical framing is coordination. Amele uses a combination which involves the path component and the deictic component to express a complex event. For example,

- (147) Cois hina gad cesel-i nu-ug-a.
 OK 2SG may return-PRED(SS) go-2SG-IMP
 ‘Alright you can go home [back] now.’ (Roberts 1987:102 quoted in Croft et al. 2010:207, ex.(28))

The other new type proposed is the double framing construction, as illustrated by the following Russian example, in which the path and the framing expressions are expressed by the satellite, i.e. *iz* ‘from’, and by part of the path verb, i.e. *vy* ‘out’.

- (148) Ja vy-bežal iz doma.
 I out-ran from house:GEN
 ‘I ran out of the house.’ (Talmy 1985:105 quoted in Croft et al. 2010:208, ex.(30))

Croft et al. further point out that the different strategies adopted by languages for the expression of motion events appear to represent a grammaticalization path of morphosyntactic integration which reflects event integration. The following two grammaticalization paths which end in univerbation of the event and the frame morphemes emerge from their study.

- (149) Coordination > Serialization > Satellite framing > Verb Satellite fusion
 (150) Coordination > Verb framing > Verb Adverb fusion

The strategy/strategies on the right represent(s) a higher degree of morphosyntactic integration of elements than that/those on the left. Dutch and Japanese are used to illustrate the two paths.

As noted by the authors, it is not clear whether the directional satellites of Indo-European were originally serial verbs. However, there is evidence which shows that the satellites are attracted to the verb, leading to the fusion of both event and frame in a single predicate, as illustrated by the following examples from Dutch.

(151) De fles dreef de grot in.
the bottle floated the cave in
'The bottled floated into the cave.' (Croft et al. 2010:227, ex.(97))

(152) De fles is de grot in-gedreven.
the bottle is the cave in-floated
'The bottle has floated into the cave.' (Croft et al. 2010:227, ex.(98))

In 'in' in (151) is a path satellite in the simple past or present of a main clause without an auxiliary. In (152), when the auxiliary *is* 'is' is present, the path expression is prefixed to the manner verb *gedreven* 'to float', i.e. *in-gedreven* 'to float in'.

The following examples from Japanese demonstrate the grammaticalization path in (150). Unlike Spanish, Japanese does not express manner or process in an adverbial verb. As a result, the process directly leads via verb framing constructions to verbal compound constructions.

Example (153) below illustrates the strategy of coordination:

(153) Kanojo wa arui te douro o yokogitta.
she TOP walk and street ACC cross:PST
'She walked and crossed the street.' (Croft et al. 2010:229, ex.(109a))

Example (153) represents a self-agentive motion event, in which the verbs *aruku* 'to walk' and *yokogiru* 'to cross' are linked by the conjunction *te* 'and'.

Example (154) shows the strategy of compounding:

(154) Kanojo wa douro o aruite-yokogitta.
she TOP street ACC walk-cross:PST
'She walked across the street.' (Croft et al. 2010:229, ex.(109b))

The verbs *aruku* ‘to walk’ and *yokogiru* ‘to cross’ in (154) are fused together, becoming a compound.⁵⁰

The grammaticalization path depicted in (149) is supported by the development of Chinese. Scholars (cf. Wang 1980[2001], Mei 1991, Jiang 2000, Peyraube 2009, Zhang & Li 2009) have suggested that the verb complement construction was derived from the serial verb construction, which in turn originated from the coordinate construction. For example, the phrase *qū ér chū* 趨而出 ‘to move forward and to exit’ is a coordinate structure in which the verbs *qū* 趨 ‘to move forward’ and *chū* 出 ‘to exit’ are linked by the conjunction *ér* 而 ‘and’. Later on, the coordinate verbs were reanalyzed as a serial verb structure and then a verb complement structure. In the latter two stages, *ér* 而 ‘and’ could no longer be inserted between the verbs. Much discussion has been devoted to the timeframe during which Classical Chinese shifted from a verb-framed language to a satellite-framed language. In contrast, little attention has been given to the last stage in which the verb and the satellite are fused together, an issue which we now turn to.

As noted by Croft et al. (2010), the difference between the serial strategy and compounding is that the former is not as morphologically bound or at least less tightly integrated than the latter. It is pointed out in §5.2 that the aspectual suffix *zo*² 咗 in Cantonese appears after the verb and the complement when the complement denotes path in agentive motion events (cf. (155)).

