

Revisiting the locality conditions on head movement: Focus Intervention Effects in verb movement in Cantonese

Introduction Head movement (HM) is known to be disrupted by intervening heads, a locality condition attributed to minimality based on structural types (the Head Movement Constraint, or Relativized Minimality formulated in Travis 1984; Rizzi 1990). This is empirically challenged by cases of Long Head Movement, e.g. in Breton (Borsley, Rivero, and Stephens 1996), and by predicate cleft constructions (Koopman 1984, i.a.). It is suggested (in passing) that the locality condition on HM should be formulated in featural terms (Toyoshima 2001; Roberts 2001).

Goal I present a novel argument from Focus Intervention Effects (FIE) in support of the latter approach to locality conditions on HM. The evidence from Cantonese, where HM exhibits a similar FIE as observed in phrasal movement. The findings motivate a re-formulation of locality conditions of HM that abandons structural interveners, which at the same time represent a natural extension of a feature-based Relativized Minimality (Rizzi 2001, 2004) to HM.

Verb doubling constructions. In a number of discourse-related constructions in Cantonese, a verb can doubly appear in its base position (V_B) and in the (left or right) periphery position (V_P), where the verb receives different topic/focus interpretations (Cheng and Vicente 2013; Lee 2017; Lai 2019).

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| <p>(1) <u>V_P</u><u>SV_B</u>O: Contrastive verbal topics
 Maai keoi hai maai-gwo go-bun syu.
 buy s/he COP buy-EXP that-CL book
 ‘S/he has BOUGHT that book (but s/he hasn’t READ it).’</p> | <p>(3) <u>Hai</u>-<u>V_P</u><u>SV_B</u>O: Exhaustive verbal foci
 Hai dim keoi m-gam dim Aafan ze1.
 COP touch s/he not-dare touch Aafan SFP
 ‘S/he dare not to TOUCH Aafan only (but s/he can talk to her or stay with her).’</p> |
| <p>(2) <u>Lin</u>-<u>V_P</u> <u>SV_B</u>O: Additive verbal foci
 Lin tai keoi dou m-tai ni-bun syu.
 even read s/he also not-read this-CL book
 ‘S/he didn’t even READ this book.’</p> | <p>(4) <u>SV_B</u>O SFP <u>V_P</u>: Defocused verbs
 Nei hoji tai syu gaa3 hoji.
 you may read book SFP may
 ‘You may READ BOOKS.’</p> |

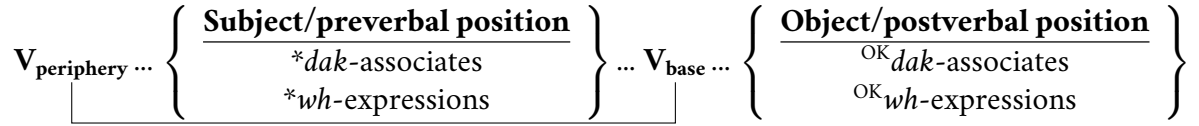
(In)sensitivity to focus elements I report a novel observation of an asymmetry relating to focus sensitivity between (1)-(3) and (4). (1)-(3) becomes unacceptable if the subject is replaced by a focused element, such as a *wh*-nominal in (5) and (6) (Rochemont 1986) and a focus associate of *dak* ‘only’ in (7) (Tang 2002). However, no such focus sensitivity is observed in constructions like (4), as in (8). Focused elements are indicated by underlines.

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| <p>(5) *Maai <u>bingo</u> hai maai-gwo go-bun syu?
 buy who COP buy-EXP that-CL book
 Int.: ‘Who has BOUGHT that book?’</p> | <p>(7) *Hai dim <u>dak keoi</u> m-gam dim ze1.
 COP touch only s/he not-dare touch SFP
 Int.: ‘Only S/he dare not to TOUCH.’</p> |
| <p>(6) *Lin tai <u>bingo</u> dou m-tai?
 even read who also not-read
 Int.: ‘Who didn’t even READ?’</p> | <p>(8) <u>Bingo</u> hoji tai syu aa3 hoji?
 who may read book SFP may
 ‘Who may READ BOOKS?’</p> |

For constructions like (5)-(7), if the focused element is in the object position instead, the sentence is acceptable, as shown in (9) and (10). In other words, the cases in (5)-(7) and (9)-(10) exhibit **Focus Intervention Effects** (FIE) in a way depicted in (11).

