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SVCs in disguise: the so-called "directional verb compounds" in Mandarin Chinese*

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Abstract
The so-called *directional verb compounds* (cf. Li & Thompson 1981: 58) or *directional constructions* in Mandarin Chinese, 'V1$_{displacement}$ V2$_{direction}$ *lái* (come)/ *qù* (go)', e.g. *bān chū lái* 'transport exit come' = 'bring out (towards the speaker)' are not compounds, but genuine object sharing serial verb constructions in Collins' (1997) sense. The different positions of the shared internal argument are derived by raising one, two or three verbs to *v*, each verb adjoining to *v* as closely as possible (*tucking in* à la Richards 1997), thus maintaining the relative order between the verbs (cf. Collins 2002). This analysis automatically predicts that the internal argument must follow the verb (sequence) bearing the aspectual suffix, a correlation left unexplained in previous works.

1. *Introduction*

Practically every surface string with more than one verb in Chinese has been considered a *serial verb construction* (SVC), because in Chinese linguistics the term SVC is typically not used to refer to a unique construction with an associated set of predictable properties, but instead serves as a cover term for a myriad of separate constructions with completely different structures, such as control structures, sentences with postverbal purposive clauses or preverbal adjunct clauses, with sentential subjects etc. (cf. Paul 2008 and references therein). Strangely enough, the so-called *directional verb compounds* (cf. Li & Thompson 1981: 58), 'V1$_{displacement}$ V2$_{direction}$ *lái* (come)/ *qù* (go)', have not been termed SVCs. This is probably due to their misanalysis as compounds, i.e. as words, despite the well-known fact that aspect suffixes and objects can occur at different positions "inside" the alleged compound (e.g. *bān-chū-lái*), as shown in (1b) – (1c):

(1) a. Tā cóng fángjiān lǐ *bān -chū-lái* -le [yī bǎ yǐzi].[1]
3SG from room in transport-exit-come -PERF 1 CL chair

b. Tā cóng fángjiān lǐ *bān -chū* -le [yī bǎ yǐzi] *lái.*
3SG from room in transport-exit-PERF 1 CL chair come

c. Tā cóng fángjiān lǐ *bān* -le [yī bǎ yǐzi] *chū-lái*.
3SG from room in transport-PERF 1 CL chair exit-come
'She brought out a chair from the room.' (Liu/Pan/Gu 2001: 572)

In fact, these "compounds" turn out to be genuine SVCs in the strict sense as defined by Collins (1997), representing a single event with one aspect/tense marker and sharing of the internal argument. (For first proposals in this direction, cf. Ernst 1989, Law 1996, Paul 2005, 2008). This analysis allows us to derive the different positions for the shared internal argument

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[1] Given that for the position of the object and of aspect suffixes, adjacent verbs behave as a compound *in syntax*, they are linked by a hyphen. The following abbreviations are used in glossing examples: CL classifier; NEG negation; IMP imperfective aspect; PERF perfective aspect; PL plural (e.g. 3PL = 3rd person plural); PROGR progressive aspect; SFP sentence-final particle; SG singular; SUB subordinator.

yī bǎ yǐzi 'a chair' observed in (1a-c) by raising of the verb(s) to *v*, starting from the internal argument sharing SVC 'V1 object DP *pro* V2 *lái'*. In (1c), only V1 raises to *v* (as is standard), whereas in (1a-b) V1 and V2 or all 3 verbs move to *v*, each verb adjoining to *v* as closely as possible (*tucking in* à la Richards 1997), thus maintaining the relative order between the verbs (cf. Collins 2002). This also correctly predicts that the object must follow the verb (sequence) bearing the aspectual suffix, for it is the verb (sequence) adjoined to *v* that further raises to Asp° (if projected).

The present article provides ample evidence for such an analysis. It is organized as follows. Section 2 establishes the basis for the present study. It presents an overview of the phenomena subsumed under the traditional label "directional verb compound", discusses the properties of the verb classes involved in their formation and determines the subset of structures that indeed involve SVCs and are to be further examined. Section 3 spells out the details of my analysis of SVCs, based on Collins (2002) and Richards (1997). This new analysis avoids major shortcomings encountered by earlier proposals and can derive the correct order of verbs after raising as well as the different positions available for the object. Section 4 turns to aktionsart differences and takes as its starting point the general observation in the literature (cf. a.o. Zhu Dexi (1982), Kimura (1984), Liu Yuehua (1988)) that the order where all verbs are adjacent 'V1-V2-*lái* O' gives rise to a telic predicate, while the non-adjacent orders 'V1-V2 O *lái*' and 'V1 O V2-*lái*' are atelic. Section 5 addresses the issue of definite DP objects in SVCs. Their distribution is subject to constraints, in contrast to indefinite objects of the format 'Num CL N' which are allowed in all three position theoretically available in a complex SVC. Again, this is a well-known fact and goes back at least to Zhu Dexi (1982: §9.4), but has so far not received a satisfying account. Section 6 concludes the article and outlines some of the remaining open research questions.

2. *Clearing the ground*

Before presenting the relevant generalizations about "directional verb compounds" known from the vast literature in Chinese on this subject, a brief *caveat* about terminology is called for. In the following, the term *SVC* exclusively refers to the *internal argument sharing SVC* in the sense of Collins (1997), not to the cover term for any multi-verb surface string as currently (mis-)applied in the literature. "Directional verb compounds" enclosed in quotation marks is used when I want to refer to the traditional term and the constructions subsumed here, which turn out not to be homogeneous, either. Note that the Chinese literature uses the term "verbs with a directional complement (*qūxiàng bǔyǔ*)", which, however, has the same coverage as the English term "directional verb compound".

2.1. Three verb classes

Taking the "directional verb compounds" consisting of three verbs 'V1 V2 *lái/qù* ('come/go')' (which will be shown to involve genuine SVCs) as a starting point (cf. (1a-c) above), three verb classes are to be distinguished.

The first, V1, is an open class which can largely be described as involving displacement, i.e. change in location of the patient in the case of transitive verbs such as *bān* 'transport', *sòng* 'send', *rēng* 'throw', *dài* 'carry' etc., and movement of the agent in the case of intransitive verbs such as *pǎo* 'run', *fēi* 'fly' etc.[2]

V2 is the closed class of so-called "directional verbs" (with six to eight members depending on the author):[3] *shàng* 'ascend', *xià* 'descend', *jìn* 'enter', *chū* 'exit', *huí* 'return',

[2] The inclusion of intransitive verbs might at first sight seem surprising. Cf. section 5 below for further discussion.
[3] The Latin-stem based meaning is used for the glosses here to emphasize their word status, the more so as these directional verbs can all combine with the deictic verbs *lái* 'come' and *qù* 'go' and then indicate movement in a

guò ‘cross’, *qǐ* ‘rise, start’, *kāi* ‘open’. The first six all select locative nouns as object when used in isolation (e.g. *xià lóu* ‘descend staircase’, *huí jiā* ‘return home’). Both *qǐ* ‘rise, start’and *kāi* are more complex cases. Besides the unaccusative verb *qǐ* ‘rise, start’ as in *Qǐ fēng le*. ‘rise wind SFP’ = ‘Wind came up.’, there is also the unergative verb *qǐ* ‘rise, get up’ as in *Tā hái méi qǐ* ‘3SG still NEG rise’ = ‘He still hasn’t gotten up (from bed).’. Similarly, in addition to the transitive verb *kāi* ‘open’ (*kāi mén* ‘open the door’), we also have the unaccusative verb *kāi* ‘bloom’, as in *Jīntiān kāi-le xǔduō méiguīhuā* ‘today bloom-PERF many rose’ = ‘Today there bloomed many roses.’. Given this and other complications, *inter alia* specific constraints on the object position (cf. Lu Jianming 2002: 15), examples with *kāi* ‘open, bloom’ and *qǐ* ‘rise’ as V2 will not be included.

V3 is the closed class consisting of the two deictic verbs *laí* ‘come’ and *qù* ‘go’, which as in other languages indicate direction towards or away from the speaker, respectively. As will become clear in the remainder of the article (cf. section 5 below), two cases need to be distinguished: (i) the unaccusative verbs *laí* ‘come’ and *qù* ‘go (away)’ with a unique internal argument as in (2); (ii) the transitive verbs *laí* ‘come (to)’ and *qù* ‘go (to)’, with a locative noun as object as in (3). (For a detailed study of the existential construction as a diagnostics for unaccusative verbs, cf. Paul/Lu/Lee 2020; also cf. Basciano 2010: 140ff, § 4.2):

(2) a. Jīntiān lái -le sān ge kèrén.
today come-PERF 3 CL guests
‘There have come three guests today.’

b. Zuótiān yǐjing qù-le sān ge rén.
yesterday already go-PERF 3 CL person
‘Yesterday, there already left three persons.’

(3) Tāmen lái -le /qù-le Běijīng.
3PL come-PERF/go-PERF Beijing
‘They have come/gone to Beijing.’

2.2. SVCs: complex and simple: $V_{displacement}$ ($V_{directional}$) *lái/qù* ‘come/go’

(4) - (6) below provide some more examples of SVCs with three verbs, henceforth called “complex” SVCs to distinguish them from “simple” SVCs of the form ‘$V_{displacement}$ DP *lái/qù*’, illustrated in (7-9) further below (cf. Lu Jianming 2002: 14, § 4.2.3.2 for a complete paradigm):

(4) a. Tāmen rēng -shàng -qù-le [yī kuài zhuāntou]. (Fan Jiyan 1963: 46)
3PL throw-ascend-go-PERF 1 CL brick

b. Tāmen rēng -shàng -le [yī kuài zhuāntou] qù.
3PL throw-ascend -PERF 1 CL brick go

c. Tāmen rēng -le [yī kuài zhuāntou] shàng -qù.
3PL throw -PERF 1 CL brick ascend-go

‘They threw up a brick.’

