Contrastive Focus: Licensor for Right Node Raising[*]

Seungwan Ha

Boston University

1.   Introduction

Right Node Raising (RNR) refers to a coordination construction in which parts of the first conjunct are missing. For instance, the object DP *his car* in the first conjunct is RNRed in (1). To parse an RNR construction, therefore, interlocutors, both speakers and hearers, must await the "antecedent" in the second conjunct in order to arrive at a complete interpretation of the sentence.[1]

(1)   Bill BOUGHT, and Jon SOLD his car.

        This paper is concerned with two issues related with RNR. First, I will argue that RNR is an ellipsis phenomenon, by showing that many ellipsis properties also hold of RNR. Second, after establishing RNR as a type of ellipsis, I will propose licensing conditions for RNR, using a variant of the E(llipsis) feature (Merchant 2001, 2004).

2.   Properties of RNR

VP ellipsis in (2) and RNR in (3) are similar in that both can target some part of the embedded clause for deletion.

(2)   a.   John liked the opera, but Mary didn't ~~like the opera~~.
        b.   John thought Mary was going to donate his car to the charity, and Mary thought John was going to ~~donate his car to the charity~~

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[1] Given the fact that the term 'antecedent' refers to constituents that precede the ellipsis site in literature, it may not be the right terminology to refer to expressions anchoring to the RNRed portion. However, since a purpose of this paper is to compare ellipsis with RNR, I will use the term 'antecedent' for RNR in this paper.

(3) a. John LIKED ~~<the opera>~~, but Mary HATED the opera.
     b. John thought Mary was trying to SELL ~~<his car to the charity>~~, and Mary thought John was trying to DONATE his car to the charity.

However, RNR also has several unique properties. Only constituents can undergo VP ellipsis, but even non-constituents can undergo RNR. The object DP *a large amount of money* and the VP adjunct *from the bank* do not form a constituent, yet RNR is allowed in (4).

(4) John [BORROWED [~~<a large amount of money>~~] ~~<from the bank>~~]], and Bill [STOLE [a large amount of money] [from the bank]].

RNR can also target expressions below the word-level. The part of the word *generation* is elided in the first conjunct in (5a), and a similar case in German is observed in (5b), due to Hartmann (2000).

(5) a. This analysis suffers from both UNDER-~~<generation>~~ and OVER-generation.
     b. Frühlings~~blumen~~   und Herbstblumen
         Springtime ~~flowers~~ and autumn flowers   (Hartmann 2000: 57)

For RNR to be licensed, there must be a contrastive focus just prior to the RNR target (Hartmann 2000). In (6a), the verb *likes* as the pre-RNR element is contrastively focused, contrasted with *dislikes* in the second conjunct. If there is no contrast, the sentence is degraded in (6b).

(6) a. Bill LIKES ~~<the TV show>~~, but Mary DISLIKES the TV show.
     b. *Bill likes ~~<the TV show>~~, and Mary likes the TV show.

RNR affects the entire right edge of the first conjunct. Once RNR starts left to right following the contrastively focused constituent in the first conjunct, pronunciation cannot resume until the coordinator is reached (at least, in English).[2] Thus, (7) is ungrammatical, since the VP adjunct in the first conjunct remains pronounced.

(7) *John [BORROWED [~~<a large amount of money>~~] from the bank], and Bill [STOLE [a large amount of money] [from the bank]].

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[2] In Korean, on the other hand, RNR targeting only a middle expression seems to be possible. Notice that in Korean example (i), only the object DP is elided in the first conjunct, and the sentence is acceptable. One may challenge that pro-drop in Korean is possible, so the object DP may be just null pronoun, rather than an unpronounced copy of the DP. However, a null *pro* is prohibited in other backwards contexts, such as (ii).

(i)   Bill-i ~~<ku chayk-ul>~~ sse-ess-ko,   Mary-ka ku chayk-ul   caymiisske ilk-ess-ta.
      B.-top the book-acc   write-past-conj M.-top   the book-acc   joyfully   read-past-dec.
      'Bill wrote the book, and Mary enjoyed reading the book.'
(ii) *pro   chayk-ul   ilk-ess-ko,   Mary-ka sakwa-lul mek-ess-ta.
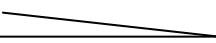   pro   book-acc   read-past-conj M.-nom apple-acc eat-past-dec

There have been four major proposals in previous literature to account for RNR. The first assumes that the RNR target undergoes rightward ATB movement, as shown in (8) (Ross 1967, Postal 1974, 1998, and Sabbagh 2003, 2006, among others). The target object DP *the opera* simultaneously moves out of both conjuncts and adjoins above the coordinate structure. We dub it the movement analysis.