- (155) 佢射入咗一個波。
 Keoi⁵ se⁶ jap⁶ zo² jat¹ go³ bo¹.
 s/he shoot enter ASP one CL ball
 ‘S/he shot in one ball.’

In contrast, *zo*² 咗 occurs after the verb and before the directional complement in sentences that express self-agentive motion events (cf. (156)-(158)).

- (156) 佢行咗入課室。
 Keoi⁵ haang⁴ zo² jap⁶ fo³sat¹.
 s/he walk ASP enter classroom
 ‘S/he walked into the classroom.’

⁵⁰ It seems that the contrast between the coordinate structure in (153) and the compound structure in (154) can be differentiated by the insertion of an object between the two verbs. In (153), *douro* ‘the street’ appears between the two verbs but it occurs before the two verbs in (154).

- (157) 佢行咗入嚟課室。
Keoi⁵ haang⁴ zo² jap⁶ lai⁴ fo³sat¹.
s/he walk ASP enter come classroom
'S/he walked into the classroom here.'
- (158) 佢行咗翻入嚟課室。
Keoi⁵ haang⁴ zo² faan¹ jap⁶ lai⁴ fo³sat¹.
s/he walk ASP return enter come classroom
'S/he walked back into the classroom here.'

The following Mandarin example shows that the aspectual suffix *le* 了 appears after the verb and the complement in agentive motion sentences.

- (159) 他踢進了一個球。
Tā tī jìn le yí ge qiú.
he kick enter ASP one CL ball
'He kicked in a ball.'

Similarly, *le* 了 occurs after the verb and the complement in the following self-agentive motion sentence.

- (160) 他走進了教室。⁵¹
Tā zǒu jìn le jiàoshì.
he walk enter ASP classroom
'He walked into the classroom.'

⁵¹ Mandarin does not allow the occurrence of a locative object after a compound directional complement, e.g. **tā zǒu shàng lái sān lóu* 他走上來三樓 he-walk-ascend-come-three-floor 'He walked up here to the third floor.' It seems that the ability of a directional verb, including both deictic and non-deictic directional verbs, to take a locative object in some dialects such as Pekingese and Wu has disappeared. Instead, *dào* 到 'to arrive' is much more frequently used in these dialects to introduce a postverbal locative object. In contrast, both deictic and non-deictic directional verbs in dialects such as Cantonese and Min can still have a locative object. The above contrast exemplified in the dialects might be a result of the change of argument structure. In particular, in some dialects, the argument structure of directional verbs has undergone structural change, and as a result, the directional verbs in these dialects can no longer take a locative object; while in other dialects, the argument structure of directional verbs has not undergone any change and the directional verbs can still have a locative object. Please refer to Lamarre (2009b) and Liu (2003) for a relevant discussion on the use of *dào* 到 'to arrive' to introduce a locative object in some Chinese dialects.

Additional evidence which shows that the relationship between the co-event verb and the directional complement in Cantonese is rather loose is shown by the possibility of separating the verb and the directional complement.⁵²

- (161) 佢踢入咗一個波。
 Keoi⁵ tek³ jap⁶ zo² jat¹ go³ bo¹.
 s/he kick enter ASP one CL ball
 ‘S/he kicked in a ball.’
- (162) 佢踢咗一個波入龍門。
 Keoi⁵ tek³ zo² jat¹ go³ bo¹ jap⁶ lung⁴mun⁴.
 s/he kick ASP one CL ball enter goal
 ‘S/he kicked a ball into the goal.’

While *jap*⁶ 入 ‘to enter’ in (161) indicates the resultant state of the object *jat*¹ *go*³ *bo*¹ 一個波 ‘a ball’, i.e. its location in the inside of an unspecified location, it indicates the inward movement undergone by the object and introduces the goal object *lung*⁴*mun*⁴ 龍門 ‘the goal’ in (162).

It is further observed that it is possible for a compound directional complement to appear after the main verb and before the theme object in Mandarin.

- (163) 他踢進來一個球。
 Tā tī jìn lái yí ge qiú.
 he kick enter come one CL ball
 ‘He kicked a ball into here.’
- (164) 他踢進一個球來。
 Tā tī jìn yí ge qiú lái.
 he kick enter one CL ball come
 ‘He kicked a ball into here.’
- (165) 踢一個球進來！
 Tī yí ge qiú jìn lái!
 kick one CL ball enter come
 ‘Kick a ball into here!’

