

MaxElide Effects in Mandarin Chinese

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Abstract: In this article, we point out that what Hartman (2011) observes about how elided sentences with adjunct *wh*-phrases behave in English is not fully repeated in Mandarin Chinese, and aim to account for the difference between the two languages in terms of the different base positions of relevant adjuncts coupled with Hartman's (2011) formulation of MaxElide, a condition requiring ellipsis to apply to the largest possible domain. In doing so, we provide a supportive argument for Takahashi and Fox's (2005) and Hartman's (2011) reformulation over Merchant's (2008) original definition of the condition.*

Key words: general linguistics, syntax, ellipsis, MaxElide, Chinese

1. Introduction

The kind of asymmetry between VP-ellipsis and sluicing observed in (1c–d) has attracted attention of many researchers including Chung et al. (1995), Fox and Lasnik (2003), Takahashi and Fox (2005), Merchant (2001, 2008), Hartman (2011), Messick and Thoms (2016) and Griffiths (2019), among others.

- (1) a. They studied a Balkan language.
b. But I don't know which Balkan language they studied.
c. ?? But I don't know which Balkan language they did.
d. But I don't know which Balkan language.

The examples in (1) are cited from Lasnik (2001). (1b–d) are potential continuations of (1a). While (1b) contains a full-fledged indirect question, (1c–d) have truncated indirect questions: they involve VP-ellipsis and sluicing (or TP-ellipsis), respectively. To account for the degraded status of (1c), Merchant (2008) proposes the condition in (2), naming it MaxElide.

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- (2) Let XP be an elided constituent containing an A'-trace. Let YP be a possible target for deletion. YP must not properly contain XP.

The indirect questions in (1c–d) are assumed to share the pre-elliptic structure below:

- (3) ... [_{CP} which Balkan language_i [_{TP} they T [_{VP} study *t*_i]]]

The *wh*-phrase undergoes movement from the object position to the edge of CP, leaving an A'-trace in VP. While TP and VP are potential targets of ellipsis, ellipsis of VP is blocked by the possibility of ellipsis of TP (sluicing), according to (2). MaxElide as originally formulated by Merchant (2008) is refined by Takahashi and Fox (2005) and Hartman (2011), with new empirical observations added. In particular, following Schuyler (2001), Hartman (2011) notes that movement of adjunct *wh*-phrases exhibits slightly different behavior, supplying the examples below.

- (4) a. Mary was trying to kiss someone, but I have no idea why (she was).
 b. You say you'll pay me back, but you haven't told me when (you will).

The indirect questions in (4) contain adjunct *wh*-phrases, and significantly, they allow either sluicing or VP-ellipsis to take place.

The purpose of this article is to examine cases similar to (4) in Mandarin Chinese (hereafter, MC) and consider whether they exhibit MaxElide effects or not. We point out that unlike their English counterparts, adjunct *wh*-phrases in MC show variable behavior: some obey the condition, but others do not. We show that upon close examination, they are amenable to the version of MaxElide formulated by Hartman (2011), whereby we provide new empirical support for Hartman's (2011) definition of the condition.¹

After leaving this introductory section, we explicate in section 2 Tan's (2020) observation that MC exhibits MaxElide effects in exactly the same way as English as far as cases involving object and subject *wh*-phrases are concerned. In section 3, we observe that cases involving adjunct *wh*-phrases in MC show apparently complex behavior, providing prima facie counterexamples to Hartman (2011). In section 4, we closely consider the structure of sentences containing adjunct *wh*-phrases in MC and show that the apparent counterexamples can actually be accounted for by Hartman's (2011) version of MaxElide, providing it with a new kind of empirical support. In section 5, we conclude our entire discussion, pointing out some theoretical implications.

2. MaxElide Effects in Mandarin Chinese

We start by reviewing Tan's (2020) observation that MC exhibits MaxElide effects

¹ Hartman (2011) formulates his version of MaxElide in part based on Takahashi and Fox (2005).

for cases involving argument *wh*-phrases just as English does. When one intends to consider whether MaxElide is operative in a language or not, three key ingredients need to be shown to exist there: overt movement of *wh*-phrases, VP-ellipsis, and sluicing. MC is well-known as a *wh*-in-situ language (Huang 1982 among many others), but researchers have noticed that overt movement of *wh*-phrases is possible. Consider the following examples:

- (5) Wo zhidao [Jack hui shuo ta xihuan na-ge ren].
 I know Jack will say he like which-CL person
 'I know which person Jack will say he likes.'
- (6) Wo zhidao [(shi) na-ge ren Jack hui shuo ta xihuan].
 I know FOC which-CL person Jack will say he like
 'I know which person Jack will say he likes.'

The bracketed part in (5) is an indirect question, where the *wh*-phrase *na-ge ren* 'which person' remains in situ. In (6), the *wh*-phrase is moved to the initial position of the indirect question. As (5) and (6) have almost the same interpretation, we may assume that *wh*-phrases can optionally undergo overt movement in MC.

Note that the involvement of movement in cases like (6) is supported by the fact that it obeys island constraints (Lin 2005; Cheung 2014). Example (7) is cited from Cheung (2014: 411, (46)) with slight modifications.

- (7) * (Shi) na-ge ren_i Lisi conglai bu kan
 FOC which-CL person Lisi never not read
 [piping t_i de wenzhang]?
 criticize de article
 lit. 'Which person did Lisi never read articles that criticize?'

This example exhibits an effect of the Complex NP Constraint.²

The overt movement of *wh*-phrase in question is analyzed as a sort of topicalization (Hoh and Chiang 1990; Wu 1999; Pan 2014) or focalization (Wang and Wu 2006; Cheung 2014).³ We just assume in this article that it is a kind of focus

² (7) illustrates the movement of *wh*-phrases in MC, as noted by a reviewer. We thank the reviewers for suggesting a detailed illustration of MC data and have made similar modifications in (9), (10), (15), (31), and (32).

³ A reviewer raised the question whether the *wh*-phrase in (5) and (6) can move to the initial position of the matrix clause, as in (i).

- (i) * (Shi) na-ge ren wo zhidao [Jack hui shuo ta xihuan].
 FOC which-CL person I know Jack will say he like
 Intended: 'I know which person Jack will say he likes.'

