

A PF-deletion account for Right Node Raising in Korean

Background: Right Node Raising (RNR) has been traditionally analyzed as rightward ATB movement (Ross 1967, Postal 1974, 1998, Sabbagh 2003), shown in (1). This paper argues instead for a PF-deletion analysis (Wexler & Culicover 1980, Sohn 2001, Abels 2004, Hartmann 2000), according to which the RNR elements are deleted at PF, but remain at LF (2), and argues against current analyses assuming Multiple Dominance (MD) (McCawley 1982, Chung 2004, Park 2005, Yoon & Lee 2005, Wilder 1999), according to which the RNR element, the DP in (3), is dominated by both the VP in the first conjunct and the VP in the second.

Potential problems for PF-deletion: Two arguments have been made in recent literature against analyzing Korean RNR as a PF-deletion phenomenon. First, the Dummy Plural Marker (DPM) *-tul* and Distributive Modifiers (DMs) *kakkak* 'each, respectively' in the second conjunct (4-5) cannot have an elided correspondent in the first conjunct because each requires a plural DP to be licensed. Chung (2004) analyzes the DPM and DMs in the second conjunct as simultaneously in the scope of the subject in each conjunct, thereby satisfying plurality conditions for the DPM and DMs. Second, non-constituents can be elided in RNR, as in (6). This is puzzling on the PF-deletion account of RNR, where RNR is a type of ellipsis, but not on a MD account, where no ellipsis is involved. This paper proposes a resolution to these challenges, within a PF-deletion account.

Problems for MD & Towards PF-deletion: There are problems with MD, both conceptual and empirical. First is the availability of 'sloppy' identity in (7). To represent the sloppy reading under MD, the reflexive must be bound simultaneously by the subjects of both conjuncts, which means the reflexive *caki* is one occurrence with multiple meanings. Under PF-deletion, the availability of sloppy identity in (7) is expected, as there are two reflexives, with the first unpronounced. It is also difficult for MD to explain 'Vehicle Change' (VC) effects in RNR. VC was originally proposed (Fiengo & May 1994) to account for the lack of any detectible Principle C violation even when the elided string contains an R-expression, as shown in (8). F&M propose that the Principle C violation is avoided by shifting the elided R-expression in (8) into a pronoun. Under a MD account, the grammaticality of (9) is puzzling, because the R-expression *John* in the first conjunct (not representationally distinct from *John* in the second conjunct) appears to be bound. Under a PF-deletion account, the elided R-expression *John* in the first conjunct can be shifted into a reflexive *ku casin* 'himself'. A similar VC effect, also not accounted for by MD, is shown in (10).

Licensing RNR: Lobeck's (1995) licensing conditions for forward ellipsis, where only functional heads can license ellipsis and only constituents are eligible to be elided, cannot hold for RNR, since the DP (2) and non-constituent elisions (6) are licensed in RNR. We propose semantic licensing conditions for RNR, based on an alternative semantics for focus (Rooth 1992, Hartmann 2000). Hartmann (2000) proposed licensing conditions for RNR as follows: i) pre-RNR elements in both conjuncts must be focused, and ii) the sets of alternatives for both conjuncts must be identical. When these conditions are satisfied, RNR is licensed. Consider (11), where the subject and the verb in each conjunct are focused and generate sets of alternatives in (12). Since TP_1 and TP_2 are the same, RNR is licensed, so PF-deletion occurs after the focused verb in the first conjunct. Hartmann's licensing conditions can be applied to Korean RNR as well. Consider (13). The set of alternatives that both conjuncts create are the same (i.e. $CP_1 = CP_2$), so the RNR can be licensed.

