

How to elide durative phrases (~~temporal complements~~) in Mandarin?*

Yiqin Qiu
LLF-Université Paris-Diderot
qiuyiqin@gmail.com

1 Overview

The behavior of post-verbal durative phrases in ellipsis constructions in Mandarin Chinese reveals some of their adjunct-like properties. However, they should not be considered gerundive phrase modifiers (Huang 1994a) that have the same properties as a nominal modifier. And the alternation between object-duration / duration-object word order is not due to different adjunction position of the durative phrase.

Our assumption: Post-verbal durative phrase is less likely to be complement of the verb (Huang 1984, 1994b, Li 1987), but

- an adjunct to VP at a level that may be even lower than that of manner adverbs;
- or the predicate of the sentence, following Li (1987).

2 Post-verbal durative phrase (~~temporal complement~~) in Mandarin

Distribution of durative phrase in Mandarin Chinese :

Zhu Dexi (1982: 43) : “Words meaning duration of an event are usually positioned after verb as complement.”

- (1) Tā huílái liǎng-gè yuè le.
he come.back two-CL month PTCL
‘It has been two months since he came back.’
- (2) Wǒ xiūxi yíhuì'r.
I rest a.moment
‘I will rest for a moment.’

A contrast between durative phrases in English and in Chinese: Li & Thompson (1974, mentioned in Liao W. 2013), Huang (1982), Li (1987), Tang (1994) and others.

- (3) John read the book *in three hours*. [telic]
- (4) John read books *for three hours*. [atelic]

In Mandarin, there are two positions possible for durative phrases: preverbal and postverbal. For preverbal durative phrase, they are either PP adjunct modifying telic VP, (cf. 5), or introduced by co-verbs to modify atelic VP, (cf. 6).

*This is partly a joint work with Xiaoqian Zhang on durative phrase in Mandarin Chinese. I would like to thank Victor Pan, Waltraud Paul, Xiaoqian Zhang and many colleagues for questions and remarks.

- (5) Zhāngsān sān-gè xiǎoshí kàn-wán-le yī-běn shū. [telic]
 Zhangsan three-CL hour read-finish-PERF one-CL book
 ‘Zhangsan finished reading a book in three hours.’
- (6) Zhāngsān huā/yòng sān-gè xiǎoshí dú shū. [atelic]
 Zhangsan spend/use three-CL hour read book
 ‘Zhangsan spent three hours reading books.’

For postverbal durative phrase, they appear like quantized NP on surface. Only an atelic interpretation is available in order to satisfy the homogenous requirement of the semantic interpretation.

- (7) Zhāngsān dú-le sān-gè xiǎoshí (de) shū. [atelic]
 Zhangsan read-PERF three-CL hour DE book
 a. ‘Zhangsan read books for three hours.’
 b. *‘Zhangsan read the book *in three hours*.’
- (8) Lǐsì kàn-le nà-běn shū sān-gè xiǎoshí (le). [atelic]
 Lisi read-PERF that-CL book three-CL hour PTCL
 ‘Lisi read that book for three hours.’
- (9) Zhāngsān niàn-le wǔ nián (de) gāozhōng, hái méi bìyè. [atelic]
 Zhangsan study-PERF five year DE high.school yet not graduate
 ‘Zhangsan attended high school for five years, and has not graduated yet.’

2.1 Distribution in simple sentences with durative phrase

There is a contrast between animate/inanimate and definite/indefinite object with respect to the word order of object and postverbal durative phrase.

Inanimate indefinite object: durative phrase can only precede an inanimate indefinite object, (cf. 10-11)

- (10) * Zhāngsān kàn-le shū sān-gè xiǎoshí.
 Zhangsan read-PERF book three-CL hour
 ‘Zhangsan read (a book) for three hours’.
- (11) Zhāngsān kàn-le sān-gè xiǎoshí (de) shū (le).
 Zhangsan read-PERF three-CL hour DE book PTCL
 ‘Zhangsan read (a book) for three hours’.

