

The Syntactic Derivation of Verb Gapping in Mandarin Chinese



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Abstract: The study discusses the syntactic derivation mechanism of verb gapping in Mandarin Chinese, which exists in the second conjunct of the construction. First, the paper introduces Mandarin Chinese lacks the canonical English-like verb gapping construction based on previous studies, in that verb gapping in Chinese is allowed only in non-generic VPs, may not be paired with an antecedent in the adjacent conjunct, and could appear in a subordinate construction. Second, different from the widely discussed across-the-board (ATB) movement or the VP-ellipsis analysis in the canonical English verb gapping construction, or the verb raising or verb ellipsis in the Chinese verb gapping structure, this study adopts that verb gaps in Mandarin Chinese are actually multiple fragments of the construction. The object-NP in the target gapping clause is proposed to undergo focalization, within the sentential (IP)-internal domain. Following the VP-internal subject hypothesis, the subject-NP then moves from Spec-vP to Spec-IP, motivated by EPP-feature for left peripheries. The remnant constituent vP is hypothesized with deletion at the PF-interface, giving rise to the surface “Subject-NP + Object-NP” order. If the direction of the assumption is acceptable, the proposal of focalization in the sentence-internal domain once again empirically confirms the ‘parallelism’/‘identity’ between multiple fragment clauses in the gapping construction in Mandarin Chinese.

Keywords: Gappings; Focalization; Parallelism

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1 Introduction

It has been observed that the verb gap exists in the second conjunct in the English gapping construction, as shown in (1).

- (1) a. *John likes apples and Mary e oranges.*
b. *John saw Mary and Bill e Susan.* [1]

However, it is a controversial issue whether the verb gapping construction is allowed in Mandarin Chinese. Some linguists maintain that English-like canonical gapping constructions are prohibited in Mandarin, as shown in (2) [2, 3, 4], while some other linguists argue that a construction reminiscent of English-like canonical gapping is allowed in Mandarin, as presented in (3) [5, 6, 7].

- (2) a. **Zhangsan xihuan pingguo, Lisi e juzi.*

Zhangsan like apple Lisi e orange

‘Zhangsan likes apples and Lisi e oranges.’ [8]

- b. **Zhangsan kanjian-le Shufen, Lisi e Yaping.*
Zhangsan see-ASP Shufen Lisi e Yaping
‘Zhangsan saw Shufen and Lisi e Yaping.’ [8]

- (3) a. *Zhangsan chi-le san-ge pingguo, Lisi e si-ge juzi.*
Zhangsan eat-ASP three-CL apple Lisi four-CL orange
‘Zhangsan ate three apples, and Lisi four oranges.’ [6]

- b. *Wo mai-le na-bu che, ta e na-liang zixingche.*
I buy-Perf that-CL car he that-CL bicycle
‘I bought that car, and he that bicycle’ [5]

In this squib, following Tang (2001), I will introduce that

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Mandarin lacks the canonical English-like verb gapping constructions [4]. The so-called verb gapping in Mandarin as shown in (3) are different from English gapping in the following main aspects. Firstly, gapping in Mandarin is allowed only in non-generic VPs, claiming the properties of the object determine the eventuality of the predicate [5]. Following this line, (2a) and (2b) are ill-grammatical because the eventuality of the predicate is generic. Secondly, the gap in English must be paired with an antecedent in the adjacent conjunct as shown in (4a) [1]. However, gaps in Mandarin might be ambiguous as shown in (4b) [4].

- (4) a. *Some prepared beans, (and) others ate natto, and the rest e rice.* (e= ate/*prepared)
 b. *Wo chi-le liang-wan fan, Zhangsan zhu-le san-wan tang, Lisi e shi-ge shuijiao.*
 (e=ate/cooked)
 I ate-Perf two-CL rice Zhangsan cook-Perf three-CL soup Lisi e ten-CL dumpling
 ‘I ate two bowls of rice, Zhangsan cooked three bowls of soup, and Lisi ate/cooked ten dumplings.’ [4]

Thirdly, gapping in English is restricted to coordinate [1], while gap in Mandarin could appear in subordinate constructions as shown in (5).

- (5) *Zhangsan chi-le san-ge pingguo, [wo e liang-ge] dangran keyi.*
 Zhangsan ate-Perf three-CL apple I e two-CL certainly possible
 ‘Zhangsan ate three apples. [That I *(ate) two] is certainly possible.’ [4]

Fourthly, gapping in Mandarin seems to disobey island condition and the violation of complex NP constraint is seen in (6) [4].

