Fragment questions in Mandarin Chinese

Topic movement and pied-piping

Ting-Chi Wei

National Kaohsiung Normal University

This paper argues that fragment question (FQ) in Mandarin Chinese is derived from topic movement and TP deletion, contributing to the growing body of evidence that sentence fragments are syntactically full clauses (Merchant 2004). Structurally, an FQ consists of a topic-like constituent followed by a particle *ne*, which functions as a topic marker and as a constituent question particle simultaneously. The fragment is argued to move to the SpecTopP rather than SpecFocP (Wei 2013), because FQ exhibits topic properties and respects island effects such as the complex NP island and the adjunct island. However, it is insensitive to islands such as the sentential subject island and left branch condition. We propose that the absence of island effect can be attributed to the pied-piping of the entire topic-like island to the SpecTopP. In addition, the proposed analysis not only captures the ineligible FQs caused by intervention effect within the passive structures but also the eligible FQs induced by preposition drop in the language.

Keywords: fragment, question, topic movement, topicalization, ellipsis, pied-piping

1. Introduction

This paper argues that fragment question (FQ) in Mandarin Chinese (hereafter Chinese) is derived via topic movement and TP-ellipsis, two general mechanisms in Chinese syntax. FQ is characterized by a contrastive topic-like constituent ending with a final particle *ne*, as in (1). The FQ is to see if *Lisi* has also come back just like *Zhangsan*. The fragment *Lisi* is felicitous in a context where it is contrastive to the correlate *Zhangsan* with a *wh*-question particle *ne* in the final position. In other words, an FQ is a constituent question, which solicits an alternative answer in contrast to its antecedent.

(1) A: ***Zhangsan** huilai le.*
Zhangsan back LE
'Zhangsan has already come back.'

B: *Lisi ne?*
Lisi Q
'What about Lisi?'

The operation of raising an FQ to a topic position means that only a topic-like element such as definite/generic DP, PP, and VP can be raised from the elided clause to form a topic-variable chain, prior to TP ellipsis. This view is different from Wei's (2013) focus movement analysis, which argues that the fragment is moved to a focus position. The movement of FQ is evidenced by the fact that FQ is sensitive to the complex NP constraint (CNPC) and the adjunct condition (AC). However, FQs are insensitive to the sentential subject constraint (SSC) and the left branch condition (LBC), posing a problem to the topic movement and deletion analysis. We propose that the islands can be nullified by pied-piping the topic-like fragment, such as the sentential subject and nominal phrase, the specifier of TopP. Finally, regarding the pied-piping of a prepositional phrase, the preposition can be dropped at the post-PF in Chinese when no confusion arises.

The organization of this paper is as follows. §2 lays out the distribution of FQ in Chinese. §3 proposes a topic movement and deletion analysis. §4 presents evidence for topic movement, including the idiom chunks and the island-(in)sensitivity of FQ. §5 discusses possible preposition drop in FQ. §6 concludes the paper with a typological implication.

2. Distribution

Fragment question in Chinese can be a nominal phrase in (1), a verbal phrase in (2), and a temporal phrase in (3), and a location phrase (4). However, a manner adverb in (5), a frequency adverb in (6), a sentential adverb in (7), and a modal in (8) fail to form a felicitous FQ.

(2) A: *Ta xiang/yao **kan xiaoshuo.***
he want/want read novel
'He wants to read novels.'

B: *Xie gongke ne?*
writing assignment Q
'What about writing assignment?'

(3)   A: *Ta **zai xuexiao** bu   kan   shu.*
             he   at   school   not   read   book
             'He does not read books at school.'
       B: *Zai   jia   ne?*
             at   home   Q
             'What about at home?'

(4)   A: *Ta **jintian** bu   kan   shu.*
             he   today   not   read   book
             'He does not read books today.'
       B: *Mingtian   ne?*
             tomorrow   Q
             'What about tomorrow?'

(5)   A: *Zhangsan xiang **hen kuai-de** xie-wan   yi-feng xing.*
             Zhangsan want   very fast-DE   write-finish one-CL   letter
             'Zhangsan wants to finish writing a letter in a fast way.'
       B: **Hen   man-de   ne?*
             very   slow-DE   Q

(6)   A: *Ta **changchang** ma   Lisi.*
             he   often   scold   Lisi
             'He often scolds Lisi.'
       B: **Ouer   ne?*
             occasionally   Q

(7)   A: *Ta **dagai**   hui   huilai.*
             he   probably   will   come.back
             'He probably will come back.'
       B: **Yiding   ne?*
             certainly   Q

(8)   A: *Ta **keneng** mai   zhe-dong   fangzi.*
             he   may   buy this-CL   house
             'He may buy this house.'
       B: **Bu   keneng   ne?*
             not   may   Q

Examples (1–8) show that FQ is not ubiquitous in syntactic category. We observe that constituents other than adjuncts and modals are allowed to form FQs.

3. Topic movement and TP ellipsis

This section argues that FQs in Chinese undergo topic movement, not focus movement (Wei 2013), prior to TP ellipsis. It means that an FQ has an unpronounced syntactic structure prior to ellipsis. The connectivity effects proposed in Merchant (2004) support this analysis.

3.1 Connectivity effects

Merchant (2004) argues that fragment answer (FA) in English has a non-fragmentary clausal structure, prior to TP-ellipsis. This view is validated from the fact that FA in English exhibits different kinds of grammatical dependency between the missing part and its correlate in the non-elliptical antecedent clause—the so-called connectivity effect in the sense of Morgan (1973). Below, we shall demonstrate that FQ in Chinese manifests the connectivity effects with respect to binding, quantifier binding, and scope.

First, *Zhangsan* in the fragment (9B) co-indexes with the c-commanding pronoun *ta* 'he' in the question (9A), so the fragment violates the Binding Principle C, akin to the non-fragmentary full sentence in (9B′). Along this vein, because the reflexive *taziji* 'himself' in (10B) can be bound by the c-commanding antecedent, *Zhangsan* in (10A), obeying the Binding Principle A, like the non-fragmentary sentence in (10B′).

(9) A: *Ta$_i$ xiang dai-zai Lisi-de fangjian (li).*   (Principle C)
           he want stay-at Lisi-DE room   inside
           'He wants to stay at Lisi's room.'
      B: **Zai Zhangsan$_i$-de fangjian ne?*
           at   Zhangsan-DE room   Q
           'What about at Zhangsan$_i$'s room?'
      B′: **Ta$_i$ xiang dai-zai Zhangsan$_i$-de fangjian?*
           he want stay-at Zhangsan-DE room
           'Does he$_i$ want to stay at Zhangsan$_i$'s room?'

(10) A: *Zhangsan$_i$ zui   xihuan Lisi.*   (Principle A)
          Zhangsan most like   Lisi
          'Zhangsan likes Lisi most.'
      B: *Taziji$_i$ ne?*
          himself Q
          'What about himself?'
      B′: *Zhangsan$_i$ zui   xihuan taziji$_i$?*
          Zhangsan most like   himself
          'Does Zhangsan like himself the most?'

Second, the pronoun *tade* 'his' in the fragment (11B) is bound by the subject *mei-geren* 'everyone' in (11A). The quantifier binding appears in the full clause in (11B').

(11) A: *Meigeren$_i$ dou hui ganxie tade$_i$ mama.*
          everyone all will thank his   mother
          'Everyone will thank his own mother.'

     B: *Tade$_i$ baba ne?*
          his$_i$ father Q
          'What about his$_i$ father?'

     B': *Meigeren$_i$ dou hui ganxie tade$_i$ baba?*
          everyone all will thank his   father
          'Will everyone thank his own father?'

Third, scopal interaction in FQ manifests the connectivity effect. The unambiguous scopal relationship remains in the fragment in (12B), resembling its non-fragmentary counterpart in (12B').

(12) A: *Meige laoshi dei   zhidao san-ge   xuesheng.*   (Every > Three)
          every teacher has.to instruct three-CL student
          'For every teacher x, x has to instruct three students.'

     B: *Si-ge   (xuesheng) ne?*   (Every > Four)
          four-CL student   Q
          'What about four students?'

     B': *Meige laoshi dei   zhidao SI-GE (xuesheng)?*   (Every > Four)
          every teacher has.to instruct four-CL student
          'For every teacher x, does x have to instruct FOUR students?'

The aforementioned discussions indicate that the FQs in Chinese behave like their non-fragmentary counterparts, observing the connectivity effects. Based on the fact that FQ owns an unpronounced full clause, we are about to explore two essential issues: (i) What is the structure of the FQ; and (ii) how does the ellipsis of the FQ get licensed?

3.2   The structure of the fragment question

### 3.2.1   *Merchant's (2004) analysis*
English question and short answer pair in (13), as argued by Merchant (2004), is generated by means of focus movement and TP-ellipsis. He assumes that fragment answer is dominated by a focused phrase (FP) structure in the left periphery, corresponding to the F(ocus)P in the sense of Rizzi (1997). The [E[uF*]] feature on the head F,[1] which licenses ellipsis of the complement, will trigger the fragment

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1.   * means that the feature is strong and must be checked in a local relation.

DP *beans* to move to the specifier position of FP and to check with the F head, as in (14). After the [E] feature has been checked off, TP-ellipsis is activated to elide the constituent *John ate t*, which is identical to its correlate in the *wh*-question.

(13)   A: *What did John eat?*
       B: *Beans.*

(14)
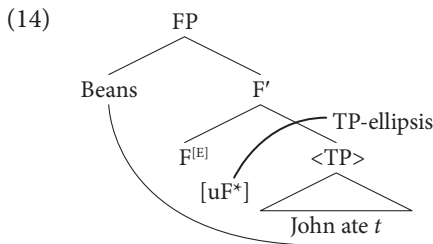
Drawing on this fragment raising analysis, we shall try to approach FQ in Chinese with some considerations on the landing side of fragment in Chinese.

3.2.2   *FQ in SpecTopP, not in SpecFocP*

The major analytical difference between the present work and Wei (2013) lies in the landing site of FQ. This section argues that unlike English fragment answer in (13), the landing site of the FQ in Chinese is the specifier of TopP, rather than the specifier of FocP as claimed by Wei (2013). Different landing sites lead to different explanations on issues such as properties of FQ, island effect, passive, and preposition drop. We shall present evidence to show that the raising of FQ to SpecTopP is correct.