Inanimate definite object: durative phrase can either precede or follow an inanimate definite object. However, the acceptability changes when durative phrase is combined with this kind of object, (cf. 12-13) (Tang 2001).

- (12) Lǐsì kàn-le nà-běn shū sān-gè xiǎoshí (le).
Lisi read-PERF that-CL book three-CL hour PTCL
'Lisi read that book for three hours.'
- (13) ? Lǐsì kàn-le sān-gè xiǎoshí nà-běn shū (le).
Lisi read-PERF three-CL hour that-CL book PTCL
'Lisi read that book for three hours.'

Animate (human) definite object: Durative phrase usually can only follow animate (human) definite object, (cf. 14-15). Cases where durative phrase precedes the human definite object are limited to a few verbs with specific context.

- (14) Zhāngsān děng-le tā péngyǒu liǎng tiān (le).
Zhangsan wait-PERF he friend two day PTCL
'Zhangsan waited for his friend for two days.'
- (15) * Zhāngsān děng-le liǎng tiān (de) tā péngyǒu.
Zhangsan wait-PERF two day DE he friend.
- (16) ?? Lǐsì mà-le yī-gè xiǎoshí nà-yī-gè rén. (Tang 2001)
Lisi scold-perf one-cl hour that-one-cl man
'Lisi scolded that man for two hours.'

Animate (human) indefinite object: If the animate object is a bare noun, when the durative phrase follows the bare noun, the sentence final particle is obligatory to force the definite interpretation of the bare noun, (cf. 17). In this case, it can be seen as the same type of sentence as (14). When the durative precedes the animate object, (cf. 19), it can be seen as the same type as (11). However, verbs and objects are also limited for this kind of structure.

- (17) # Lǐsì děng-le rén liǎng tiān *(le). (definite interpretation)
Lisi wait-PERF man two day PTCL
'Lisi waited someone/the man for two days.'
- (18) * Lǐsì děng-le liǎng tiān (de) rén (le).
Lisi wait-PERF two day DE person PTCL
- (19) Zhāng jǐngguān zhuā-le liǎng tiān xiǎotōu.
Zhang officer catch-perf two day thief
'Officer Zhang went after thieves for two days.'

Dur.\Obj.	-Ani, -Def	-Ani, +Def	+Ani, -Def	+Ani, +Def
Dur.-Obj	Ok	Ok	Ok	Ok
Obj.-Dur.	*	Ok	*	Ok

Table 1. Distribution of postverbal durative phrase

2.2 Distribution in ellipsis with durative phrases

Canonical VP-ellipsis in Mandarin: There are two strategies for VPE in Mandarin, repeating the main verb in the elided clause, (cf. 20), or using the BE-support structure, which is a quasi-equivalent of DO-support in English.

- (20) Zhāngsān kàn-guò *Hónglómèng*, Lǐsì yě kàn-guò.
Zhangsan read-EXP *Dream.of.the.red.chamber* Lisi also read-EXP
'Zhangsan read *Dream of the red chamber*, Lisi did, too.'
- (21) Zhāngsān kàn-guò *Hónglómèng*, Lǐsì yě shì.
Zhangsan read-EXP *Dream.of.the.red.chamber* Lisi also be
'Zhangsan read *Dream of the red chamber*, Lisi did, too.'

Sentential-level adverb, like *céngjīng* 'once', is optional in the ellipsis site, (cf. 22). However, it cannot follow the 'parallel marker' *yě* 'also'.

IP/*v*P-level adverb, like *jīngcháng* 'often', (cf. 23), and *v*P-level adverb, like *mànmàn-de* 'slowly', (cf. 24), are obligatory in the ellipsis site, and they must directly precede the verb, for they are generated outside the deletion domain to undergo reconstruction.

