

When a *Wh*-in-Situ Behaves Like a Parasitic Gap

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Huang (1982) proposes that in-situ *wh*-phrases undergo LF movement. A question, though, is that such movement appears to be insensitive to island effects. Huang hypothesizes that this is because island constraints only restrict overt movement. However, Reinhart (1998) and Tsai (1994) argue that (nominal) *wh*-in-situs generally do not move in LF; rather, they are bound by a CP-level operator. This is why island constraints do not restrict *wh*-in-situs, as they do not move at all. But the controversy does not stop here. For instance, Pesetsky (2000) shows that *wh*-in-situs in English can resolve antecedent-contained deletion (ACD); see (1). This indicates that LF movement of *wh*-in-situs must be a possibility.

(1) Which girl invited [**which student** that John did ___]?

In this work, we try to contribute to this issue by drawing attention to a new phenomenon in Mandarin, which we call the “*visible parasitic gap*” construction. See (2).

(2) Mai **shenme** **dongxi_i** de ren yiding hui shuo
sell what thing MOD man definitely will say
shenme **dongxi_i** zui haochi (ne)?
what thing most delicious Q

‘What is the thing *x* such that people who sell *x* definitely will say that *x* is the most delicious?’

This construction has the following properties. (A) It contains two *wh*-in-situs, and they can be co-referential. (B) The two *wh*-in-situs must be in an *anti-c-command* configuration. This condition must hold in the standard parasitic gap (PG) construction as well. If the first *wh*-in-situ *c*-commands the second one, ungrammaticality results; see (3). (C) Though the first *wh*-in-situ in (2) occurs in a syntactic island (island-bound), the second *wh*-phrase cannot (island-free). Crucially, if the second *wh*-phrase also occurs in an island, the resulting sentence is ungrammatical, as in (4).

(3) ***Shenme** **dongxi_i** yiding hui rang mai **shenme** **dongxi_i**
what thing definitely will make sell what thing
de ren gandao zi-hao (ne)?
MOD man feel self-proud Q

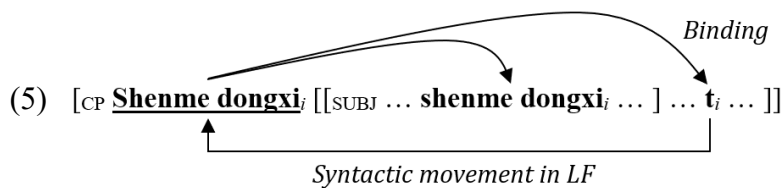
Intended: ‘What is the thing *x* such that *x* will definitely make people who sell *x* proud?’

(4) *[Mai **shenme** **dongxi_i** de ren] yiding hui xuanchuan
sell what thing MOD man definitely will advertise
[[**shenme** **dongxi_i** zui haochi] de shuofa] (ne)?
what thing most delicious MOD claim Q

Intended: ‘What is the thing *x* such that people who sell *x* definitely will advertise the claim that *x* is the most delicious?’

This construction is of theoretical interests because the above properties of (2) make it look

exactly like a PG construction, if we take the island-bound first *wh*-in-situ as some sort of *visible PG*. Since a standard PG must be licensed by an existing \bar{A} -dependency, this *visible PG construction* should be licensed by an \bar{A} -dependency as well. Moreover, the ungrammaticality of (4) poses a problem for the binding approach: the island sensitivity indicates that syntactic movement is involved. We thus suggest the following analysis for this *visible PG construction*. We assume with Huang (1982) that *wh*-in-situ may undergo syntactic movement in LF. Since a PG needs to be licensed by an \bar{A} -dependency, we propose that the island-free second *wh*-in-situ in (2) undergoes LF movement to matrix CP, whereby the island-bound *visible PG* gets licensed, in essentially the same way as the licensing of a standard PG. See (5).



This analysis has the following consequences. First, it provides a new piece of evidence for the movement theory of *wh*-in-situ, in line with Huang 1982. Second, it clearly contradicts current theories according to which PGs cannot be licensed by *wh*-in-situ (e.g., Lin 2005 and Ting & Huang 2008). Consider the example in (6) from Lin 2005, which seems to show that *wh*-in-situ does not license PGs. This sentence, however, turns much better in (7) when the focus adverb *daodi* ‘on earth’ is inserted, along with an emphasis on the *wh*-in-situ *shei*. This contrast indicates that *wh*-in-situ can indeed license a standard PG; the unacceptability of (6) may just arise from processing difficulties rather than the grammatical mechanism itself.

(6) *Laowang [zai huijian **pg**_i zhiqian] jiu kaichu-le **shei**_i?
 Laowang at meet before already fire-PERF who
 Intended: ‘Who did Laowang fire before meeting?’

(7) Laowang **daodi** [zai huijian **pg**_i zhiqian] jiu kaichu-le **SHEI**_i?
 Laowang on.earth at meet before already fire-PERF who
 ‘Who on earth did Laowang fire before meeting?’

If this proposal is on the right track, further theoretical implications follow. First, be it overt or covert, *wh*-movement appears to be a default operation in grammar that can be used freely in structure building (Chomsky 2008). It is by no means more costly than Merge. Second, external merge of Q-like elements at CP for binding purposes is a last-resort operation; it is employed only when (LF) *wh*-movement fails. Third, the merger of Q is possible in Mandarin because Q can be an independent syntactic element; however, in languages like English, Q is invariably bundled with a *wh*-word and reaches CP only through an existing *wh*-movement. This explains why a *wh*-in-situ in English must be licensed by an overtly moved *wh*-phrase. Therefore, the separability of Q from *wh*-words appears to be a parametric variation among languages.

Selected References. Chomsky, N. 2008, On phases, *Foundational Issues in Linguistic Theory*. Huang, J. 1982, Logical relations in Chinese and the theory of grammar, Ph.D. dissertation, MIT. Lin, J. 2005, Does *wh*-in-situ license parasitic gaps? *Linguistic Inquiry*, 36. Pesetsky, D. 2000, *Phrasal movement and its kin*, MIT Press. Reinhart, T. 1998, *Wh*-in-situ in the framework of the minimalist program, *Natural language semantics* 6. Tsai, D. 1994, On economizing the theory of A-bar dependencies, Ph.D. dissertation, MIT.