

On the Absence of Island Effects in Chinese Alternative Questions *

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This paper offers an account for why Chinese alternative questions do not display island effects. Three approaches to deriving this type of question are evaluated, including movement without deletion, movement with deletion, and non-movement with deletion. The third approach is defended in this paper. For comparative purposes, Chinese A-not-A questions and English alternative questions are also discussed. It is concluded that only Chinese alternative questions are not licensed by movement, while the other two are. Without involving movement, Chinese alternative questions are thus found with the absence of island effects.

1. Introduction

This study stems from a minimal pair as illustrated below in (1) and (2), cited from Huang (1991: 313-314).

(1) [Wo qu Meiguo haishi bu qu Meiguo] bijiao hao?
I go US or not go US more good
'Is it better that I go to the US or do not go to the US?'

(2) *[Wo qu Meiguo bu qu Meiguo] bijiao hao?
I go US not go US more good
'Is it better that I go to the US (or) do not go to the US?'

The form within the square brackets in (2) can alone be used as an interrogative sentence, known as an A-not-A question. This type of question is characteristic of combining a positive predicate with its negative counterpart without placing a disjunctive coordinator 'or' in between. Consider an example below in (3a) and its derivation in (3b) (Huang et al. 2009: 255).

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- (3) a. Ni gaoxing bu gaoxing (ne)?
 you happy not happy Q_{wh}¹
 ‘Are you happy (or) not happy?’
 b. [CP [VP gaoxing-bu-gaoxing]_i [IP ni t_i] (ne)] (LF representation)
 happy-not-happy you Q_{wh}

The analysis of an A-not-A constituent as having the operatorhood can be traced back to Huang (1982), according to whom an A-not-A element undergoes LF movement to CP in order to take the question scope, on a par with a Chinese *wh*-adjunct such as *weishenme* ‘why’. As we can see, both examples in (2) and (4) are detected with island effects of sentential subject.

- (4) *[Ni weishenme mai shu] bijiao hao? (Huang 1991: 323)
 you why buy book more good
 ‘What is the reason *x* such that it is better that you, for reason *x*, buy books?’

Huang (1991) owes the ungrammaticality of examples like (2) and (4) to the violation of the Empty Category Principle (ECP, see Chomsky 1981). That is, the A-not-A trace in a case like (2) and the *wh*-trace in a case like (4) fail to be properly governed either by a lexical category or by an antecedent, and the sentences are thus ruled out.

Given the contrast between (1) and (2), one might then wonder why a disjunctive sentence like (1) is immune to the island constraint. The linguistic literature, as far as I know, has not paid as much attention to the derivation of Chinese alternative questions as Chinese A-not-A questions, and this immediately leaves us with some room for further investigation. Through this study, I aim to derive an alternative question as in (1) without inducing island effects. The rest of this paper is organized as follows. Section 2 and section 3 review two different previous approaches to deriving Chinese alternative questions based on movement, and Section 4 is my proposed approach based on non-movement. Section 5 summarizes the paper.

2. Movement without Deletion

In Huang (1982, 1998), a disjunctive *haishi*-phrase has to move to CP at LF to yield the question reading. Given this, an alternative question like (5a) is derived as in (5b).

¹ The abbreviations used in examples of this paper are glossed as follows: CL: classifier; DE: clitic-like linker; Op: operator; Perf: perfective aspect; Q_{wh}: *wh*-question marker.

- (5) a. Zhangsan haishi Lisi hui lai?
 Zhangsan or Lisi will come
 ‘Will Zhangsan or Lisi come?’
 b. [_S [Zhangsan haishi Lisi]_i [_S *t_i* hui lai]]?
 Zhangsan or Lisi will come

(Huang 1998: 194)

Under this approach, nominal disjunction is not reduced via ellipsis from clausal disjunction, and the disjunctive phrase is treated in parallel with a *wh*-word which may undergo LF movement.

Notice that Huang’s analysis only considers NP-disjoined phrases such as ‘Zhangsan or Lisi’ in (5). To achieve a unified account, we may extend his analysis and assume that even IP/TP-disjoined phrases may move just like *wh*-words. This is illustrated below in (6), where the IP-disjoined phrase *ta de jiang haishi wo de jiang* ‘s/he won the prize or I won the prize’ moves to CP at LF to take the question scope.