This sentence is unacceptable. In the matrix clause, the main verb *zhidao* 'know' takes an interrogative sentence as its complement. The *wh*-phrase *na-ge ren* 'which person' is supposed to take scope in the interrogative clause. When it is moved to the initial position of the matrix clause, the sentence is not interpretable. The case indicates that the *wh*-phrase cannot move beyond the clause in which it takes scope.

movement, though the choice is immaterial to the discussion below.⁴

Let us next note that VP-ellipsis is available in MC. As observed by Xu (2003), Li (2005), Soh (2007), and Wei (2010), among others, certain modals allow their complement verbal phrases to be elided.⁵ Consider the examples below, which are cited from Xu (2003):

- (8) a. John hui [_{VP} zixide shua ya],
 John will carefully brush teeth
 'John will brush his teeth carefully,'
 b. Peter ye hui [_{VP} zixide shua ya].
 Peter also will carefully brush teeth
 'Peter also will brush his teeth carefully.'
 c. Peter ye hui [_{VP} e].
 Peter also will
 'Peter also will.'

Preceded by (8a), (8b–c) are synonymous. While the entire VP, including the adverb *zixide* 'carefully,' is repeated in (8b), it is elided in (8c). That not only the object but also the adverb can be understood in (8c) clearly indicates the involvement of ellipsis of a phrasal constituent. Additionally, sloppy identity is observed as in (9).

- (9) Mike hui bangzhu tade xuesheng, Jeanne ye hui [_{VP} e].
 Mike will hit his student Jeanne also will
 'Mike will help his student, Jeanne will too.'

The second clause in (9) is ambiguous between the strict reading that Jeanne will help Mike's student and the sloppy reading that Jeanne will help her own student. In this respect, too, the relevant construction in MC is similar to VP-ellipsis in English (Ma 2017).

What is important for our purpose is that overt extraction of *wh*-phrases out of elided VPs is possible in MC (Ma 2017; Wang 2017; see Li and Wei 2014 for a different view). Consider the following example:

- (10) a. Wo zhidao [_{CP} na-ben shu Jack hui [_{VP} shuo [ta xihuan t]]],
 I know which-CL book Jack will say he like
 [_{CP} na-ben zazhi ta bu hui [_{VP} e]].
 which-CL magazine he not will

⁴ Accordingly, we indicate *sbi* as a focus marker (FOC) in cases like (6), though we are aware that it is sometimes analyzed differently in the literature (for example, as a copula verb by Li (2008) or as a main verb by Paul and Whitman (2008)). Just for ease of exposition, we do not indicate *sbi* with moved *wh*-phrases in the examples in what follows.

⁵ A reviewer pointed out that cases of VP-ellipsis in MC like (8c) look similar to cases of Modal Complement Ellipsis in Dutch, which do not allow extraction (Aelbrecht and Harwood 2019). As shown in (10), the former behaves like VP-ellipsis in English in allowing extraction.

- ‘I know which book Jack will say he likes and which magazine he will not.’
- b. [_{CP} na-ben zazhi [_{TP} ta bu hui [_{VP} shuo [ta xihuan t]]]]
 which-CL magazine he not will say he like

In (10a), two indirect questions are conjoined, each containing an embedded complement clause (clauses can be conjoined without an overt conjunction in MC). The second conjunct is analyzed as in (10b). The *wh*-phrase undergoes long-distance movement and subsequently VP is elided (we indicate elided parts with grey shading). The example clearly shows that overt extraction is possible out of elided VPs.

Let us turn to sluicing in MC, about which there has been abundant research (Wei 2004; Wang and Wu 2006; Chiu 2007; Song 2016; Tan 2020, *etc.*). It is illustrated below.

- (11) a. Tamen hui tingdao yi-zhong hanyu fangyan,
 they will hear one-CL Chinese dialect
 ‘They will hear one Chinese dialect,’
 b. dan wo bu zhidao [na-zhong fangyan tamen hui tingdao].
 but I not know which-CL dialect they will hear
 ‘but I don’t know which dialect they will hear.’
 c. dan wo bu zhidao [na-zhong fangyan].
 but I not know which-CL dialect

Each of (11b–c) is a possible continuation to (11a). While (11b) contains a full-fledged indirect question with the *wh*-phrase moved overtly, (11c) has a sluiced subordinate clause consisting only of the *wh*-phrase. We assume with Wang and Wu (2006), Chiu (2007), Song (2016), Tan (2020), *etc.* that (11c) is derived from (11b) through ellipsis of TP, as shown below.⁶

- (12) wo bu zhidao [_{CP} na-zhong fangyan [_{TP} tamen hui tingdao t]]
 I not know which-CL dialect they will hear

According to this analysis, the derivation of (11c) involves overt movement of the *wh*-phrase followed by ellipsis of TP.⁷

⁶ How to analyze sluiced clauses in MC has been debated. Researchers like Adams (2004), Wei (2004), and Adams and Tomioka (2012), among others, have advocated the so-called pseudo sluicing analysis. In this article, we just assume the movement and deletion analysis. Note also that Tan’s (2020) observation to be presented below that sluicing preempts VP-ellipsis in MC can be taken as a new piece of evidence for the latter analysis because sluiced sentences need to share common pre-elliptic structures with their counterparts with VP-ellipsis, namely the structures involving movement of *wh*-phrases.

⁷ A reviewer wondered whether sluicing is allowed when the antecedent sentence has a *wh*-phrase in situ. The following is a relevant example:

- (i) a. Zhangsan zhidao [Jack hui shuo ta xihuan na-ge ren],
 Zhangsan know Jack will say he like which-CL person
 ‘Zhangsan knows which person Jack will say he likes,’

We are now ready to consider the effects of MaxElide in MC. Tan (2020) observes that MC exhibits MaxElide effects with cases involving object *wh*-phrases. Let us look at the following data:

- (13) a. Tamen hui tingdao yi-zhong hanyu fangyan,
 they will hear one-CL Chinese dialect
 ‘They will hear one Chinese dialect,’
 b. dan wo bu zhidao [_{TP} tamen hui [tingdao na-zhong]].
 but I not know they will hear which-CL
 ‘but I don’t know which dialect they will hear.’
 c. dan wo bu zhidao [na-zhong [_{TP} tamen hui tingdao *t*]].
 but I not know which-CL they will hear
 d. dan wo bu zhidao [na-zhong [_{TP} (* tamen hui [_{VP} *e*])]].
 but I not know which-CL they will

The sentence in (13a) is intended to serve as the antecedent for each of (13b–d). (13b–c) contain full-fledged indirect questions but they differ in one respect: While the *wh*-phrase stays in situ in (13b), it undergoes overt movement in (13c). (13d) shows that while sluicing is perfectly acceptable, VP-ellipsis results in an unacceptable sentence. The contrast in (13d) is similar to the one we have already noted in (1). Notice that we cannot attribute the unacceptability of VP-ellipsis in (13d) to the fact that it involves extraction of the *wh*-phrase out of the elided VP, which should actually be permissible as shown in (10). It is reasonable, therefore, to ascribe (13d) to MaxElide, as indicated below.