(5) a. Tā bān -guò -qù-le [yī bǎ yǐzi]. (Lu Jianming 2002: 14, (155))
3SG transport-cross-go-PERF 1 CL chair

direction to or away from the speakers, translated as a ‘verb + particle’ combination into English: *shàng-lái* ‘ascend-come’= ‘come up (towards the speaker)’, *xià-qù* ‘go down (away from the speaker)’ etc.

b. Tā bān -guò -le [yī bǎ yǐzi] qù.
3SG transport-cross-PERF 1 CL chair go

c. Tā bān -le [yī bǎ yǐzi] guò -qù.
3SG transport -PERF 1 CL chair cross-go

'He carried over a chair (away from the speaker).'

(6) a. Tā ná -chū -lái-le [yī běn cídiǎn].
3SG take-exit-come-PERF 1 CL dictionary

b. Tā ná -chū-le [yī běn cídiǎn] lái.
3SG take-exit-PERF 1 CL dictionary come

c. Tā ná -le [yī běn cídiǎn] chū-lái.
3SG take-PERF 1 CL dictionary exit-come

'She took out a dictionary.'

The "simple" SVCs consist of only two verbs, i.e. a displacement verb plus the deictic verbs *lái* 'come' or *qù* 'go'. (Cf. Lu Jianming 2002: 8; (18-29) for further examples.)

(7) a. Tā ná -lái -le [yī běn shū].
3SG take-come-PERF 1 CL book

b. Tā ná -le [yī běn shū] lái.
3SG take-PERF 1 CL book come

'She fetched a book.'

(8) a. Wǒ xiàng tā rēng-qù-le [yī bāo yān].
1SG towards 3SG throw-go-PERF 1 packet cigarette

b. Wǒ xiàng tā rēng -le [yī bāo yān] qù.
1SG towards 3SG throw-PERF 1 packet cigarette

'I tossed him a packet of cigarettes.'

(9) a. Wǒ jì -qù-le [liǎng zhāng zhàopiàn].
1SG send-go-PERF 2 CL postcard

b. Wǒ jì -le [liǎng zhāng zhàopiàn] qù.
1SG send-PERF 2 CL postcard go

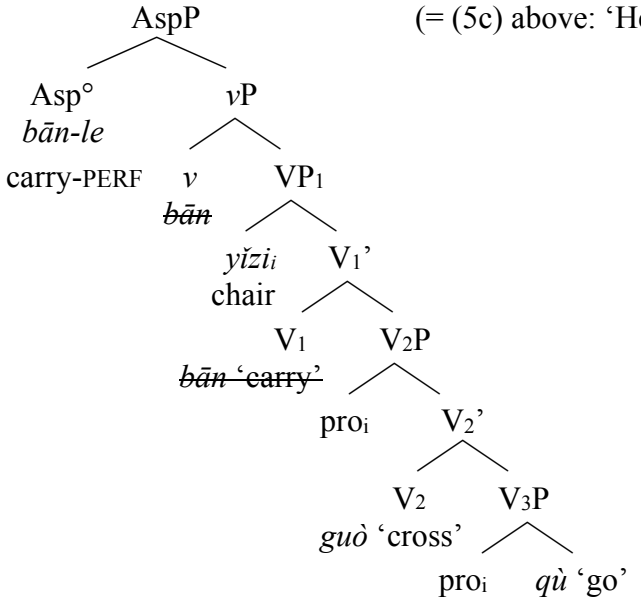
'I sent off two postcards.'

In both complex and simple SVCs, it is the leftmost, i.e. highest verb (sequence) that carries the aspect marker, here the perfective aspect suffix *-le*. It is also this very same verb (sequence)

plus aspect that is followed by the object DP. This results in three object positions for complex SVCs and two for simple SVCs.

The fact that the position to the right of the verb (sequence) *cum* aspect suffix coincides with the object position has so far not been accounted for, but straightforwardly follows from the analysis proposed here, for only the verb(s) raised to *v* can further raise to Asp° and thus occupy a position above, hence precede the (overt) object in SpecVP. While the detailed analysis is presented in section 3 below, the somewhat simplified tree structure in (10) below already conveys the basic idea for the case where only the displacement verb *bān* 'transport, move' has undergone *v*-to-Asp° raising:

(10) (= (5c) above: 'He carried over a chair.')



2.3. "Directional verb compounds" not to be analysed as SVCs

2.3.1 '$V_{directional}$ + locative NP + *lái* 'come'/*qù* 'go'

While 'displacement V + *lái/qù* 'come/go' in (7) - (9) above instantiates a simple SVC, this is not the case for the sequence 'directional verb + locative NP + *lái/qù*' (cf. (11) – (13) below). No argument sharing is involved here; the locative nouns selected for by the directional verbs *shàng* 'ascend', *xià* 'descend', *jìn* 'enter', *chū* 'exit', *huí* 'return', *guò* 'cross' are clearly not the internal argument of the deictic verbs *lái* 'come' or *qù* 'go'. This is also reflected in the availability of a single object position only (cf. (11b-13b)), an observation omnipresent in the literature (cf. a.o. Fan Jiyan 1963: 74; Liu Yuehua 1980, Lu Jianming 1985, 2002).

(11) a. Tā shàng shān lái /qù. (Lu Jianming 2002: 10, (58) – (65))
3SG ascend mountain come/go
'He climbs the mountain (towards/away from the speaker).'

b. *Tā [shàng -lái /-qù] shān.
3SG ascend-come/-go mountain

(12) a. Tāmen jìn fángjiān lái /qù.
3SG enter room come/go
'They entered the room (towards/away from the speaker).'

b. *Tāmen jìn -lái /qù fángjiān.
3SG enter-come/go room

(13) a. Tā huí gōngchǎng lái /qù.
3SG return factory come/go
'He returned to the factory (towards/away from the speaker).'

b. *Tā huí -lái /qù gongchǎng.
3SG return-come/go factory

It seems therefore plausible to analyse *lái/qù* as matrix verbs preceded by an adjunct clause:[4]

(14) [$_{TP}$ DP$_i$ [$_{vP}$ [$_{adj.cl.}$ *pro*$_i$ V$_{directional}$ locative NP] *lái* 'come'/*qù* 'go']].

The analysis proposed in (14) is different from the traditional view. Although the latter does observe the constraint on the object position and explicitly mentions that the subject is the agent of *lái/qù* 'come/go' here (not the locative NP), it still subsumes these cases under the same label "verbs with a directional complement" alongside genuine (simple and complex) SVCs. (Cf. a.o. Fan Jiyan 1963: 74 Liu Yuehua 1980, Lu Jianming 1985).

2.3.2 Locative nouns as objects in "directional verb compounds"
In fact, locative nouns as objects in "directional verb compounds" in general can only occur in one position, irrespective of the number of verbs involved. No SVCs are involved here, as argued for in detail below.

First, in contrast to simple SVCs 'V$_{displ}$ + *lái/qù* 'come/go' where the patient DP can occur in two positions (cf. (6-8) above), a locative noun as object again must immediately follow the displacement verb: 'V$_{displ}$ [locative NP] *lái/qù* :

(15) a. Píqiú gǔn [$_{PostP}$ chuáng dǐxià] qù-le. (Lu Jianming 2002: 9 (30) – (33))
ball roll bed under go-PERF
'The ball rolled under the bed.'

b. *Píqiú gǔn-qù [$_{PostP}$ chuáng dǐxià] le.
ball roll-go bed under SFP

(16) a. Mìfēng fēi [$_{PostP}$ fángjiān lǐ] lái -le.
bee fly room in come-PERF
'The bee flew into the room.'

b. *Mìfēng fēi-lái [$_{PostP}$ fángjiān lǐ] le.
bee fly-come room in SFP

Note that (15b) and (16b) are acceptable *without* the locative object, thus showing that it is indeed the presence of the latter that causes the unacceptability.

[4] (11) – (13) thus show the same structure as (i) below (cf. Fan Jiyan 1963: 82):
(i) [$_{TP1}$ Wǒmen$_i$ [$_{vP}$ [$_{adj.cl.}$ *pro* zǒu] qù]] háishi [$_{TP2}$ *pro*$_i$ [$_{vP}$ [$_{adj.cl.}$ *pro* zuò chē] qù]]?
1PL walk go or sit train go
'Should we go [there] on foot or by train?'

Second, in the sequence 'V_{displ} +$V_{directional}$ + *lái/qù*', the only position available for a locative noun object is after the directional verb, suggesting that the locative noun is selected by the verb sequence '$V_{displacement}$ + $V_{directional}$':[5]

(17) a. Tā zǒu -jìn jiàoshì lái.
3SG walk-enter classroom come
'He walked into the classroom (toward the speaker).'

b. *Tā zǒu -jìn -lái jiàoshì.
3SG walk-enter-come classroom

c. *Tā zǒu jiàoshì jìn -lái.
3SG walk classroom enter-come

(18) Tā pǎo (*mén) chū mén lái /qù (*mén).
3SG run door exit door come/go door
'She ran out of the door (toward/away from the speaker)

(19) Hǎi'ōu fēi (*hǎi) guò hǎi qu (*hǎi). (Chao 1968: 477)
seagull fly sea cross sea go
'The seagull flew away over the sea.'

This differs from the three positions in principle available for a patient DP in complex SVCs (cf. section 2.1 above). (17a-c), for example, neatly contrasts with the complex SVC *bān-jìn lái* 'transport-enter-come', where the object DP has the patient role:

(20) a. Tā bān -jìn -lái -le [yī bǎ yǐzi].
3SG transport-enter-come -PERF 1 CL chair

b. Tā bān -jìn -le [yī bǎ yǐzi] lái.
3SG transport-exit-PERF 1 CL chair come

c Tā bān -le [yī bǎ yǐzi] jìn -lái.
3SG transport-PERF 1 CL chair exit-come
'She brought in a chair.'