⁵² Please refer to §5.2 for more examples on the alternation between verb-directional complement-object and verb-object-directional complement-locative object.

The compound directional complement *jìn lái* 進來 ‘to enter and to come’ occurs after the verb and before the object in (163), but after both the verb and the object in (165). In (164), the object *yí ge qiú* 一個球 ‘a ball’ is inserted between *jìn* 進 ‘to enter’ and *lái* 來 ‘to come’.⁵³ Among the three word order patterns, only the one displayed in (165) is allowed in Cantonese.

(166) *佢踢入嚟一個波。

Keoi⁵ tek³ jap⁶ lai⁴ jat¹ go³ bo¹.
 s/he kick enter come one CL ball
 ‘S/he kicked a ball into here.’

(167) *佢踢入一個波嚟。

Keoi⁵ tek³ jap⁶ jat¹ go³ bo¹ lai⁴.
 s/he kick enter one CL ball come
 ‘S/he kicked a ball in here.’

(168) 佢踢一個波入嚟。

Keoi⁵ tek³ jat¹ go³ bo¹ jap⁶ lai⁴.
 s/he kick one CL ball enter come
 ‘S/he kicked a ball in here.’

Zhang (1991) points out that compound directional complements have emerged in the history of the standard language in the following chronological order: Stage I: V + O + DC + DC > Stage II: V + DC + O + DC > Stage III: V + DC + DC + O. While Mandarin has gone through all three stages, Cantonese is still lagging behind at Stage I. The contrasts between Cantonese and Mandarin in simple as well as compound directional complements suggest that the verb complement construction in Mandarin is more grammaticalized than that in Cantonese. Both simple and compound directional complements and the main verb in Mandarin form a compound. In contrast, only simple directional complements and the main verb have undergone the univerbation process when expressing agentive motion events in Cantonese. In all other cases, the simple and the compound directional complements have yet to be fused together in Cantonese.

⁵³ Please refer to Zhang & Fang (1996) for a detailed discussion on the use of the three word orders exhibited by compound directional complements in Mandarin. Thanks to the reviewer for drawing my attention to the fact that in Northern Mandarin, the use of V + O + DC + DC is restricted to the irrealis mood. A similar point is also made in Zhang & Fang (1996). Moreover, according to them, V + DC + DC + O in general is interpreted as a declarative sentence while V + DC + O + DC can be interpreted as a declarative sentence or an imperative sentence.

Table 7 below summarizes the integration of the verb and the directional complement (including simple and compound directional complements) in self-agentive and agentive motion events in Cantonese and Mandarin.

Table 7: Integration of the verb and the directional complement in self-agentive and agentive motion events in Cantonese and Mandarin⁵⁴

	Cantonese	Mandarin
Simple directional complement		
● Self-agentive	✗	✓
● Agentive	✓	✓
Compound directional complement		
● Self-agentive	✗	—
● Agentive	✗	✓

In Table 7, it is demonstrated that Mandarin can use compounding to express path in both self-agentive and agentive motion events whether a simple or a compound directional complement is involved; while Cantonese might use compounding to encode path only in agentive motion events that involve simple directional complements. All in all, Mandarin has progressed much further on the grammaticalization path than Cantonese in combining the verb and the satellite together.

In §5.2, it is illustrated that two word-order patterns are exhibited in sentences that denote agentive motion events in Cantonese. Figure 3 is repeated below as Figure 5:

$$\text{Agentive} \begin{cases} \text{(i):} & \left\{ \begin{array}{l} [\text{Agent subject} + [\text{VP} [\text{Main verb} + \text{Directional complement} + z\text{o}^2 \text{咗}]] \\ + [\text{Theme object}]] \end{array} \right\} \text{ OR} \\ \text{(ii):} & \left\{ \begin{array}{l} [\text{Agent subject} + [[\text{VP} [\text{Main verb} + z\text{o}^2 \text{咗}] + [\text{Theme object}]] + \\ [\text{Directional complement} + \text{Locative object}]] \end{array} \right\} \end{cases}$$

Figure 5: Two word-order patterns exhibited in agentive motion sentences

While (i) illustrates that the main verb and the directional complement have been fused together as a compound, taking one theme object, (ii) shows the serial structure in which the main verb and the directional complement have their own object. The serial strategy is not as morphologically bound or at least less tightly integrated than compounding according to Croft et al. (2010). The question is how (i) is derived from (ii), an issue which is to be addressed below with data from early Cantonese, the Cantonese language spoken in the 19th and the early 20th centuries.