Wei (2013) assumes that FQ involves focus movement and TP ellipsis resembling English fragment answer.[2] The focus movement respects the Phase-Impenetrability Condition (PIC) under the Phase Theory (Chomsky 2000; 2001). To interpret the fact that the focus movement of FQ is sensitive to islands such as the CNPC and the adjunct island and is insensitive to the sentential subject island and the left branch condition, Wei (2013) adopts the deletion in syntax account (Baltin 2007; 2012), which deletes licensing domain in syntax in the process of computation, instead of the deletion at PF analysis (Merchant 2001; Fox & Lasnik 2003). By contrast, this paper argues that the topic analysis can better capture properties of FQ in Chinese than the focus analysis.[3] FQ exhibits topic-like properties and the

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2.   The head of FocP containing [E[uF^*]] feature will actively attract a fragmentary target to the SpecFocP to check against the uninterpretable focus feature [uF^*]. After checking, [E] feature can be activated to delete the following TP complement.

3.   The specifier of TopP is a position for the external topic, distinct from the internal topic occurring between subject and verb (cf. Paul 2002; 2005; 2015).

topicalization respects island effects such as the CNPC and the adjunct island. As to island-insensitive domains such as the sentential subject and the left branch of an NP, the island repair effect is attributed to pied-piping of the entire topic-like island to the SpecTopP. Evidence supporting the topic analysis is presented as follows.

First of all, a reliable test, used by Paul (2002; 2015), to distinguish topic from focus is to check Exclusiveness Condition (cf. Szabolcsi 1981; Kiss 1998). A focused element in cleft structure is subject to Exclusiveness Condition as shown in (15), whereas a topic is not. Multiple FQs in (16) point to the fact that they may provide more than one alternative item, *tade taitai* 'his wife' and *tade erzi* 'his son', to the presupposition that *Zhangsan* has already come back. That is, the person who has already come back may be not only *Zhangsan*, but also someone else. The existence of the alternative items violates Exclusiveness Condition. This implies that FQ is not a cleft-like focus, but a topic.[4]

(15) a. *It is hypocrisy that I loathe. #And it is stupidity that I loathe, too.*
      b. *It is hypocrisy that I loathe, not stupidity.*

(16) A: *Zhangsan huilai le.*
          Zhangsan back   LE
          'Zhangsan has already come back.'
      B: *Tade taitai ne? Tade erzi ne?*
          his   wife Q   his   son Q
          'What about his wife? What about his son?'

Second, a sentence containing both an external topic and *lian … ye/dou* focus also lends support to the topic analysis of FQ. As argued by Paul (2002), the external topic *zhe-ge waiguoren* 'this foreigner' always precedes *lian … ye/dou* focus *gourou* 'dog meat' to the left of the subject as in (17A). As can be seen in (17B) and (17B′), the formation of FQ is not subject to whether its correlate is in the external topic position or *lian … ye/dou* focus position. In particular, the acceptability of the FQ in (17B′), which correlate is in the focus position, demonstrates that it is impossible for the FQ to be in focus position again, since the FQ *yutou* 'fish head' should be raised to a position as high as the FQ from the external topic in (17B). That is, the FQ is derived by moving the fragment out of the *lian … ye/dou* structure, not by pied-piping it in (17B″).

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4. Multiple FQs in (16) also release evidence for the topic analysis. According to Paul (2015), multiple topics are permitted in the external topic, whereas they are disallowed for foci. The external topic is positioned in the sentence-initial position to the left of the subject, occupying the specifier position of TopP, whose head may either select a sentence (TP) as complement or another TopP, thus allowing for recursion and giving rise to multiple topics (cf. Gasde & Paul 1996). In contrast, the functional projection FP of focus between subject and verb has no such recursive property.

(17) A: *Zhe-ge waiguoren, lian gourou ta ye/dou chi.*
　　　 this-CL foreigner　even　dog.meat　he　also/all　eat
　　　 'This foreigner, he even eats dog meat.'

　　 B: *Na-ge waiguoren ne?*
　　　 that-CL foreigner　Q
　　　 'What about that foreigner?'

　　 B′: *Yutou ne?*
　　　 fish.head　Q
　　　 'What about fish head?'

　　 B″:*Lian yutou ne?*
　　　 even　fish.head　Q
　　　 (Lit.) 'What about even fish head?'

Third, reconstruction in binding, quantifier binding and scope also helps to identify the FQ as an external topic derived from topicalization. In § 3.1, we have shown that FQ in Chinese manifests the connectivity effects with respect to binding, quantifier binding, and scope in (9–12). To interpret these FQs, they have to be reconstructed back to their original positions. This means that the landing site of FQ in the left periphery and its trace is connected with an A-bar operator-variable dependency. Take (10) for example. The topic *taziji* 'himself' has to be reconstructed back to its extracted object position at LF in (18). That is, FQ in SpecTopP and its original position forms an A-bar dependency, capturing the reconstruction phenomenon.

(18) A: *Zhangsan$_i$ zui xihuan Lisi.*　　　　　　　　　　　(Principle A)
　　　 Zhangsan most like　　Lisi
　　　 'Zhangsan likes Lisi most.'

　　 B: [$_{CP}$[$_{TopP}$ *Taziji$_i$* [$_{TP}$ *Zhangsan zui xihuan t$_i$*]] *ne*]?
　　　　　　　 himself　　　　Zhangsan most like　　　Q
　　　 'What about himself?'

Fourth, the fragment in FQ is a kind of syntactic category which can serve as a topic, such as definite/generic DP, VP, and PP, etc., different from fragment answer (FA) in the language. Syntactic categories which are not qualified as topics are excluded to form FQ, including indefinite DP, manner adverb, sentential adverb, and modal. For illustration, a definite or generic DP in (19) can merge with the particle *ne* to form a felicitous FQ, whereas an indefinite DP cannot as in (20).

(19) A: *Ta xiang renyang (na-zhi) gou.*　　　　　　(Definite or generic DP)
　　　 He want adopt　that-CL　dog
　　　 'He wants to adopt (that) dog.'

　　 B: *(Zhe-zhi) mao ne?*
　　　 this-CL　　cat　Q
　　　 'What about (this) cat?'

(20)   A: *Zhangsan xiang renyang yi-zhi   gou.*[5]   (*Indefinite DP)
        Zhangsan want   adopt   one-CL dog
        'Zhangsan wants to adopt a dog.'
    B: **Yi-zhi   mao ne?*
        one-CL cat   Q
        'What about a cat?'

The TopP analysis is strengthened by a significant difference between FQ and FA in the language (Wei 2016). Fragment answer to *wh*-question (FAW) in Chinese differs from FQ in the fact that an indefinite DP can be a legitimate fragment answer as shown in (21). As Merchant (2004) has argued, the short answer undergoes focus movement to SpecFocP, prior to TP ellipsis. Building on this view, Wei (2016) argues that FA in Chinese is raised to SpecFocP, which can accommodate various types of focused constituents, including indefinite DP in (21). By contrast, FQ is raised to SpecTopP, a topic position, which assumes given information like definite/generic DPs and which excludes elements with new information like indefinite DPs. Thus, FQ is landed at the SpecTopP, whereas FA is moved to the SpecFocP. This explains why the indefinite FQ in (20) is unacceptable.

(21)   A: *Zhangsan kandao shenme le?*
        Zhangsan saw   what   LE
        'What did Zhangsan see?'
    B: *Yi-ge   ren.*   (Indefinite DP)
        one-CL person
        'A person.'

Fifth, multiple functions of the particle *ne* also lend support to the claim that the landing site of FQ is the SpecTopP. The particle not only functions as a final particle for *wh*-question but also as a topic marker. The particle *ne* can optionally appear in the final position of a constituent question, as in (22). Cheng (1991) argues that it is landed at the C position on the right to "type" the clause as a *wh*-question.

(22)   *Ta xihuan shei (ne)?*
    he like   who Q
    'Who does he like?'

In addition, topic in Chinese is optionally attached with a topic marker *ne*. As shown in (23), the syntactic constituents, generic DP *xiaoshuo* 'novel', VP *kan*

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5.   When *yi-zhi gou* 'a dog' specifically denotes the number of the dog adopted without indefinite meaning, the corresponding FQ *yi-zhi mao* 'a cat' denoting the number of cat is felicitous. In this case, the FQ inquires whether the number of the cat adopted is one or not.

xiaoshuo 'read novels', and PP *zai xuexiao* 'at school', are eligible to be raised to the topic position, immediately preceding the topic marker *ne*.[6] In utterance, there is a pause right after the topic, separating topic from comment. In that sense, the topic marker *ne* in (23) differs from the final particle *ne* in (22) in their syntactic functions and positions.

(23) A: *Ta   xiang   zai   jia   kan   zazhi.*
          he   want   at   home read magazine
          'He wants to read magazines at home.'

    B: *Xiaoshuo   ne,   ta   ye   xiang   kan   __.*
          novel   TOP he   also   want   read
          'As to novel, he also wants to read.'

    B′: *Kan   xiaoshuo   ne,   ta   ye   xiang   __.*
          read   novel   TOP he   also   want
          '(Intended) To read novels, he also wants.'

    B″: *Zai   xuexiao   ne,   ta   ye   xiang   kan   zazhi.*
          at   school   TOP he   also   want   read magazine
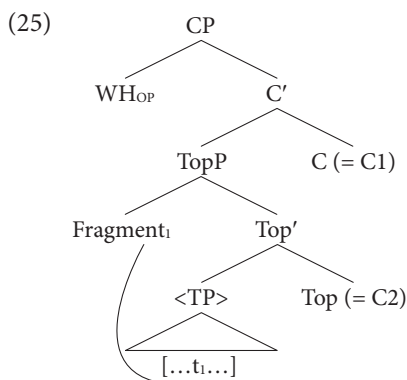   'At school, he also wants to read magazines.'

Building on the properties of the particle *ne*, we propose that a fragment is raised to the SpecTopP to form an FQ and is associated with its original position in the comment TP by means of functional topic-comment relation or a syntactic topic-variable dependency, as will be illustrated in (25) under the split CP hypothesis.

    More specifically, van Craenenbroeck (2004) argues that CP can be divided into two right-branching layers: CP_1 and CP_2, as in (24). CP_1, akin to ForceP in the sense of Rizzi (1997), assumes the function of clause typing (Cheng 1991). The head C_1 is responsible for attracting a *wh*-word to $SpecCP_1$. CP_2, symbolized as FocP (Rizzi 1997), is the projection in which an operator-variable dependency is built.

(24) $[_{CP1}$ *wh*-item $[_{C'1}$ C_1 $[_{CP2}$ $[_{C'2}$ C_2 $[_{TP}$ …]]]]]

In light of this split CP hypothesis, T. C. Tang's (1989) Chinese split-CP structure is revised as in (25). In contrast to (24), the split CP in (25) is argued to be left-branching with C_1 of CP and Top (C_2) of TopP on the right, mainly because each final particle is recognized to head a projection (cf. S. W. Tang 2010). We propose that a fragment within TP is raised to the SpecTopP to form an FQ structure. Thus far, a question that arises is how to license an FQ in Chinese under the revised split CP hypothesis. Two issues need exploring further: (i) the licensing of ellipsis in FQ, and (ii) the operation of the particle *ne*.