- (14) ... [_{CP} na-zhong [_{TP} tamen hui [_{VP} tingdao *t*]]]
 which-CL they will hear

This is the pre-elliptic structure of the indirect questions in (13d). The trace of the *wh*-phrase is contained in VP. If nothing happens, we have (13c). If TP is elided, the sluiced version in (13d) is derived. According to the definition of MaxElide in (2), the possibility of TP-ellipsis or sluicing should block VP-ellipsis, which is actually borne out.

We also note the following examples, where the options of ellipsis interact with island effects.

- (15) a. Lisi hui kan [piping mouren de wenzhang],
 Lisi will read criticize someone de article
 ‘Lisi will read articles that criticize someone,’

-
- b. Dan Lisi bu zhidao [na-ge ren].
 but Lisi not know which-CL person
 ‘but Lisi does not know which person.’

In the antecedent sentence in (ia), the *wh*-phrase occurs in situ. Nonetheless, it can license sluicing in (ib).

- b. * danshi wo bu zhidao shenme ren_i [ta hui
 but I not know what person he will
 kan [piping t_i de wenzhang]].
 read criticize de article
 ‘but I do not know what person he will read articles that criticize.’
- c. danshi wo bu zhidao [shenme ren (* ta hui [_{VP} e])].
 but I not know what person he will

Each sentence in (15b–c) is intended to follow the antecedent in (15a), where the object is a complex NP. In the full-fledged sentence in (15b), overt extraction of the *wh*-phrase is not permissible, while this degradation is repaired in the sluiced sentence in (15c). However, when VP-ellipsis takes place, this violation is not repaired. The contrast in (15c) is another illustration of the MaxElide effects.⁸

The definition of MaxElide in (2) makes reference to an A'-trace. This is in part because cases involving subject *wh*-phrases do not exhibit a relevant effect. Consider the English examples below, which are cited from Lasnik (2001).

- (16) a. Someone solved the problem.
 b. Who (did)?
 c. [_{CP} who C [_{TP} t' did [_{VP} t solve the problem]]]

(16a) can be followed either by the case of sluicing or by the case of VP-ellipsis as in (16b), showing that the possibility of sluicing does not block VP-ellipsis here. This is captured nicely by the formulation of MaxElide in (2). (16c) is the pre-elliptic structure of (16b), where VP contains the trace left by A'-movement of the subject *wh*-phrase. As VP does not contain an A'-trace, either VP or TP can be elided.

The absence of MaxElide effects with subject *wh*-phrases is observed also in MC. Tan (2020) provides the following data:

- (17) a. (Zhe-ge ban) you xuesheng hui shenqing MIT,
 this-CL class exist student will apply MIT
 ‘(In this class) some student will apply to MIT,’
- b. dan wo bu zhidao [na-ge xuesheng hui shenqing MIT].
 but I not know which-CL student will apply MIT
 ‘but I don't know which student will apply to MIT.’

⁸ A reviewer asked whether (15c) improves if the modal is negated as below:

- (i) ?? danshi wo bu zhidao [shenme ren ta bu hui [_{VP} e]].
 but I not know what person he not will

In this case, sluicing is not allowed, and hence VP-ellipsis should be possible. The fact is that the example in (i) is degraded. As the reviewer noted, this case can be excluded not as a MaxElide violation but as an island violation (see Fox and Lasnik 2003 and Merchant 2008 for related discussions).

- c. dan wo bu zhidao [na-ge xuesheng (hui [_{VP} e])].
 but I not know which-CL student will
- (18) a. Speaker A: You ren neng jiashi feiji.
 exist person can drive plane
 ‘Someone can fly a plane.’
- b. Speaker B: Shei neng jiashi feiji?
 who can drive plane
 ‘Who can fly a plane?’
- c. Speaker B: Shei (neng)?
 who can

Anteceded by (17a), each of (17b–c) contains an indirect question. (17b) has a full-fledged indirect question, whereas (17c) shows the option between sluicing and VP-ellipsis. Of importance is the fact that both options are acceptable. An additional set of data is in (18). Any of speaker B’s utterances in (18b–c) can be a continuation to Speaker A’s utterance in (18a). Note that (18c) shows that either sluicing or VP-ellipsis is possible.

3. Variable MaxElide Effects with Adjunct *wh*-phrases

In the last section, we reviewed Tan’s (2020) observation that cases involving argument *wh*-phrases in MC behave exactly in the same way as their English counterparts with respect to MaxElide. Let us go on to consider cases with adjunct *wh*-phrases. As noted with (4), repeated below as (19), Schuyler (2001) and Hartman (2011) observe that they apparently do not display relevant effects.⁹

- (19) a. Mary was trying to kiss someone, but I have no idea why (she was).
 b. You say you’ll pay me back, but you haven’t told me when (you will).

In (19), the *wh*-phrases are adjuncts. The indirect questions can be truncated either by sluicing or by VP-ellipsis. Hartman (2011) notes that the lack of MaxElide effects in (19) can be accounted for by assuming that *wh*-adjuncts can be merged directly outside VP in English. For instance, the indirect question in (19b) can have the structure below.

- (20) ... [_{CP} when C [_{TP} t [_{TP} you will [_{VP} pay me back]]]]

Here the *wh*-phrase is assumed to be base-generated in the position adjoined to TP and move to the specifier position of CP. Since VP does not contain a trace of the adjunct, it can undergo ellipsis without being interfered with by the possibility of sluicing.

The plausibility of this line of analysis is confirmed by the following data from Hartman (2011):

⁹ Hartman (2011) observes that those adjunct *wh*-phrases do exhibit MaxElide effects in matrix questions. We put this aside in the article, focusing on cases involving indirect questions.

- (21) a. John said Mary would leave, but I forget when.
 b. John said Mary would leave, but I forget when he did.

As the antecedent sentences in (21a–b) are bi-clausal, the indirect questions in the subsequent clauses should be ambiguous: they should mean either the time of John's utterance or the time of Mary's departure according to John. Significantly, Hartman (2011) observes that while the case of sluicing in (21a) is ambiguous that way, the case of VP-ellipsis in (21b) only has the first reading. To have the second reading, the indirect questions need to be analyzed in the following way:

- (22) I forget [_{CP} when [_{TP} he [_{VP} said [_{CP} C [_{TP} *t* [_{TP} Mary would leave]]]]]]]

Here the *wh*-adjunct is assumed to be base-generated in the position adjoined to the lower TP and move to the specifier position of the higher CP (for the sake of simplicity, intermediate traces created by successive-cyclic movement of the *wh*-phrase are not indicated). The trace is contained in the higher VP and in the higher TP. Either of them should in principle be able to be elided, but the possibility of eliding the latter (or sluicing) blocks the possibility of eliding the former according to MaxElide.