⁵⁴ In Table 7, ‘✓’ indicates that the integration of the verb and the complement is possible; ‘✗’ means that the integration is not possible; and ‘—’ means the integration is not relevant as a locative object cannot follow a compound directional complement in Mandarin.

- (169) 放個吊桶落井
 fong³ go³ diu³ tung² lok⁶ zeng²
 put CL bucket descend well
 ‘Let the bucket down into the well.’ (Bridgman 1841)
- (170) 放落啲野
 fong³ lok⁶ di¹ je⁵
 put descend CL thing
 ‘to put the things down’ (O’Melia 1941)
- (171) 嗰啲嘢放落檯上
 go² di¹ je⁵ fong³ lok⁶ toi² soeng⁶
 that CL thing put descend table LOC
 ‘to drop those things down on the table’ (O’Melia 1941)
- (172) 放嗰啲雞蛋落個隻籬處喇
 fong⁴ go² di¹ gai¹ daan² lok⁶ go² zek³ lo¹ cyu³ laa³
 put that CL eggs descend that CL basket LOC SFP
 ‘to put the eggs into the basket’ (Wisner 1927)
- (173) 我放落啲嘢喺你處
 ngo⁵ fong³ lok⁶ di¹ je⁵ hai² nei⁵ cyu³
 I put descend CL thing at your place
 ‘I put some things in your place.’ (O’Melia 1941)

Examples (169)-(173) represent the three stages the verb and the directional complement have to go through before they are fused together. Example (169) illustrates the first stage in which the verb *fong*³ 放 ‘to put’ and the directional complement *lok*⁶ 落 ‘to descend’ appear in a serial verb sentence, each taking its own object. The second stage is shown in (170)-(172), during which the verb and the directional complement are juxtaposed, taking only a theme object or a locative object (cf. (170)-(171)). However, the relationship between the verb and the directional complement is still rather loose and they can still be restructured as a serial verb construction, as illustrated in (172). Example (173) represents the final stage in which the verb and the directional complement are fused together as one unit, subcategorizing for a theme object, and the locative object is introduced by *hai*² 喺 ‘at’. During the univerbation process, the meaning of the directional complement has changed. *Lok*⁶ 落 in (170)-(172), for instance, does not denote a downward movement but emphasizes the resultant state after the downward movement, i.e. the location of the theme object after the movement. The three stages of the univerbation process can be summarized below:

- Stage I: the co-event verb and the directional complement take their own object, i.e. a theme object and a locative object; the directional complement expresses a path meaning (cf. (169))
- Stage II: the co-event verb and the directional complement are juxtaposed, taking either a theme object or a locative object; the directional complement denotes a resultative meaning (cf. (170)-(171), (173))
- Stage III: the co-event verb and the directional complement are fused together, subcategorizing for a theme object and the locative object is introduced by a preposition or another directional complement⁵⁵

During the fusion process, it is observed that the removal of the theme object from the position after the co-event verb and before the directional complement is necessary for the process to take place.

- (174) ...人擰燈嚟，豈係擠落斗下
 Jan⁴ ning¹ dang¹ lai⁴, hei² hai⁶ zai¹ lok⁶ dau² haa⁶
 man bring candle come why be put descend bushel below
 ‘Is a candle brought to be put under a bushel...’ (1872 *Make Chuan Fuyinshu*)
- (175) 呢三條手巾收埋櫃處...
 Nei¹ saam¹ tiu⁴ sau²gan¹ sau¹ maai⁴ gwai⁶ cyu³...
 these three CL handkerchief put approach wardrobe LOC
 ‘These three handkerchiefs, put in the wardrobe...’ (Fulton 1931)

In example (174), the noun *dang¹* 燈 ‘a candle’ is the object of both *ning¹* 擰 ‘to bring’ and *zai¹* 擠 ‘to put’. It appears in the first clause and is omitted in the second clause. In example (175), the object *nei¹ saam¹ tiu⁴ sau²gan¹* 呢三條手巾 ‘these three handkerchiefs’ is preposed to the sentence-initial position. The omission of the object in both examples makes possible the juxtaposition and the fusion of the verb and the directional complement. The omission of the object is also frequently observed in early Cantonese.