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6. Another similar topic marker is *ya*.

(25)

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                         CP
                   ╱            ╲
              WH_OP              C′
                            ╱        ╲
                       TopP           C (= C1)
                    ╱       ╲
            Fragment₁        Top′
                         ╱        ╲
                    <TP>           Top (= C2)
                  ╱      ╲
                […t₁…]
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3.3   The licensing of ellipsis in FQ

Merchant (2001; 2004; 2008) proposes that the [E] feature on the licensing head requires its complement to be unpronounced. In addition to licensing, deletion is still constrained by syntactic/semantic parallelism between the elided complement and its antecedent (Merchant 2001).

We propose that the raising of the fragment to SpecTopP as in (1) is driven by an uninterpretable $[E[u\text{Top}^*]]$ feature of Top, as illustrated in (26).[7]

(1)   A: *Zhangsan huilai le.*
           Zhangsan back   LE
           'Zhangsan has already come back.'
      B: *Lisi   ne?*
           Lisi Q
           'What about Lisi?'

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7.   A reviewer questions why Top in the FQ contains an [E] feature while a general topic does not. In this paper, a fragment is argued to raise to the SpecTopP and to check with the uninterpretable [uTop] feature in the Top *ne*. After checking, the [E] feature in Top *ne* is triggered to license TP-ellipsis. In other words, FQ is a reduced form of a constituent question. To eliminate the TP in parallel with its antecedent, a licensing head with [E] feature is required (Merchant 2001). By contrast, the topic head in general does not have the [E] feature, because no redundant part needs to be deleted as in (i). Thus, the major difference between the Top in the FQ and the Top in general lies in the existence of [E] feature.

(i)   *Hua   ne,   wo zui   xihuan meiguihua.*
      flower TOP   I   most like   rose
      'As for flowers, I like roses best.'

(26)
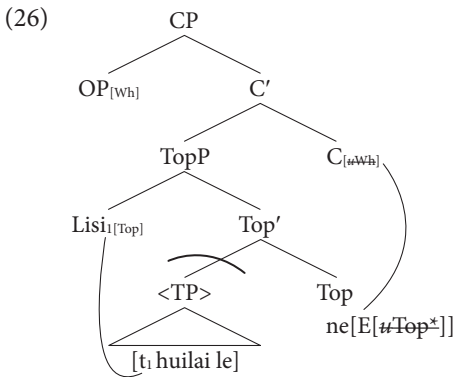
To interpret the topic-like property of Chinese FQ, we propose that the fragment *Lisi* containing an interpretable [Top] feature is raised to the SpecTopP to check the strong uninterpretable [uTop*] feature of the Top. Once the uninterpretable [uTop*] of the Top is checked off, the [E] feature of the Top is activated to license the deletion of TP complement at PF. Meanwhile, the topic particle *ne* is raised to the higher C on the right to fulfill the function of "typing" the FQ as a constituent question through checking [$u$wh] feature on C with a covert *wh*-operator at the SpecCP (cf. Cheng 1991).

Furthermore, the FQ in the topic position is contrastive to its correlate in the antecedent clause.[8] That is, FQ is a kind of contrastive topic, which has been analyzed

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8. One of the reviewers pointed out a possible contradiction regarding the information of FQ. Topics represent given information, while focused phrases represent new information; Wei (2013: 153) explicitly states that FQs represent new information, in contrast to the old information in the antecedent clause. By contrast, the present work argues that the fragment question is a kind of topic, undergoing topicalization to the SpecTopP. This apparently casts doubt on the present topic analysis if the fragment carries new information, as claimed by Wei (2013). The reviewer suggests that perhaps this has something to do with the fact that the FQ is a contrastive topic, rather than any other kind of topic. We agree with the review's suggestion that FQ in Chinese is a kind of contrastive topic; that is, Wei's (2013) view should be modified in a way to fit 'contrastive topic' and the empirical fact of carrying given information as in (19) and (20).

First, contrast not only occurs in focus, but in other positions like topic. Paul (2002; 2005; 2015) and Pan (2011) observe that contrastive topic has often been misanalyzed as focus in Chinese syntax. In this sense, contrastive interpretation is not a privilege for focus and can be used in any constituent in any position within a parallel structure. For example, Example (i) contains a contrast in the object position. Thus, a contrastive interpretation has to be teased apart from focus; otherwise, a proliferation of focus positions would be obtained.

(i) *Wo kan-guo shan,   danshi mei kan-guo hai.*
      I   see-ASP mountain but   not see-ASP sea
      'I have seen the mountains, but I have not seen the sea.'

Along this vein, topics can be contrastively used as in (ii) (cf. Paul 2005, (5)).

as a part of the particular information structure in a sentence by Gergel et al. (2007). The interpretation of the contrastive topic could be achieved via (contrastive) topic feature checking, which triggers fragment movement up to the SpecTopP within the CP domain (also see Gengel 2013).[9]

    (ii)   *Zhei-ge xuesheng, wo xihuan, nei-ge,   wo bu   xihuan.*
           this-CL student   I   like   that-CL I   not like
           'This student, I like; that one, I don't.'

Second, if a contrastive interpretation can naturally occur in topic positions, a question that may arise is: Under such a circumstance, how can we define "contrastive topic"? Different scholars have different interpretations. For example, Bianchi & Frascarelli (2010) consider contrastive topics as being typically given, because they are related to a contextually salient set of alternatives, but they still have potential for update information by contrast, not by mere givenness. This indicates that a contrastive topic is typically given and may sometimes count as new information by contrast.

    In this paper, we would like to claim that FQ is a "contrastive topic", carrying old information but providing an alternative answer for the previous antecedent via contrast. That is why there is a grammatical contrast between (19) and (20) in terms of the (in)definiteness of FQ.

9.   A reviewer raises another question relating to the function of the contrastive topic: why these fragments are not interpreted as corrections. First of all, their interpretations are different from corrections. As depicted in Wei (2016), a typical fragment answer for correction is used to correct the proposition of the previous correlate. For example, in (i), speaker A states that he saw *Zhangsan*, whereas speaker B corrects the statement by negating the previous proposition first in the form of *bushi* 'no' and by providing an alternative answer with an emphatic marker *shi* 'be' to retort that what he saw is not *Zhangsan* but *Lisi*.

    (i)   Fragment answer for correction
        A: *Ta kanjian le   Zhangsan.*
            he see   LE Zhangsan
            'He saw Zhangsan.'
        B: *Bushi, *(shi) Lisi.*
            not.be be   Lisi
            'No, it is Lisi.'

In contrast, FQ is a constituent question, which tries to solicit an alternative answer in contrast to its antecedent. That is to say, the FQ in (ii.b) is not used to negate the proposition of the previous antecedent clause 'He saw Zhangsan' in (ii.a) but to inquire whether it is possible that *Lisi* has been seen by him.

    (ii)   Fragment question
        a.   *Ta kanjian le   Zhangsan.*
            he see   LE Zhangsan
            'He saw Zhangsan.'
        b.   *(*Shi) Lisi ne?*
            be   Lisi Q
            'What about Lisi?'

Second, another difference between fragment for correction in (i) and FQ in (ii) is the existence of the emphatic *shi* 'be'. Note that the emphatic *shi* 'be' is obligatory in (i) and is prohibited in (ii).

3.4 Dual functions of *ne*

In the literature, the particle *ne* has been recognized as a homophonous particle with different semantic functions (cf. Zhu 1982). When it comes to the particle in the FQ XP-*ne*, there are at least two views of *ne* in the literature.

The first analysis considers the form "XP-*ne*" as a constituent question, as described by Lu (1982) and Shao (1996). They believe that since the particle *ne* is a marker for the interrogative force in Chinese, XP-*ne* should be a reduced form of a constituent question. We partially agree with this view, because the analysis pays no attention to the fact that XP is a topic-like element. In this vein, Wei (2013) argues that the particle *ne* in C is to type the FQ as a constituent question and it merges with the focus head Foc after XP has been raised to the SpecFocP to check an uninterpretable focus feature [uF] in the head of FocP. This analysis also misses the fact that XP is a topic.

The second analysis, embraced by Pan (2011) and Paul (2015), takes FQ in Chinese as a topic structure, which is associated with a linguistic or extra-linguistic clausal antecedent. More specifically, the particle *ne* is a topic marker. We find that under this analysis the XP-*ne* does not seem to have fixed "force". The interrogative force of the FQ is determined by the omitted structure, which is subject to linguistic or extra-linguistic contexts. As shown in (27), the FQ could be a yes-no question (27B) or a constituent question (27B′, B″), depending on the force of the omitted part. That is, if contexts allow, the FQ could alternatively be a yes-no question or a *wh*-question under this approach.

(27) A: *Wo yijing   wen-le Zhangsan.*
           I   already ask-LE Zhangsan
           'I have already asked Zhangsan.'

      B: *Ni   ne   (wen-le Zhangsan ma)?*   (Yes-no Q)
           you TOP ask-LE   Zhangsan Q
           'What about you (have asked Zhangsan)?'

      B′: *Ni   ne   (you-mei-you   wen Zhangsan ne)?*   (Wh-Q)
           you TOP have-not-have ask   Zhangsan Q
           'What about you (have asked Zhangsan or not)?'

      B″: *Ni   ne   (ni wen-le shei ne)?*   (Wh-Q)
            you TOP you ask-LE who Q
           'And you (whom have you asked)?'

Third, as argued by Wei (2016), since no corresponding emphatic marker can be identified in the antecedent clause, fragment for correction is analyzed as an independent base-generated structure, [pro copula fragment]. That is, no movement and deletion is involved in (i). By contrast, FQ is argued to be derived by topic movement and TP deletion. From the aforementioned discussions, we may conclude that FQ cannot be utilized for correction.

Several problems arise regarding the derivation of XP-*ne* in (27). First, the analysis has not discussed how the interrogative force of the XP-*ne* is obtained and how the form XP-*ne* is derived. Example (27) indicates that the force of XP-*ne* is determined by the omitted part, which could be a yes-no interrogative ending with *ma* or a constituent question ending with *ne*. If the parentheses mean omission or deletion, then we wonder how the force of these two particles is inherited by the XP-*ne* after the particles *ma* and *ne* have been omitted. Second, the final particle *ne* or *ma* in C is hierarchically higher than a topic marker *ne* in Top. Therefore, to delete the parenthetical structure containing the higher interrogative force maker, on the one hand, and to claim that the force still exists and is inherited by the FQ, on the other, are contradictory.