These facts are well-known from the literature, but have so far not been accounted for. Note, though, that Chao (1968: 477) makes the crucial observation that a locative noun object is unacceptable in the *bǎ* construction, in contrast to non-locative objects such as *yǐzi* 'chair' in (20):

(21) *Tā bǎ jiàoshì zǒu -jìn -lái -le.
3SG BA classroom walk-enter-come-PERF

(22) Ta bǎ yǐzi bān -jìn -lái -le.
3SG BA chair transport-enter-come -PERF
'She brought in the chair.'

[5] According to Lu Jianming (2002: 17, footnote 12), this constraint on locative objects is not observed in Taiwanese Mandarin nor in Southern Min and Cantonese.

The contrast between (21) and (22) and the single position for locative noun objects follow directly from my proposal, where (22), but not (21), is analysed as an SVC, the object bearing a patient role. The difference between the two constructions is confirmed by the fact that the agent of *lái/qù* 'come/go' in (16) – (19) is the (matrix) subject, not the object. I therefore suggest the same analysis as for (11) – (13) above, i.e. an adjunct clause preceding the main verbs *lái* 'come' or *qù* 'go' (cf. (14) above). For semantic reasons, only locative objects are allowed in such an adjunct clause:

(23) Tā$_i$ [$_{adj.cl.}$ *pro*$_i$ zǒu -jìn jiàoshì] lái /qù.
3SG walk-enter classroom come/go
'He walked into the classroom (towards/away from the speaker).'

As a result, cases of "directional verb compounds" with locative objects are excluded from further examination in the remainder of the article, because they do not involve SVCs.

2.3.3 "Directional verb compounds" without *lái* 'come' or *qù* 'go'
Finally, there are also "directional verb compounds" of the form '$V_{displacement}$ + $V_{directional}$', i.e. without *lái* 'come' or *qù* 'go'. Depending on the semantics of the verbs involved, they select either a patient as object (cf. (24) – (26)) or a location (cf. (27) – (28)). In both cases, the object must follow the entire sequence, the order '$V_{displacement}$ [DP] $V_{directional}$' being excluded. They are therefore analysed as compounds, on a par with compounds such [$_{V°}$ bà-shǒu] 'stop-hand' = 'give up', [$_{V°}$ *bāng-zhù*] 'assist-help' = 'assist, help', [$_{V°}$ *xué-huì*]'learn-know' = 'acquire, master' etc., which in syntax behave like simple verbs and are followed by their object. Not being SVCs, [$V_{displacement}$ - $V_{directional}$] compounds are not discussed any further in the remainder of the article.

(24) a. Tā [$_{V°}$ chuān-shàng]-le yīfu.
3SG wear -asend -PERF clothes
'He put on clothes.'

b. *Tā chuān -le yīfu shàng.
3SG wear -PERF clothes ascend

(25) a. Tā shōu -huí -le wénjiàn.
3SG receive-return-PERF documents
'He recovered the documents.'

b. *Tā shōu -le wénjiàn huí.
3SG receive-PERF documents return

(26) a. Tā ná -chū-le shǒujī.
3SG take-exit-PERF cell.phone
'She took out the cell phone.'

b. *Tā ná -le shǒujī chū.
3SG take-PERF cell.phone exit

(27) a. Tā [V° zǒu-chū]-le fángjiān.
3SG walk-exit-PERF room
'She walked out of the room.'

b. *Tā zǒu -le fángjiān chū.
3SG walk-PERF room exit

(28) a. Tāmen tiào -shàng -le diànchē.
3PL jump-ascend-PERF tram
'They jumped onto the tram.'

b. *Tāmen tiào -le diànchē shàng.
3PL jump-PERF tram ascend

In fact, (27a) and (28a) illustrate the same case as (23), repeated in (29a) below, *modulo* the fact that in (29a), the [V_{displ} + V_{dir}] compound is the predicate of an adjunct clause preceding the matrix verb *lái* 'come'.

(29) a. [Tā$_i$ [$_{adj.cl.}$ *pro*$_i$ zǒu -jìn jiàoshì] lái]. (= (23) above)
3SG walk-enter classroom come
'He walked into the classroom (toward the speaker).'

b. Tā [V° zǒu -jìn] jiàoshì le.
3SG walk-enter classroom SFP
'He walked into the classroom.'

(29b) shows that the clause serving as adjunct of the matrix verb *lái* 'come' in (29a) is a well-formed independent sentence with a [V_{displ} + V_{dir}] compound. In other words, sentences with a [V_{displ} + V_{dir}] compound predicate selecting a locative noun object are all acceptable as adjunct clauses for *lái* 'come' and *qù* 'go' as matrix verbs.

2.4. Interim summary

The phenomena subsumed under the traditional label "directional verb compounds" are not homogeneous, but involve different constructions.

First, there is the case just discussed which indeed is to be analysed as a compound verb, consisting of a displacement verb plus a directional verb, where the object (a patient or a location) must follow the compound: [V° $V_{displ.}$ - $V_{dir.}$] DP.

Second, there are sentences where the matrix verb *lái* 'come' or *qù* 'go' is modified by an adjunct clause, whose predicate is either a simple directional verb or a compound verb 'V_{displ} + V_{dir}', both selecting a locative noun object: DP$_i$ [$_{adj.cl.}$ *pro*$_i$ [V° ($V_{displ.}$) $V_{dir.}$] locative NP] *lái/qù*'.

Third, there are simple and complex SVCs of the format '$V_{displ.}$ (V_{dir}). *lái/qù*' with a patient as object, which can occur in two or three positions, respectively. These SVCs crucially involve the presence of *lái*' come' and *qù* 'go', a point which will be shown to be important, because it is their status as unaccusative verbs that allows for (internal) argument sharing (cf. section 5 below). Only these genuine SVCs are to be further examined in the remainder of the article.

3. *Internal argument sharing SVCs (Collins 1997, 2002)*

This section applies Collins' (2002) "multiple verb movement" analysis to the genuine SVCs identified in the preceding section. The main challenge is to capture the correct order of the verbs, the position of aspectual suffixes such as the perfective *-le* and the several positions available for the object DP. As to be demonstrated, these three issues are intricately related and can be automatically derived from the analysis as an internal argument sharing SVC, with verb movement being constrained by the two locality conditions, *Minimal Link Condition* and *Local* Move (cf. Richards 1997: 114).

Minimal Link Condition (MLC) (cf. Chomsky 1995: 296)

α can raise to target K only if there is no legitimate operation Move β targeting K, where β is closer to K.

Local Move (cf. Chomsky 2000: 136-137)

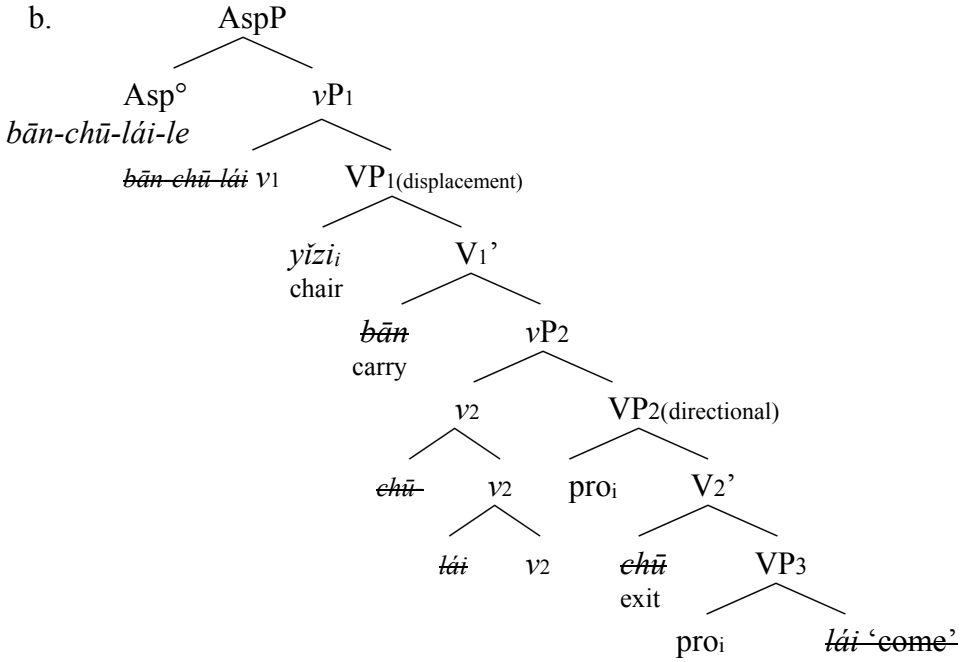
Let X have a selectional feature F, and let Y satisfy F. The Y must move to the closest possible position to X.

Collins (2002: 13) further states that a verb must *left*-adjoin to a *functional* head (such as *v*, T or C), not to another *verb*, and that the trace of a verb does not block movement.[6]

(30b) below implements the derivation via multiple verb movement for the complex SVC in (1), repeated here as (30a):

(30) a. Tā *bān -chū-lái* -le [yī bǎ yǐzi].
3SG transport-exit-come -PERF 1 CL chair
'She brought out a chair.'

b.



