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Focus intervention e ects revisited: a semantics-pragmatics approach

Overview. (1)-(4) illustrate the typical pattern of **focus intervention e ects** in Korean and Mandarin Chinese. Although these are *wh*-in-situ languages, when a focus item like *only* (e.g., *-man*, *zh you*) is present, the *wh*-in-situ pattern `*only . . . wh*' (see (1) and (3)) is judged degraded. In contrast, the *wh*-movement version with the pattern `*wh . . . only*' (see (2) and (4)) sounds natural.

This paper explores a novel explanation at the semantics-pragmatics interface, with a dynamic semantics perspective on *wh*-questions and focus. I propose that both *wh*-expressions and focus items rst introduce discourse referents (like what inde nites do) and then bring post-suppositions, i.e., delayed evaluations that check de niteness (like what de nite descriptions and modi ed numerals do, see Brasoveanu 2013, Bumford 2017). Intervention e ects arise when the co-occurrence of multiple post-supposition triggers (e.g., a combination of `focus . . . *wh*-expression') creates QUD con ict, leading to pragmatically odd ways of requesting information.

(1) * [Mary]$_F$ -man mwusun chayk-ul ilk-ess-ni?
Mary-only what book-acc read-past-q
Intend.: `only Mary read *x*. What are *x*?'

(2) mwusun chayk-ul [Mary]$_F$ -man ilk-ess-ni?
what book-acc Mary-only read-past-q
`What book(s) did only Mary read?'

(3) * zh you [Mary]$_F$ du-le shenme shu?
only Mary read-pfv what book
Intend.: `only Mary read *x*. What are *x*?'

(4) shenme shu zh you [Mary]$_F$ du-le?
what book only Mary read-pfv
`What book(s) did only Mary read?'

New observations. Here I show that (i) declarative *only*-sentences are ambiguous in the sense that they can address two kinds of QUD, while (ii) *only*-containing *wh*-questions can only address one of these two kinds of QUD. The rst point is evidenced by the interpretation of (5), which is intuitively true under both Scenario 1 (see (7a)) and Scenario 2 (see (7b)

Proposal. Based on these observations, I propose a new account for intervention effects data (1)/(3): (i) the request of the information to address the QUD what books Mary read is unreasonable, given the use of *only*, and (ii) the request of the information to address which book(s) have the property of having a unique reader{Mary is impossible, because there is no *wh*-movement.

For (i), I propose that both focus items and *wh*-expressions introduce (potentially plural) discourse referents in a non-deterministic way (see (8a) and (9a)) and then check definiteness in a post-suppositional manner (see (8b) and (9b)). To check definiteness, a maximality operator (see (10)) is applied to pick out the mereologically maximal dref satisfying the relevant restrictions.

In (8b), after the application of M_u, a further check is to see whether the maximal dref x is equal to Mary (see also Brasoveanu's (2013) cardinality test in analyzing modified numerals).

In (9b), the application of M_ν essentially implements Dayal's (1996) presuppositional requirement for the felicity of *wh*-questions: their maximally informative true answer should exist.

(8) Mary-man^u [Batman-kwa Sandman]$^\nu$-ul ilk-ess-ta.
Mary-only Batman-and Sandman-acc read-past-decl.
`Only Mary read Batman and Sandman.' (Under Scenario 2, see (7b))

a. Introducing drefs: $[\![\text{some}^u \text{ humans read B\&S}^\nu]\!] = \lambda g.\ \{g^{\nu\mapsto y}_{u\mapsto x} : \text{human}(x)(y) = \text{B\&S}(\text{read}(x)(y))\}$

b. Checking definiteness: $[\![\text{only Mary}^u \text{ read B\&S}^\nu]\!] = M_u([\![\text{some}^u \text{ humans read B\&S}^\nu]\!])(\underline{\text{if } x = \text{mary}})$
$= \lambda g.\ \{g^{\nu\mapsto y}_{u\mapsto x} : x = x\text{'}(\text{human}(x') \wedge \text{read}(x')(y))(y) = \text{B\&S}(\underline{\text{if } x = \text{mary}})\}$

(9) Mary^u-nun mwusun$^\nu$ chayk-ul ilk-ess-ni?
Mary-topic what book-acc read-past-q
`What book(s) did Mary read?'

a. Question meaning: $[\![\text{Mary}^u \text{ read some}^\nu \text{ books}]\!] = \lambda g.\ \{g^{\nu\mapsto y}_{u\mapsto x} : x = \text{mary}(\text{book}(y)(\text{read}(x)(y)))\}$

b. Imposing definiteness: $M_\nu([\![\text{Mary}^u \text{ read some}^\nu \text{ books}]\!])(g) = \{g^{\nu\mapsto y}_{u\mapsto x} : x = \text{mary} \wedge y = y\text{'}(\text{book}(x) \wedge \text{rd}(x)(y))\}$

(10) $M_u \overset{\text{def}}{=} \lambda m.\lambda g.\lambda f.\{h \in m(g)(f) : \exists h' \in m(g).h(u) < h'(u)\}$ (used in (8b) and (9b))

To derive the meaning of (1), as shown in (11), drefs are first introduced, and relevant restrictions are added to them. Then, evidently, the application of maximality operators M_u and M_ν would pick out $\lambda x.[\text{human}(x) \wedge \exists y[\text{book}(y) \wedge \text{read}(x)(y)]]$ and $\lambda y.[\text{book}(x) \wedge \exists x[\text{human}(x) \wedge \text{read}(x)(y)]]$.

Now if we first check whether x = Mary, we amount to request the information of `whether only Mary read (any) books' (and if the answer is true, we further request the information of `what books Mary read'). On the other hand, after the application of M_u and M_ν, if we directly request information on the maximal y, we amount to request the information of `what books people read' (and then we further check `whether Mary is the only reader'). No matter what order is taken, either the test x = Mary fails, or if not, it is the information of y that is(and)