(8)   [&P John liked   t, and Mary hated t]   the opera.

The three remaining proposals are non-movement analyses. According to the Strict Phonological Deletion (SPD) analysis, RNR only affects phonology (Wexler and Culicover 1980, Hartmann 2000, Bartos 2001, Abels 2004, Bošković 1997/2004). The RNR target is literarily compared with its antecedent phoneme-to-phoneme. If they are phonologically identical and structurally parallel, the RNR target is licensed to be deleted at PF in (9).

(9)   John liked <the opera> but Mary hated the opera.

Another non-movement analysis is the Multiple Dominance (MD) account (McCawley 1982, Wilder 1999, Yoon and Lee 2005, Bachrach and Katzir 2006). Under the MD account, the RNR target is merged to both the first and the second conjunct in a parallel fashion, as shown in (10).

(10)   [&P [TP1 John liked   ⸺   and]
        [TP2 Mary hated⸻⸻ the opera]]

The last non-movement analysis in the previous literature is an ellipsis analysis (Ha 2006a, 2006b, Chalcraft 2006), which is the account that I will argue for here. Ellipsis will be distinguished from the SPD by its relative flexibility for reconstructing RNR, as shown by effects, such as Vehicle Change or Lack of Morphological Identity. Previous literature has identified many problems with the movement analysis, so for reasons of space, I will only address problems for the non-movement analyses here.

3.   Problems for Non-movement Analyses

In this section, I will provide some empirical evidence, showing data that some of the non-movement analyses – SPD and MD – fail to capture. However, crucially, these empirical phenomena also arise in standard ellipsis, thus weigh in favor of the ellipsis account of RNR.

3.1   Vehicle Change

In VP ellipsis context, it has been shown that Principle C violations can be avoided. Let us examine (11a-b). In (11a), if the elided copy were phonologically identical to its antecedent, we would expect a Principle C violation to occur since the subject of the main clause binds the R-expression in the second conjunct. Similarly, in (11b), a Principle A violation would be expected since the reflexive is not bound within its binding domain.

(11) a.   Mary loves John~i~, and he~i~ thinks Sally does <del>love John~i~</del>, too.
      b.   Josh~i~ didn't vote for **himself~i~**, but Mary did <del>vote for **himself~i~**</del>.

<div align="right">(Fiengo and May 1994:220)</div>

Fiengo and May (1994) argue that (11) is grammatical because reconstruction of elided material is not sensitive to the value of the feature ([±pronoun]) that differentiates proper names and pronouns. Thus, a proper name can be reconstructed as a pronoun in the ellipsis site. F&M (1994) dubbed this Vehicle Change (12).

(12) Vehicle Change (simplified version, F&M 1994)
      As long as indices remain constant, proper names and their pronominal correlates must have the same reference.

F&M (1994) also propose that pronouns and reflexives are nondistinct, assuming that reflexives are composed by a pronoun and –*self* which only has a syntactic function. Under their proposal, *himself* and *him* are the same argument for reconstruction. Therefore, the ellipsis sites in (11a-b) are reconstructed as in (13a-b). The proper name is converted into a pronoun by Vehicle Change which bleeds the Principle C violation in (13a), and the reflexive is shifted into the pronoun, so that the Principle A violation is avoided.

(13) a.   Mary loves John~i~, and he~i~ thinks Sally does <del>love **him~i~**</del>, too
      b.   Josh~i~ didn't vote for **himself~i~**, but Mary did <del>vote for **him~i~**</del>.

We observe similar Vehicle Change effects in RNR constructions (14). The acceptability of (14a) indicates that no Principle C violation has occurred, and that the proper name has been shifted into a reflexive. Similarly, the pronoun in (14b) must have been shifted into a reflexive in (14b) to avoid a Principle B violation.

(14) a.   Mary heard that John~i~ SUBMITTED <del>the article about **himself~i~** for the magazine</del>, but Sue said that Bill actually WROTE the article about **John~i~** for the magazine.
      b.   John~i~ COULDN'T ~~nominate **himself**~~, so I nominated him~i~

On the other hand, under the SPD, Vehicle Change effects are unexpected since the phonological form between the RNRed material and its antecedent would not exactly match each other. In (14b), for example, the RNRed VP *nominate himself* differs phonologically from its antecedent VP *nominated him*. Likewise, the MD account would require assuming that the non-identical RNRed VP and antecedent VP can be considered to be a shared constituent.