Starting from the bottom, the unaccusative verb *lái* 'come' projects VP3 hosting its unique (internal) argument, *pro*, co-indexed with the internal argument, *yǐzi* 'chair', of the displacement

[6] Traces in general are invisible for the MLC. In Bulgarian multiple *wh*-movement, for example, the object *wh*-phrase in (ic) must skip the trace of the subject *wh*-phrase in SpecIP (cf. Collins 2002: 10, referring to Chomsky 1995: 304):

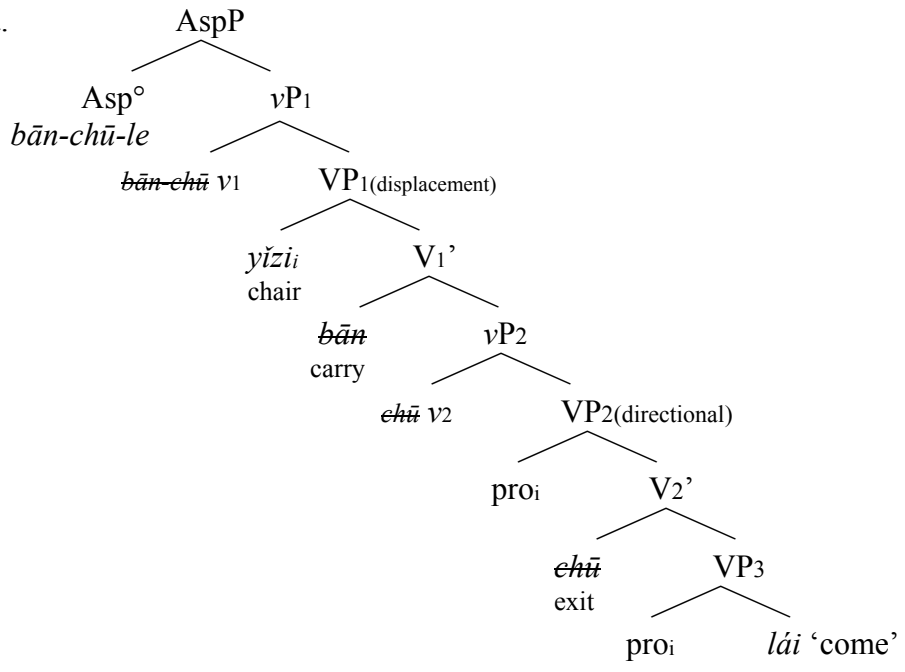
(ia) [$_{CP}$ C IP] (underlying structure)
(ib) [$_{CP}$ 'who' [$_{C'}$ C IP]] (MLC)
(ic) [$_{CP}$ 'who' [$_{C'}$ 'whom' [$_{C'}$ C IP]]] (Local Move)

verb *bān* ‘carry’ in VP1.[7] The VP3 headed by *lái* ‘come’ in turn merges with the directional verb V2 *chū* ‘exit’, whose internal argument is again *pro*, co-indexed with *yǐzi* ‘chair’ in SpecVP1. Since *chū* ‘exit’ is closest to the target, i.e. *v*2, it must raise and left-adjoin to *v*2 first (as per the MLC), before *lái* ‘come’ raises to *v*2 as well. Since by Local Move, *lái* ‘come’ must adjoin as close as possible to *v*2, it “tucks in” (cf. Richards 1997) and we obtain the order *chū-lái* ‘exit-come’.[8] VP1 headed by *bān* ‘carry, transport’ is projected: its internal argument *yǐzi* ‘chair’ occurs in SpecVP1 and *v*P2 occupies the complement position. Being closest to *v*1, the verb *bān* ‘carry’ raises first: [$_{v1}$ *bān* ‘carry’ *v*1]; the sequence *chū-lái* ‘exit-come’ likewise raises and “tucks in” immediately left-adjacent to *v*1: [$_{v1}$ *bān* ‘carry’ [$_{v1}$ *chū-lái* ‘exit-come’ *v*1]]. Finally, the resulting sequence *bān-chū-lái* ‘transport-exit-come’ raises to Asp° and adjoins to the left of the perfective aspect suffix *-le*, as is standard. “Tucking in” is irrelevant here, because with respect to syntax, *bān-chū-lāi* behaves as one block (whose internal structure is opaque), on a par with a simple verb, and as such is maximally close to Asp° when left-adjoining.

Note that Collins’ account must be slightly adjusted, because Chinese has SVCs with three verbs, unlike ǂHoan where the SVC giving rise to the (surface) compound only features two verbs. A second *v*P must therefore be postulated for Chinese, given that there is no V-to-V movement. (Cf. Carstens 2002 for additional *v*P projections sandwiched between the VP projections in an SVC.) Chinese is also different from ǂHoan insofar as not all verbs have to raise, as illustrated immediately below in (31b).

The derivation for (31b) shown in (31a) proceeds in the same way, *modulo* the fact that the verb *lái* ‘come’ remains in situ, and that it is only *chū* ‘exit’ and *bān* ‘carry’ that raise to Asp°.

(31) a.



[7] Collins (2002: 8) leaves open for further research the choice between PRO and *pro*. For Chinese, Huang (1989: 194) abandons the distinction between PRO and *pro* and treats then as instances of the same null pronominal, subject to the same *Generalized Control Rule* (GCR), stating that “an empty pronominal is controlled in its control domain (if it has one).” (p. 193). In the following, this null pronominal is represented as *pro*.

[8] According to Collins (2002: 12), V2 is closer to *v* in (i) (“inner adjunction”) than in (ii) (“outer adjunction”), because there is no segment intervening between the “sisters” V2 and *v*:

(i) [$_v$ V1 [$_v$ V2 *v*]]

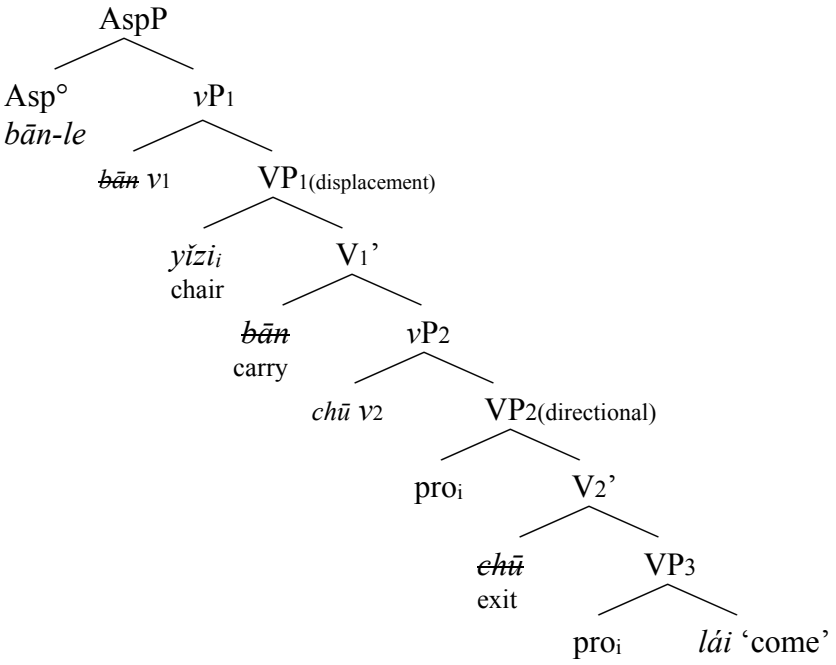
(ii) [$_v$ V2 [$_v$ V1 *v*]]

b. Tā *bān* *chū* -le [yī bǎ yǐzi] *lái.*
3SG transport exit -PERF 1 CL chair come
'She carried out a chair.'

Finally, (32b) shows the derivation for (32a), where only the displacement verb *bān* 'transport, carry' raises to Asp°:

(32) a. Tā *bān* -le [yī bǎ yǐzi] *chū-lái*.
3SG transport-PERF 1 CL chair exit-come
'She brought out a chair.'

b.



In (32b), *bān* 'carry' behaves like any other verb in a sentence with a singe verb insofar as it raises to *v* and then to Asp°. It is difficult to choose between the option illustrated in (32b) where *lái* 'come' remains *in situ*, on the one hand, and the possibility for *lái* 'come' to raise to *v*2 as well. At the moment, I cannot think of any test to decide this issue.

Be that as it may, the analysis presented in (30) – (32) makes it possible for the first time to derive the fact that the object must directly follow the verb (sequence) that bears an aspectual suffix such as the perfective *-le*. This coinciding of the object position with the position directly following the aspectual suffix is a direct consequence of *v*-to-Asp° raising; only the verb(s) raised to the highest *v* can further raise to Asp°.[9] As a result, the patient DP in SpecVP1 directly below the highest *v*P follows the verb (sequence) located in Asp°. Furthermore, the necessity of "tucking in" to guarantee Local Move finally provides a way to derive the correct word order

[9] This is the reason why (i) – (iii) are all unacceptable (also cf. Fan Jiyan 1963: 77, (3)):
(i) *Tā bān *-le* chū [yī bǎ yǐzi] lái.
3SG transport-PERF exit 1 CL chair come
(ii) *Tā bān -chū-*le* lái [yī bǎ yǐzi].
3SG transport-exit-PERF come 1 CL chair
(ii) *Tā bān [yī bǎ yǐzi] chū-*le* lái.
3SG transport 1 CL chair exit-PERF come

both in simple and complex SVCs, and thus contrasts with previous proposals, briefly discussed in the following section.

3.2. Previous proposals – a short overview

While all the observations reported here come from the substantial Chinese literature on "directional verb compounds", formal, analytic proposals are largely absent from previous studies. Recall, though, that the Chinese literature does not talk about "compounds", but of "verbs with a directional complement" (cf. a.o. Fan Jiyan 1963; Li Linding 1984; Lu Jianming 1985, 2002; Liu Yuehua 1988; Liu/Pan/Gu 2001: 546-579).

Interestingly, they are *not* subsumed under the cover term *liándòngshì* 'SVC', applied to practically every multi-verb sequence in the Chinese literature. This very probably reflects the tacit insight that *liándòngshì* 'SVCs' lack internal argument sharing, present in at least a subset of "verbs with a directional complement".