Based on the previous two views, each of which takes the particle *ne* in XP-*ne* as an interrogative force marker or a topic marker, respectively, the present paper proposes that *ne* in FQ is a homophonous particle with dual functions, not a unitary particle with single function. On the one hand, it serves as a marker for constituent question; on the other, it is a topic marker. Since Zhu (1982), *ne* has been recognized as a homophonous particle with several grammatical and semantic functions with respect to aspect, force, attitude, etc. Along this vein, under the split-CP hypothesis with the heads on the right, we argue that the head of the TopP *ne* merges with the head of CP to fulfill the dual functions of the particle as follows. The fragment containing an interpretable [Top] feature is raised to the SpecTopP to check the strong uninterpretable [uTop*] feature of the Top. Once the uninterpretable [uTop*] of the Top is checked off, the [E] feature of the Top is activated to delete TP complement. Meanwhile, the topic particle *ne* undergoes a Top-to-C movement to type the FQ as a constituent question through checking [$u$wh] feature on C with a covert *wh*-operator at the SpecCP.

The advantages of taking *ne* as a *wh*-interrogative force checking with the *wh*-operator are three-folded. First, the default "out of the blue" reading of XP-*ne* in Chinese is interpreted as a *wh*-question inquiring location. Without any linguistic or extra-linguistic context, the default reading is merely the location reading as in (28), which is a constituent question by nature.

(28) a. *Zhangsan ne?*
          Zhangsan Q
          'Where is Zhangsan?'
      b. *Wode shu   ne?*
          my   book Q
          'Where is my book?'

Second, the implicit yes-no question reading in (27B) may be only apparent. It is possible that this reading comes from a *wh*-word *shifou* 'whether', which ends with

a constituent question marker *ne* in (29) and can be realized as a covert *wh*-operator in the SpecCP of FQ. In this sense, a unified analysis regarding the sources of interrogative force of FQ is achieved under our analysis.

(29) *Na-ben shu, Zhangsan shifou   kan-guo ne?*
     that-CL book Zhangsan whether see-ASP Q
     (Lit.) 'Regarding that book, Zhangsan has read it or not?'

Third, we can explain why no interpretative clash results from the Top-to-C movement. In this analysis, a fragment is raised to the SpecTopP and to check with the [*u*Top] feature in the Top *ne*. After checking, the [E] feature in Top *ne* is activated to license TP-ellipsis. Further, the Top-to-C movement triggers the checking of the uninterpretable [*u*wh] with the *wh*-operator in the SpecCP to induce *wh*-interrogative force. Therefore, the *ne* in Top is responsible for mobilizing topicalization and TP-deletion, whereas the Top-to-C raising is to trigger interrogative force. Different heads are in charge of different interpretive functions.

Below, we shall demonstrate the evidence for topic movement from idiom chunk and island-(in)sensitivity of FQ.

4. Evidence for topic movement

In addition to the connectivity effects based on reconstruction explored in §3.1 and §3.2, more evidence shows that the formation of FQ indeed involves movement. One is idiom chunk and the other is island-(in)sensitivity.

4.1 Idiom chunks

An argument in favor of the claim that FQ is derived by topicalization is provided by idiomatic verb-object phrases. Idioms such as *kai dao* 'open knife = operate on someone' and *kai wanxiao* 'open joke = make fun of someone' are regarded as one unit in the lexicon, headed by the homophonous verb *kai* 'open' in different meanings. The moved part of an idiom needs to be reconstructed back to its original position to become one unit with the rest of the idiom. Huang et al. (2009) and Paul (2015) assert that topic structures manifest such reconstruction effects as in (30A) and (31A). Our analysis predicts that the objects of the idioms are allowed to form FQs as in (30B) and (31B) because they have undergone topic movement from within the idioms and are required to undergo reconstruction at LF. Furthermore, the reconstruction effect is strongly evidenced by the fact that the extracted FQ at the SpecTopP needs to be meaningfully associated with its correlative verb *kai* 'open' to become one legitimate unit; otherwise, an anomaly arises as in (30B′) and (31B′).

(30) A: [*Nide wanxiao*]ᵢ, *wo bu   gan kai   tᵢ.*
          your joke   I   not dare open
          (Lit.) 'Your joke, I dare not open.'
          'I dare not make fun of you.'
      B: *Tade   wanxiao ne?*
          his   joke   Q
          'What about his joke (making fun of him)?'
      B′: *Tade   dao   ne?*
          his   knife Q
          'What about his operation (operating on him)?'

(31) A: [*Nide dao*]ᵢ, *wo bu   gan kan   tᵢ.*
          your knife I   not dare open
          (Lit.) 'Your knife, I dare not open.'
          'I dare not operate on you.'
      B: *Tade   dao   ne?*
          his   knife Q
          'What about his operation (operating on him)?'
      B′: *Tade   wanxiao ne?*
          his   joke   Q
          'What about his joke (making fun of him)?'

The reconstruction regarding idiom chunk shows that the fragment is derived by topic movement and deletion from a non-fragmentary parallel structure.

4.2   Island-(in)sensitivity

We find that FQ only respects certain islands. When the correlate of an FQ is within the complex NP island and adjunct island, as in (32) and (33), respectively, the FQ is unacceptable, being sensitive to the islands. When no island intervenes as in (34), the FQ *Lisi* raised from the embedded clause is acceptable. Accordingly, the data show that the derivation of FQ in Chinese indeed involves movement and such kind of movement is constrained by island effects.

(32) A: *Ta zhaodao* [[**mama zui   ai   de**] *bi*].
          he find   mother most like DE pen
          'He found the pen that his mother likes most.'
      B: **Baba   ne?*
          father Q
          'What about his father?'

(33) A: *Zhangsan* [*yinwei* **tade baba** *bu zhichi*] *cai fangqi-le yinyue.*
Zhangsan because his father not support then give.up-LE music
'Zhangsan gave up music because his father did not support it.'

B: **Tade mama ne?*
his mother Q

(34) A: *Wo zhidao* [**Zhangsan** *yao qu Meiguo*].
I know Zhangsan will go U.S.
'I know that Zhangsan will go to the U.S.'

B: *Lisi ne?*
Lisi Q
'What about Lisi?'

However, we observe that FQ is insensitive to islands such as the sentential subject constraint and the left branch condition. In (35), the FQ is supposed to be raised from the sentential subject, violating locality effect; however, it is grammatical, yielding the embedded reading: 'whether it is appropriate for *Zhangsan* to stay at school.' In (36), the possessor *Lisi-de* 'Lisi's', which is on the left branch of a noun phrase, can felicitously form FQ, responsive to the correlative left-branching possessor *Zhangsan-de* 'Zhangsan's' of the noun phrase, *Zhangsan-de baba* 'Zhangsan's father'.

(35) A: [*Zhangsan dai-**zai jiali***] *bijiao hao.*
Zhangsan stay-at home more good
'It is more appropriate that Zhangsan stay at home.'

B: *Zai xuexiao ne?*
at school Q
'What about at school?'

(36) A: *Ta renshi* [$_{DP}$ **Zhangsan-de** *baba*].
he know Zhangsan-DE father
'He knows Zhangsan's father.'

B: *Lisi-de ne?*
Lisi-DE Q
'What about Lisi's?'

From the aforementioned discussion, we may wonder why different islands show different locality effects on FQ in Chinese. In the following sections, we shall first survey how Merchant (2004) explains the island effect on English fragment answer (FA) and then go to explore how island-(in)sensitive FQ is derived under our analysis.

4.2.1 Merchant's island effect

Fragment answer (FA) in English strictly observes island effects, indicating that FA undergoes certain kind of movement to the left periphery prior to deletion. Merchant suggests that the rise intonation is put on a particular constituent in a yes-no question, for example *Ben* in (37a) and (38a), to form an implicit constituent question. In other words, the stress on certain constituent induces the denotation of a constituent question. However, the corresponding FAs are not allowed, as shown in (37b) and (38b), respectively, as opposed to the grammaticality of their focused counterparts in non-fragmentary sentences, as in (37c) and (38c).

(37) a. *Does Abby speak the same Balkan language that **Ben** speaks?*   (CNPC)
       b. **No, **Charlie**.*
       c. *No, she speaks the same Balkan language that **Charlie** speaks.*

(38) a. *Did Abby leave the party because **Ben** wouldn't dance with her?*   (AC)
       b. **No, **Beth**.*
       c. *No, she left the party because **Beth** wouldn't dance with her.*

To explain the island-sensitivity, Merchant posits an extra layer FP above CP. The DP *Charlie* moves out of the TP and then stops at the SpecCP before it reaches the SpecFP. TP ellipsis has eliminated the offensive *-traces within the elided TP except for the one higher in SpecCP ($*t'_2$). This causes the FA to crash, as shown in (39).
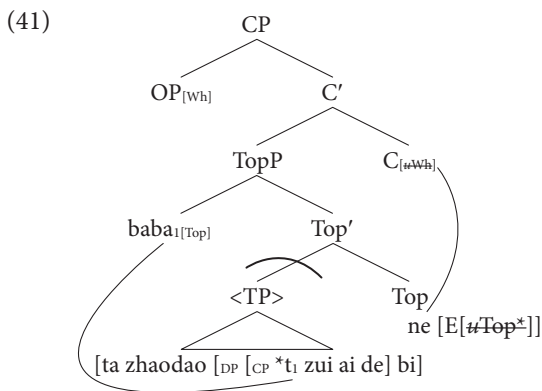
(39)
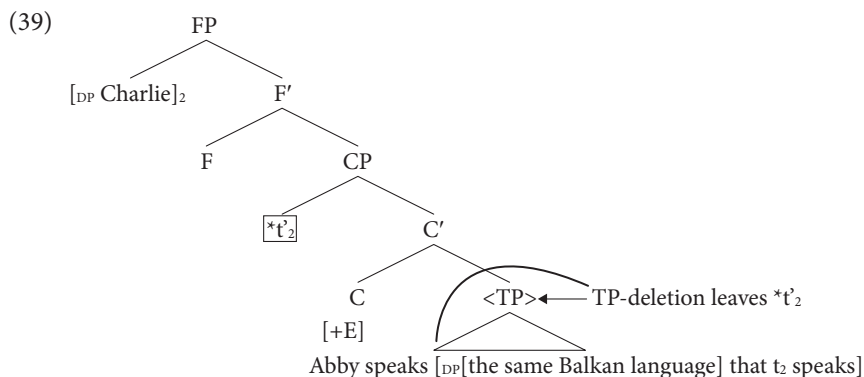
We may well wonder whether this analysis can apply to FQ in Chinese.

