

NEGATION, FOCUS AND INVERSE SCOPE

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Introduction. Under Klima (1964), *negation (Neg) must c-command α to take scope over it*. In English (1), however, the universal quantifier (UQ) can obtain wider scope than Neg.

(1) John didn't invite every student. Neg > every, every > Neg

Although one might claim that *Quantifier Raising (QR)* works to raise the UQ above Neg, such a QR view is hopeless for Japanese: while the object UQ can take scope over Neg in (2), seemingly supporting a QR analysis, Klima's condition strictly applies as it is in (3), where the UQ is positioned in [Spec, TP] as illustrated in (4).

(2) John-ga zen'in-o nagura-nakat-ta. Neg > all, all > Neg
 John-Nom all-Acc hit-Neg-Past

(3) Zen'in-ga John-o nagura-nakat-ta. *Neg > all, all > Neg
 all-Nom John-Acc hit-Neg-Past

(4) [TP UQ-ga [T[_{NegP} [_{VP} [_{VP} John-o]]] V-v-Neg-T]]

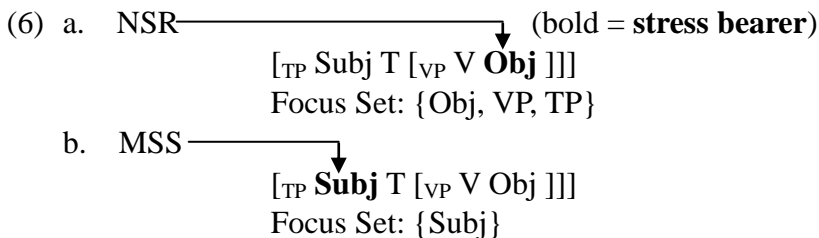
Now that we cannot appeal to QR, what causes inverse scope in (2)? My aim is to propose a PF resolution of the inverse scope puzzle, following Reinhart (2006).

Framework. Regarding Focus as what is not presupposed, Reinhart (2006) proposes the reference set computation of *Focus Set* (5).

(5) *Focus Set*

The Focus set of a derivation D includes all and only the constituents that contain the main stress of D.

Discourse factors specify one of the 'potential' foci in the set as the actual Focus. Note that main stress is determined by *Nuclear Stress Rule (NSR)* and *Stress-Shift (SS)* (Cinque 1993): NSR puts main stress on the syntactically lowest element, whereas SS replaces it anywhere to produce a new Focus Set: as illustrated in (6b), if Subj is to be the Focus, SS must apply.



Proposal. It is generally accepted that it is Focus that Neg can affect. This finding is crucial to my proposal: as well as Klima's condition, (7) applies as an LF condition on what element Neg actually takes scope over.

(7) *Focus-Visibility Condition*

Only the actual Focus, selected from a given Focus Set, is 'visible' to Neg at LF.

Crucially, I argue that partial negation obtains only if UQ is *itself* the Focus and c-commanded by Neg: it does not obtain, even if UQ is contained, e.g., in the VP defined as the Focus. This is attested by considering Japanese cleft sentences. Assuming that the cleft constituent (CC) is identified as the Focus (cf. È. Kiss (1998)), consider (8a), where the CC is UQ, and (8b), where it is intended to be whole VP.

- (8) a. [John-ga nagutta]-no-wa [zen'in]-de-wa-nai. Only Neg > all
 John-Nom hit -C-Top all -copula-Foc-Neg
 'It is not all that John hit.'
- b. [John-ga sita]-no-wa [zen'in-o naguru-toiu-koto]-de-wa-nai. Only all > Neg
 John-Nom did -C-Top all-Acc hit-C-fact -copula-Foc-Neg
 'It is not to hit all that John did.'

In (8b), the whole predicate is negated, namely, it is irrelevant whether the UQ contained there is affected by Neg.

Analysis. Let us then see why (1) and (2) can show inverse scope. A single account can explain both of them. Suppose that the Focus Set established by NSR is {Obj (UQ), VP, TP} and Obj is c-commanded by Neg. If the object UQ is defined as the Focus, we get partial negation reading: if another member, e.g., VP is specified as the Focus, we obtain total negation reading (recall the discussion of (8)).

Ishihara (2000) notes that scrambling changes the potential members of a Focus Set to be defined by NSR: while the main stress is assigned to the object in (9a), it falls on the VP-adverb in (9b), where object scrambling to ν P-Spec occurs.

- (9) a. [TP John-ga [T[_VP itotekini [VP **zen'in-o**] sikara-nakat-ta]] Neg > all, all > Neg
 John-Nom intentionally all-Acc scold-Neg-Past
- b. [TP John-ga [T[_VP zen'in_i-o [VP **itotekini** [VP t_i]]] sikara-nakat-ta]] *Neg > all, all > Neg
↑

Notice that (9b) disallows partial negation. This can be expected since the UQ without main stress does not belong to the Focus Set. If the scrambled UQ acquires the main stress through SS, we can get partial negation as in (10), where it can be the Focus, and is c-commanded by Neg.

- (10) [TP John-ga [T[_VP **zen'in-o** [VP itotekini [VP t_i]]] sikara-nakat-ta]] Neg > all, all > Neg

Conclusion. Based on Reinhart's (2006) Focus Set, I have argued that Neg takes scope over the actual Focus it c-commands. If my analysis is correct, it will favor for the view of PF-coding of Focus.

Selected References

- Ishihara, Shinichiro (2000). Stress, focus, and scrambling in Japanese. *MIT working papers in linguistics* 39, 142-175.
- Reinhart, Tanya (2006). Focus: The PF Interface. In *Interface Strategies: Optimal and Costly Computation*, MIT press, 125-163.