Let us now turn our attention to MC. The following examples illustrate how *wh*-adjuncts are used in questions in MC:

- (23) a. Zhangsan mei shuo [ta weishenme neng mianfei ruchang].
 Zhangsan not say he why can freely enter
 'Zhangsan did not say why he could get free admission.'
 b. Zhangsan mei shuo [(shi) weishenme ta neng mianfei ruchang].
 Zhangsan not say FOC why he can freely enter
 'Zhangsan did not say why he could get free admission.'
- (24) a. Wo bu zhidao [xiao Zhang shenme shishou hui qu
 I not know headmaster when will go
 Beijing chuchai].
 Beijing business.trip
 'I do not know when the headmaster will go to Beijing for a business trip.'
 b. Wo bu zhidao [(shi) shenme shishou xiao Zhang hui qu
 I not know FOC when headmaster will go
 Beijing chuchai].
 Beijing business.trip
 'I do not know when the headmaster will go to Beijing for a business trip.'

The bracketed parts here are indirect questions. In (23a), the reason *wh*-adjunct *weishenme* 'why' appears in the position immediately following the subject. As (23b) shows, it can occur in the initial position of the clause, optionally accompanied by *shi*, just as noted in (6) with the argument *wh*-phrase. In (24a–b), the temporal *wh*-adjunct *shenme shishou* 'when' is used, showing the same pattern.

Let us next consider how those *wh*-adjuncts interact with ellipsis. We start with the cases involving the reason *wh*-adjunct below.

- (25) a. Zhangsan shuo ta neng mianfei ruchang,
 Zhangsan say he can freely enter
 b. danshi ta mei shuo [weishenme (ta neng mianfei ruchang)].
 but he not say why he can freely enter
 c. ? danshi ta mei shuo [weishenme ta neng]. (VP-ellipsis)
 but he not say why he can

The sentence in (25a) is intended to antecede each of (25b–c). The indirect question can have a full-fledged form, or it can consist only of the *wh*-phrase as in (25b). In (25c), the sentence with VP-ellipsis is basically acceptable.¹⁰ Those data show that interrogative clauses with *weishenme* ‘why’ do not exhibit a MaxElide effect, replicating what we observed for English in (4) and (19).

Let us move on to consider the cases containing the temporal adjunct *wh*-phrase *shenme shihou* ‘when’ below.

- (26) a. Xiaozhang hui qu Beijing chuchai,
 Headmaster will go Beijing business.trip
 b. dan wo bu zhidao [shenme shihou (ta hui qu
 but I not know when he will go
 Beijing chuchai)].
 Beijing business.trip
 c. ?? dan wo bu zhidao [shenme shihou ta hui]. (VP-ellipsis)
 but I not know when he will

Each of (26b–c) is intended to follow (26a). (26b) indicates that either the full-fledged indirect question or the sluiced question is acceptable. (26c) has an indirect question where VP is elided. Significantly, it is degraded. The contrast between sluicing and VP-ellipsis indicates the presence of a MaxElide effect.¹¹

The observation just above can be confirmed with the following data, which contain different temporal adjunct *wh*-phrases:

- (27) a. Xiawu, Lisi hui qu yi-tang youju,
 afternoon Lisi will go one-CL post.office
 ‘This afternoon, Lisi will go to a post office,’
 b. danshi wo bu zhidao [jidian (ta hui qu yi-tang youju)].
 but I not know what.time he will go one-CL post.office
 ‘but I do not know what time (he will go to a post office).’

¹⁰ We asked 30 native speakers of MC to judge the examples on a scale of one to five. The average ratings of the full-fledged sentence, the sluiced sentence and the VP ellipsis sentence in (25b–c) were 4.80, 4.90, and 4.07, respectively. In this article, we consider an example to be acceptable if its average rating R is such that $4.2 < R \leq 5$, almost acceptable (indicated with ?) if $3.4 < R \leq 4.2$, mildly unacceptable (??) if $2.6 < R \leq 3.4$, almost unacceptable (?*) if $1.8 < R \leq 2.6$, or unacceptable (*) if $1 \leq R \leq 1.8$.

¹¹ The average ratings for the full-fledged sentence, the sluiced sentence and the VP-ellipsis sentence in (26b–c) by our informants were 4.67, 4.5, and 3.20, respectively.

- c. ?? danshi wo bu zhidao [jidian ta hui].
 but I not know what.time he will
- (28) a. Zhe-ge libai, Lisi hui mai Kendeji,
 this-CL week Lisi will buy KFC
 ‘This week, Lisi will buy (food at) KFC,’
- b. danshi wo bu zhidao [xingqi-ji (ta hui mai Kendeji)].
 but I not know week.day-which he will buy KFC
 ‘but I do not know which day of the week (Lisi will buy (food at) KFC).’
- c. ?? danshi wo bu zhidao [xingqi-ji ta hui].
 but I not know week.day-which he will

The sentences in (27a) and (28a) are intended to antecede each of (27b–c) and (28b–c), respectively. The full-fledged indirect questions or the sluiced clauses in (27b) and (28b) are acceptable. In contrast, the cases of VP-ellipsis in (27c) and (28c) are degraded.¹²

We add data with the locative adjunct *wh*-phrase *zainali* ‘where’ and the purpose adjunct *wh*-phrase *wei-le shenme* ‘for what.’¹³

- (29) a. Xiaowang hui zai mou-ge da chengshi mai fangzi,
 Xiaowang will at one-CL large city buy apartment
 ‘Xiaowang will buy an apartment in a large city,’
- b. danshi ta mei shuo [zainali (?* ta hui)].
 but she not say where she will
 ‘but she did not say where (she would).’

¹² The average ratings for the full-fledged sentence, the sluiced sentence and the VP-ellipsis sentence in (27b–c) were 4.47, 4.40, and 3.23, respectively. Those of (28b–c) were 4.27, 4.37, and 3.13, respectively.