To my knowledge, Ernst (1989) and Law (1996) are the first proposals to explicitly challenge the compound status of "directional verb compounds" and to no longer content themselves with the schizophrenic state of affairs where alleged compounds can be "split up" by the object and aspectual suffixes, and thus violate general principles such as the *Lexical Integrity Hypothesis* (LIH) known to hold for Chinese as well (cf. C.-T. James Huang 1984).[10] Limiting themselves to (what I call) simple SVCs such as *sòng lái* 'send come' = 'send over', Ernst (1989) and Law (1996) both propose a tripartite VP structure where *sòng* 'send' is treated as a double object verb taking two complements, the NP (*xiāngzi* 'suitcase' in (33)) and the VP *lái* 'come'. As a consequence, no argument sharing is involved in such structures.[11]

(33) a. Tā [VP sòng-le [NP yī ge xiāngzi] [VP lái]] Law (1996: 203)
3SG send -PERF 1 CL suitcase come

b. Tā [VP sòng-lái -le [NP yī ge xiāngzi] [VP t_{lai}]]
3SG send come-PERF 1 CL suitcase come
'He sent over a suitcase.'

The alternative word order in (33b) is derived by raising the verb *lái* 'come' to the verb *sòng* 'send'. Law (1996) does not observe or comment on the fact that canonical head-to head raising as left adjunction would result in the incorrect order **lái-sòng-le*, or **lái-le sòng* (depending on the non-spelt out position of aspect in his structure).

Taking Law (1996) as a starting point, Paul (2005: 17-20, § 5; 2008: 371-372) proposes an analysis of "directional verb compounds" as argument sharing SVCs in the sense of Collins (1997) and applies it to both simple and complex SVCs, hence with *pro* as the internal argument in the second VP, and with binary branching instead of Law's ternary branching. However, here as well the exceptional right adjunction required in order to obtain the correct word order for V-to-V movement is not seen as a problem, either.

Zou Ke (1994) likewise obtains the adjacent order in (34b) by raising and *right*-adjoining the verb *lái* 'come' to the verb *sòng* 'send', and glosses over this stipulation. Note

[10] To my knowledge, Fan Jiyan (1963: 70-71) is the only one among the Chinese linguists to explicitly challenge the idea that the object as well as aspectual suffixes are "inserted" (*binyǔ chārù shuō* 'object insertion hypothesis').
[11] Nevertheless, Law (1996) calls this structure an SVC. Given that he also treats as SVC sentences with an adjunct clause preceding the main verb (as in (11) – (13) above), this voids the term SVC of its substance, because not referring to a unique construction with a fixed set of syntactic and semantic properties (cf. Paul 2008 for discussion).

that despite postulating a complex VP structure (cf. (34a-b)), he nevertheless talks about "split" and "non-split" *compounds*.[12]

(34) a. Tā [$_{VP1}$ sòng-le [$_{VP2}$ [$_{NP}$ yī běn shū] [$_{V2}$ lái]]]
3SG send-PERF 1 CL book come

b. Tā [$_{VP1}$ sòng-lái -le [$_{VP2}$ [$_{NP}$ yī běn shū] [$_{V2}$ $t_{lái}$]]]
3SG send-come -PERF 1 CL book
'He sent a book over here.' (Zou Ke 1994: (2a), simplified)

The same problem of not seeing the necessity of exclusively adjoining to *v* instead of V and satisfying Local Move by *tucking in* also holds for Chen Zhishuang (2016) and to a certain extent for Hu Xuhui (to appear).[13]

Chen Zhishuang (2016: 150) adopts my earlier proposal in Paul (2005: 17-20, § 5; 2008: 371-372) to analyse "directional verb compounds" as argument sharing SVCs in the sense of Collins (1997).[14] However, she recasts this in a model based on Ramchand (2008) and then introduces such a range of ad hoc changes that not much remains of Ramchand's proposal, in particular not the original insights into event decomposition. For example, Chen Zhishuang (2016: 163-164) simply inverts the hierarchy of subevents from Ramchand's 'InitiatorP > ProcessP > ResultP into 'Initiator > ResultP > ProcessP', because otherwise head incorporation

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[12] The null pronominals present in some of his derivations are all *subject*-controlled, hence do not involve *internal* argument sharing (Zou Ke 1994: 451, (1b'')).

(i) [$_{IP}$ Lǐsì$_i$ [$_{Infl°}$ zǒu-jìn$_j$]$_k$ -le] [$_{VP1}$ [$_{NP1}$ t_i] [$_{V1}$ t_k [$_{VP2}$ [$_{NP2}$ *pro*$_i$] [$_{V2'}$ t_j [$_{NP3}$ wūzi]]]]]]
Lisi walk-enter-ASP house
'Lisi walked into the house.'

Similarly, when stating that his "lexical-syntactic analysis […] can derive the verb compound simply by verb raising and NP-movement" (p. 443), "NP movement" refers to raising of the *subject* from a VP-internal position to SpecIP. As illustrated in (i), IP is assumed to be headed by aspectual markers; this is, however, straightforwardly invalidated by the acceptability of adverbs between the subject and the verb (bearing an aspectual suffix or not). Cf. Ernst (1994) for demonstrating that *Infl* in Chinese is never overtly realized.

[13] Hu Xuhui's (to appear) proposal is so convoluted and *ad hoc* that nearly each of its assumptions can be challenged, because not tying in with the overall syntax of Chinese. To present its various claims and invalidate them one by one would go far beyond the scope of this article. Suffice it to say that according to Hu Xuhui, the items in a "directional verb compound" are not (always) verbs; instead, "the same directional item may in fact be the phonological form of a verb, a preposition, a part of a single preposition, or even a spatial aspectual marker in different directional constructions" (cf. abstract). Importantly, he does not even address the issue that his proposal is completely at odds with the basic assumption shared by all studies over the last 60 years, *viz.* that "directional verb compounds" are formed by verbs (including their respective argument structure) and that the meaning of the whole is obtained compositionally (with possible metaphoric extensions). No evidence is provided for the advantage of his proposal over those based on a verbal analysis of the parts in a "directional verb compound." Nor does he mention the well-known aktionsart differences between adjacent and non-adjacent orders and the equally well-known constraints on the distribution of objects in terms of their internal structure and thematic role (patient vs location); it is therefore impossible to know how these central problems would be accounted for in his proposal. Given this regression to a *status quo ante* it comes as a surprise that he complains about "past studies often touch[ing] upon parts, instead of *all the constructions* to be discussed in this paper" and furthermore claims "to provide a *comprehensive account* within the generative approach, attempting to cover the *major issues* involved in Chinese directional constructions" (p. 6-7, emphasis mine).

[14] Chen Zhishuang (2016) has an awkward and confusing way of (not) acknowledging my work. First, though both Paul (2005) (wrongly cited as Paul (2004)) and Paul (2008) argue against word status of "directional verb compounds", they are not mentioned when compoundhood is rejected (cf. Chen's chapter 2, p. 76ff); then (on p. 143) my analysis is incorrectly likened to Zou Ke's proposal (1994), and finally (on p. 150) it is said to be adopted. In general, it is very surprising that besides her brief reference to Liu Yuehua (1998) (on pp. 271-272), no other studies written in Chinese were consulted, notwithstanding the huge amount of literature existing on "directional verb compounds" and the important generalizations made there, some of which are reported in Chen Zhishuang (2016) as well.

(another feature absent from Ramchand 2008) resulting from verb raising will produce an incorrect order. Furthermore, the different orders are not obtained from the same underlying structure as argued for above, but instead directly start out as different structures. For this, it is necessary to stipulate that the verbs *lái* 'come' and *qù* 'go' can be inserted either under ResultP (for the adjacent order) or under the additionally postulated DeicticP (for the non-adjacent order), with DeicticP either adjoined to ResultP or the additionally postulated PathP. Similarly, the directional verbs are either to be inserted under ResultP or PathP; only the displacement verbs always occur in ProcessP. All these stipulations are not only necessary to obtain the correct order of the verbs and the object, but are also appealed to when "deriving" the well-known aktionsart differences (cf. section 4 immediately below) between the adjacent and the non-adjacent order. In brief, a substantial number of under-motivated assumptions and machinery are needed to make Chen's proposal work and in the end nothing much appears to be gained.

4. *Aktionsart differences between adjacent and non-adjacent orders in SVCs*

It has long been noted in the literature that the order where all verbs are adjacent and the ones where they are not, are associated with aktionsart differences (cf. a.o. Fan Jiyan (1963), Zhu Dexi (1982), Lü Shuxiang (1992: 164), Kimura (1984), Liu Yuehua (1988), Liu/Pan/Gu (2001: 572-3), Lu Jianming (2002)).

Yang Ching-Yu (2009) identifies this difference with the dichotomy between achievement verbs ([+dynamic], [+telic]) and accomplishment verbs ([+dynamic], [-telic]): the adjacent order gives rise to a telic predicate, whereas the non-adjacent order results in an atelic predicate. This generalization can capture the data contrasts observed in previous works, as to be demonstrated below.