3.2   Lack of Morphological Identity

In the ellipsis literature, it has been observed that verbal morphology need not match between conjuncts (Warner 1986, Lasnik 1999, and Lightfoot 1999). There is a tense mismatch in (15a) between *met* and *meet*, and the tense mismatch for main verbs seems

to be tolerable. For some reason when *be/have* is involved, it must be overtly present in the ellipsis clause, so (15b) is acceptable with the copula is pronounced, and (15c) is not with the ellipsis of the copula.

(15)   a.   Bill met Prof. Smith yesterday, and I will ~~meet Prof. Smith~~ this afternoon.
       b.   Jane was here, and I will be ~~here~~, too.
       c.   *Jane was here, and I will ~~be here~~, too.

RNR shows the same patterns (Bošković 1997, 2004). In (16a), the verbal morphology of the antecedent clause does not match that of the RNRed clause. In addition, whatever the cause of the restriction on *be* and *have* in VP ellipsis, (16b-c) behave the same way. *Be* and *have* must be realized in the RNRed clause.

(16)   a.   John WILL ~~sleep in her house~~, and Peter already HAS slept in her house.
       b.   John MUST have been ~~hassled by the police~~, and Peter COULD have been hassled by the police.
       c.   ?*John MUST ~~have been hassled by the police~~, and Peter COULD have been hassled by the police.

<div align="right">(Bošković 1997: (8), (11))</div>

This distributional similarity between RNR and ellipsis is unexpected on the other non-movement analyses. In particular, under both the SPD and the MD account, the restrictions for *be* and *have* in the RNRed clause would be puzzling. Under the SPD view, it is not clear why phonological identity should make morpho-syntactic distinctions with respect to *be* and *have*. The MD account has nothing to say about the size of the RNR target unless the conjuncts can be linearized. Since the size of the RNR target is unconstrained and (16c) does not yield conflicts in linear order, the MD predicts (16c) to be linearizable, yet the sentence is ungrammatical. Those accounts need additional assumptions to exclude *be* and *have* from RNR, whereas the ellipsis account does not.

3.3   Sloppy Identity

Ellipsis is well-known to allow some interpretations that are not available when the elided part is overtly pronounced. Such an example is the availability of sloppy identity in VP ellipsis (Sag 1976, Williams 1977, Reinhart 1983). The pronoun *his* in the ellipsis site can serve as a referential or a bound variable in (17), and the sloppy reading arises when the elided pronoun is bound by the subject of the second conjunct.

(17)   John likes his father, but Bill doesn't ~~like his father~~.
       a.   John likes John's father, but Bill doesn't like Bill's father. (Sloppy reading)
       b.   John likes John's father, but Bill doesn't like John's father. (Strict reading)

Interestingly, RNR also allows sloppy identity. The RNR target *his father* can be interpreted as *John's father* (sloppy reading) as well as *Bill's father* (strict reading) in (18). Under the MD account, the availability of sloppy reading is not predicted in (18) since the

MD assumes a shared constituent as the RNR target, which is only one occurrence of the RNR target. Notice that the RNR target contains a pronoun *his* in (18). To get the sloppy reading, the pronoun needs to be a bound variable and must be simultaneously bound by two different operators.

(18)   John$_i$ LIKES, but Bill$_j$ HATES his$_{i/j}$ father.
     a.   John likes John's father, but Bill hates Bill's father. (Sloppy reading)
     b.   John likes Bill's father, but Bill hates Bill's father. (Strict reading)

Given the empirical similarities between ellipsis and RNR reviewed above, there are good reasons to believe that RNR is also a type of ellipsis. The next question to ask is what licenses RNR, and moreover whether RNR obeys the same licensing conditions of the other types of ellipsis. In section 4, I will review Hartmann's (2000) licensing conditions for RNR and point out challenges her analysis faces. I will further argue that the problems for Hartmann's account can be resolved if we assume that RNR obeys semantic licensing conditions, rather than syntactic form-identity. In section 5, I propose semantic licensing conditions for RNR, based on mutual entailment relationships between focus alternatives of the conjuncts (cf. Merchant's (2001) e-GIVEN).