¹³ A reviewer wondered how manner adjuncts corresponding to *how* behave. The manner *wh*-adjunct *zenme* ‘how’ behaves differently from other *wh*-adjuncts in MC. It occurs in the preverbal position, arguably in the VP-adjoined position, but not in other positions as in (i). Further, it resists dislocation and expectedly is incompatible with sluicing or VP-ellipsis (Lin 1992; Wang and Wu 2006; Sun 2018), as indicated in (ii)–(iii).

- (i) a. Xiaozhang hui zenme qu Beijing?
 Headmaster will how go Beijing
 ‘How will the headmaster go to Beijing?’
- b. *Xiaozhang hui qu Beijing zenme?
 c. *Xiaozhang zenme hui qu Beijing?
- (ii) *Zenme xiaozhang hui qu Beijing?
- (iii) a. Xiaozhang hui qu Beijing,
 Headmaster will go Beijing
 b. *danshi wo bu zhidao zenme (ta hui).
 but I not know how he will

Because of this peculiarity of manner adjuncts in MC, we put them aside in this paper.

- (30) a. Xiaoli shuo ta hui nuli zhuangqian,
 Xiaoli say she will work.hard earn.money
 'Xiaoli said she would work hard to earn money,'
 b. danshi ta mei shuo [wei-le shenme (?* ta hui)].
 but she not say for what she will
 'but she did not say for what (she would).'

Just like the temporal *wh*-phrases, these *wh*-phrases appear to exhibit MaxElide effects: while the cases of sluicing in (29b) and (30b) are acceptable, those of VP-ellipsis are clearly degraded.¹⁴

It is noted in the literature that when an intervening focus is involved, VP-ellipsis becomes acceptable (Merchant 2001; Takahashi and Fox 2005; Messick 2015). Bearing this in mind, let us consider the examples below.

- (31) a. Xiaozhang XIANG qu Beijing chuchai,
 Headmaster WANT.TO go Beijing business.trip
 'The headmaster WANTS TO go to Beijing for a business trip,'
 b. dan wo bu zhidao [shenme shihou ta HUI].
 but I not know when he will
 'but I do not know when he WILL.'
 (32) a. Xiaoli shuo ta hui mai fangzi,
 Xiaoli say she will buy apartment
 'Xiaoli says that she will buy an apartment,'
 b. danshi ta mei shuo [zainali ta BU hui].
 but she not say where she not will
 'but she did not say where she will NOT.'

In (31), the modal *hui* 'will' serves as a contrastive focus, and VP-ellipsis is acceptable. In this case, the largest deletable constituent is VP rather than TP, so that eliding the former is permissible. For the same reason, the negation is focused and intervenes in (32), and VP-ellipsis is permissible.

4. Explaining Variable MaxElide Effects in MC

We have observed that the adjunct *wh*-phrases in MC behave differently with respect to MaxElide: while the reason *wh*-adjunct does not exhibit a MaxElide effect, the temporal, the locative, and the purpose *wh*-adjuncts do obey the condition. In this section, we provide an account for the variable emergence of MaxElide effects.

4.1. The base positions of adjunct *wh*-phrases in MC

Let us start with the cases involving the reason *wh*-adjunct *weishenme* 'why.' The cases involving VP-ellipsis and sluicing in (25) are repeated below as (33b).

¹⁴ The average ratings of the sluiced sentence and the VP-ellipsis sentence in (29b) were 4.90 and 2.93, respectively. The average ratings of those in (30b) were 4.73 and 2.63, respectively.

- (33) a. Zhangsan shuo ta neng mianfei ruchang,
 Zhangsan say he can freely enter
 b. danshi ta mei shuo [weishenme (? ta neng)].
 but he not say why he can

Given that VP-ellipsis is basically acceptable, (33b) is comparable to the English example in (19a), repeated as (34).

- (34) Mary was trying to kiss someone, but I have no idea why (she was).

We argue below that (33b) can be explained in the same way as (34).

Hartman (2011) accounts for the absence of a MaxElide effect in (34) by assuming that *why* can be base-generated outside TP, as shown below.

- (35) [_{CP} why C [_{TP} t [_{TP} she was [_{VP} trying to kiss someone]]]]

It is assumed here just for the sake of argument that the *wh*-phrase is base-generated in the TP-adjoined position and moved to the specifier position of CP.¹⁵ Given MaxElide as is defined in (2), either TP or VP can be targeted by ellipsis.

- (2) Let XP be an elided constituent containing an A'-trace. Let YP be a possible target for deletion. YP must not properly contain XP.

The point here is that VP does not contain an A'-trace in (35) and hence is exempt from MaxElide.

Concerning the MC reason adjunct *wh*-phrase *weishenme* 'why,' a number of researchers have argued that it is base-generated above TP (Fujii et al. 2014; Ko 2005, 2006; Tsai 2008, 2015). In that case, the example below represents the basic word order reflecting the base position of the adjunct:

- (36) Zhangsan mei shuo [weishenme ta neng mianfei ruchang].
 Zhangsan not say why he can freely enter

But as noted in (23), the adjunct can appear in the post-subject position as well. Regarding cases like this, Ko (2005) argues that they involve topicalization of subjects. (23a) is repeated as (37) and its structure is schematized in (38).¹⁶

- (37) Zhangsan mei shuo [ta weishenme neng mianfei ruchang].
 Zhangsan not say he why can freely enter

¹⁵ Alternatively, *why* may be directly base-generated in the specifier position of CP. The choice does not affect the analysis here.

¹⁶ Tsai (2008, 2015) observes that *weishenme*, as a reason adjunct *wh*-phrase, never occurs in VP.

- (i) a.* Zhangsan neng weishenme mianfei ruchang?
 Zhangsan can why freely enter
 b.* Zhangsan neng mianfei weishenme ruchang?
 c.* Zhangsan neng mianfei ruchang weishenme?

The unacceptability of these examples shows that it cannot occur in VP.

(38) ... [_{TopicP} ta [_{TP} weishenme [_{TP} t_i neng mianfei ruchang]]]

Here too, we assume that the reason adjunct is base-generated in the TP-adjoined position. If the subject stays in the specifier position of TP, it follows the adjunct, resulting in (36). On the other hand, if it undergoes topicalization as shown in (38), (37) ensues. As evidence for the involvement of subject topicalization in cases like (37), Ko (2005) presents the data below.

- (39) *Henshaoren, Zhangsan shuo [t_i hen congming].
 few.people Zhangsan say very smart
 'Few people, Zhangsan says (they) are smart.'
- (40) a. Weishenme henshaoren cizhi?
 why few.people resign
 'Why did few people resign?'
- b. *Henshaoren weishenme cizhi?
 few.people why resign
 'Why did few people resign?'