First, there is a robust consensus that the adjacent order is unacceptable in imperatives (on a par with achievement verbs such as *dào* 'arrive'); only the non-adjacent orders are allowed here. More precisely, according to Lu Jianming (2002: 10, (48) – (57); 13, (117) – 129)), the object immediately follows the displacement verb, as illustrated by him for simple SVCs in (35), and for complex SVCs in (36):[15]

(35) a. Lǎo Wáng, nǐmen bān (*qù) [yī zhāng chuáng] qù!
Lao Wang 2PL transport go 1 CL bed go
'Lao Wang, you carry a bed (away from the speaker).'

b. Lǎo Wáng, jì (??-lái) yīxiē qián lái!
Lao Wang send -come some money come
'Lao Wang, send some money (over to the speaker)!' (Lu Jianming 2002: 10)

(36) a. Rēng [yī ge jiǔpíng] xià -lái !
throw 1 CL wine.bottle descend-come
'Throw down a wine bottle (towards the speaker)!

b. *Rēng -xià -lái [yī ge jiǔpíng]!
throw-descend-come 1 CL wine.bottle

[15] Lü Shuxiang (1992: 164) also states that the adjacent order 'Vdis-Vdir-*lái'* is not acceptable in imperatives, but includes 'Vdis-Vdir DP *lái/qù*' as a second possible order in imperatives.

c. Nǐmen bān [yī zhāng zhuōzi] guò - qù!
2PL transport 1 CL table cross-go
'You carry the table over there (i.e. away from the speaker)!'

d. Nǐmen tái [yī tǒng píjiǔ] shàng-qu!
2SG lift 1 barrel beer ascend-go
'Carry up a barrel of beer (away from the speaker)!' (Lu Jianming 2002: 13)

Second, disallowing telic predicates, the progressive aspect *zài* is incompatible with the adjacent order (cf. (37b)) and requires the non-adjacent order:

(37) a. Tā zhèng zài {*duān* [yī wǎn tāng] *shàng lái* /
3SG just PROGR carry 1 bowl soup ascend come/
duān shàng [yī wǎn tāng] *lái* }
carry ascend 1 bowl soup come
'He is carrying in a bowl of soup.'

b. ??Tā zhèng zài *duān shàng lái* [yī wǎn tāng]
3SG just PROGR carry ascend come 1 bowl soup

Against this backdrop, the example by Liu/Pan/Gu (2001: 572; (3-4)) below can be easily accommodated. They observe that the non-adjacent order (i.e. *duān* DP *lái* 'serve DP come') can be used in the same context as the adjacent order (*duān-lái* DP 'serve-come DP') and likewise conveys the completion of the event:

(38) Shuì jiào qián , māma gěi wǒ duān [yī wǎn tàng] lái / duān-lái [yī wǎn tàng],
sleep sleep before mum for 1SG serve 1 bowl soup come/ serve-come 1 bowl soup
yīdìng jiào wǒ hē -le.
absolutely make 1SG drink-PERF
'Before going to sleep, mum brought me a bowl of soup
and told me to absolutely drink it.'

Although they do not provide any further comment, it is the presence of the continuing clause *yīdìng jiào wǒ hē le* 'and told me to absolutely drink it' which provides a temporal boundary for the preceding clause, whence the interpretation of the non-adjacent order *duān yī wǎn tàng lái* 'serve 1 bowl soup come' as a completed event, on a par with the adjacent order, *duān-lái yī wǎn tàng* 'serve-come 1 bowl soup', *modulo* the latter not requiring the continuing clause.

Xiao Xiumei (1992: 61) makes a similar observation for the pair (39a-b). While the adjacent order in (39a) indicates the completion of the event without any aspect marker, for the non-adjacent order in (39b), the aspectual suffix *-le* is obligatory in the same context:

(39a) Tā (zuótiān) cóng shāngdiàn mǎi-lái yī jiàn yīfu.
3SG yesterday from shop buy-come 1 CL dress
'She bought a dress from the shop (yesterday).'

(39b) Tā zuótiān jìn chéng le , mǎi*(-le) yī ge lùyīnjī lái.
3SG yesterday enter city SFP buy -PERF 1 CL tape.recorder come
'She went downtown yesterday and bought a tape recorder."

Kimura (1984) explicitly talks about an aspectual opposition between the two orders, where the adjacent order is said to imply a "static aspect" (as the result of previous motion) and the non-adjacent order a "motion aspect". The evidence cited by Kimura (1984) can be easily recast into the dichotomy telic vs atelic posited by Yang (2009). More precisely, the atelic non-adjacent order(s) are compatible with process-related manner adverbs and auxiliaries and can be presented as consecutive events in a listing. The adjacent order is excluded from these contexts:

(40) a Xiǎopō miǎnmiǎnqiǎngqiǎngde {shēn -chu shétou lái /
Xiaopo reluctantly stretch-exit tongue come

??[shēn -chū-lai] *shétou* }, bǎ qiānbǐ zhān-shī, méi shuō shénme.
stretch-exit-come tongue BA pencil soak-wet NEG say what

'Xiaopo reluctantly stretched out his tongue, moistened the pencil
and said nothing.' (Kimura 1984: 266, (4))

b. Tā cōngmáng qǔ -xià yǎnjìng qù/ ??[qǔ -xià -qù] yǎnjìng.
3SG hastily take-descend glasses go/ take-descend go glasses
'He hastily took off his glasses.' (Kimura 1984: 269, (7))

Importantly, the same incompatibility with process-related manner adverbials likewise holds for (achievement) verbs such as *dào* 'arrive' (cf. (41)).

(41) Tā (*màntūntūnde) dào -le shāndǐng le.
3SG slowly arrive-PERF mountain.top SFP
'He has slowly reached the mountain top.' (Kimura 1984: 270; (9))

When listing consecutive events and when conveying the simultaneous occurrence of events with e.g. *yī biān* 'one side'…. *yī biān* 'one side' = 'at the same time', only the non-adjacent order is acceptable:

(42) Xiǎohuā zuò-qǐ -lai , rǒu -le rǒu yǎnjing, xiǎng-le xiǎng,
Xiaohua sit rise-come rub-PERF rub eye think -PERF think
gǎnjǐn ná qǐ bàozhǐ lai /?? [ná -qǐ -lai] bàozhǐ, dǎkāi-le.
hastily take rise newspaper come/ take-rise-come newspaper open -PERF
'Sitting up, Xiaohua rubbed his eyes and thought for a while,
then took up the newspaper hastily and opened it.'

(43) Lǎoshi yī biān jiūzhù Xiǎopō de lǐngzi, (Kimura 1984: 271, (10))
teacher 1 side hold.fast Xiaopo SUB collar
yī biān {chǎo -qǐ bǎnzi lai / ??[chǎo -qǐ -lai] bǎnzi }
1 side clutch-rise paddle come clutch-rise-come paddle
'In one hand the teacher grasped Xiaopo by the collar,
and in the other hand he grasped the paddle.'

Finally, only the non-adjacent order is acceptable as complement of modal auxiliaries:

(44) Tā yào {tái-qǐ [zuǒ shǒu] lai / ?? [tái-qǐ -lai] zuǒ shǒu}
3SG will lift-rise left hand come / lift-rise- come left hand
'He will raise his left hand.' Kimura 1984: 272, (13))

As demonstrated above, Yang Ching-yu's (2009) characterization of the non-adjacent order as atelic, in contrast to the telic nature of the adjacent order can nicely account for the earlier observations in the literature.

Her syntactic account of SVCs (cf. her section 4), however, suffers from various drawbacks. Although both are derived from a phrasal structure, the adjacent order is analysed as a "non-separable" complex verb and the non-adjacent order as a verb phrase. The deictic verbs *lái* 'come' and *qù* 'go' occur in the highest verb position "because of the weakest meaning". Furthermore, the situation type differences are captured by positing several "light verbs" in the sense of Lin Tzong-Hong (2001) such as BECOME and CAUSE. In the adjacent order, all verbs raise to the (covert) light verb BECOME. By contrast, the highest "light verb" in the two non-adjacent orders is CAUSE, and the object is hosted by a FocusP below the CAUSE projection and above the BECOME projection. Not much motivation is provided for these additional projections, and the basic feature of internal argument sharing can no longer be captured in these structures, given that *lái* 'come' and *qù* 'go' now occupy the highest position.[16]

To summarize my analysis, when all verbs have raised to *v* and are thus adjacent, this gives rise to a telic predicate, whereas raising to *v* of one verb in simple SVCs and of one or two verbs in complex SVCs, respectively, results in an atelic predicate. Given that the different orders co-exist in the grammar of the same speaker, no "parametric" differences can be appealed to here, as done by Collins' (2002: 9) for the difference between ǂHoan and Ewe.[17]

5. *Constraints on the position of definite object DPs in SVCs*

While indefinite object DPs of the form 'Num CL N' are allowed in all the three positions available in a complex SVC, the distribution of definite DP objects is more constrained. Again, this is a well-known observation and goes back at least to Zhu Dexi (1982: §9.4), but has so far not received a satisfying account.

(45) a. *Tā ná -chū-lái [DP nà běn xīn de shū]. (Zhu Dexi 1982: 130)
3SG take-exit-come that CL new SUB book

[16] The postulation of FocusP in the non-adjacent orders (ib) vs their absence in the adjacent order (ia) is motivated by the data below:

(ia) Māma duān shàng lái [yī wǎn tāng], ér bù shì {bàba/ yī pán cài}.
Mum carry ascend come 1 bowl soup but NEG be Dad / 1 plate dish
'Mum brought in a bowl of soup, (and it was) not {Dad/a dish}.

(ib) Māma duān [yī wǎn tāng] shàng lái / duān shàng [yī wǎn tāng] lái,
Mum carry 1 bowl soup ascend come/ carry ascend 1 bowl soup come
ér bù shì {*bàba/ yī pán cài}.
but NEG be Dad / 1 plate dish
'Mum brought in a bowl of soup, (and it was) not a dish.'
(Yang Ching-Yu 2009: (14-16); my glosses and translation)

While these observations are very intriguing, they involve contrast, not focus, and certainly do not warrant the projection of a FocusP *within* the *v*P. It is not obvious, either, what such a FocusP would predict for the positions of definite object DPs to be discussed in section 5 below

[17] Collins (2002: 9) simply stipulates that in ǂHoan all verbs must raise to *v* (thus giving rise to surface compounds), whereas in e.g. Ewe only the first verb raises and we obtain SVCs. Given that he compares the ǂHoan - Ewe contrast with the contrast between English, where only one *wh* phrase moves in multiple questions, on the one hand, and Bulgarian, on the other, where all *wh* phrases move, he seems to have a parameter in mind, distinguishing the two languages.

b. Tā ná [DP nà běn xīn de shū] chū-lái.
3SG take that CL new SUB book exit-come

c. Tā ná -chū [DP nà běn xīn de shū] lái.
3SG take-exit that CL new SUB book come

'He took out that new book.'