- (22) Zhāngsān **céngjīng** kàn-guò *Hónglómèng*, Lǐsì (céngjīng) yě (*céngjīng) kàn-guò.
Zhangsan once read-EXP *Dream.of.the.red.chamber* Lisi once also read-EXP
'Zhangsan read *Dream of the red chamber* once, Lisi did (once), too.'
- (23) Zhāngsān **jīngcháng** kàn *Hónglómèng*, Lǐsì (*jīngcháng) yě *(jīngcháng) kàn.
Zhangsan often read *Dream.of.the.red.chamber* Lisi often also often read
'Zhangsan often reads *Dream of the red chamber*, Lisi does, too.'
- (24) Zhāng jǐngguān **mànmàn-de** miáozhǔn-le mùbiāo,
Zhang officer slowly aim-PERF target
Lǐ jǐngguān yě*(mànmàn-de) miáozhǔn-le.
Li officer also slowly aim-PERF
'Officer Zhang slowly aimed the target, Officer Li did, too.'

Canonical sentences with durative phrase in ellipsis constructions: In ellipsis constructions, durative phrase behaves a lot like adjuncts rather than complements.

Inanimate object: With inanimate object, whether it's definite or indefinite, we can only elide the inanimate object in the ellipsis site, (cf. 25c, 26c). Repeating only the verb like in canonical ellipsis sentence (20) is illicit, (cf. 25a, 26a). Eliding only the durative phrase yields a different interpretation, and the sentence is less likely to be VPE anymore, (cf. 25b, 26b).

- (25) Zhāngsān kàn-le sān-gè xiǎoshí (de) shū,
 Zhangsan read-PERF three-CL hour DE book
 ‘Zhangsan read (a book) for three hours,’
- a. * Lǐsì yě kàn-le.
 Lisi also read-PERF
 - b. # Lǐsì yě kàn-le shū.
 Lisi also read-PERF book
 ‘..., Lisi read a/some book, too.’
 - c. Lǐsì yě kàn-le sān-gè xiǎoshí.
 Lisi also read-PERF three-CL hour
 ‘Lisi read (a book) for three hours, too.’
- (26) Zhāngsān kàn-le nà-běn shū sān-gè xiǎoshí,
 Zhangsan read-PERF that-CL book three-CL hour PTCL
 ‘Zhangsan read that book for three hours,’
- a. * Lǐsì yě kàn -le.
 Lisi also wait-PERF
 - b. # Lǐsì yě kàn-le nà-běn shū.
 Lisi also read-PERF book
 ‘..., Lisi read that book, too.’
 - c. Lǐsì yě kàn-le sān-gè xiǎoshí.
 Lisi also read-PERF three-CL hour
 ‘Lisi read (that book) for two hours, too.’

Animate (human) object: Likewise, we can only elide the animate object in the target clause, whether its definite, (cf. 27c), or indefinite (cf. 28c). Eliding only the durative phrase will cause a different reading, (27b, 28b). Eliding both object and durative phrase is illicit, (cf. 27a, 28a).

- (27) Zhāngsān děng-le tā péngyǒu liǎng-gè xiǎoshí (le),
 Zhangsan wait-PERF he friend two-CL hour PTCL
 ‘Zhangsan waited for his friend for two hours,’
- a. * Lǐsì yě děng-le.
 Lisi also wait-PERF
 - b. #? Lǐsì yě děng-le tā péngyǒu.
 Lisi also wait-PERF he friend
 ‘Lisi waited for his friend, too.’

- c. Lǐsì yě děng-le liǎng-gè xiǎoshí (le).
Lisi also wait-PERF two-CL hour PTCL
'Lisi waited (for his friend) for two hours, too.'

- (28) Zhāng jǐngguān zhuā-le liǎng tiān xiǎotōu.
Zhang officer catch-PERF two day thief
'Officer Zhang went after thieves for two days.'