Solutions for the challenges: The challenges for PF-deletion that Chung (2004), and Yoon & Lee (2005) posed can be resolved. Following Schwarzschild's (1999) and Merchant's (2001) e-GIVENness condition, ellipsis is allowed where A entails F-closure (E) and E entails F-closure (A) (where F-closure (E) is the existential closure of the focused constituent of E). We propose that the DPM makes no semantic contribution (contra Yim 2003, Kim 2004, Joh 2005), thus having no influence on entailment relationships between the conjuncts. Given that, the structure of (4) could be (14a), with the DPM only in the second conjunct, as easily as (14b). Due to the singular subject in the first conjunct of (14a), the DPM would not be licensed in the first conjunct, but neither is it needed in the first conjunct. The DPM in the second conjunct (14) can meet its plurality conditions from the subject of both conjuncts (cf. Choe (1988) where the DPM must be licensed by local plural subjects (15)). Regarding (16), we propose that the DM *kakkak* adjoins outside the conjunct (i.e. above TP), so the overt DM is not in the first conjunct before ellipsis. On the other hand, the DM can also be adjoined to DP, so the DM can be adjoined to DP as well as to TP in (17). In (17), with a different type of conjunctive *-kwa* 'and', constructing a DP conjoining structure (i.e. Non-RNR) (Yoon & Lee 2005), the DM adjoined both to the plural subject DP and to TP can be licensed. However, with *kuliko* 'and', constructing a TP conjoining structure (i.e. RNR), (18) shows that the DM, adjoined to DP, cannot be licensed because each conjunct has a singular subject, but the DM, adjoined to TP, is licensed because it c-commands two predicates.

(1) Kim bought an apple for t_i , and Jane gave it to t_i , every student.

(2) Chris wrote [an article], and Kate reviewed [an article].

(3) Mary bought, and Jane read the book

[_{TP1} Mary bought _____], and
[_{TP2} Kate read _____ [_{DP} the book]]

(4) Sue-nun yagu-lul eal (***tul**) han-ta, kuliko Jane-un nonggu-ul cal-**tul** han-ta.
Sue-T baseball-A well-DPM do-Pres-Dec, CONJ Jane-T basketball-A well-DPM do-Pres-Dec.
'Sue plays baseball well, and Jane plays basketball well.'

(5) Mary-ka chayk-ul (***kakkak**) il-ess-ta, kuliko John-i shinmun-ul **kakkak** il-ess-ta.
Mary-N book-A each read-Past-Dec, CONJ John-N newspaper-A each read-Past-Dec.
'Mary read a book, and John read a newspaper, respectively.'

(6) [AJ-nun [_{TP} Mary-ka wa-seo] cip-e ka-ess-ta], kuliko [Sue-nun [_{TP} John-i wa-seo] cip-e kas-ess-ta].
AJ-T Mary-N come home-to go-Past-Dec CONJ Sue-T John-N come home-to go-Past-Dec.
'AJ went home because Mary came, and Sue went home because John came.'

(7) John_i-un ahop-ci-ey, (kuliko) Mary_j-nun yeul-si-ey [caki_{i/j}-uy cip-ulo kas-ess-ta].
John-T 9 o'clock-at (and) Mary-T 10 o'clock-at self's house-to go-Past-Dec.
'John went to John's house at 9, and Mary went to Mary's house at 10.' (Sloppy identity)

(8) Mary loves John_i, and he_i thinks that Sally does <love^P John_i>, too. (Avoiding Principle C)

(9) [Mary-nun [John_i-i ^PJohn_i-e daehan kisa-lul shinmun-eseo ilk-ess-ta-ko] mal-hass-ta],
Mary-T John-N himself about article-A newspaper-in read-past-C say-Past-Dec
kuliko [Sue-nun [Bill-i John_i-e daehan kisa-lul shinmun-eseo ilk-ess-ta-ko] mal-hass-ta].
CONJ Sue-T Bill-N John about article-A newspaper-in read-past-C say-Past-Dec
'Mary said that John_i read <an article about^P John_i in newspaper>, and Sue said Bill read an article about John_i in newspaper.' (Avoiding Principle C)

(10) John_i-i <ku-casin-ul myeondo> mot-hae-seo, Nae-ka [ku_i-lul myeondo] haecwu-ess-ta.
John_i-N <him+self shave> cannot-so, I-N [him_i-A shave] do-Past-Dec.
'John_i couldn't, so I shaved him_i.' (Avoiding Principle B)

(11) [_{TP1}[JOHN]_T [PEELED]_F <the squash>], and [_{TP2}[MARY]_T [COOKED]_F the squash].