First of all, (39) shows that the noun phrase *henshaoren* 'few people' cannot be subject to topicalization. Then, it is used as the subject in (40). If *weishenme* precedes it as in (40a), the sentence is acceptable. But if the order is reversed as in (40b), it results in an unacceptable sentence. This follows if (40b) involves topicalization of the subject.

Returning to (33), we analyze the indirect question in (33b) as below.

(41) [_{CP} weishenme_i C [_{TP} t_i [_{TP} ta neng [_{VP} mianfei ruchang]]]]
 why he can freely enter

Here the *wh*-adjunct is base-generated in the TP-adjoined position and moved to the specifier position of CP. Just as in (35), VP does not contain an A'-trace, so that the possibility of TP-ellipsis or sluicing does not prevent VP-ellipsis.

Let us turn to cases with the temporal *wh*-adjuncts, which exhibit MaxElide effects. The representative examples in (26b–c) are repeated as (42b).

- (42) a. Xiaozhang hui qu Beijing chuchai,
 headmaster will go Beijing business.trip
- b. dan wo bu zhidao [shenme shihou (?? ta hui)].
 but I not know when he will

A simple-minded way to explain (42b) might be to assume that temporal *wh*-adjuncts are base-generated inside VP in MC, which would enable us to treat cases involving them in the same way as those with *wh*-objects. Appealing though it might seem initially, it is not a viable option in MC. The temporal *wh*-adjuncts may stay inside TP as MC is a *wh*-in-situ language, but when they do, their occurrence within VP seems to be less natural to native speakers.

- (43) a. Xiaozhang **shenme shihou** hui qu Beijing chuchai?
 Headmaster when will go Beijing business.trip

- ‘When will the headmaster go to Beijing for a business trip?’
- b. ? Xiaozhang hui **shenme shihou** qu Beijing chuchai?
- c. *? Xiaozhang hui qu Beijing chuchai **shenme shihou**?

The *wh*-adjunct *shenme shihou* ‘when,’ shown in boldface, can occur between the subject and the modal as indicated in (43a). If it follows the modal, the resulting sentences are degraded to some extent as indicated in (43b–c). This would not be expected if *shenme shihou* ‘when’ were allowed to adjoin to VP. It does not seem plausible, therefore, to postulate that the temporal *wh*-adjuncts in question can occur inside VP in MC.

Given that the base position of the temporal adjunct is outside VP, the embedded VP in (42b) should not contain its trace. In order for MaxElide in (2) to account for the example, there ought to be an A'-trace of the *wh*-phrase inside VP. This indicates that MaxElide in (2) cannot account for the contrast in (42b).

In the next subsection, we will show that the puzzling behavior of elliptic clauses with the temporal *wh*-phrase can be accounted for with Takahashi and Fox's (2005) and Hartman's (2011) reformulation of MaxElide.

4.2. An account based on reformulated MaxElide

It turns out that (43a) provides us with a clue to accounting for the MaxElide effect in (42b). In order to do it, we assume the reformulation of MaxElide proposed by Takahashi and Fox (2005), which has been adopted by Hartman (2011). Takahashi and Fox (2005) and Hartman (2011) assume that ellipsis obeys the parallelism condition defined in (44) and (45) and reformulate MaxElide as in (46).

- (44) For ellipsis of a constituent (EC) to be licensed, there must exist a constituent (PD) which reflexively dominates EC and satisfies the parallelism condition in (45).
- (45) PD satisfies the parallelism condition if PD is semantically identical to another constituent (AC), modulo focus-marked constituents.
- (46) *MaxElide*
Elide the biggest deletable constituent reflexively dominated by the PD.

According to (44) and (45), in order for a constituent to be elided, it must have a semantically identical antecedent, or else it must be contained in another constituent that has a semantically identical antecedent. The newly defined MaxElide in (46) demands that ellipsis applies to the biggest elidable constituent that meets parallelism.

For illustration, let us consider (1c–d), repeated in (47). The antecedent clause and the elliptical indirect question are analyzed as in (48a–b), respectively.

- (47) They studied a Balkan language, but I don't know which Balkan language (?? they did).

- (48) a. \exists a Balkan language $\frac{[\lambda z [_{\text{TP}} \text{they} [\lambda w [_{\text{VP}} w \text{ studied } z]]]]}{\text{AC}}$
 b. which Balkan language $\frac{[\lambda x [_{\text{TP}} \text{they} [\lambda y [_{\text{VP}} y \text{ studied } x]]]]}{\text{PD} (\rightarrow \text{TP-ellipsis})}$

Since parallelism is determined on semantic representations, (48a–b) contain lambda operators, which are prefixed to TP and VP. It turns out that only the constituent including the operator λx (or λxP) counts as a PD in (48b). Neither the constituent initiated by λy nor VP can be a PD because they contain a free variable x and cannot be semantically identical to their counterparts in (48a): λwP or VP. MaxElide requires that the largest deletable constituent in the PD in (48b), namely TP, be elided, which yields sluicing but not VP-ellipsis.

The MC counterpart of (1) in (13) can be dealt with in the same way. (13d) is given as (49). The antecedent clause and the elliptical clause are analyzed as in (50), where English words are used just for illustration.

- (49) Tamen hui tingdao yi-zhong hanyu fangyan,
 they will hear one-CL Chinese dialect
 dan wo bu zhidao [na-zhong [$_{\text{TP}}$ (* tamen hui)]]].
 but I not know which-CL they will

- (50) a. \exists one Chinese dialect $\frac{[\lambda z [_{\text{TP}} \text{they} [\lambda w \text{ will } [_{\text{VP}} w \text{ hear } z]]]]}{\text{AC}}$
 b. which $\frac{[\lambda x [_{\text{TP}} \text{they} [\lambda y \text{ will } [_{\text{VP}} y \text{ hear } x]]]]}{\text{PD}}$

Just as in (48b), only one constituent can be a PD in (50b): λxP . The largest deletable constituent in λxP is TP, so that MaxElide permits sluicing, but not VP-ellipsis.¹⁷

How about the cases where either sluicing or VP-ellipsis is permissible? One relevant case involves subject *wh*-phrases. The English data in (16) is analyzed as in (51).

- (51) a. \exists someone $\frac{[\lambda z [_{\text{TP}} z [\lambda w [_{\text{VP}} w \text{ solved the problem}]]]]}{\text{AC}_1}$
 b. who $\frac{[\lambda x [_{\text{TP}} x [\lambda y [_{\text{VP}} y \text{ solved the problem}]]]]}{\text{PD}_1}$
 $\frac{\text{PD}_1}{\text{PD}_2}$

Two constituents can be PDs in the semantic representation of the question in

¹⁷ We use (13) as a representative example to illustrate the MaxElide effects with object *wh*-phrases. To save space, we will not consider every case in section 2.