4.2.2   *Chinese FQ and island effect*

We argue that the ideas deployed in (39) cannot apply to FQ in (32) and (33), due to the difference in grammaticality. Take (32) for example. The DP *baba* 'father' first raises out of the TP, crossing the complex NP island and stopping at the SpecTopP as in (40) and (41). The checking of the [E] feature triggers TP ellipsis, which is supposed to eliminate the offensive *-traces within TP, as illustrated in (40B). In this vein, the FQ should be grammatical, because there is no illicit trace left undeleted. Unfortunately, this prediction is not borne out. The same situation occurs with the adjunct island violation in (42).

(40) A: *Ta zhaodao* [[*mama   zui   ai*] *de   bi*].
he find   mother most like DE pen
'He found the pen that his mother likes best.'

B: **Baba* [$_{TP}$ *ta* [$_{vP}$ **t'$_{baba}$* [$_{vP}$ *zhaodao* [$_{DP}$[$_{CP}$[$_{TP}$ **t$_{baba}$ zui   ai*]
father   he   find   most like
de] *bi*]]] *ne?*
DE pen Q
'What about his father?'

(41)

$$
\begin{array}{c}
\text{CP} \\
\diagup\diagdown \\
\text{OP}_{[Wh]} \quad \text{C}' \\
\diagup\diagdown \\
\text{TopP} \quad \text{C}_{[uWh]} \\
\diagup\diagdown \\
\text{baba}_{1[Top]} \quad \text{Top}' \\
\diagup\diagdown \\
\text{<TP>} \quad \text{Top} \\
\quad \text{ne [E[uTop*]]} \\
\text{[ta zhaodao [}_{DP}\text{ [}_{CP}\text{ *t}_1\text{ zui ai de] bi]}
\end{array}
$$

(42) A: *Zhangsan* [*yinwei tade baba bu   zhichi*] *cai fangqi-le   yinyue.*
Zhangsan because his father not support then give.up-LE music
'Zhangsan gave up music because his father did not support it.'

B: **Tade   mama* [$_{TP}$ *Zhangsan* [$_{CP}$ *yinwei*   [$_{TP}$ **t$_{tade\ mama}$ bu*
his   mother   Zhangsan   because   not
zhichi]] [$_{vP}$ *cai fanqi-le   yinyue*]] *ne?*
support   then give.up-LE music   Q
'What about his mother?'

To resolve this problem, we propose that FQ involving topic movement is subject to island constraints and is unable to be repaired by TP deletion. In other words, island-sensitivity of the CNPC and the adjunct island in (32) and (33), respectively, are taken as a diagnostic for topic movement. In other words, FQ indeed undergoes topicalization, which is prohibited to cross islands. This line of thought is evidenced by a contrast with fragment answer (FA) in Chinese. Deviating from FQ, Wei (2016) argues that FA in Chinese involves focus movement and deletion. Moreover, FA in Chinese is "insensitive" to islands as in (43), contrary to FQ in Chinese.[10]

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10. A reviewer inquires why a yes-no question as in (i) is not adopted to do a parallel comparison with Merchant's analysis in (39). The example in (i) turns out to be ungrammatical. In the following, we shall explain why an embedded *wh*-question in CNPC is used instead of (i).

(i) A: *Ta zhaodao* [[*Zhangsan zui   ai*] *de bi*]   *ma?*
he find   Zhangsan most like DE pen Q
'Does he find the pen that Zhangsan likes most?'
B: **Lisi.*
'Lisi.'

Merchant (2004) utilizes a yes-no question to test whether a fragment answer (FA) in English typically involving a *wh*-question-answer pair as in (ii) obeys locality effect. Such an analysis can be attributed to the nature of English *wh*-question.

(ii) A: *Who speaks the Balkan language?*
B: *Charlie.*

Merchant finds that testing for island-sensitivity in English FA is very difficult, because the *wh*-question that would test for island-sensitivity is itself a case of island violation as in (iii.a), not to mention the diagnosis of island-sensitivity in FA.

(iii) a. **Who$_i$ did Abby speak the same Balkan language that t$_i$ speaks?*   (CNPC)
b. **No, Charlie.*

Thus, Merchant proposes that such a limitation can be partially overcome by trying to involve questioning an element within an island without moving that element. With this arrangement, the locality effect of a fragment answer can be felicitously tested by raising fragmentary answer across island(s). That is why Merchant uses a yes-no question with an intonation rise on a particular constituent to test the island-sensitivity of FA, as shown in (iv). Here, *Charlie* in (iv.b), in contrast to *Ben*, undergoes focus movement, violating the CNPC, as opposed to (iv.c).

(iv) a. *Does Abby speak the same Balkan language that Ben speaks?*   (CNPC)
b. **No, Charlie.*
c. *No, she speaks the same Balkan language that Charlie speaks.*

Considering the intention of Merchant's use of yes-no questions, we suggest to test the island-sensitivity of Chinese FA by directly using the embedded *wh*-question in (43), mainly because Chinese is a *wh*-in-situ language, confirming to the Merchant's testing requirement of "questioning an element within an island without moving that element." The focus is on whether the fragment *Lisi* has moved or not.

(43) A: *Ta zhaodao*[[**shei zui ai**] *de bi*] *(ne)?*
      he find   who most like DE pen Q
      'Who is the person x such that he found the pen that x likes most?'
   B: *Lisi.*
      'Lisi.'

Given Merchant's (2004) analysis, Wei (2016) proposes that the FA *Lisi* in (33) undergoes focus raising to the SpecFocP to check with the [E[uFoc*]] feature, just like FA in English. TP ellipsis erases the offensive *-traces induced by the focus

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As to (i) suggested by the reviewer, Wei (2016) analyzes this type of fragment as fragment answer to yes-no question (FAY) in (v), which is different from fragment answer to *wh*-question (FAW) in (vi). The copular verb is obligatory in FAY, whereas it is prohibited in FAW. Wei (2016) argues that FAW involves focus movement to SpecFocP prior to TP ellipsis; in contrast, FAY is a base-generated structure, [*pro* copula fragment], due to the presence of *shi* 'be'.

(v) Fragment answer to yes-no question (FAY)
   A: *Ta kanjian le Zhangsan (ma)?*
      he see   LE Zhangsan Q
      'Did he see Zhangsan?'
   B: *Bushi, *(shi) Lisi.*
      not.be be   Lisi
      'No, it is Lisi.'
(vi) Fragment answer to *wh*-question (FAW)
   A: *Ta kanjian le shei (ne)?*
      he see   LE who Q
   'Whom did he see?'
   B: *(*Shi) Lisi.*
      be   Lisi
      'Lisi.'

That is, the reviewer's example in (i) can be improved by adding the copula as in (vii). The fragment is grammatical, because given the *pro* analysis (Wei 2016), the antecedent within island can be construed by the subject *pro*. The empty subject is interpreted via copying an appropriate antecedent at LF (Hankamer & Sag 1976).

(vii) A: *Ta zhaodao* [[*Zhangsan zui ai*] *de bi*] *ma?*
       He find   Zhangsan most like DE pen Q
       'Does he find the pen that Zhangsan likes best?'
    B: *Bushi, *(shi) Lisi.*
       not.be be   Lisi
       'No, it is Lisi.'

Therefore, we shall continue to use the embedded *wh*-question to demonstrate the difference between FA and FQ, both of which involve movement, rather than the implicit embedded yes-no question, which does not involve movement, as argued by Wei (2016).

raising from embedded CP to the SpecFocP in (44).[11] The same island repair effect in FA also occurs in Chinese *bei* passives, as opposed to FQ, as will be shown in §4.2.4 (Footnote15).

(44)
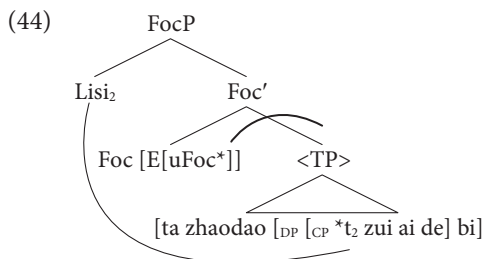
The contrast between FQ and FA in Chinese reveals that island repair effect happens in FA involving focus movement rather than in FQ involving topic movement.[12]

4.2.3   *Chinese FQ and island repair effect in disguise: Pied-piping*

FQs are "insensitive" to the sentential subject island and the left branch condition as in (35) and (36), unlike the CNPC and the adjunct island in (32) and (33). If our proposed analysis in (40–42) is correct, the topic movement would violate locality conditions. However, this prediction is not borne out. To achieve a unified

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11. Merchant (2004) posits an extra layer FP above CP, in which the DP fragment *Charlie* extracts out of the TP and then stops at the SpecCP before reaching the SpecFP in (39). Then, TP ellipsis only eliminates the offensive *-traces within elided TP and leaves the one higher in SpecCP (*t'$_2$) undeleted. That is why the TP ellipsis cannot help repair the island violation. The failure of repairing causes the FA to crash.

   Departing from English FA, the FocP in Chinese is not a projection above CP in the left periphery, but a projection below CP (Shyu 1995; Paul 2002, 2005, 2015; Tsai 2008; Wei 2016, etc.). Evidence from the focus structures such as cleft structure, *lian…dou* structure, and object preposing supports the CP-FocP hierarchy, not FocP-CP hierarchy. Based on the CP-FocP structure, the island-insensitivity in Chinese FA in (33) can be analyzed as follows. After the DP fragment *Lisi* raises to the SpecFocP to check with the [E[uFoc*]] feature, the TP is erased, along with the offensive *-traces induced by the fragment raising from embedded CP to the SpecFocP. Thus, the FA within the island is grammatical due to the island repair effect by TP ellipsis. Island repair effect may happen in other elliptical structures like FA but not in FQ.

12. Thus far, we have to admit that the dispute over the existence of island repair effect is still an unsettled issue. Linguists like Ross (1969) and Merchant (2001; 2004) admit that deletion can ameliorate islands, whereas Abels (2011) and Barros et al. (2014) argue against the substantial effect of island repair. At present, we can only focus on the contrast between FQ and FA with respect to island effect, which partially supports our analysis that FQ involves topic movement, whereas FA(W) involves focus movement. As to the theoretical explanation behind, we leave it for the future research.

analysis of topic analysis, the mechanism of pied-piping is brought up to resolve this discrepancy in island effect.

