

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?’