Corpus. We searched for clauses containing the *wh*-adjunct *shenme shihou* ‘when’ and found 1,577 such clauses. Among them, 1,473 cases (93.4%) have *shenme shihou* in the post-subject position; only 104 cases (6.6%) have it in the pre-subject position.¹⁸

Then the relevant data in (42) are given as (56) and analyzed as in (57).

- (56) a. Xiaozhang hui qu Beijing chuchai,
 Headmaster will go Beijing business.trip
 b. dan wo bu zhidao [shenme shihou (?? ta hui)].
 but I not know when he will
- (57) a. \exists time $[\lambda z [_{TP}$ headmaster $[\lambda \omega [_{T'}$ at z will $[_{VP}$ ω go Beijing business trip]]]]]
 AC
 b. when $[\lambda x [_{TP}$ headmaster $[\lambda y [_{T'}$ x will $[_{VP}$ y go Beijing business trip]]]]]
 PD

The variables x and z , which are bound by the lambda operators associated with the temporal adjuncts, are located in the T' -adjoined positions in (57). In (57b), only λxP can count as a PD. λyP cannot be a PD because it contains x , which is free in λyP . Nor can VP be a PD because it contains y , which is free in VP . The result is that only sluicing is permissible.

Thus, we account for the difference between (54) and (56) by means of the different locations of the temporal *wh*-adjuncts in English and MC. Whereas *when* is base-generated in the TP -adjoined position in English, its MC counterpart *shenme shihou* is introduced in the T' -adjoined position. Coupled with the definitions of MaxElide and the ancillary conditions given in (44), (45), and (46), the tiny difference results in the (im)possibility of VP-ellipsis in the two languages.

We note here that the data in (25), which involve the reason *wh*-adjunct and do not exhibit a MaxElide effect, can be analyzed equally well by reformulated

¹⁸ A reviewer raised the question why temporal adjuncts have different base-positions in English and MC. Though we do not have a principled explanation for the moment, we note that our assumption is at least supported by actual data. Temporal adjuncts can appear in the initial position or at the end of a sentence but crucially not in the position immediately following the subject in English, whereas they can occur in the position immediately following the subject or in the initial position but not at the end of a sentence in MC.

- (i) a. *John yesterday bought a book.
 b. Yesterday John bought a book.
 c. John bought a book yesterday.
 (ii) a. Zhangsan zuotian mai-le yi-ben shu.
 Zhangsan yesterday buy-ASP one-CL book
 b. Zuotian Zhangsan mai-le yi-ben shu.
 c. *Zhangsan mai-le yi-ben shu zuotian.

As for (iib), we assume that the adjunct undergoes topicalization from the T' -adjoined position.

MaxElide. The data, repeated as (58), are analyzed as in (59).

- (58) a. Zhangsan shuo ta neng mianfei ruchang,
 Zhangsan say he can freely enter
 b. danshi ta mei shuo [weishenme (? ta neng)].
 but he not say why he can
- (59) a. \exists reason [λz [$_{TP}$ because of z [$_{TP}$ Zhangsan [λw can [$_{VP}$ w freely enter]]]]]]
AC₁

AC₂
 b. why [λx [$_{TP}$ x [$_{TP}$ Zhangsan [λy can [$_{VP}$ y freely enter]]]]]]
PD₁

PD₂

We have assumed that the reason adjunct is base-generated in the TP-adjoined position in MC, and hence we posit the variables z and x in the TP-adjoined positions in (59a) and (59b), respectively. There are two PDs in (59b): λyP , which is parallel to λwP in (59a), and λxP , which is semantically identical to λzP in (59a). The former permits VP-ellipsis and the latter yields TP-ellipsis (sluicing).

Finally, let us consider the cases involving the locative *wh*-phrase *zainali* ‘where’ in (29) and the purpose *wh*-phrase *wei-le shenme* ‘for what’ in (30), which are repeated as (60) and (61), respectively.

- (60) a. Xiaowang hui zai mou-ge da chengshi mai fangzi,
 Xiaowang will at one-cl large city buy apartment
 b. danshi ta mei shuo [zainali (?* ta hui)].
 but she not say where she will
- (61) a. Xiaoli shuo ta hui nuli zhuanqian,
 Xiaoli say she will work.hard earn.money
 b. danshi ta mei shuo [wei-le shenme (?* ta hui)].
 but she not say for what she will

The question here is why these examples exhibit MaxElide effects. Considering that the relevant *wh*-phrases can occur in the position between the subject and the modal as shown in (62a–b), we simply assume that they can be base-generated in the T’-adjoined position.

- (62) a. ? Xiaowang zainali hui mai fangzi?
 Xiaowang where will buy apartment
 b. ? Xiaoli wei-le shenme hui nuli zhuanqian?
 Xiaoli for what will work.hard earn.money

Then (60) and (61) are analyzed as follows:

- (63) a. \exists a large city [λz [$_{TP}$ Xiaowang [λw [$_{T'}$ at z will [$_{VP}$ w buy an apartment]]]]]]
AC

- b. where $\frac{[\lambda x [\text{TP she } [\lambda y [\text{TP } x \text{ will } [\text{VP } y \text{ buy an apartment}]]]]]}{\text{PD}}$

In each of (63b) and (64b), there is only one PD: λxP . The largest deletable constituent in λxP is TP, so that only TP-ellipsis or sluicing is allowed.¹⁹

4.3. Alternatives to MaxElide

There have been some recent works trying to explain MaxElide effects without invoking MaxElide. First, Messick (2015: 278–279, (26)) argues that ellipsis is subject to the focus constraint in (65).²⁰

(65) *Focus constraint on ellipsis extraction*

A phrase XP that contains a trace can undergo ellipsis iff there is a phrase YP that dominates XP such that the head of YP is contrastively focused and there is no phrase ZP that intervenes between YP and XP such that ZP is not focused.

This constraint is responsible for the ill-formedness of VP-ellipsis in (1c), repeated as (66a).

- (66) a. ?? They said they heard about a Balkan language, but I don't know which they did $[\text{VP } e]$.
 b. Ben knows who she invited, but $[\text{TP } \text{Charlie doesn't } [\text{VP } e]]$.