According to Nishigauchi (1990), Watanabe (1992), and Krifka (2006), the A′ movement of a *wh*-word can escape island violation by pied-piping the entire island containing the *wh*-word to the left periphery of the sentence. This mechanism is called pied-piping. The sentential subject in (35) and the noun phrase in (36) are understood as qualified constituents for topics. Thus, the entire islands can pied-pipe to the SpecTopP to avoid violating the locality effects. As shown in (45) and (46), pied-piping may give rise to two types of FQ: One is the pied-piped form as in (45B) and (46B) and the other is the shortened form as in (45B′) and (46B′). We shall show that they differ in derivational processes.

(45)　A:　[*Zhangsan dai-zai jiali*]　*bijiao hao.*
　　　　　Zhangsan stay-at　home　more　good
　　　　　'It is more appropriate that Zhangsan stays at home.'
　　　B:　*Zhangsan dai-zai xuexiao ne?*
　　　　　Zhangsan stay-at　school　Q
　　　　　'What about Zhangsan staying at school?'
　　　B′:　*Zai xuexiao ne?*
　　　　　at　school　Q
　　　　　'What about at school?'

(46)　A:　*Ta renshi* [DP *Zhangsan-de baba*].
　　　　　he know　　Zhangsan-DE　father
　　　　　'He knows Zhangsan's father.'
　　　B:　*Lisi-de baba ne?*
　　　　　Lisi-DE father Q
　　　　　'What about Lisi's father?'
　　　B′:　*Lisi-de ne?*
　　　　　Lisi-DE Q
　　　　　'What about Lisi's?'

We propose that different types of FQ manifest different types of deletion. To correctly derive the pied-piped form and the shortened form of FQ, different types of deletion are used after pied-piping: One is TP-ellipsis, and the other is coordination deletion. That is, the pied-piped structures need further truncation through coordination deletion to derive the shorted formed of FQ. Let us take a closer look at the detailed procedures of how to form FQs in (45) and (46).

In (45), the entire sentential subject [*Zhangsan dai-zai xuexiao*] 'Zhangsan stays at school' is first pied-piped to the SpecTopP to escape the violation of island effect as shown in (47). There are two alternative ways to derive an eligible FQ, depending on how deletion is implemented. In the beginning, once TP-ellipsis is applied, the

pied-piped form of FQ is successfully derived in (47a). It is easy to find that this kind of FQ is basically a clause containing elements parallel with its antecedent clause in (45A), *Zhangsan dai* … 'Zhangsan stays ….'. In natural speech, Chinese speakers tend to further simplify the FQ by omitting the redundant part. Due to the fact that the parallel elements are not a syntactic constituent, it is impossible to delete them by using a general rule of syntax, coordination deletion. To derive an eligible shorten form of FQ, the fragment *zai xuexiao* 'at school' needs to be further raised to the embedded SpecTopP within the sentential subject before the remainder of the island [*Zhangsan dai* t] 'Zhangsan stays' undergoes coordination deletion, as illustrated in (47b). In brief, FQ in (35) and (45B') involves two steps of deletion: TP-deletion and coordination deletion, as illustrated in (48).

(47)   a.   [$_{CP}$[$_{TopP}$[$_{CP}$*Zhangsan dai-zai xuexiao*]$_1$ [$_{TP}$ t$_1$ ~~bijiao hao~~]] *ne*]?
               Zhangsan stay-at   school   more   good   Q
           'What about Zhangsan staying at school?'

     b.   [$_{CP}$[$_{TopP}$[$_{CP}$[$_{TopP}$ [*Zai xuexiao*]$_2$ [$_{TP}$ ~~Zhangsan dai t$_2$~~]$_1$ [$_{TP}$ t$_1$
               at   school   Zhangsan stay
     ~~bijiao hao~~] *ne*]?
     more   good   Q
     'What about Zhangsan staying at school?'

(48)   Pied-piping sentential subject
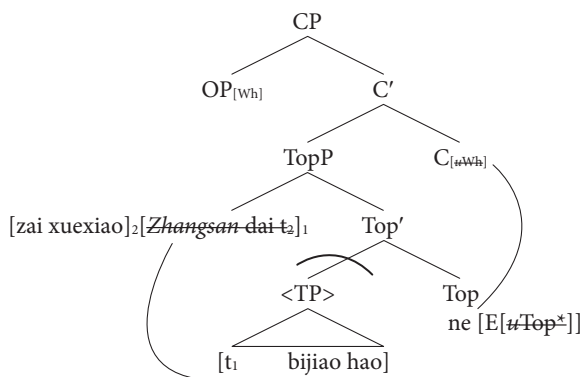
In (46), the entire noun phrase *Lisi-de baba* 'Lisi's father' first pied-pipes to the SpecTopP to avoid violating the left branch condition. After the remnant TP is erased, the pied-piped form of FQ in (46B) is obtained, as illustrated in (49). Here, a problem arises regarding the derivation of the shorten form of FQ: if the left-branch possessor *Lisi-de* 'Lisi's' raises further out of the noun phrase, the left branch condition will be violated. We suggest that the solution to this problem lies in the syntactic property of *de*. Linguists like Simpson (2002), Saito et al. (2008) among many others have argued that *de* in Chinese is located in the D position, being able to

license NP-ellipsis. In other words, it is a licensing head for NP-ellipsis (cf. Lobeck 1995). Therefore, the NP *baba* 'father', coinciding with its antecedent, is directly deleted by means of coordination deletion, as illustrated in (50).

(49) $[_{CP}[_{TopP}[_{DP}$ *Lisi-de ~~baba~~*$]_1$ $[_{TP}$ *ta ~~renshi t_1~~*$]]$ *ne*$]$?
　　　　　　　　Lisi-DE father　　　he know　　Q
　　　'What about Lisi's father?'

(50) Pied-piping noun phrase
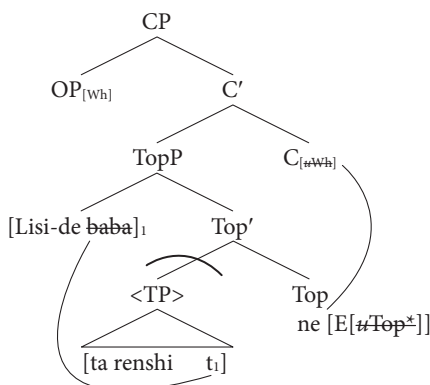
A remaining question is whether the mechanism of pied-piping can prevent FQ from violating the CNPC in (32) and the adjunct island in (33). The answer is negative for respective reasons. First, an adjunct island cannot be a topic; hence, its movement to the topic position is unmotivated as in (51) and (52). Our analysis predicts that the non-topic adjunct island fails to precede the particle *ne* to form a felicitous FQ.

(51) A: *Zhangsan* [*yinwei tade baba bu zhichi*] *cai fangqi-le yinyue.*
　　　　　Zhangsan because his　father not support then give.up-LE music
　　　　　'Zhangsan gave up music because his father did not support it.'
　　　B: **Yinwei tade mama bu zhichi ne?*
　　　　　because his mother not support Q

(52) *[*Yinwei tade baba bu zhichi*] *ne, Zhangsan cai fangqi-le yinyue.*
　　　　because his father not support TOP Zhangsan then give.up-LE music
　　　　'Because his father did not support it, Zhangsan gave up music.'

Second, regarding the CNPC, the complex noun phrase [*baba zui ai de bi*] 'the pen that his father likes most' is allowed to pied-pipe to the SpecTopP as a whole or can form a topic structure, as in (53) and (54). It seems that the mechanism of pied-piping prevents the formation of the shortened FQ *baba* 'father' from violating locality effect; however, this prediction is not borne out. It is suggested that the

raising of the bare FQ is excluded due to the existence of an intervenor within a relative clause.

(53) A: *Ta zhaodao*[[*mama   zui   ai*] *de bi*].
        he find   mother most like DE pen
        'He found the pen that his mother likes most.'
     B: [[*Baba zui   ai*] *de bi*] *ne*?
        father most like DE pen Q
        'What about the pen that his father likes best?'

(54) [[*Baba zui   ai*] *de bi*] *ne,   ta zhongyu zhaodao-le*
        father most like DE pen TOP he finally   find-LE
        (Lit.) 'As to the pen that his father likes most, he finally found it.'

As illustrated in (55), the target *baba* 'father' at the SpecTP is supposed to raise to the embedded SpecCP, an escape hatch, and to further proceed through the SpecDP, another escape hatch (cf. Bošković 2005), to cross the complex NP island. However, the embedded SpecCP has already been occupied by a null operator, which is required to move from its base-generated position to the SpecCP in forming a relative clause (Huang 1982). The embedded CP with an operator in the left periphery is an island for the fragment raising, a kind of *wh*-island, causing the FQ to crash. Thus, the movement of the target *baba* 'father' will be blocked, leaving uninterpretable offensive traces on the way to its landing site.

(55) a. $[_{CP}[_{TopP}[_{DP}[_{CP}$ *Baba zui   ai*] *de bi*$]_1$ $[_{TP}$ ~~*ta zhaodao-le t_1*~~]] *ne*]?
           father most like DE pen   he find-LE   Q
        (Lit.) 'The pen that his father likes most, he found it.'
     b. $[_{CP}[_{TopP}[_{DP}$ *Baba$_2$* $[_{DP}$ **t'$_2$* $[_{CP}$ OP$[_{TP}$ **t$_2$* *zui   ai*]] *de bi*$]]_1$ $[_{TP}$
           father   most like DE pen
        ~~*ta zhaodao-le t_1*~~]] *ne*]?
        he find-LE   Q
     c. $[_{CP}[_{TopP}$ *Baba$_2$* $[_{TopP}[_{DP}$ **t'$_2$* $[_{CP}$ OP$[_{TP}$ **t$_2$* *zui   ai*]] *de bi*$]]_1$ $[_{TP}$
           father   most like DE pen
        ~~*ta zhaodao-le t_1*~~]] *ne*]?
        he find-LE   Q

Moreover, the landing site of the target *baba* is crucial in explaining why pied-piping and coordination deletion cannot rescue FQ from fouling the CNPC. Because the entire noun phrase island has been raised to the matrix SpecTopP, the fragment within the pied-piped complex noun phrase might be adjoined to the DP as in (55b) or to the TopP as in (55c).[13] If DP adjunction occurs as in (55b), coordination

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13. We have already excluded the possibility that the raised FQ is a focus, so the SpecFocP will not be an alternative landing site.

deletion fails because it is impossible to leave the fragment *baba* intact by deleting a complete DP remnant. On the other hand, if the TopP adjunction occurs in (55c), then it violates a syntactic generalization that prohibits extraction out of the "derived" position (cf. Merchant 2001).[14] As shown in (56), the extraction from the topicalized element is not allowed. Along this line, the fragment *baba* cannot be extracted out of the topicalized DP in (55c).