- a. * Lǐ jǐngguān yě zhuā-le.
Li officer also catch-PERF
- b. # Lǐ jǐngguān yě zhuā-le tā xiǎotōu.
Li officer also catch-PERF thief
'Lisi went after thieves, too.'
- c. Lǐ jǐngguān yě zhuā-le liǎng tiān.
Li officer also catch-PERF two day
'Lisi went after thieves for two days, too.'

Obj. type\Ellipsis site	Elide both	Elide only Dur.	Elide only obj.
Inanimate obj.	*	*(#)	Ok
Animate obj.	*	*(#)	Ok

Table 2. Distribution of durative phrase in VP-ellipsis

3 What's going on with durative phrases in ellipsis?

3.1 Previous analysis

Complement approach

Huang (1984, 1994b) proposed structure in (29) to account for the fact that, following the verb, indefinite object cannot precede durative phrase. However, on the one hand, we can easily find counterexamples like (17) and (30). On the other hand, (29) will wrongly predict behaviors of durative phrase in VP-ellipsis.

- (29) $[_{IP} NP1 [_I I [_{VP} NP2 [_V V NP3]]]]$ (NP3=durative phrase)

- (30) Lǐsì yǐjīng kāi(-le) jìchéngchē èrshí nián le.
Lisi already drive-PERF taxi twenty year PTCL
'Lisi has already driven a taxi for twenty years.'

Adjunction approach

Adjunct of a gerundive nominal IP (Huang 1992): If postverbale durative phrase is a quantifier of the gerundive nominal phrase, (cf. 31), at least two problems cannot be accounted for: A)

durative phrase as modifier is not compatible with other modifiers in ellipsis, (cf. 32-34). The presence and absence of *de* ‘DE’ remain unexplained. B) This approach should be able to account for the preverbal durative phrase in (31b). However, it cannot explain the difference with regard to *shíjiān* ‘time’ in (31a) and (31b).

(31) [_{IP} Zhāngsān [_I kàn_i-le ... [_{IP-nom.} sān tiān [_I I° [_{VP} ~~kàn~~_i shū]]]]]

- a. Zhāngsān kàn-le sān tiān (***shíjiān**) (de) shū .
 Zhangsan read-PERF three day time DE book
 i. ‘Zhangsan read for three days.’
 ii. ‘Zhangsan did three days of book reading.’ (Huang 1994)
- b. Zhāngsān huā-le sān tiān (**shíjiān**) kàn shū.
 Zhangsan spend-PERF three day time read book
 ‘Zhangsan spent three days reading books.’

(32) Wǒ guò wǒ-*(de) dùmùqiáo, tā guò tā-*(de). (adapted from Huang 1994)
 I cross I-DE one.log.bridge he cross he-DE
 ‘I cross my one-log bridge, he crosses his (one-log bridge).’

(33) Zhāngsān kàn-le sān tiān shū, Lǐsì kàn-le sì tiān.
 Zhangsan read-PERF three day book Lisi read-PERF four day
 ‘Zhangsan read (a book) for three days, Lisi read for four days.’

(34) Zhāngsān kàn-le sān tiān de shū, Lǐsì kàn-le sì tiān (*de).
 Zhangsan read-PERF three day DE book Lisi read-PERF four day DE
 ‘Zhangsan read (a book) for three days, Lisi read for four days.’

Lin (2007) also proposed an adjunct approach to account for the durative-object and object-durative word order alternation, (cf. 35). But it fails to account for sentence like (36).

(35) [_{AgroP} wǒ_k [_{VoiceP} t_k [_{Voice}’ kǎi_i [_{AgroP} èrshí nián [_{AgroP} jìchéngchē_i [_{Agro}’ Agro_j [_{VP} èrshí nián [_{VP} t_i [_V’ V_j]]]]]]]]]
 I drive twenty year taxi twenty year
 ‘I have already driven a taxi for twenty years.’

(36) Wǒ kāi jìchéngchē (yǐjīng) (yǒu) èrshí nián le.
 I drive taxi already have twenty year PTCL
 ‘I have already driven a taxi for twenty years.’

