## **Mandarin Parasitic Gaps**

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Keywords: *wh*-phrases, parasitic gaps, weakest crossover constructions **GOAL**: Contra Lin's (2005) analysis that parasitic gaps are licensed by overt *wh*-movement, I propose that these *wh*-phrases are base-generated sentence-initially, and the real licensor for PGs is null operator movement.

**BACKGROUND:** One of the typical PG-sentences is shown in (1), in which the appearance of the parasitic gap pg is said to depend on the availability of the real gap e from which a wh-phrase is extracted.

Built on the contrast between (2a) and (2b), Lin (2005) claims that parasitic gaps in Mandarin Chinese can only appear in sentences where overt *wh*-movement takes place.

<u>Puzzles</u>: First, weak crossover (WCO) effects should be observed if a *wh*-phrase moves from the object position, crossing an overt pronoun in the adjunct clause and landing in the sentence-initial position. But, this prediction is not born out since the sentence in (3) is grammatical, implying that there is no *wh*-movement. Second, if overt *wh*-movement does take place, it should be impossible to place a pronoun into the position from which the *wh*-phrase is assumed to be extracted. But, again what we have in (4) is not in line with our expectation. Third, in sentences like (5) that contains two *wh*-phrases, the fact that superiority effects do not arise suggests that the sentence-initial *wh*-phrase is not transformationally related to the empty object position that follows the matrix verb.

Given these analyses, it seems that these *wh*-phrases are better analyzed as being base-generated sentence-initially.

**PROPOSAL:** One of the licensing conditions for parasitic gaps is that there must exist A'-movement within the same sentence. Since I have shown that there is no A'-movement of wh-phrases, can the sentence in (2b) still be viewed as a parasitic gap sentence? I think the answer to this question lies in the sentence (6). In (6), the empty category e is in a position inside a complex NP, which is inaccessible to movement. Since wh-movement does not take place in this sentence, inspired by Chomsky (1977), I propose that the reason why (6) is ungrammatical is because of a null operator's moving out of the complex NP. With the help of this idea, I propose that the licensor of the parasitic gap in (2b) is null operator movement, in which the null operator moves to an A'-position and leaves a trace in the end of the sentence. Its structure is shown in (7).

However, given the analysis proposed for parasitic-gap sentences, WCO effects appear to arise in (3), repeated in (7'), since the null operator moves across a pronoun bearing the same index. This problem can be solved if we think about this structure on a par with weakest crossover constructions discussed in Lasnik & Stowell (1991). One of the examples mentioned in their paper is shown in (8a) and its structure is in (8b). According to Lasnik & Stowell (1991), a null operator is not a true quantifier phrase, so the chain formed by null operator movement is immune to WCO effects. If it is the case that null operators and wh-phrases do not belong to the same type of quantifier phrases, we can account for why WCO effects do not arise in (7'). Conclusion: In this paper, I propose that Mandarin Chinese is different from English in that the licensor of a parasitic gap in Mandarin is a moved null operator rather than a moved wh-phrase, and the wh-phrase is base-generated sentence-initially. In addition, these sentences will turn into weakest crossover constructions if the parasitic gap is filled with an overt pronoun, though the crucial crossing, unlike the one in (8), takes place in the matrix clause.

## DATA:

(1) Which document<sub>i</sub> did John file  $e_i$  [without reading  $pg_i$ ]? Engdahl (1983) (2) a. \*Laowang [ zai huijian pgi shei;? Lin (2005) zhiqian] iiu kaichu-le Laowang meet before already fire-PERF who 'Which person is it who Laowang fired before meeting?' b. Shei<sub>i</sub> Laowang [zai huijian pg<sub>i</sub> zhiqian] jiu kaichu-le  $t_i$ ? who Laowang meet before already fire-PERF at 'Which person is it who Laowang fired before meeting?' (3) Shei<sub>i</sub> Yuehan [zai huijian tai zhiqian]  $e_{\rm i}$ ? iiu kaichu-le who John meet him before already fire-PERF at 'Which person is it who John fired before meeting him??' (4) Shei<sub>i</sub> Yuehan [zai huijian  $pg_i$  zhiqian] jiu kaichu-le ?  $ta_{i}$ who John meet before fire-PERF at already him 'Which person is it who John fired before meeting?' (5) Shenme-dongxi<sub>i</sub> sheii **[zai** Mali gei zhiqian] jiu  $ta_i$  $pg_i$ what-thing give him before already who Mary at xian mai-le ?  $e_i$ buy-PERF in-advance 'Who bought what before Mary gave it to him?' (6)  $*[CP Shei]_i$  [PP Yuehan [PP zai huijian  $pg_i$  zhiqian] jiu ting-dao who John meet before already hear-arrive at [NP [Mali xihuan  $e_i$ de] yaoyan]]]? Mary like DE rumor Intended reading: 'Who is the person such that John heard a rumor that Mary likes that person before John met him?' (7) [CP Shei<sub>i</sub> [CP OP<sub>i</sub> [IP Yuehan [PP zai huijian pg<sub>i</sub> zhiqian] jiu kaichu-le  $t_{i}$  ]]] ? before who John meet already fire-PERF (7') [CP Shei [CP OP [IP Yuehan Prezai huijian zhiqian] jiu kaichu-le  $t_i$  ]]]?  $ta_i$ John meet him before already fire-PERF who at (8) a. Which man; did you look at t; [before his; wife had spoken to e;]? (L. & S. 1991) b. Which man<sub>i</sub> did you look at  $t_i$  [PP NO<sub>i</sub> [PP before his<sub>i</sub> wife had spoken to  $e_i$ ]]?

<u>SELECTED REFERENCES:</u> Chomsky, Noam. 1977. On *Wh*-movement. In *Formal Syntax*, ed. by Peter W. Culicover, Thomas Wasow, and Adrian Akmajian, 71-132. New York: Academic Press. **Engdahl, Elisabet.** 1983. Parasitic gaps. *Linguistics and Philosophy* 6: 5–34. **Lasnik, Howard & Tim Stowell.** 1991. Weakest crossover. *Linguistic Inquiry* 4: 687-720. **Lin, Jonah.** 2005. 'Does *wh*-in-situ license parasitic gaps?' *Linguistic Inquiry* 36: 298-302.