(46) a. *Tā jiào-chū-lái {Lǎo Wáng / tā}
3SG call-exit-come Lao Wang / 3SG

b. Tā jiào {Lǎo Wáng / tā } chū-lái[18]
3SG call Lao Wang / 3SG exit-come

c. Tā jiào-chū {Lǎo Wáng / tā } lái
3SG call-exit Lao Wang / 3SG -come

'He called for/summoned Lao Wang/him.'

There is a broad consensus in the literature subsequent to Zhu Dexi (1982) that definite object DPs are banned from the postverbal position in the adjacent order. While native speakers in general share the judgements for inanimate DPs (hence the unacceptability of (47a) below with *wǒ de shūzhuō* 'my desk', in addition to Zhu's (45a) above), the situation is less clear-cut for proper names (*Xiǎo Míng*) and definite animate DPs (*wǒ de māo* 'my cat') in (48):

(47) a. *Tā yīgerén bān -guò -qù-le [wǒ de shūzhuō].
3SG alone transport-cross-go-PERF 1SG SUB desk

b. Tā yīgerén bān -le [wǒ de shūzhuō] guò – qù.
3SG alone transport-PERF 1SG SUB desk cross-go

c. ??Tā yīgerén bān -guò -le [wǒ de shūzhuō] qù.
3SG alone transport-cross-PERF 1SG SUB desk go
'He moved my desk over (away from the speaker) all on his own.'

(48) a. %Tā gǎn -chū-qù-le Xiǎo Míng/[wǒ de māo].
3SG chase-exit-go-PERF Xiao Ming/ 1SG SUB cat

b. Tā gǎn -le Xiǎo Míng/[wǒ de māo] chū-qù.
3SG chase-PERF Xiao Ming/ 1SG SUB cat exit-go

c. ??Tā gǎn -chū -le Xiǎo Míng/ [wǒ de māo] qù.
3SG chase-exit PERF Xiao Ming/ 1SG SUB cat go

'He chased away/drove out (away from the speaker) Xiao Ming/my cat.'

[18] As pointed out by Zhu Dexi (1982: 130), when stress is not on *jiào* 'call' as intended in (46b), but on *chū* 'exit', then the sequence is interpreted as 'tell Lao Wang/him to come out'; in other words, it is analysed as a control construction, not as a complex SVC.

The definite object DP *wǒ de shūzhuō* 'my desk' is excluded from the postverbal position with the adjacent order (47a), but acceptable in the non-adjacent order (47b). The marginality of (47c) in fact involves still another factor, i.e. the asymmetry between *lái* and *qù* in sentence-final position observed for a subset of speakers and to be discussed further below (cf. (54)).

While Yang Ching-yu (2009) marks (48a) with the proper name as unacceptable, native speakers consulted accepted it, hence the mark "%" indicating the heterogeneity of judgements. (48b) is the order reported as acceptable in the literature for definite object DPs in complex SVCs and confirmed by the native speakers consulted. The marginal character of (48c) with *qù* 'go' on its own in sentence-final position again is not linked to the definite character of the object DP, but to the sentence-final position of *qù* 'go', given that the same subset of native speakers likewise rejected the order in (48c) with an *indefinite* object DP such as *yī zhī māo* '1 CL cat' = 'a cat'.

The conditioned ban on definite DPs in the postverbal position of the adjacent order, contrasting with the acceptability of inanimate DPs in all of the three possible positions, is reminiscent of the *Definiteness Effect* (DE) observed in existential constructions (ExC), where definite DPs are in general excluded from the postverbal position (cf. Huang 1987, Paul/Lu/Lee (2020)). Interestingly, here as well proper names are an exception insofar as they are allowed postverbally in list contexts (cf. Huang 1987:239):

(49) a. (Gānggāng) lái -le {sān ge kèrén/*Lǐsì/*[wǒ de péngyou]}.
just come-PERF 3 CL guest/ Lisi/ 1SG SUB friend
'There just arrived three guests/Zhangsan/my friends.'

b. {Sān ge kèrén/ Lǐsì/ [wǒ de péngyou]} gānggāng lái -le.
3 CL guest/ Lisi/ 1SG SUB friend just.now come-PERF
'Three guests/Lisi/my friends just arrived.'

c. (Jīntiān) lái -le Lǐ lǎoshī , Wáng lǎoshī hé tāmen de xuéshēng.
today come-PERF Li professor Wang professor and 3PL SUB student
'Today arrived Prof. Li, Prof. Wang and their students.'

Zhu Dexi (1982: 130) in a certain way draws this parallel when stating that a definite DP must occupy the preverbal subject position in the case of SVCs with an intransitive motion verb such as *fēi* 'fly' and is excluded from the postverbal position:

(50) a. Nà zhī cāngyíng yòu fēi-jìn -lái -le.
that CL fly again fly-enter-come-PERF
'That fly has again flown in.'

b. Lǎo Wáng pǎo-huí -qù-le.
Lao Wang run-return-go-PERF
'Lao Wang has run back (away from the speaker).'

Zhu Dexi's (1982) observation must be seen against the backdrop of ExC with complex SVCs featuring intransitive motion verbs (cf. Lu Jianming 2002: 12-13; (104-110):[19]

[19] In the following, I concentrate on complex SVCs, because there seems to be only one DP position available with simple SVCs in the existential construction, i.e. *lái* 'come' in (i) preferrably raises to *v* (cf. Xiao Xiumei 1992: 59):
(i) Fēi-{lái } -le [yī zhī cāngyíng] {??lái}.
fly -come-PERF 1 CL fly come
'There has a fly come in.' (Lu Jianming 2002: 8, (11))

(51) a. [Gāng] zǒu –jìn -lái /-qù-le [yī ge háizi].
just walk-enter-come/ -go-PERF 1 CL child

b. [Gāng] zǒu -jìn -le [yī ge háizi] lái /*qu.
just walk-enter-PERF 1 CL child come/ go

c. [Gāng] zǒu -le [yī ge háizi] jìn -lái / jìn -qù.
just walk-PERF 1 CL child enter-come/ enter-go

'A child just walked in (into the direction of/away from the speaker).'

As illustrated in (51b), *qù* 'go' on its own is in general excluded from the sentence-final position (for all speakers) and contrasts with *lái* 'come' which is acceptable in this position. The ExC can therefore provide us with a clue to the asymmetry of *lái* 'come' vs *qù* 'go', holding for a subset of speakers in complex SVCs with transitive verbs (cf. (47) – (48) above).

In fact, the unaccusative verb (uaV) *qù* where the agent (and not the locative goal) is the unique internal argument also differs semantically from the corresponding transitive verb *qù* 'go' with a locative noun as object, insofar as the uaV *qù* means 'go away, depart' rather than simply 'go' (also cf. (2) – (3) above):[20]

(52) a. Zuótiān yǐjīng qù -le sān ge rén.
yesterday already go.away-PERF 3 CL person
'Yesterday, there already left 3 persons.'

b. Gāng qù -le yī liàng xiāofángchē.
just go.away-PERF 1 CL fire-engine
'There just departed a fire-engine.' (Lü Shuxiang 2000: 455)

This is confirmed by Lu Jianming's (2002: 8, fn 9) observation that the sequence *fēi-qù* 'fly-go (away)' is only acceptable in the ExC when meaning 'fly away, fly off', precisely with *qù* as 'leave, depart':

(53) Shù shàng yǒu wǔ zhī niǎo, fēi-qù -le liǎng zhī niǎo,
tree on exist 5 CL bird fly-go.away-PERF 2 CL bird
hái yǒu jǐ zhī niǎo ?
still exist how.many CL bird
'In the tree there are five birds; after three have flown away, how many birds remain?'

Note that no such meaning difference is observed for the uaV *lái* 'come' and its transitive counterpart *lái* 'come (somewhere)'.

Returning to the asymmetry between *lái* and *qù* in the sentence-final position of complex SVCs, summarized in (54) below, I propose that native speakers reject the sentence-final *qù* in (54b), because they cannot construe *qù* as an uaV here. This contrasts with the sequences 'Vdir-*qù*' and 'Vdis-Vdir-*qù*' which clearly function as unaccusative predicates, as demonstrated in the ExC in (51a,c) above.[21] As for the speakers that do not manifest the asymmetry *lái* 'come'

[20] The uaV *qù* 'go away' is thus like the uaV *zǒu* 'leave' *modulo* the component of movement away from the speaker present in *qù* 'go away'.

[21] Somewhat surprisingly, the speakers rejecting sentence-final *qù* 'go' in complex SVCs accept it in simple SVCs:

vs *qù* 'go (away)'in the sentence-final position of transitive complex SVCs, it seems plausible to surmise that the uaV *qù* has both the meaning 'go' and 'go away, leave' for them:

(54) a. Tāmen bān -jìn -{lái /qù}-le [yī bǎ yǐzi].
3PL transport-enter- come/go -PERF 1 CL chair

b. Tāmen bān -jìn -le [yī bǎ yǐzi] {lái / % qù}.
3PL transport-enter-PERF 1 CL chair come/ go

c. Tāmen bān -le [yī bǎ yǐzi] {jìn -lái/ jìn -qù}.
3PL transport-PERF 1 CL chair enter-come/ enter-go
'They brought in a chair (towards/away from the speaker).'

The uaV status of *qù* in (54b) is crucial, because only with *qù* 'go (away)' as uaV can there be the required argument sharing. When *qu* is not an uaV, but the transitive verb qù 'go somewhere', whose internal argument is the locative goal (which remains covert here), then no argument sharing is possible between this locative goal and the patient DP of the displacement and directional verbs.

