When you can and can't see double: Revisiting focus doubling in ASL

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BACKGROUND & PUZZLE: Doubling in American Sign Language (ASL) and Brazilian Sign Language (Libras) involves an *emphatic focus* (E-focus) interpretation of the reduplicated element (Nunes & Quadros, 2005, hereafter NQ). Focus doubling exhibits the following: ❶doubling involves heads (verbs, modals, negation, *wh*-words, etc.) but not phrases (1a,b) (Petronio, 1993, hereafter P93); ❷only one head can be doubled in a sentence (P93); ❸moved and in-situ *wh*-words can be doubled (2a,b) (NQ); ❹doubling exhibits syntactic island effects (P93); ❺only the *wh*-element can be doubled in a moved *wh*-question, but a non-*wh*-element can be doubled in a *wh*-in-situ question (3a,b) (NQ). NQ propose (for Libras) that doubling involves head-adjunction of the focused element to an E-Foc head, followed by remnant movement of TP to Spec,TopP. Whether the doubled element in the higher copy of TP is pronounced depends on whether morphological fusion occurs between the focused element and E-Foc before TP-remnant movement. Crucially, morphological fusion creates distinct copies, obviating Chain Reduction. NQ's analysis is extendible to ASL for ❶-❺, but fails to predict an asymmetry in indirect questions in ASL: while the following are possible – (i) long distance *wh*-doubling (7), (ii) (non-emphatic) *wh*-movement in indirect questions (8), (iii) non-*wh*-doubling in embedded clauses (9) – *wh*-doubling is impossible in indirect questions (10) (Petronio & Lillo-Martin, 1997).

ANALYSIS: We propose a modification and extension of NQ's analysis to capture the properties in ❶-❺ as well as the asymmetry regarding doubling in indirect questions in ASL. We depart from NQ's proposed head-adjunction to E-Foc; we argue instead that the focused element always undergoes movement from the lower TP directly to Spec,E-FocP, precluding (i) the need for later excorporation and (ii) the assumption that head-adjoined elements can c-command out of the non-terminal node dominating them (cf. Chomsky, 2000; Alexiadou & Anagnostopoulou, 2001:217). Morphological fusion nevertheless occurs between the element in Spec,FocP and the Focus head (cf. Matushansky, 2006), and from here we adopt NQ's proposal regarding the timing of morphological fusion: if fusion occurs prior to TP-movement, both copies are realized (4,5b,6a – highlighted elements are fused); if fusion does not occur immediately after movement to SpecFocP, the lower copy within TP is deleted before TP-movement, yielding (5a), which involves successive-cyclic *wh*-movement through Spec,FocP on the way to Spec,ForceP. Following *wh*-movement to Spec,ForceP, the lower copy in Spec,FocP morphologically merges with Foc and both *wh*-copies are realized at PF. (6b) is ruled out because the focus-doubled *no* occupies Spec,FocP; assuming Focus does not allow multiple specifiers (Rizzi, 1997), movement directly to Spec,ForceP violates minimality. A slight modification thus captures ❶-❺ without resorting to excorporation or c-command out of a head-adjoined category. At the same time, we maintain the explanatory merits of NQ's analysis: ❶only simplex heads can undergo fusion with E-Foc; ❷there is only one E-Foc head per sentence; ❸whether the doubled *wh*-word appears fronted or in situ depends on timing of fusion relative to TP-movement; ❹extraction out of an island to Spec,EFocP is impossible; ❺only a *wh*-element occupying Spec,E-FocP is available for extraction to Spec,ForceP.

Consider now the indirect question asymmetry: (7), but not (10), is possible. NQ do not address long distance *wh*-doubling, but their analysis predicts that it can be generated by excorporating the *wh*-element through the embedded Spec,ForceP up to the matrix Spec,ForceP. Our analysis instead merely involves successive-cyclic *wh*-movement through Spec,FocP and then the embedded Spec,ForceP, up to the matrix Spec,ForceP (7'). Petronio & Lillo-Martin (1997) argue that *wh*-doubling in indirect questions is banned in ASL because indirect-question-taking predicates like *know* subcategorize for [+WH] but not [+F] complements. (8) and (9) show us however, that there isn't a general incompatibility between predicates like *know* and [+WH] or [+FOC] complements; rather these simply can't select a complement that is simultaneously [+WH] and [+FOC]. We propose that ASL has a restriction on foci: there can only be one Focus in a single clause. Subsuming *wh*-features and "emphatic" focus (which we take to be one specific instantiation of Focus more generally) under a singular [+FOC] feature, we propose that ASL only allows one instance of focus-feature-driven movement per clause (cf. Rizzi, 1997, who argues that focus and *wh*-phrases compete for the same position in the left periphery). This is consistent with the optionality of *wh*-movement in matrix questions in ASL; movement to Spec,ForceP is not necessary to ensure a *wh*-question interpretation. We assume that overt *wh*-movement in matrix questions is not necessarily WH-/focus-feature driven, and does not use up the singular instance of Focus movement. Unlike matrix *wh*-questions, indirect questions involve (obligatory) true [+WH]-feature-driven movement, necessary to ensure an indirect question interpretation; when *know* selects an indirect question, selection must be local, and the *wh*-element must occupy the embedded Spec,ForceP. Doubling becomes impossible because of the ban on multiple foci. Long-distance *wh*-movement with its biclausal structure and projection of two independent foci (7), is a way around this; the higher *wh*-element constitutes matrix Focus while the focused double constitutes embedded Focus.

