

## Fragment questions: Deleting question items

**1 Introduction:** Elliptical structures with question-items (Q-items), such as sluicing and sprouting where everything can be deleted but *wh*-words, have attracted the attention of many linguists. In these structures, a Q-item is retained but everything following it is elided. This, together with the common belief that Q-items encode ‘focus’ and are ‘not discourse-given’, has led many not to even ask the question whether Q-items can be elided. After all, there aren’t any reported cases of elided Q-items. The current study serves three goals: (i) to bring under spotlight *fragment questions* in Mandarin, showing that **eliding Q-items is possible**, (ii) to argue that fragment questions are derived by movement + ellipsis, and (iii) to demonstrate that the ellipsis is naturally sanctioned by Rooth’s (1992) focus condition.

**2 Fragment questions:** An example of fragment questions can be seen in the Mandarin dialogue in (1). Note that (1c) consists of only a proper name and a particle *ne*, but no explicit Q-items, such as *wh*-words (it is akin to *and Dufu?/what about Dufu?* in English). However, it is well understood as inquiring *what does Dufu drink* in the given conversation, as supported by its answer (1d). We are faced with a form-meaning mismatch puzzle: how does a non-interrogative fragment gets interpreted as a question?

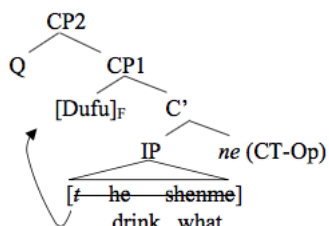
- (1) a. Libai he-le shenme? b. Kafei. c. Na, **Dufu ne?** d. Hongcha.  
Libai drink-ASP what coffee then Dufu NE black.tea  
‘What did Libai drink?’ ‘Coffee.’ ‘Then, what did Dufu drink?’ ‘Black tea.’

More interestingly, the interpretation of fragment questions is highly dependent on contextual antecedent questions (cf. Lu 1982; Wu 2006). The fragment question in (1c) is interpreted as a *wh*-question, when anteceded by a *wh*-question (1a). The same fragment questions in (2a) and (3a) are interpreted as an alternative question and A-not-A question, respectively, following an antecedent alternative question and an antecedent A-not-A question.

- (2) a. Libai he kafei haishi he cha? b. He kafei. c. Na, **Dufu ne?** d. He cha.  
Libai drink coffee HAISHI drink tea drink coffee then Dufu NE drink tea  
‘Did Libai drink coffee or tea?’ ‘Coffee.’ ‘Did Dufu drink coffee or tea?’ ‘Tea.’
- (3) a. Libai he-mei-he kafei? b. He-le. c. Na, **Dufu ne?** d. Mei he.  
Libai drink-not-drink coffee drink-ASP then Dufu NE not drink  
‘Did Libai drink coffee or not?’ ‘He did.’ ‘Then, did Dufu drink coffee or not?’ ‘He didn’t.’

**3 Proposal:** Constant (2014) argues that *-ne* in fragment questions is a Contrastive Topic (CT) operator, marking the preceding fragment as a CT. Following this view, I propose that fragment questions are derived from full questions by CT movement and deletion. Taking (1c) as an example. The derivation is illustrated in (4a). According to Constant, The fragment *Dufu*, bearing a focus feature, undergoes CT movement triggered by *ne*. The IP, including the *wh*-in-situ, is then deleted.

- (4) a. b.  $\llbracket \text{CP2} \rrbracket^f = \{ \text{Libai drank what, Dufu drank what, ...} \}$



I further argue that Rooth’s (1992) focus condition of ellipsis can be extended to fragment questions. The constituent containing Q-items is deleted in a question Q only if there is an antecedent question  $Q_A$  in (or implied by) the context, where the ordinary value of  $Q_A$  belongs to the semantic value of Q (i.e.  $\llbracket Q_A \rrbracket \in \llbracket Q \rrbracket^f$ ). Based on Constant’s (2014) CT abstraction rule, I compute the focus value of CP2 above as a set of questions (4b) (cf. Büring 2003). Since the antecedent *wh*-question in (1a) belongs to the set in (4b), the deletion involving the Q-item is licensed.

**4 Island effects:** CT movement is evidenced by island effects (see also Wei 2014), as in (5), in which the fragment *Dufu* moves out of a complex NP island.