(56)   *Which Marx brother did she say that [*a biography of __*], she refused to read?*

This section shows that pied-piping can explain why FQ is insensitive to the sentential subject island and the left branch condition and why FQ fails to use it to escape the violations of the adjunct island and the CNPC. In brief, the discussions strengthen the fact that the topic movement and TP deletion analysis along with pied-piping can help capture the phenomena of island-(in)sensitivity in Chinese FQ.

4.2.4   *FQ in passives*
Passive construction in Chinese has some bearing on the formation of an FQ. In (57), neither *bei Lisi* nor *Lisi* is unacceptable. The ungrammaticality can be captured by our proposed analysis.

(57)   A: *Ta bei **Zhangsan** da le.*
           he BEI   Zhangsan hit LE
           'He was hit by Zhangsan.'
       B: *Bei Lisi ne?*
           BEI Lisi Q
   C: *Lisi ne?*
           Lisi Q

There is a growing body of evidence in the literature suggesting that the structure of the Chinese long passive (passive *bei*+ NP) is syntactically similar to the structure of the *tough* construction in English (Chomsky 1981; Ting 1995; Feng 1997; Huang 1999, etc.). In English, the *tough* predicate *easy* selects a clausal complement containing an A-bar chain formed by a null operator movement (NOP), as in (58). Likewise, the "*tough*" verb *bei* takes a clausal complement, in which the null operator moves from the object position to the left periphery of the clause, being strongly bound by the base-generated matrix subject *ta* 'he' *via* predication, as in (59). Thus, the passive construction in Chinese involves two mechanisms: operator movement and predication.

(58)   *John is easy* [OP$_i$ [PRO to please t$_{OPi}$]].

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14. Merchant (2001) recognizes the locality constraint as a type of derived-position island.

(59) [$_{TP}$ *Ta$_i$* [*bei* [$_{CP}$ OP$_i$ [$_{TP}$ *Lisi da le t$_{OPi}$*]]]].
    he   BEI   Lisi hit LE
  'He is beaten by Lisi.'

Given the NOP analysis, *bei Lisi ne* in (57B) is predicted to be ungrammatical, because *bei* and *Lisi* cannot form a syntactic constituent. Therefore, it is impossible for them to move together to the SpecTopP. *Lisi ne* in (57C) is ruled out, because the embedded CP with an operator in the left periphery is an island for fragment raising, a kind of *wh*-island, causing the FQ to crash, as in (60):

(60)
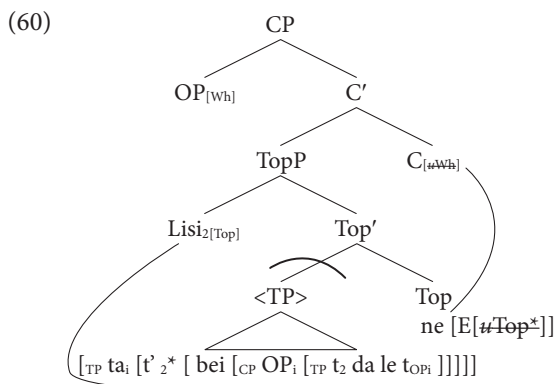
One may wonder whether the mechanism of pied-piping can rescue the passive FQ. The answer is negative, because the pied-piped island CP after the *tough* verb *bei* contains an open lambda λ (operator)-variable chain, which is much like a "comment" rather than a "topic" in the sense of Huang (1999). Thus, it is impossible for the CP to be raised to the topic position.[15]

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15. As noted by a reviewer, also in Wei (2016), fragment answer to a *wh*-question (FAW) in Chinese *bei* passive is felicitous as in (i), akin to the island-insensitive FAW within the CNPC in (43), but drastically different from FQ. To explain this grammatical discrepancy, we propose that island repair effect may be implemented in FA involving focus movement rather than in FQ involving topic movement.

(i) A: *Zhangsan bei shei da le?*
     Zhangsan BEI who hit LE
     (Lit.) 'By whom was Zhangsan beaten?'
   B: [$_{FocP}$ *Lisi$_2$* [Foc' Foc$_{[E[uFoc*]]}$ [$_{TP}$ ~~Zhangsan$_i$~~ [*bei* [$_{CP}$ OP$_i$ [$_{TP}$ *$_2$ *da le* t$_{OPi}$]]]]]].
     Lisi   Zhangsan   BEI   hit LE
   'Lisi.'

Deviating from FQ, Wei (2016) argues that FA in Chinese involves focus movement and TP deletion. As illustrated in (i), *Lisi* is raised to the SpecFocP from the subject position of the complement clause to check with the [E[uFoc*]] feature, just like fragment answer in English. The offensive *-traces possibly caused by the intervention of the operator on the way to the SpecFocP are erased by TP-ellipsis. Thus, the analysis successfully predicts that the FA *Lisi* is acceptable.

Before leaving this section, let us see whether the proposed topic analysis can predict the grammaticality of FQ from the so-called adversative passive in (61).[16] The adversative passive here is analyzed by Lin (2009) as a kind of "gapless" *bei* passives in Chinese. He argues that if the embedded predicate of a *bei* passive contains a weak NP like the indefinite NP *yi-zhi yan* 'one eye', then the *bei* passive can be gapless. It means that an operator, bound with a variable introduced by the weak NP, directly merges at the left periphery of the embedded clause without leaving any gap. That is to say, the weak NP licenses the gapless clausal complement for the *bei* passive. This differs from the long *bei* passives in Chinese, which involve an operator-variable movement to the embedded IP (TP here).

(61) A: *Ta bei* [OP_i [*Zhangsan da-xia-le   yi-zhi   yan_i*]].
He BEI   Zhangsan hit-blind-LE one-CL eye
'He had Zhangsan hit and blind one of his eyes.'

B: *Bei Lisi ne?*
BEI Lisi Q
(Lit.) 'What about by Lisi?'

If the FQ in (61B) is acceptable, we suggest that it is the difference in landing or merging site of the operator that plays a crucial role in explaining why the FQ in (61) is acceptable, in contrast to the FQ in (57B). Lin (2009) distinguishes the operator of the gapless passive from that of the canonical long passive by their essential properties. The former operator is bound with a variable introduced by a weak NP, interpreted as a property/status deduced from an indefinite NP, whereas the latter one is bound by a variable caused by A′-movement, interpreted as a property deduced from an open lambda-abstraction. Based on this difference, we propose that the merging site of "gapless" operator is IP(TP)-adjoined position, as proposed by Lin (2009) and that the landing site of the "gap" operator is SpecCP.

Given our topic movement analysis, since *bei* and *Lisi* is not a syntactic constituent, they cannot raise together to the SpecTopP to form FQ. However, this analysis does not fit the FQ in (61). To resolve the discrepancy, we assume that pied-piping plays a decisive role here. That is, the entire *bei*-clausal complement is pied-piped to the SpecTopP as in (62a). After TP-deletion is applied, the fragment can raise to the SpecCP without being intervened by the operator in IP(TP)-adjoined position. Then, the TP, paralleling with its antecedent, undergoes coordination deletion as in (62b), giving rise to the remnant *bei Lisi ne*.

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16. We thank the editor for bringing up this issue.

(62) a. [$_{CP}$[$_{TopP}$[$_{VP}$ *Bei* [$_{CP}$[$_{TP}$*OP*$_i$[$_{TP}$ *Lisi da-xia-le yi-zhi yan$_i$*]]]]$_i$ [$_{\overline{TP}}$
       BEI   Lisi hit-blind-LE one-CL eye

    ~~ta~~ *t$_i$*]] *ne*]?
    he   Q

b. [$_{CP}$[$_{TopP}$[$_{VP}$ *Bei* [$_{CP}$ *Lisi$_j$*[$_{\overline{TP}}$*OP*$_i$[$_{TP}$ *t$_j$* ~~da-xia-le~~ *yi-zhi yan$_i$*]]]]$_i$
       BEI   Lisi   hit-blind-LE one-CL eye

    [$_{\overline{TP}}$ ~~ta~~ *t$_i$*]] *ne*]?
        he   Q

Regarding the "gap" *bei* passive, the entire *bei*-clausal complement also pied-pipes to the SpecTopP prior to TP-deletion. However, in contrast to the "gapless" passive, the operator in the SpecCP will block the raising of *Lisi*, causing the sentence to crash before coordination deletion, as in (63).

(63) [$_{CP}$[$_{TopP}$[$_{VP}$ *Bei* [$_{CP}$**OP*$_i$[$_{TP}$ *Lisi da le*]]]]$_i$ [$_{\overline{IP}}$ ~~ta~~ *t$_{OPi}$*]] *ne*]?
       BEI   Lisi hit LE   he   Q

This section reveals that the topic analysis can nicely capture FQs from long passives and gapless *bei* passives in Chinese. These facts strengthen the argument that the movement of FQ respects locality effects. Only when the island is an eligible topic can the FQ within it be formed.

5. Preposition drop

Merchant (2004) employs preposition stranding to demonstrate that a fragment indeed moves to the SpecFP prior to TP ellipsis with a stranded preposition left behind in a preposition stranding language like English. In Chinese, a non-preposition stranding language (Huang 1982), a stranded preposition should not be allowed; however, this prediction is not borne out in the case of FQ.

FQ can be in the form of prepositional phrase *gen Lisi* 'with Lisi' or of nominal phrase *Lisi*, as in (64). Though both forms yield the same meaning, the derivation of the latter might pose a problem to the present analysis. We shall argue that the problem is only apparent due to a general property of a topic in Chinese.

(64) A: *Ta gen **Zhangsan** hen chu-de-lai.*
       he with Zhangsan very get-DE-along
       'He gets along well with Zhangsan.'

    B: *(Gen) Lisi ne?*
       with Lisi Q
       'What about (with) Lisi?'

The prepositional fragment *gen Lisi* in (64) can be raised to the SpecTopP, prior to TP ellipsis, deriving the pied-piped form. However, the nominal fragment *Lisi* poses a challenge to the raising analysis. Because Chinese is a non-preposition stranding language, the nominal fragment should be ruled out to avoid leaving a stranded preposition. This prediction is not borne out. To resolve the problem, we assume that the derivation of the nominal fragment involves at least two steps: (i) pied-piping the whole prepositional fragment to the specifier of TopP, and (ii) dropping the preposition at the post-PF level after TP ellipsis.