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| <p>(9) Maai keoi hai maai-gwo <u>matje</u>?
 buy s/he COP buy-EXP that-CL
 ‘What has s/he BOUGHT?’</p> | <p>(10) Lin tai keoi dou tai-dak <u>jat-ci</u>.
 even read s/he also read-only one-CL
 ‘Even for reading, s/he READ only once.’</p> |
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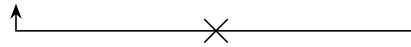
(11) Focus Intervention Effects in (5)-(7), and their absence in (9)-(10)



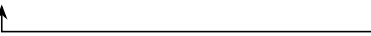
Proposal I suggest that (11) follows naturally from (i) a **head movement analysis** of verb doubling constructions (Vicente 2007; Cheng and Vicente 2013; Lee 2017; Lai 2019), and (ii) an extended version of **feature-based Relativized Minimality**, which also applies to HM (Rizzi 2001, 2004). Specifically, I suggest the verb moves to the CP periphery for (different types of) **focus** interpretations in (1)-(3) and for **defocus** interpretation in (4). A focused element intervenes focus-related HM, as in (5)-(7), but not defocus-related HM, as in (8).

Implementation Assume that the CP domain hosts FocusP and DefocusP (Cheng and Vicente 2013; Lee 2017; Lai 2019), and that sentences like (4) and (8) involve leftward movement of verbs (i.e., the leftward movement approach to right dislocation, see Cheung 2009; Lee 2017; Wei and Li 2018; Lai 2019). As illustrated in (12), the Focus head (\emptyset , *lin*, or *hai*) in (5)-(7) attract a [*iFocus*] feature, whereas the Defocus head (\emptyset) attracts a [*iDefocus*] feature. Crucially, since the subject also bears a [*iFocus*] feature in Spec TP, it blocks verb movement to FocusP, as it is of the same featural type (=12a). This does not apply to DefocusP (=12b), since [Focus] does not intervene the [Defocus] dependency.

(12) a. FIE in (5)-(7): [_{FocusP} \emptyset /*lin*/*hai*_[*iFocus*] ... [_{TP} Subject_[*iFocus*] ... V_[*iFocus*] ...]]



b. No FIE in (8): [_{DefocusP} \emptyset _[*iDefocus*] ... [_{TP} Subject_[*iFocus*] ... V_[*iDefocus*] ...]]



Focused elements in the object position do not induce FIE/ violate RM, as they are structurally lower than the verb, hence acceptability in (9)-(10). This explanation predicts that in configurations like (12a), the subject will move instead, as it is closer. This is borne out: (6) and (7) becomes acceptable if the focused element is attracted instead of the verb.

(13) Lin bingo dou m-tai?
even who also not-read
'Even who didn't read?'

(14) Hai dak keoi m-gam dim ze1.
COP only s/he not-dare touch SFP
'Only S/he dare not to touch.'

Discussions ❶ A re-formulation of locality constraints of HM based on *featural* interveners, instead of *structural* interveners, is further supported by the observation that heads, e.g., copula *hai* in (1), *gam* 'dare' in (2), do not trigger intervention. Evidence often taken to support the local nature of HM (in the inflectional system) may alternatively be explained by C(ategory)-selection (Matushansky 2006). ❷ The findings blur the distinction between HM and phrasal movement w.r.t. locality conditions: (i) FIE is observed in both types of movement; (ii) HM is not specifically constrained by, e.g., the HMC. Further parallels include island-sensitivity in (13) and tolerance to CP boundaries in (14). This favors a unified theory of HM and phrasal movement (Vicente 2007; Funakoshi 2014; Harizanov 2019).

(15) ***Tai** ngo tungji [_{NP} go-go keoi hai **tai**-gwo] ge jigin]. *sensitive to (Complex NP) islands*
read I agree that-CL s/he COP read-EXP MOD opinion
Int.: 'As for reading, I agree with the opinion that s/he has read (it).'

(16) **Soeng** ngo lam [_{CP} Aaming hai **soeng** heoi] ge2. *tolerating CP boundaries*
want I think Aaming COP want go SFP
'I think Aaming wants to go.'