- (6) a. Ni xiangxin [_{NP} [_{ConjIP} ta de jiang haishi wo de jiang] de xiaoxi] ne?
 you believe s/he get prize or I get prize DE news Q_{wh}
 ‘Do you believe the news that s/he won the prize or I won the prize?’
 b. [_{CP} [ta de jiang haishi wo de jiang]_i [_{IP} ni xiangxin [_{NP} [_{IP} *t_i*] de xiaoxi]]] ne?
 s/he get prize or I get prize you believe DE news Q_{wh}

However, the trace in (6b) cannot find any head governor in its local domain, nor can it be governed by its long-distance antecedent, so that the sentence should be predicted to be ruled out by the ECP. This prediction, nonetheless, is contrary to fact, suggesting that the present movement approach is not on the right track.

3. Movement with Deletion

Another movement approach, brought up by C.-T. Huang (1982, 1998) and followed by R.-H. Huang (2009), appeals to LF movement along with a deletion process called Conjunction Reduction (henceforth CR, Ross 1967). Departing from C.-T. Huang, R.-H. Huang proposes that the element which undergoes movement in Chinese alternative questions is a null Q-operator, rather than the disjunctive *haishi*-phrase itself. Along this line, the sentence in (5a) is derived as below.

- (7) a. [_{TP/IP} Op [_{TP/IP} [Zhangsan hui lai] haishi [Lisi hui lai]]]?
 Zhangsan will come or Lisi will come
 ‘Will Zhangsan come or Lisi come?’
 b. [_{CP} Op_i [_{TP/IP} *t_i* [_{TP/IP} [Zhangsan *e*] haishi [Lisi hui lai]]]]?
 Zhangsan or Lisi will come

As it turns out, apparent nominal disjunction is reduced from clausal disjunction via CR. In fact, R.-H. Huang's analysis of Chinese alternative questions is extended from Han and Romero's (2004) analysis of English alternative questions under the proposal that alternative questions have clausal disjuncts. Accordingly, in the case of English, a superficial NP-disjoined case like (8a) is reduced from an IP-disjoined case like (8b).

- (8) a. Did John eat [_{NP} rice] or [_{NP} beans]?
 b. Op_i did t_i [_{IP} John eat beans] or [_{IP} ~~John eat~~ rice]?²

In short, under the present approach, both English and Chinese alternative questions are derived by movement as well as CR applied to clausal disjuncts.

However, the null-operator movement approach runs into a difficulty in accounting for the following contrast with respect to the non-interrogative interpretation of *wh*-phrases (i.e., *wh*-indefinites).

- (9) a. *Ruguo Akiu weishenme bu-neng jiao zuoye, ta yiding hui lai
 if Akiu why not-can hand.in homework he surely will come
 gaosu wo. (Tsai 1999: 63)
 tell me
 'If for some reason Akiu cannot hand in homework, he surely will come to tell me.'
 b. Yaoshi Akiu cizhi haishi tuixiu dehua, qing gaosu wo.³
 if Akiu resign or retire the.case please tell me
 'If Akiu resigns or retires, please tell me.'

According to Tsai (1994, 1999), Chinese *wh*-nominals like *shenme* 'what' and *shei* 'who' are variables, while Chinese *wh*-adverbs like *weishenme* 'why' are intrinsic operators. The former are licensed in situ via unselective binding (cf. Heim 1982, Pesetsky 1987) by existential closure (\exists -closure) under "affective contexts" (see Kilma 1964 for an initial discussion), such as negation, conditionals, yes-no questions, etc. Consider the following example in (10) for the licensing of an existential *wh*-nominal (cited from Tsai 1999: 63-64).

² Han and Romero do not explain why the deletion of a non-constituent like *John eat* in (8b) is feasible since it does not fit the general assumption that ellipsis only applies to a constituent. A possible explanation coming to my mind is that ellipsis can be applied twice: *John* is elided first and *eat* is elided later. Each time the elided item is an unproblematic constituent.

³ This sentence is accepted by the majority of my informants who speak Taiwan Mandarin.

- (10) a. Ruguo Akiu mai-le shenme, ta yiding hui lai gaosu wo.
 if Akiu buy-Perf what he surely will come tell me
 ‘If Akiu bought something, he surely will come to tell me.’
 b. $[_{CP} \text{ruguo } \exists_x [_{IP} \text{Akiu } [_{VP} \text{mai-le shenme}_{(x)}]]]$, ...
 if Akiu buy-Perf what

The above example shows that the *wh*-nominal *shenme* ‘what’ is bound in situ by existential closure and interpreted as ‘something’. Chinese *wh*-adverbs, on the other hand, cannot be licensed in parallel ways for the following reason suggested by Tsai (1999). Due to its operatorhood, a *wh*-adverb has to move to take the proper quantificational scope. As demonstrated below in (11a), since the closer landing site has been occupied by existential closure, *weishenme* ‘why’ will have to move up to the matrix [Spec, CP]. This long-distance movement which skips over a closer A’-position without taking the shorter route violates the Shortest Movement Condition (Chomsky 1995: 182) and thus renders the sentence ungrammatical. A typical effect of Relativized Minimality (Rizzi 1990) is seen here.