(12) TP₁ = [[λP [$\exists z$ [$z \in \text{ALT}(\text{John}')$] & $p = \lambda p$ [$\exists Q$ [$Q \in \text{ALT}(\text{Peeled}')$] & $p = Q(\lambda x[\text{squash}'(x)](z))$]]]]]

TP₂ = [[λP [$\exists z$ [$z \in \text{ALT}(\text{Mary}')$] & $p = \lambda p$ [$\exists Q$ [$Q \in \text{ALT}(\text{Cooked}')$] & $p = Q(\lambda x[\text{squash}'(x)](z))$]]]]]

(13) [_{CP1} [TOM-un]_T [SWUHAK-ul]_F <eal han-ta>], kuliko [_{CP2} [JOHN-un]_T [KWAHAK-ul]_F cal han-ta].
Tom-T math-A well do-Dec CONJ John-T science-A well do-Dec
'Tom does mathematics well, and John does science well.'

CP₁ = [[λP [$\exists x$ [$x \in \text{ALT}(\text{Tom}')$] & $p = \lambda p$ [$\exists z$ [$z \in \text{ALT}(\text{Mathematics}')$] & $p = [\text{do well}'(x,z)]$]]]]]

CP₂ = [[λP [$\exists x$ [$x \in \text{ALT}(\text{John}')$] & $p = \lambda p$ [$\exists z$ [$z \in \text{ALT}(\text{Science}')$] & $p = [\text{do well}'(x,z)]$]]]]]

(14) a. $\sqrt{}$ [_{CP(E)}SUE-nun YAGU-lul eal- \emptyset han-ta], kuliko [_{CP(A)}JANE-un NONGGU-lul cal-**tul** han-ta].

CP_A = Jane plays basketball well-DPM. F-clo (CP_A) = $\exists x. \exists y. y$ plays x well-DPM.

CP_E = Sue plays baseball well- \emptyset F-clo (CP_E) = $\exists x. \exists y. y$ plays x well- \emptyset

CP_A \rightarrow F-clo (CP_E) and CP_E \rightarrow F-clo (CP_A)

b. *Sue-nun yagu-lul eal-**tul** han-ta, kuliko Jane-un nonggu-lul cal-**tul** han-ta.

(15) *Bill-kwa Mary-nun [John-i swuhak-ul cal-**tul** han-ta-ko] sangkak han-ta.

Bill-and Mary-T [John-N math-A well-DPM do-Dec-C] think-Dec

'Bill and Mary each do mathematics well.'

(16) [_{TP1} MARY-ka CHAYK-ul il-ess-]-(ta), (kuli)ko [_{TP2} JOHN-i SHINMUN-ul t_V] **kakkak** il-ess-ta.

Mary-N book-A read-Past-Dec, CONJ John-N newspaper-A each read-Past-Dec.

'Mary read a book and John read a newspaper, respectively.'

(17) [_{CP}[_{TP}[_{DP} John-kwa Mary-ka (**kakkak**) [_{VP1} t_{DP} il-(tung)-(kwa) i-tung-ul t_V]] (**kakkak**) chaciha-ass-ta.]

John-and Mary-N each 1st-place and 2nd place each take-Past-Dec

'John and Mary each won the first and the second places (in Marathon).'

(18) [John-i (***kakkak**) il-i-tung-ul chaciha], kuliko [_{TP}[_{DP}Mary-ka (***kakkak**) il-i-tung-ul t_V] (**kakkak**) ha-ass-ta.

John-N CONJ Mary-N (*each) 1st-(and) 2nd-place (each) take-Past-Dec.

'John won the first place, and Mary won the second place (in Marathon).'