6. *Conclusion*

Genuine argument sharing SVCs in the sense of Collins (1997, 2002) have been argued to exist in Chinese as well. They are either composed of two verbs, *viz.* a displacement verb (e.g. *bān* 'transport') plus the verb *lái* 'come' or *qù* 'go' (simple SVCs) or of three verbs, *viz* a displacement verb, a directional verb (e.g. *jìn* 'enter') plus *lái* or *qù* (complex SVCs). Crucially, *lái* 'come' and *qù* 'go' are unaccusative verbs, thus allowing for the sharing of their unique internal argument with the patient of the directional verb and the displacement verb.

The different orders observed for the verbs and their internal argument DP in simple and complex SVCs can be divided into an adjacent order 'V_{dis} (V_{dir}) lái 'come'/*qù* 'go' DP', on the one hand, and a non-adjacent order, on the other. More precisely, there is one non-adjacent order in the case of simple SVCs: 'V_{dis} DP *lái*/*qù*', and two non-adjacent orders in the case of complex SVCs: 'V_{dis} DP V_{dir} *lái/qù*' and 'V_{dis} V_{dir} DP *lái/qù*'. They can all be derived from the structure [$_{v}$P1 [$_{VP}$dis DP$_i$ V_{dis} [$_{v}$P2 [$_{VP}$dir *pro*$_i$ V_{dir} [$_{VP}$ *pro*$_i$ lái/qù]]]]] by V-to-*v* movement and *tucking in* à la Richards (1997), where each verb adjoins to *v* as close as possible.

This analysis correctly predicts the relative order of the verbs, the possible position of aspect suffixes and the distribution of the internal argument DP, something previous works had not achieved so far. It confirms Collins' (2002) claim that the verb raises to a functional category such as *v* or T, not to another verb. It also nicely fills the "gap" noticed by Collins (2002: 9) who only observes SVCs with two verbs in the languages examined by him.

Naturally, it is impossible to provide a comprehensive analysis of the entire array of phenomena involved, and in fact a monograph would be needed here.

The observed correlation between the different orders (adjacent vs non-adjacent) and the aktionsart (telic vs atelic) of the predicate is a first step in the right direction, but needs to be examined further by controling inter alia for the co-varying (in)definiteness of the internal argument DP.

There remain open questions such as the factors determining whether a given verb raises or not. This is not surprising, because the precise semantic/syntactic differences between the

(i) Tāmen bān {lái /qù}-le yī zhāng chuáng {lái /qù}.
3PL transport come/go -PERF 1 CL bed come/go
'They moved a bed (towards/away from the speaker).'

different output structures are not well-understood. It is evidently always possible to postulate some ad hoc features triggering the desired verb movement, but that would simply amount to restating the facts, as long as the phenomenon in question cannot be tied in with independently known principles of Chinese grammar.

References

Basciano, Bianca. 2010. Verbal compounding and causativity in Mandarin Chinese. Doct. diss., Università degli Studi di Verona.

Carstens, Vicki. 2002. Antisymmetry and word order in serial verb constructions. *Language* 78, 1: 3-50.

Chao, Yuen Ren. 1968. *A grammar of spoken Chinese*. Berkeley: University of California Press.

Chen, Zhishuang. 2016. Mandarin directional serial verb constructions: A constructionist approach. Doct. diss., University of York.

Collins, Chris. 1997. Argument sharing in serial verb constructions. *Linguistic Inquiry* 28, 3: 461-497.

Collins, Chris. 2002. Multiple verb movement in ǂHoan. *Linguistic Inquiry* 33, 1: 1-29.

Ernst, Thomas. 1989. On verb subcategorization in Chinese. In: Chan Marjorie & Ernst, Thomas. *Proceedings of the Third Ohio State University Conference on Chinese Linguistics*. Bloomington, Indiana: Indiana University Linguistics Club, pp. 116 - 140.

Ernst, Thomas. 1994. Functional categories and the Chinese *Infl*. *Linguistics* 32, 2: 191 – 212.

Fan, Jiyan. 1963. Dòngcí hé qūxiàng-xìng hòuzhí chéngfēn de jiégòu fēnxī [Analysis of the construction 'verb + directional item] *Zhongguo Yuwen* 1963, nr. 2: 136 – 160, 170. Reprint 1987 in *Fan Jiyan lùnwénjí* [Collected works of Fan Jiyan], Beijing: Yuwen chubanshi, pp. 38- 39.

Hu, Xuhui (to appear). Same root, different categories: Encoding direction in Chinese. *Linguistic Inquiry*, https://doi.org/10.1162/ling_a_00398, accessed on July 12, 2021.

Huang, C.-T. James. 1984. Phrase structure, lexical integrity and Chinese compounds. *Journal of the Chinese Language Teachers' Association* 19, 2: 53-78.

Huang, C.-T. James. 1987. Existential sentences in Chinese and (in)definiteness. In Eric J. Reuland & Alice ter Meulen (eds.), *The representaton of (In)definiteness*, 226- 253. Cambridge, Mass.: Mit Press.

Huang, C.-T. James. 1989. Pro-drop in Chinese: A generalized control theory. In Jaeggli, O. & Ken Safir (eds.) *The null subject parameter*. Dordrecht: Kluwer, pp. 185-214.

Kimura, Hideki. 1984. On two functions of the directional complements *lái* and *qù* in Mandarin. *Journal of Chinese Linguistics* 12, 2: 262 - 297.

Law, Paul. 1996. A note on the serial verb construction in Chinese. *Cahiers de Linguistique - Asie orientale* 25, 2: 199 -235.

Li, Charles Sandra Thompson. 1981. *Mandarin Chinese. A functional reference grammar.* Berkeley et alibi: University of California Press.

Li, Linding. 1984. Dòngcí de bīnyǔ hé jiégòu de bīnyǔ [The object of the verb and the object of the phrase]. *Yuyan jiaoxue yu yanjiu* 1984, nr. 3: 103 – 114; 123.

Liu Yuehua. 1980. Guānyú qūxiàng bǔyǔ “lái”, “qù” de jǐ ge wèntí [Some problems concerning the directional complements *lái* and *qù*]. *Yuyan jiaoxue yu yanjiu* 1980, nr. 3: 36-44.
Liu Yuehua. 1988. Qūxiàng bǔyǔ de yǔfǎ yìyì [The grammatical meaning of directional complement]. In: *Yǔfǎ yánjiū hé tànsuǒ* 6, p. 74 - 88.
Liu, Yuehua. 1998. Qūxiàng bǔyǔ tōngshì [An account of the directional complements]. Beijing: Beijing yuyan wenhua chubanshe.
Liu, Yuehua, Wenyu Pan & Wei Gu. 2001. *Shíyòng xiàndài hànyǔ yǔfǎ* [A practical grammar of spoken Chinese]. Beijing: Shangwu yinshuguan.
Lu, Jianming. 1985. Guānyú “qù+VP” hé “VP+qù” jùshì [On the sentence patterns ‘*qù* + VP and ‘VP + *qù*]. *Yuyan jiaoxue yu yanjiu* 1985, nr. 4: 18 – 32.
Lu, Jianming. 2002. Dòngcí hòu qūxiàng bǔyǔ hé bīnyǔ de wèizhí wèntí [On the order of the postverbal directional complement and the object]. *Shijie hanyu jiaoxue* 2002, nr. 1: 5-17.
Lü, Shuxiang. 1992. Tōngguò duìbǐ yanjiū yǔfǎ [Grammar research by comparison]. In: *Lü Shuxiang wenji* [Collected works by Lü Shuxiang], vol. 4 pp. 152 – 166.
Lü, Shuxiang (ed.). 2000. *Xiàndài hànyǔ bābáicí* [Eight hundred words of Modern Mandarin]. Beijing: Shangwu yinshuguan.
Paul, Waltraud. 2005. The “serial verb construction” in Chinese: A Gordian knot. In: Oyharçabal B. & Paul W. 2005. Proceedings of the workshop *La notion de “construction verbale en série” est-elle opératoire ?* December 9, 2004, Ehess, Paris. Available at: http://crlao.ehess.fr/index.php?177 (Accessed on September 30, 2020) http://crlao.ehess.fr/docannexe/file/1543/svcfinalversionoct2005.pdf
Paul, Waltraud 2008. The “serial verb construction” in Chinese: A tenacious myth and a Gordian knot. *The Linguistic Review* 25, 3/4 : 367 - 411.
Paul, Waltraud, Yaqiao Lu & Thomas Hun-tak Lee. 2020. Existential and locative constructions in Mandarin Chinese. *The Linguistic Review* 37, 2: 231-267.
Ramchand, Gillian C. 2008. *Verb meaning and the lexicon: A first-phase syntax.* Cambridge: Cambridge University Press.
Richards, Norvin. 1997. *What moves where when in which language*? Doct. diss., MIT.
Xiao, Xiumei. 1992. “Dòng + lái + míng” hé “dòng + míng + lái” liǎng zhǒng jùshì de bǐjiào [Comparison between the two patterns ‘verb + *lái* + NP’ and ‘verb + NP + *lái*]. *Yuyan jiaoxue yu yanjiu* 1992, nr. 1, pp. 59 – 62.
Yang, Ching-Yu. 2009. The semantic and syntactic differences of Mandarin complex verb-direction constructions. http://www.sfu.ca/gradlings/working-papers/wp_2.html. (9 p.)
Zhu, Dexi (1982). *Yǔfǎ jiǎngyì* [On grammar]. Bejing: Shangwu yinshuguan.
Zou, Ke. 1994. Directional verb-compounds in Chinese. In: Beals, K. et al. (eds). Proceedings of the 30th Annual meeting of the CLS. Chicago: CLS, vol. 1, pp. 443 - 457.