Predicate approach

Durative phrase in (36) are viewed as a main predicate of the sentence, hence the presences of *yǐjīng* ‘already’ and *yǒu* ‘have’ are possible (Li 1987, Shi 2006). The predicate approach can also account for sentences (37-39), where durative phrase always scopes over negation.

- (37) Zhāngsān bù kāi jìchéngchē èrshí nián le.
Zhangsan NEG drive taxi twenty year PTCL
'It has been twenty years that Zhangsan didn't drive a taxi.'
- (38) Zhāngsān bù kāi jìchéngchē a, yǐjīng yǒu èrshí nián le.
Zhangsan NEG drive taxi PTCL already have twenty year PTCL
'It has been twenty years that Zhangsan didn't drive a taxi.'
- (39) Zhāngsān a, bù kāi jìchéngchē, yǐjīng yǒu èrshí nián le.
Zhangsan PTCL NEG drive taxi already have twenty year PTCL
'It has been twenty years that Zhangsan didn't drive a taxi.'

4 Conclusion

Post-verbal durative phrase is less likely to be complement of the verb, but

- an adjunct to VP at a level that may be even lower than that of manner adverb, (cf. 41, 42);
- or the predicate of the sentence, following Li (1987), (cf. 40, 43);

(40) NP1 V NP2 Duration

(41) NP1 V Duration NP2

- (42) Lǐsì jìngjìng-de huà-le sān-gè xiǎoshí huà.
Lisi quietly draw-PERF three-CL hour painting
'Lisi quietly drew for three hours.'

- (43) Zhāngsān méi kàn shū liǎng nián le.
Zhangsan NEG read book two year PTCL
'Zhangsan hasn't read a book for two years.'

Reference

- Huang, C.-T. J. 1984. Phrase structure, lexical integrity, and Chinese compounds, *Journal of the Chinese Language Teachers Association* 19, 53-78, 1984.
- Huang C T J. 1994a. Verb movement and some syntax-semantics mismatches in Chinese[J]. *Chinese Languages and Linguistics*, 2: 587-613.
- Huang, C.-T. J. 1994b "More on Chinese Word Order and Parametric Theory," in Barbara Lust, John Whitman, Jaklin Kornfilt (eds.), *Syntactic Theory and First Language Acquisition: Cross-linguistic Perspectives--Volume 1: Phrase Structure*, Lawrence Erlbaum Associates, Hillsdale, New Jersey, pp. 15-35, 1994.
- Li, Y.-H. Audrey. 1987. Duration phrases: Distributions and interpretation. *Journal of Chinese Language Teachers Association* 22:27-65.
- Li, C. N., & Thompson, S. A. 1974. Co-verbs in Mandarin Chinese: Verbs or prepositions?. *Journal of Chinese Linguistics*, 257-278.
- Liao, Weiwen Roger. 2013. The Syntax-Semantics of Durative Phrases in Chinese: The Archimedes' Principle in Linguistics. The LFK Society Young Scholar Symposium. University of Washington, Seattle.
- LinLin, Jo-wang. (2008) Event decomposition and the syntax and semantics of Chinese durative phrases. *Event Structures in Linguistic Form and Interpretation Series: Language, Context, and Cognition*, ed. by Johannes Dolling & Tatjana Heyde-Zybatow, 31-54. Berlin & New York: Walter de Gruyter
- Shi, Dingxu. 2006. On the syntactic status of the post-verbal numeral phrases, *Hanyu Xuebao* (Chinese Linguistics), Feb. 2006, no. 1, p. 51-58, 95.
- Tang, C. C. J. (2001). Functional projections and adverbial expressions in Chinese. *Language and Linguistics*, 2(2), 203-241.
- Zhu, Dexi. 1982. Yufa jiangyi [Lecture notes on grammar]. *Beijing: Shangwu Yinshuguan*.