- (6) *Zhiyao Zhangsan yitian bu kaojin Tsinghua, ni jiu bie ti [[wo e Beida] de shi].*
 as long as Zhangsan one-day not exam-into Tsinghua you then not mention I e Beida DE fact
 ‘As long as Zhangsan is not admitted by Tsinghua university, then please do not mention whether I could be admitted by Peking university.’ [4]

In this squib, I will mainly focus on the derivation of the verb gapping in Mandarin. Different from the canonical gappings in English which are created by a V-to-T movement [1][9], gappings in Mandarin are mainly analyzed as verb raising sentences [5][10], following the lines of Johnson’s ATB movement [1] or empty verb sentences [4]. The main approaches to verb gapping in Mandarin are

introduced in the following section.

2 Verb Gapping in Mandarin

2.1 Verb Raising Analysis

Verb gappings in English are analyzed from two main approaches: one is a VP-ellipsis approach, and the other is an across-the-board (ATB) approach on this issue [1], who argues against gapping in English as (VP-) ellipsis. As for gapping in Mandarin, Paul (1999) shows that Johnson’s ATB movement analysis of gapping can be applied to Mandarin, and the overt V-to-Infl movement is possible in Mandarin [5]. The example of (7) is presented below.

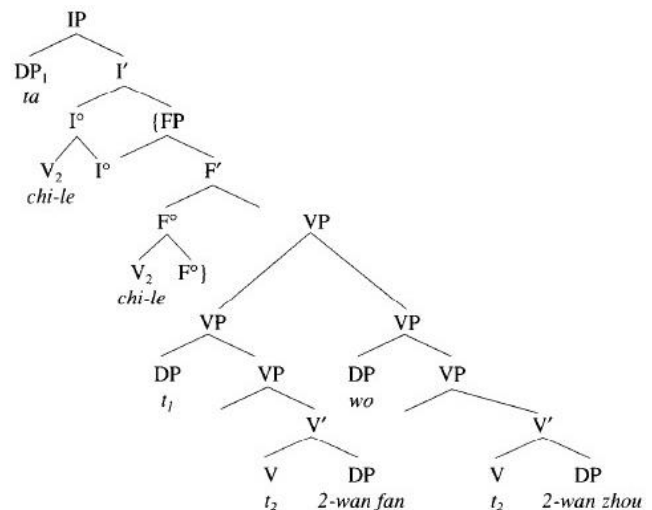
- (7) *Ta chi-le liang-wan fan, wo e liang-wan zhou.*

He ate-Per two-bowl rice I e two-bowl gruel

‘He ate two bowls of rice, and I two bowls of gruel.’ [5]

Paul (1999) assumes that the ATB-moved verbs may have two possible landing sites-either Infl (with the feature [+/- Finite]) or a separate functional projection intermediate between IP and VP (i.e., F in the following diagram) [5]. The derivation of sentence (7) is illustrated in (8).

- (8) The derivation [5]



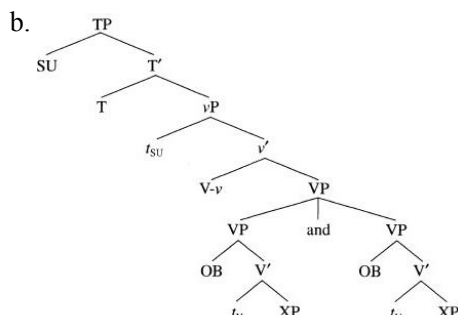
Paul (1999) assumes the two verbs move up to the functional head F or the higher Inflectional head Infl [5], following the ATB movement of Johnson (1994) [1]. However, Ai (2014) argues that gapping in Mandarin is not limited to conjunction structures, as shown in (5) [7]. Thus, Paul’s V-to-Infl movement seems to be problematic. Besides, Tsai (1994) also claims that Mandarin lacks of verb movement beyond the VP shell [3], so there is no convincing empirical evidence to show

the gapping verb could move out of VP in Mandarin.

2.2 Empty Verb Sentence

Tang (2001) claims that verb gappings in Mandarin are empty verb sentences, as shown in (9a) [4]. Tang (2001) further argues gapping in Mandarin result from ATB movement from V-to-v as presented in (9b) [4]. The gapping should not be an ‘all or nothing’ phenomenon [4].

(9) a. XP [VP [V e] YP] [4]



Tang (2001) analyses verb gappings in Mandarin as a conjunction construction, with the conjunct (i.e., and) being covert [4]. Tang (2001) puts forward there are at least two types of gapping in natural languages. One type is ‘canonical gapping’ (as in English) that results from ATB from V to T. The other type is so-called gapping in Mandarin (LPD in Tang’s term) that results from ATB from V to v [4].