⁵⁵ This example from Denny (1874): *nei⁵ jau⁵ fong³ jap⁶ go² di¹ lok⁶ go² bun² syu¹ lai⁴ mou⁵ ne¹* you-have-put-enter-that-CL-descend-that-CL-book-SFP-have not-SFP 你有放入嗰啲落嗰本書嚟冇呢 ‘Did you insert that in the book?’, shows that after the co-event verb *fong³* 放 ‘to put’ and the directional complement *jap⁶* 入 ‘to enter’ are fused together, taking the theme object *go² di¹* 嗰啲 ‘that’, the directional complement *lok⁶* 落 ‘to descend’ is used to introduce the locative object *go² bun² syu¹* 嗰本書 ‘that book’.

Table 8: Number of tokens of presence and absence of theme object between the co-event verb and the directional complement

	上	落	出	入	埋	去
with a theme object	3	12	0	6	0	29
without a theme object	3	36	1	9	9	27

Table 8 shows the presence and the absence of the theme object after the co-event verb and before the directional complement in the Early Cantonese Tagged Database.⁵⁶ It is shown that for *soeng*⁵ 上 ‘to ascend’ and *heoi*³ 去 ‘to go’, the number of tokens of the presence and the absence of the theme object for the former is identical (3), whereas the number of tokens of the presence of a theme object for the latter is slightly higher than that of the absence of the theme object (29 vs. 27). In the remaining cases, the number of tokens of the absence of the theme object is higher than that of the presence of the theme object, especially in the cases of *lok*⁶ 落 ‘to descend’ and *maai*⁴ 埋 ‘to approach’. Table 8 illustrates that except for the cases of *soeng*⁵ 上 ‘to ascend’ and *heoi*³ 去 ‘to go’, the theme object is often omitted after the co-event verb and before the directional complement. As a result, the co-event verb and the directional complement can be juxtaposed, a pre-requisite which allows them to be further fused together.⁵⁷

8. Conclusion

This study has shown that the Cantonese directional verbs examined constitute a unique group, denoting movements with an inherently specified direction. They differentiate themselves from other verbs in the following aspects: (i) the expression of motion, (ii) the ability to take a locative object, and (iii) the potential to form compound directional complements. More importantly, some members of the group can be used to express path in agentive motion events, a use which is exemplified in verb-framed languages such as Japanese, French, and Classical Chinese, but which has rarely, if ever, been reported in other Chinese dialects. In expressing self-agentive motion events, both Cantonese and Mandarin exhibit the characteristics of verb-framed and satellite-framed

⁵⁶ Please refer to the following website for further details of the Early Cantonese Tagged Database: <http://pvs0001.ust.hk/WTagging/>

⁵⁷ Verbal attraction is a process during which units being part of or forming arguments of the predicate are attracted to the verb and the endpoint is reached when the relevant unit either becomes a verbal affix or merges entirely with the verb (cf. Heine & Reh 1984:50). For self-agentive motion events in which a theme object is not involved, the directional complement might simply be attracted to the verb, giving rise to the fusion of the co-event verb and the directional complement, as illustrated in the case in Mandarin.

languages in using a single directional verb or a combination of a co-event verb and a directional complement to encode path. The two dialects differ significantly in the representation of agentive motion events. In particular, Cantonese can use a single directional verb to express path in agentive motion events but Mandarin cannot. Scholars have argued that Classical Chinese was a verb-framed language and underwent a typological shift to a satellite-framed language. Such a change, however, did not happen overnight and modern Chinese dialects seem to have participated in the change at their own pace with some closer to the finishing line than others. That Cantonese has progressed slower than Mandarin in becoming a satellite-framed language coincides with the different stages of grammaticalization that the two dialects have undergone in developing the verb-complement construction. Specifically, the degree of integration of the verb and the complement is higher in Mandarin than in Cantonese.

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粵語中的趨向動詞： 類型學及歷史研究

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Talmy (1985, 2000b) 按照在位移事件中，路徑由動詞還是衛星來表達，把語言分成動詞框架和衛星框架語言。本文說明粵語利用趨向動詞和趨向補語來表達路徑，展示了兩類語言的特點。有學者認為漢語從古到今經歷了由動詞框架到衛星框架語言的類型轉變。從粵語和現代漢語的兩點差異，包括粵語可以用趨向動詞表達致移事件，而現代漢語卻不可以；動詞和趨向補語在粵語中的融合程度沒有現代漢語來得高；本文認為這些不同反映了兩個方言在類型轉變和語法化進程中處於不同階段。

關鍵詞：趨向動詞，粵語，位移事件的類型，語法化