In (66a), the elided VP contains an A'-trace. It cannot undergo ellipsis since there is no phrase dominating it whose head is contrastively focused. On the other hand, the example in (66b), which is cited from Messick (2015), is permissible. The elided VP in (66b) contains an A'-trace and is dominated by the TP, whose head is contrastively focused. No other phrase that is not focused intervenes between the TP and the VP. The constraint in (65) is satisfied. We note that our data with temporal *wh*-adjuncts in (56) do not contain an A'-trace in VP and hence that (65) should not say anything about them; nonetheless, they exhibit MaxElide effects. In

¹⁹ According to our informants, the average ratings of (62a–b) were 3.7 and 4.17. Although they are almost acceptable, the most optimal position for the locative *wh*-adjunct and the purpose *wh*-adjunct is between the modal and the verb, as shown in (i).

- (i) a. Xiaowang hui zainali mai fangzi?
 Xiaowang will where buy apartment
 b. Xiaoli hui wei-le shenme nuli zhuanqian?
 Xiaoli will for what work.hard earn.money

The average ratings of (ia) and (ib) were 4.97 and 4.83, respectively. The locative *wh*-adjunct and the purpose *wh*-adjunct can be analyzed as base-generated somewhere between the modal and the main verb in MC (Ernst 2002; Frey 2003; Tsai 2008, 2015). In this case, the examples in (60)–(61) can be analyzed in the same way as the case with object *wh*-phrases, which can be accounted for by MaxElide.

²⁰ We thank a reviewer for suggesting that we discuss Messick (2015).

contrast, the formulation of MaxElide by Takahashi and Fox (2005) and Hartman (2011) can capture the MC data without postulating A'-traces in elided phrases, and thus it is superior to (65).

Secondly, Messick and Thoms (2016) propose to derive the MaxElide effects from the economy condition preferring derivations with fewer steps. The crucial example in this article, namely (56), may be analyzed as follows (just for the ease of illustration, the MC examples are indicated with English words):

- (67) a. ... [_{CP} when [_{TP} he [_{TP} t [_{T'} will go to Beijing for a business trip]]]]
 ↑
 b. ... [_{CP} when [_{TP} he [_{TP} t [_{T'} will [_{VP} go to Beijing for a business trip]]]]]]
 ↑

(67a–b) are the analyses of the sluiced clause and the VP-ellipsis clause, respectively. Combining Messick and Thoms' (2016) hypothesis that sluiced clauses involve one-fell-swoop movement of *wh*-phrases with our assumption that the temporal adjunct is base-generated in the T'-adjoined position in MC, we find that (67a–b) actually involve the same number of steps for *wh*-movement: namely one step. This is because there is no phase boundary between the T'-adjoined position and the specifier position of CP (see Chomsky 2000, among others). Messick and Thoms' (2016) analysis would predict that both (67a) and (67b) should be possible, contrary to the fact.²¹

Finally, Griffiths (2019) argues for a semantic account of MaxElide effects. In a nutshell, he argues that the configuration depicted below should not be allowed (Griffiths 2019: 573, 602–603).

- (68) *... [_{Z_F} ... [_{λy} ... (y) ... [_{XP} ... (y) ...]]] ...

Here the constituent XP is supposed to be targeted by ellipsis. The λ -binder created by movement occurs above XP, binding the variable *y* that may be within or outside XP. And there is a focused element Z_F above λy . Griffiths (2019) claims that the λ -binder blocks alternative semantic computation for the focus. For example, the typical MaxElide violation in (1c) falls under (68) as can be seen easily below.

- (69) I don't know [_{CP} which Balkan language_F [_{λy} they did [_{VP} speak y]]]]

Griffiths (2019: 603) goes on to account for the absence of the MaxElide effect in (19b) assuming that it has the following structure:

- (70) you haven't told me [_{CP} when_F [_{TP} you will [_{VP} pay me back]]]]

The crucial point here is that the *wh*-adjunct can be directly base-generated in the specifier position of CP without movement, so that no λ -expression is generated.

²¹ We note that their analysis could account for the degraded status of VP-ellipsis in (56) if *wh*-movement should drop by somewhere between the T'-adjoined position and the specifier position of CP.

Griffiths (2019: 603) claims that (70) falls outside (68).

Bearing this in mind, let us now consider how our MC example in (56) can be analyzed. The relevant portion of the example should have the following representation:

(71) ... [_{CP} when_F [λy he y will [_{VP} go to Beijing for a business trip]]]

Importantly, a λ -binder is generated because on our assumption, the temporal *wh*-adjunct in MC is base-generated in the T'-adjoined position and moved to the specifier position of CP. (71) should fall under (68), correctly predicted to be unacceptable. We just note that the MC data given in this article can be equally accounted for by Griffiths' (2019) analysis and leave it for future research to carefully compare his analysis with Takahashi and Fox's (2005) and Hartman's (2011) analysis.

5. Conclusions

We have shown that while MC exhibits MaxElide effects just as English does for cases involving argument *wh*-phrases, they differ with respect to cases with adjunct *wh*-phrases. Unlike in English, interrogative clauses containing some *wh*-adjuncts do exhibit MaxElide in MC. We have attributed this to the base positions of relevant adjuncts in MC: they are base-generated inside TP, either in the T'-adjoined position or somewhere between the modal and VP.

The most important theoretical consequence of the present work is that our analysis supports the version of MaxElide reformulated by Takahashi and Fox (2005) and Hartman (2011) rather than Merchant's (2008) original definition. According to the latter, in order for sluicing (or TP-ellipsis) to preempt VP-ellipsis, both TP and VP must contain an A'-trace of a moved *wh*-phrase. There is, however, no such trace in (56) in particular. In contrast, Hartman's formulation allows us to account for the data just by assuming that the adjunct originates in the T'-adjoined position, which is independently supported.

It is clear that the data presented in this article has important implications for the alternative analyses of the presence or absence of MaxElide effects. To obtain a complete picture, we need to wait for comprehensive considerations based on data from various languages. We hope that this article will contribute to such research.

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【要 旨】

中国語におけるMaxElide効果

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英語における付加詞である疑問詞を残余句とする省略疑問節に関して、Hartman (2011) は興味深い観察及び分析を提示している。本論文は、中国語の当該省略節が英語とは若干異なる特徴を持つことを指摘し、その二言語間の相違を付加詞の基底位置、及び省略が適用可能な最大の領域に適用することを規定する条件である MaxElide を用いて説明することを目的とする。理論的帰結として、Merchant (2008) において提案された MaxElide の定義よりも、Takahashi and Fox (2005) 及び Hartman (2011) における定義の方が妥当であることを論じる。