Preposition drop at the post-PF can be evidenced by the fact that the prepositional phrase *gen Lisi* 'with Lisi' can be felicitously topicalized as in (65a). Afterwards, the topicalized phrase may undergo preposition drop in colloquial utterances, as in (66B). If this assumption is correct, then the acceptability of the nominal fragment in (64B) would not be a counterexample to our analysis. In fact, from a cross-linguistic view, Stjepanović (2012) has argued that similar preposition drop occurs at the post-PF in Serbo-Croatian sluicing.[17]

(65) a. *Gen Lisi, wo hen chu-de-lai.*   (Topic)
          With Lisi I   very get-DE-along
          'I get along well with Lisi.'

      b. *Lisi, wo hen chu-de-lai.*   (Colloquial)
          Lisi I   very get-DE-along
          'As to Lisi, I get along well with.'

One of the reviewers has pointed out the fact that there may be an argument-adjunct asymmetry between (64) and (66) with regard to the PP FQ. The prepositional phrase *gen Zhangsan* in (64) acts like an argument, because the sentence without it is ungrammatical in (67). In contrast, the PP in (66) behaves like an adjunct, because it is optional. In forming FQ, the argument-type PP in (64B) can naturally omit the preposition via preposition drop at the post-PF, deriving only one meaning 'whether he gets along well with Lisi.' Contrastively, the adjunct-type PP in (66B)

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17. Similar preposition drop also occurs in Serbo-Croatian. Stjepanović (2012) considers the drop in Serbo-Croatian sluicing an operation in the post-PF component. In Serbo-Croatian, preposition stranding is not allowed in regular *wh*-questions like Chinese. However, sluicing in the language optionally permits preposition omission. This violates Merchant's (2001: 92) preposition stranding generalization, which states that a language allows preposition stranding under sluicing if it also allows preposition stranding under *wh*-movement. Stjepanović argues that the loss of P is not due to P-stranding; instead, the preposition is dropped in a post-syntactic component. In other words, preposition omission in sluicing in Serbo-Croatian is not a violation of the preposition stranding generalization, but it results from "phonetic loss" in the post-PF component, not TP deletion at PF.

cannot drop the preposition, giving rise to at least two meanings: 'whether he often plays ball with Lisi' or 'What he often does with Lisi'. More importantly, the preposition drop in (64B) does not affect the interpretation of *Lisi* as a comitative role, whereas the preposition drop in (66B) causes unacceptability. In this case, the fragment *Lisi* is inclined to be interpreted as an agent, who often plays ball with *Zhangsan* rather than as a comitative role, with whom the subject *he* often plays ball. We suggest that it is such an anomaly that causes the exclusion of the preposition drop in (66B).

(66)   A: *Ta changchang (gen Zhangsan) da-qiu.*
              he often   with Zhangsan   play-ball
              'He often plays ball with Zhangsan.'
         B: **(Gen) Lisi ne?*
              with   Lisi Q
              'How about (with) Lisi.'

(67) **Ta hen   chu-de-lai.*
          he very get-DE-along
          'He gets along well.'

We also observe that the legitimacy of preposition drop is determined by the argument-adjunct asymmetry from the perspective of selection. The argument-type PP in (64B) can drop preposition at the post-PF, because a direct, strong semantic selection exists between the bare fragment *Lisi* and the predicate *chu-de-lai* 'get along well,' which requires at least two persons. In contrast, the preposition drop of the adjunct-type PP is difficult in (66B), because the bare fragment is inclined to be realized as the agent role instead of the comitative role due to its indirect semantic link with the predicate *da-qiu* 'play ball'; such a tendency causes the reduced form of FQ to crash.

Regarding the preposition drop in Chinese FA, both PP and bare NP can serve as FA (cf. Wei 2016). In addition to pied-piping the entire PP to SpecFocP, the PP can freely drop its preposition at the post-PF. No confusion is caused owing to the existence of its *wh*-correlate *shei* 'who' in the antecedent clause in (68).

(68) A: *Zhangsan gen shei da-qiu   (ne)?*
             Zhangsan with who play-ball Q
             'With whom does Zhangsan play ball?'
        B: *(Gen) Lisi.*
             with   Lisi
             '(With) Lisi.'

6. Conclusion

6.1 Summary

FQ in Chinese is derived by topic movement and TP deletion. Only syntactic categories that can be accommodated in the topic position can form FQs, in conformity with the fact that Chinese is a topic prominent language. FQ, undergoing topicalization, is island-sensitive to the complex NP island and the adjunct island. By pied-piping the entire topic-like island to the SpecTopP, this analysis explains why an FQ from within the sentential subject island and the left branching of a noun phrase can survive; similar analysis also applies to the FQ deduced from passives in Chinese. Furthermore, empirical evidence supports the fact that the apparent preposition drop within an FQ is not a counterexample to our analysis.

6.2 Typological implication

Such a topic analysis of FQ implies that different types of languages may show different types of FQ. Chinese is a topic prominent language. Meanwhile, Chinese prevalently uses particles to operate different grammatical and pragmatic functions. For example, the particle *ne* is used as a topic marker and a constituent question marker. The combination of these two properties helps establish FQ in Chinese. Cross-linguistic evidence from Japanese and English supports this topic analysis.

First, Chinese is a topic-prominent language. Therefore, in the formation of an FQ, a prominent element in contrast with its antecedent tends to be topicalized to the left periphery of the sentence. In this sense, the FQ is formed by using contrastive topic to inquire the possibility of an alternative answer. Moreover, Chinese is a language which prevalently uses particles to show different grammatical or pragmatic functions. A particle may display different meanings and functions. That is why the particle *ne* in FQ can simultaneously type a *wh*-question (Cheng 1991) and serve as a topic marker. With these two properties, FQ is used to solicit an alternative answer (whether *Lisi* has come back) in contrast to its antecedent (*Zhangsan* has come back) in (1).

Second, cross-linguistic evidence from Japanese helps strengthen the topic movement analysis. Japanese is also a topic prominent language (Chafe 1976; Miyuki Sawada p.c.), which often omits subject in a sentence. What is more, Japanese utilizes different markers for case, topic, etc. Data from Japanese indicate that fragments are attached with a topic marker -*wa* in (69) and (70), showing that the FQ in Japanese is similar to that in Chinese as a topic. Note that in (69A) and (70A), to avoid any misleading contrast, the neutral description of the nominative

marker *-ga*, instead of the topic marker *-wa*, is used to mark the correlate. Speaker
B in (69) and (70) unanimously uses XP-*wa* to solicit answers.

(69)   A: *Tanaka-ga   modot-ta.*
            Tanaka-NOM return-PST
            'Tanaka came back.'
       B: *Miyuki-wa?*
            Miyuki-TOP
            'What about Miyuki?'

(70)   A: *Kare-wa zasshi-ga   yomi-tai.*
            he-TOP   magazine-NOM   read-want
            'He wants to read magazines.'
       B: *Shousetsu-wa?*
            novel-TOP
            'What about novels?'

Third, in contrast to Chinese and Japanese, English is not a topic prominent lan-
guage in lack of semantic or grammatical particles; thus, our analysis predicts
that the language may use different strategies to form FQ. Culicover & Jackendoff
(2005: 244ff.) assert that a fragment question like (71a) does not have a correspond-
ing syntactic correlate as (71b); they believe that it is independently generated.

(71)   A: *John met a woman who speaks French.*
       a: B: *And Bengali?*
       b: B: **And Bengali, did John meet a woman who speaks French t?*

However, Merchant (2010) argues that the fragment in (71a) allows a wide range of
interpretations as in (72a–d). For Merchant, the difference in acceptability between
(72a–c) and (72d) lies in the existence of island effect. To yield the reading in (72d),
which introduces a woman different from the one who speaks French, the fragment
Bengali needs to be raised out of the relative clause; such a raising is prohibited
(Merchant 2010). In contrast, the readings in (72a–c) are not extracted out of an
island but are derived straightforwardly by extraction out of a "simple" clause whose
subject (*she*) is coindexed with the woman who speaks French. The logic behind this
argumentation lies in the fact that the fragment comes from a full-fledged clause struc-
ture rather than from a base-generated FQ structure (Culicover & Jackendoff 2005).

(72)   *And Bengali?*
       a.   *Did John meet a woman who speaks French and Bengali?*
       b.   *Does she speak French and Bengali?*
       c.   *And does she speak Bengali (too)?*
       d.   **And did John also meet a different woman who speaks Bengali (in addition
            to meeting the woman who speaks French)?*

Furthermore, Merchant also mentions that the fragmentary pattern *what/how about Bengali* in (73) is different from *And Bengali* in (72) in interpretation. 'What/how about X′ accommodates a wider range of interpretations, even including (72d). This indicates that 'What/how about X′ is insensitive to the relative clause island, different from (72).

(73)   a.   *What about Bengali?*
         b.   *How about Bengali?*

Thus far, several crucial points need to be noted. First, Merchant has not discussed whether a fragment like *And Bengali* in (71b) undergoes "focus" movement or not as fragment answer and whether *what/how about Bengali* in (73) is derived through movement and deletion or by base-generation. Second, it is unclear why *And Bengali* in (72a) and (72b) does not violate island condition; obviously, it raises out of a relative clause and/or a coordinate structure. Even so, one thing is for sure: Unlike the FQs in Chinese and in Japanese, neither English FQ in (71) nor that in (73) involves topic movement, mainly because English is not a topic prominent language.

    In sum, the paper entails that topic plays a crucial role in forming FQ in topic prominent languages such as Chinese and Japanese.

Acknowledgements

Abbreviations

AC	adjunct condition	NOM	nominative
ASP	aspect	NOP	null operator movement
C	complementizer	NP	nominal phrase
c-command	constituent-command	OP	operator
CL	classifier	P	preposition
CNPC	complex NP constraint	PIC	Phase-Impenetrability Condition
CP	complementizer phrase	PF	Phonetic form
D	determiner	PP	preposition phrase
DP	determiner phrase	pro	covert pronominal element with Case
[E]	ellipsis feature	PRO	covert pronominal element without Case
F	focus		
FA	fragment answer	PST	past
FAW	fragment answer to *wh*-question	Q	question particle/marker
		Spec	specifier
FAY	fragment answer to yes-no question	SSC	sentential subject constraint
		TOP	topic
FocP	focus phrase	TopP	topic phrase
ForceP	force phrase	TP	tense phrase
FP	focused phrase	[uF]	uninterpretable focus feature
FQ	fragment question	[*u*Top]	uninterpretable Top feature
IP	inflectional phrase	[*u*wh]	uninterpretable wh feature
LBC	left branch condition	VP	verb phrase
LF	Logical form	XP	any possible phrase or projection

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Author's address

Ting-Chi Wei
Graduate Institute of Taiwan History, Culture, and Languages
National Kaohsiung Normal University
116 Heping 1st Road
Lingya District
Kaohsiung City 80201
Taiwan
tingchiwei@nknu.edu.tw