- (11) a. $*[_{CP} \text{ruguo } \exists_x [_{IP} \text{Akiu weishenme}_{(x)} \text{bu-neng } [_{VP} \text{jiao zuoye}]]]$, ...
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- b. $[_{CP} \text{yaoshi } \exists_x [_{IP} \text{Akiu Op}_{(x)} \text{cizhi haishi tuixiu dehua}]]$, ...

Given that the configuration in (11a) is in trouble, we should expect the parallel configuration in (11b) to be in trouble as well. But this is contrary to fact. I therefore doubt if disjunctive *haishi* sentences can be derived by null-operator movement.⁴

⁴ One might argue for the null-operator movement analysis by claiming that (11b) is actually reduced from a CP-disjoined structure, as shown below.

- (i) Op $[_{CP} \text{yaoshi Akiu cizhi dehua}] \text{ haishi } [_{CP} \text{yaoshi Akiu tuixiu de hua}]$, ...
 if Akiu resign the.case or if Akiu retire the.case

Under the above analysis, the absence of the Relativized Minimality effect is expected. Since the null operator is not merged within the domain of *yaoshi* ‘if’ where existential closure is able to occur, the null-operator movement will not be blocked by existential closure.

I argue, nevertheless, that (i) is not a tenable source. Lin (2008) points out that when *haishi*-phrases are used with the non-interrogative reading, they behave like polarity items and require polarity triggers such as negators, the yes-no question particle *ma*, modals, and conditional markers. In a structure like (i), however, we fail to find a c-commanding polarity trigger to license the non-interrogative use of *haishi* ‘or’. I therefore abandon the CP-disjunction

4. Non-Movement with Deletion

I propose in this study that Chinese disjunctive *haishi* sentences are derived by unselective binding and CR from clausal disjunction. Inspired by Tsai (1994, 1999), I treat ‘A *haishi* B’ phrases as being on a par with Chinese *wh*-nominals, forming a binding dependency as in (12a). Chinese *wh*-adverbs, on the other hand, enter into a movement dependency as in (12b).

- (12)a. $Q_x \dots \text{wh}_{(x)} \dots$ (binding dependency)
 b. $\text{wh}_i \dots t_i \dots$ (movement dependency)

Given (12a), the earlier example in (5a) is derived as follows.

- (13) a. $[_{CP} Q_x [_{IP} [\text{Zhangsan hui lai}] \text{ haishi } [\text{Lisi hui lai}]]_{(x)}?$
 Zhangsan will come or Lisi will come
 ‘Will Zhangsan come or Lisi come?’
 b. $[_{CP} Q_x [_{IP} [\text{Zhangsan } e] \text{ haishi } [\text{Lisi hui lai}]]_{(x)}?$
 Zhangsan or Lisi will come

Under the proposed analysis, superficial nominal disjunction in fact originates from clausal disjunction via CR.

As seen in (13a), variables bound by the Q-operator correspond to two full sentences disjoined by the disjunctive coordinator *haishi* ‘or’. This is arguably not ad hoc. Consider the following three equivalent yes-no questions in (14a-c) and their semantic translation in (14d).

- (14)a. whether Mary cooks
 b. whether or not Mary cooks
 c. whether Mary cooks or not
 d. $\hat{p} [\sim p \wedge [p = \hat{\text{cook}}_*(m) \vee p = \hat{\neg} \text{cook}_*(m)]]$ (Karttunen 1977: 16)

As pointed out by Karttunen (1977), yes-no questions may count as a subclass of alternative questions. The representation in (14d) “designates the unit set containing either the proposition that Mary cooks or the proposition that Mary doesn’t cook” (ibid.: 16). Regarding a typical alternative question like (15a) below, the set still contains two propositions, but, unlike yes-no questions, the two propositions here are not restricted to true-false counterparts, as shown in (15b).

analysis. For the detailed discussion, see Chapter 4 of Huang (2010).

(15) a. whether Mary smokes or Bill drinks

b. $\hat{p} [\sim p \wedge [p = \hat{\text{smoké}}_*(m) \vee p = \hat{\text{drink}}_*(b)]]$ (Karttunen 1977: 16)

By the same token, the semantics for a Chinese disjunctive case like (16a) can be represented as in (16b).