However, Ai (2014) suggests that empty verb sentences in Mandarin usually are not context-independent [7]. They are frequently applied when people are identified, such as in the self-introduction in (10a), or when listing is demanding in (10b).

(10) a. *Wo e Zhangsan.*

I Zhangsan

‘I am Zhangsan.’

b. *Zhangsan e pingguo san-ge, Lisi e juzi si-ge.*
(Record-keeping)

Zhangsan apples three-CL Lisi orange four-CL

‘Zhangsan [bought, ate, etc.] three apples, and Lisi, four oranges.’ [7]

2.3 Topic-Comment Structure

Different from the verb-raising and empty-verb approaches, Ai (2014) argues that verb gapping in Mandarin is not a conjunction structure, but multiple sentence fragments formed by topicalization, focus-movement and IP deletion [7]. For instance, in (11):

(11) a. Q: *Natian zai shan-shang, tamen dou kanjian-le shei?*

that. day on mountain-above they all see-ASP who

‘That day on the mountain, they all saw whom?’

A: (?) *Zhangsan kanjian-le Shufen. Lisi Yaping.*

Zhangsan see-ASP Shufen Lisi Yaping

‘Zhangsan saw Shufen and Lisi Yaping.’

b. [*TopicP Lisii* [*FocusP Yapingj* [*IP ti kanjian-le tj*]]] (focus movement)

c. [*TopicP Lisii* [*FocusP Yapingj* [*IP ti kanjian-le tj*]]] (PF deletion) [7]

Ai (2014) assumes that the subject NP undergoes a vacuous topicalization movement, since it is already at the left periphery [7]. Before the topicalization, the object NP undergoes focus movement to the position between IP and TopP. The remnant IP was deleted in PF, and give rise to (11c).

I will follow Ai’s (2014) leftward movement for the object NP to Spec-FocP. The differences that I will make from Ai (2014) [7] are in the following three aspects: (i) The subject NP in the gapping clause does not undergo topicalization movement. Instead, it lands in the Spec-IP position; (ii) The object NP does undergo focus movement (as argued by Ai 2014), yet the position to which it moves is not between IP and TopicP, but within the IP domain (i.e., lower than IP); (iii) The relevant constituents that are deleted are not IPs (as argued by Ai 2014 [7]), but VPs, vP to be exact.

3 My Proposal

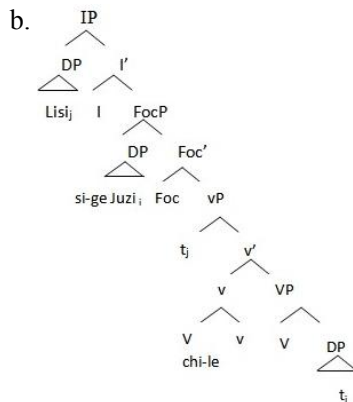
In the squib, I will mainly focus on the target gapping clause, not the whole sentence. Similar perspectives could be found in Ai (2014) [7] and Lasnik (1999a) [11], assuming that the subject NP (the first NP) undergoes topicalization movement [7]. However, ellipsis also needs ‘identity’ and the parallel between the antecedent clause and the target gapping clause would be destroyed if the subject NP in the gapping clause moves to Spec-TopP, while the subject NP in the antecedent clause moves to Spec-IP. Actually Ai (2014) already realized this problem [7], but Ai claims that it is the further movement of subject-NP in target clause (gapping clause) from Spec-IP to Spec-TopP that destroys the ‘parallelism/identity’ between the antecedent clause and the target (gapping) clause.

However, my proposal tends to show that the landing site of subject NP in the gapping clause is Spec-IP instead of Spec-TopP, which affirms the ‘parallelism’/‘identity’ between the two clauses. In this squib I will adopt the VP-

internal subject hypothesis [12], in which the subject is base-generated within VP shell (i.e. vP). As for object NP in the target (gapping) clause, it undergoes focus movement, but the landing site is in the IP-internal domain, rather than higher than IP. Take sentence (3a) for example, which is repeated in (12a) for convenience. The derivation is given in (12b).

(12) a. *Zhangsan chi-le san-ge pingguo, Lisi e si-ge juzi.*

Zhangsan eat-ASP three-CL apple Lisi four-CL orange
'Zhangsan ate three apples, and Lisi four oranges.' [6]



In the above derivation, I assume that subject NP 'Lisi' is base-generated in Spec-vP based on VP-internal subject hypothesis. The informational head Focus (Foc) merges with the lexical projection vP to form the IP-internal informational projection FocP. Foc has the feature [+Foc], which attracts the complement of VP (object NP) to move up to the Spec-FocP. Then the subject NP moves out of vP to Spec-IP. The remnant vP [_{VP}t_j [_{VP}[Vchi-le t_i]]] is deleted in PF, giving rise to the surface structure (12a).