CONCLUSION: Our analysis of focus doubling in ASL improves on previous analyses in both theoretical simplicity and empirical coverage. The analysis captures the core empirical facts about focus doubling and, through a proposed ban on multiple instances of focus-driven movement, accounts for the lack of *wh*-doubling in indirect questions in ASL.

DATA

(1)   a.   ANN CAN'T READ CAN'T
    b.   *ANN CAN'T READ CAN'T READ   (Petronio, 1993)
(2)   a.   WHO JOHN SEE YESTERDAY WHO   (NQ:468)
    b.   JOHN SEE WHO YESTERDAY WHO   (NQ:467)
(3)   a.   JOHN WILL BUY BOOK WHEN WILL
    b.   *WHAT JOHN NO BUY NO   (NQ:472)

(4)   ANN CAN'T READ CAN'T   (Petronio, 1993)
(4') $[_{TopP}$ $[_{TP}$ ANN CAN'T^i READ$]^k$ $[_{Top'}$ Top $[_{E\text{-}FocP}$ CAN'T$_i$ $[_{E\text{-}Foc'}$ E-Foc $[_{TP}$ ~~ANN CAN'T^i READ~~$]^k$$]]]$
                                                              (adapted from NQ:466)
(5)   a.   WHO JOHN SEE YESTERDAY WHO
    b.   JOHN SEE WHO YESTERDAY WHO   (NQ:467-8)

(5a') $[_{ForceP}$ WHO^4 $[_{Force'}$ Force $[_{TopP}$ $[_{TP}$ JOHN SEE ~~WHO^3~~ YESTERDAY$]^k$ $[_{Top'}$ Top $[_{E\text{-}FocP}$ WHO^2 $[_{E\text{-}Foc'}$ E-Foc $[_{TP}$ ~~JOHN SEE WHO^i YESTERDAY~~$]^k$$]]]]]]$ (adapted from NQ:471)

(5b') $[_{TopP}$ $[_{TP}$ JOHN SEE WHO^i YESTERDAY$]^k$ $[_{Top'}$ Top $[_{E\text{-}FocP}$ WHO^i $[_{E\text{-}Foc'}$ E-Foc $[_{TP}$ ~~JOHN SEE WHO^i YESTERDAY~~$]^k$$]]]$ (adapted from NQ:467)

(6)   a.   JOHN WILL BUY BOOK WHEN WILL
    b.   *WHAT JOHN NO BUY ~~WHAT~~ NO   (NQ:472)

(6a') $[_{TopP}$ $[_{TP}$ JOHN WILL^i BUY BOOK WHEN$]^k$ $[_{Top'}$ $[_{E\text{-}FocP}$ WILL^i $[_{E\text{-}Foc'}$ E-Foc $[_{TP}$ ~~JOHN WILL^i BUY BOOK WHEN~~$]^k$$]]]$ (adapted from NQ:472)

(6b') $[_{ForceP}$ $[_{Force'}$ Force $[_{TopP}$ $[_{TP}$ JOHN NO^i BUY WHAT$]^k$ $[_{Top'}$ $[_{E\text{-}FocP}$ NO^i $[_{E\text{-}Foc'}$ E-Foc $[_{TP}$ ~~JOHN NO^i BUY WHAT~~$]^k$$]]]$ (adapted from NQ:472)

(7)   WHO YOU KNOW JOHN SEE YESTERDAY WHO

(7') $[_{ForceP}$ WHO^i $[_{Force'}$ Force $[_{TP}$ YOU KNOW $[_{ForceP}$ ~~WHO^i~~ $[_{Force'}$ Force $[_{TopP}$ $[_{TP}$ JOHN SEE ~~WHO^i~~ YESTERDAY$]^k$ $[_{Top'}$ $[_{E\text{-}FocP}$ WHO^i $[_{E\text{-}Foc'}$ E-Foc $[_{TP}$ ~~JOHN SEE WHO^i YESTERDAY~~$]^k$$]]]$

(8)   YOU KNOW WHO JOHN SEE YESTERDAY
(9)   YOU KNOW JOHN CAN'T READ CAN'T
(10)   *YOU KNOW WHO JOHN SEE YESTERDAY WHO

(10') $[_{ForceP}$ Force $[_{TP}$ YOU KNOW $[_{ForceP}$ WHO^i $[_{Force'}$ Force $[_{TopP}$ $[_{TP}$ JOHN SEE ~~WHO^i~~ YESTERDAY$]^k$ $[_{Top'}$ $[_{E\text{-}FocP}$ WHO^i $[_{E\text{-}Foc'}$ E-Foc $[_{TP}$ ~~JOHN SEE WHO^i YESTERDAY~~$]^k$$]]]$

REFERENCES

Alexiadou, A. & E. Anagnostopoulou. 2001. "The subject-in-situ generalization and the role of case in driving computations." *Linguistic Inquiry* 32(2):193-231. **Chomsky, N. 2000.** *Minimalist Inquiries: The Framework. Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik.* **Matushansky, O. 2006.** "Head movement in linguistic theory." *Linguistic Inquiry* 37(1):69-109. **Nunes, J. & R. Quadros. 2005.** "Duplication of wh-elements in Brazilian Sign Language." In L. Bateman & C. Ussery, eds., *Proceedings of NELS 35*, 463-477. **Petronio, K. 1993.** *Clause structure in ASL.* Doctoral dissertation, University of Washington. **Petronio, K. & D. Lillo-Martin. 1997.** "Wh-movement and the position of Spec-CP: Evidence from American Sign Language." *Language* 73:18-57. **Rizzi, L. 1997.** "The fine structure of the left periphery." In L. Haegeman, ed., *Elements of Grammar: A Handbook in Generative Syntax*, 281-337.