(16) a. Q Zhangsan hui lai haishi Lisi hui lai

Zhangsan will come or Lisi will come

b. $\hat{p} [\sim p \wedge [p = \hat{\text{hui láí}}_*(z) \vee p = \hat{\text{hui láí}}_*(l)]]$

The semantic representation in (16b) denotes the set containing either the proposition that Zhangsan will come or the proposition that Lisi will come (or neither or both).

I argue that this third approach based on non-movement and CR is superior to the previous two based on movement. On the one hand, a case like (6a) that poses the ECP problem for the first approach can be accommodated under the present approach. The derivation for (6a) is illustrated below.

(17) $[_{CP} Q_x [_{IP} ni \text{ xiangxin } [_{NP} [_{IP} [_{IP} ta \text{ de jiang}] haishi [_{IP} wo \text{ de jiang}]]_{(x)} \text{ de } xiaoxi]] ne]?$
 you believe s/he get prize or I get prize DE
 news Q_{wh}
 ‘Do you believe the news that s/he won the prize or I won the prize?’

Since I am arguing for a non-movement approach which creates no empty category, the ECP naturally does not apply here.

On the other hand, a case like (9b) that poses the Shortest Movement problem for the second approach may receive a satisfactory account under the unselective binding analysis, as demonstrated below.

(18) $[_{CP} yaoshi \exists_x [_{IP} [_{IP} Akiu \text{ cizhi}] haishi [_{IP} pro \text{ tuixiu }]]]_{(x)} \text{ dehua}, \text{ qing gaosu wo.}$
 if Akiu resign or retire the.case please tell me
 ‘If Akiu resigns or retires, please tell me.’

As shown above, the *haishi*-phrase is bound by existential closure. Without the occurrence of any movement, the Shortest Movement Condition is irrelevant in this case.

My proposal of the unselective binding approach to Chinese alternative questions receives support from specificity effects as in the following paradigms. I cited (19) from Tsai (1997: 140-141).

- (19) a. Ni mai-le shei xie de shu?
 you buy-Perf who write DE book
 ‘Who is the person x such that you bought books which x wrote?’
 b. *Ni mai-le shei xie de na-xie shu?
 you buy-Perf who write DE that-CL book
 ‘Who is the person x such that you bought those books which x wrote?’
- (20) a. Ni xihuan Zhangsan haishi Lisi xie de shu?
 you like Zhangsan or Lisi write DE book?
 ‘Do you like books Zhangsan or Lisi wrote?’
 b. *Ni xihuan Zhangsan haishi Lisi xie de na-xie shu?
 you like Zhangsan or Lisi write DE that-CL book
 ‘Do you like those books Zhangsan or Lisi wrote?’

Tsai (1997) attributes the unacceptability of a case like (19b) to the violation of the Specificity Condition (Fiengo and Higginbotham 1981). That is, specific NP’s are opaque in that they cannot contain free (or bound) variables. Given the Specificity Condition, the unacceptability of a disjunctive sentence like (20b) follows. Since, under my analysis, the *haishi*-phrase is treated as a *wh*-variable merged within the opaque definite-article domain, the Specificity Condition is not obeyed and the sentence is thus ruled out. In brief, the paradigms here suggest that *haishi*-phrases behave in line with *wh*-nominals, both entering into binding dependencies and displaying specificity effects.

Returning to the alternative question in (1) with the sentential subject island, I derive it as below based on my proposed non-movement approach.

- (21) [_{CP} Q_x [_{IP} [Wo qu Meiguo] haishi [bu qu Meiguo]]_(x) bijiao hao]?
 I go US or not go US more good
 ‘Is it better that I go to the US or do not go to the US?’

In my proposal, Chinese alternative questions are licensed by unselective binding, a mechanism without involving movement. Lack of movement will thus not induce any island effect.

5. Conclusion

In this paper, I have compared three different approaches to deriving Chinese alternative questions and argued that the one based on non-movement is more desirable than the other two based on movement. Specifically, I have proposed that Chinese alternative questions are licensed by unselective binding, on a par with *wh*-nominal questions. My proposal may explain why Chinese alternative questions do not exhibit island effects whereas Chinese A-not-A questions do. This issue boils down to the essential difference between *haishi*-phrases and A-not-A constituents: the former are

variables while the latter are operators. Only operators that move may lead to island effects. *Haishi*-phrases, however, stay in situ as variables under my proposal and thus spare themselves the island problem.

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