4 Relevant Issues

4.1 IP-Internal Informational Projection

Rizzi (1997) puts forward the syntactic concept of 'left periphery', and suggests that Complementizer Phrase (CP) could be further split into several different projections, which is widely known as the split CP hypothesis [13]. Rizzi (1997) argues the CP layer of the clause structure can be further divided into Force Phrase (ForceP), Topic Phrase (TopP), Focus Phrase (FocP) and Finitive Phrase (FinP) from higher to lower layers, which can be presented as: *ForceP*[*TopP*[*FocP* [*FinP* [*IP*]]]] [13].

Paul (2005) further prove the information structures can not only exist between CP and IP but also can appear

between IP and Light Verb Phrase (vP), which is also referred to as Low IP area [14]. The fine structures could be presented as: [*IP* [*TopP* [*FocP* [*vP*]]]] [14].

Based on the previous studies, Yu-Yin Hsu (2008) even directly argue the fine structure of the left periphery could be also applied to the sentence-internal domain in Mandarin Chinese, that is, the topic phrase and focus phrase could also appear between inflectional phrase and light verb phrase [15]. The fine information structures between IP and vP could also be applied to Chinese, in the following sentence (13), we can clearly see the occurrence of TopP and FocP between IP and vP.

(13) *Zhang San* [*TopP* *chang ge*] [*FocP* *lian guoge*]
dou chang buhao.

Zhang San sing song LIAN national anthem DOU
sing not well

'As for singing, Zhang San even can't sing the
national anthem very well.' [15]

Following the lines of Paul (2005) [14] and Hsu (2008) [15], the occurrence of FocP between IP and vP, formulated as [*IP* [*FocP* [*vP*]]] is possible in the verb gapping in Mandarin.

4.2 Island Condition on Gappings in Mandarin

Tang (2001) claims that verb gappings in Mandarin seems not sensitive to island condition, because violation of complex NP constraint is allowed, as is shown in (6), repeated in (14) for convenience [4].

(14) *Zhiyao Zhangsan yitian bu kaojin Tsinghua, ni jiu
bie ti* [[*wo e Beida*] *de shi*].

as long as Zhangsan one-day not exam-into
Tsinghua you then not mention I e Beida DE fact

'As long as Zhangsan is not admitted by Tsinghua
university, then please do not mention whether I
could be admitted by Peking university.' [4]

However, verb gapping in Mandarin might be sensitive to island conditions when the gapped verb is a ditransitive verb. For instance:

(15) a. **Wo gei Zhangsan yi-ge A, [we gei Lisi yi-ge A]
ye yinggai meiyou wenti.*

I give Zhangsan one-CL A I give Lisi one-CL A
also should not problem

'*I gave Zhangsan an A, and that I gave Lisi an
A should not be a problem.'

b. **Laoshi gei Zhangsan yi-ge A, danshi wo bu
neng jieshou* [[*laoshi gei Lisi yi-ge C*] *de*

shiqing].

teacher give Zhangsan one-Cl A but I not can accept teacher give Lisi one-Cl C DE fact

‘*The teacher gave Zhangsan an A but I cannot accept the fact that the teacher gave Lisi a C.’

c. **Yinwei* [wo gei Zhangsan yi-ge A], (*suoyi*) [we gei Lisi yi-ge C].

because I give Zhangsan one-Cl A therefore I give Lisi one-Cl C

‘*Because I gave Zhangsan an A, I gave Lisi a C.’ [5]

The examples above show that verb gappings in Mandarin are sensitive to subject island, the complex NP island and adjunct island, when the gapped verb is a ditransitive verb. However, other type of verbs seem not sensitive to island conditions.

5 Conclusion

In this squib, I have discussed the derivation of verb gapping in Mandarin, and mainly analyzed the gapping clause, rather than the whole sentence (i.e., both the antecedent clause and the target gapping clause). In the analysis, the object NP undergoes focus movement within the IP-internal domain. The remnant constituent vP is deleted in PF, giving raise to the surface structure “Subject NP+Object NP” in the gapping construction.

The proposal of focalization in the sentence-internal domain once again supports the ‘parallelism’/‘identity’ between multiple fragment clauses in the gapping construction.

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