- (5) a. [Libai xie de shu] mai-de ruhe? b. hai bucuo. c. \*[Dufu]<sub>1</sub> ([t<sub>1</sub> xie de shu] mai-de ruhe) ne?  
Libai write DE book sell-DE how still well Dufu write DE book sell-DE how NE  
‘How did the book that Libai wrote sell?’ ‘Not bad.’ ‘How did the book that Dufu wrote sell?’

**5 Intervention effects:** Intervention effects refer to the phenomenon that certain types of expressions are prohibited from c-commanding Q-items in the surface form (Beck 1996, 2006; Tomioka 2007; Mayr 2013; a.o.). The example in (6) shows that existential noun phrases in Mandarin cannot c-command a *wh*-phrase. If fragment questions contain Q-items in their elliptical sites, intervention effects should be observed when fragments are existential noun phrases. This prediction is borne out by (7).

- (6) ?? [Youxie nanhai] he-le shenme?  
 have.CL boy drink-ASP what  
 ‘What did some boys drink??’
- (7) a. Na-zhong jiu youxie nanhai he-guo?  
 which-CL liquor some boy drink-ASP  
 ‘Which liquor did some boys drink?’
- b. Bailandi. c. ??Hai [youxie nanhai] (he-guo na-zhong jiu) ne?  
 Brandy also some boy drink-ASP which-CL liquor NE  
 ‘Brandy.’ ‘Which liquor did other students drink?’

**6 Scope ambiguity:** Since a fragment question is derived by deletion of Q-items, scope interaction involving a deleted Q-item should still be perceived at the meaning component. As shown in (8) and (9), a fragment question admits the same range of scope readings as its antecedent question.

- (8) a. Meige laoshi dou he shenme? b. Laozhang he cha, Laoli he kafei. ( $\forall > wh$ )  
 every teacher DOU drink what Laozhang drink tea Laoli drink coffee  
 ‘What did every teacher drink?’ ‘Laozhang drank tea and Laoli drank coffee.’
- c. Meige xuesheng ne? d. Xiaozhang he kele, Xiaoli he jiu.  
 every student NE Xiaozhang drink Cola Xiaoli drink wine  
 ‘What about every students?’ ‘Xiaozhang drank Cola and Xiaoli drank wine.’
- (9) a. Meige laoshi dou he shenme? b. Meige laoshi dou he cha. ( $wh > \forall$ )  
 every teacher DOU drink what every teacher drink tea  
 ‘What did every teacher drink?’ ‘Every teacher drank tea.’
- c. Meige xuesheng ne? d. Meige xuesheng dou he jiu.  
 every student NE every student DOU drink wine  
 ‘What about every student?’ ‘Every student drank wine.’

**7 Immediate antecedent questions:** In the current study, fragment questions take another questions as antecedents. Hence, it is predicted that a fragment question can immediately follow another question in discourse, as borne out by (10).

- (10) Pingnian de eryue you duoshao tian? Runnian de eryue (you duoshao tian) ne?  
 common.year DE Feb have how.many day leap.year DE Feb have how.many day NE  
 ‘How many days are there in Feb of a common year? How many days are there in Feb of a leap year?’

**8 Implicit antecedent questions:** Fragments in fragment questions are analyzed as CT in this paper, i.e., fragment questions are considered as questions with CT. This allows us to derive fragment questions in the context where no antecedent questions are uttered, as in (11). Following Roberts (1996) and Buring (2003), Constant (2014) proposes that the occurrence of CT helps to accommodate an implicit question in a given context, and this implicit question must form a discourse strategy with the question with CT in order to answer a big question implied from the context. In (11), the implicit question can be reconstructed as *who drank wine*, which is answered by the first declarative. It further serves as an antecedent for the fragment question and license the deletion.

- (11) *Context* Before the party, Xiaolu and Xiaoli found out that a bottle of wine and a bottle of Brandy were empty. They wanted to find out **who drank wine and Brandy** (big question). Xiaoli thought Libai drank wine.
- Xiaoli: Yiding shi Libai he-le hongjiu. Xiaolu: Na, Bailandi ne? Xiaoli: Keneng shi Dufu.  
 certainly SHI Libai drink-ASP wine then Brandy NE possible SHI Dufu  
 ‘It must be Libai who drank wine.’ ‘Who drank Brandy?’ ‘It might be Dufu?’