4.   Licensing RNR

4.1   Hartmann (2000)

As far as I know, only Hartmann (2000) has an explicit proposal about the licensing conditions for RNR. (19) is the list of Hartmann's licensing conditions for RNR.

(19)   Hartmann's licensing conditions
    i)   The conjuncts must be structurally identical,
    ii)   The pre-RNR elements in the first conjunct and the elements with which they contrast in the second must be focused,
    iii)   The focused elements create sets of alternatives (Rooth 1992), and the sets of alternatives for both conjuncts must be identical.
    iv)   The deletion occurs immediately after the contrastively focused pre-RNR element.

Hartmann claims that, if all the conditions are met, RNR is licensed. Let us take (20), for example. The subject and the verb in each conjunct are focused and generate sets of alternatives. As shown in (20a-b), the focus value of TP$_1$ and that of TP$_2$ are identical (i.e. $[\![TP1]\!]^f \leftrightarrow [\![TP2]\!]^f$). Since the conjuncts are structurally identical and the focus in each conjunct generates the identical sets of alternatives, (20) meets Hartmann's licensing conditions. Thus, the RNRed object DP *the car* is licensed to be elided at PF.

(20)   [$_{TP1}$[JOHN]$_F$ [SOLD]$_F$ ~~\<the car\>~~], and [$_{TP2}$[MARY]$_F$ [BOUGHT]$_F$ the car].
    a. $[\![TP1]\!]^f = \lambda p\ [\exists z \in ALT(John') \ \& \ \exists Q \in ALT(sold') \ \& \ p=Q(\iota x.car(x))(z)]$
    b. $[\![TP2]\!]^f = \lambda p\ [\exists z \in ALT(Mary') \ \& \ \exists Q \in ALT(bought') \ \& \ p=Q(\iota x.car(x))(z)]$

Identical structure is crucial to Hartmann's account (2000), since it is responsible for ruling out (21), on the grounds that the first conjunct has a transitive, compared to the ditransitive in the second conjunct.

(21)   *Bill BROWSES THROUGH ~~\<the book\>~~, but Peter SENDS MIKE the book.
                                                      (Hartmann 2000:120)

(22) is ruled out since focus in the pre-RNR position is not contrastive. On the other hand, when different verbs are used, allowing focus to be contrastive, the sentence improves (23).

(22)   a.   *John BELIEVES ~~\<Tom to be a fool\>~~, but Frank does not BELIEVE Tom to be a fool.
         b.   *John GAVE <a ~~gift to Mary~~>, but Bill didn't GIVE a gift to Mary.

(23)   a.   John BELIEVES ~~\<Tom to be a fool\>~~, but Frank CONSIDERS Tom to be a fool.
         b.   John DID ~~\<give a gift to Mary\>~~, but Bill DIDN'T give a gift to Mary.
                                                      (Hartmann 2000: 112-113)

4.2   Problems for the Previous Approach

There are a couple of problems with Hartmann's analysis. First, let us consider (24). The conjuncts are not syntactically identical. Assuming that the auxiliary *had* in the first conjunct and the copular *isn't* in the second are contrastively focused, the RNRed portion is the embedded VP *driven this car*, and the antecedent appears to be the DP *a car he has driven*.[3] Consequently, the antecedent and the elided part are not identical, which violates Hartmann's licensing conditions for RNR.

(24)   Bill might wish he HAD ~~\<driven this car\>~~, but this ISN'T a car he has driven.
                                                      (Johnson 1996: 6)

Second, notice that, although (25a) is similar to Hartmann's unacceptable (22), if we assign focus on *DIDN'T*, instead of on *meet*, in the second conjunct (25b), it becomes acceptable. (25a) is ruled out since the pre-RNR element is not contrastive. On the other hand, (25b) is still predicted to be unacceptable under Hartmann's analysis, since by hypothesis the RNR should immediately follow the contrastive focus (19iv). If *MET* is focused, the RNR should be *\<her husband at the train station\>*, while the antecedent would be *\<meet her husband at the train station\>* since *DIDN'T* is focused.

(25)   a.   *CATHY MET, but MARY didn't MEET her husband at the train station.
         b.   CATHY MET <**~~her husband at the train station~~**>, but MARY DIDN'T **[meet her husband at the train station]**.

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[3] It is interesting to note that the RNRed embedded VP in the first conjunct must be understood *driven this car*, not *driven a car*, which is puzzling, since the antecedent does not include the demonstrative.

Apart from the structural mismatch between the antecedent and the elided part, the alternative sets do not appear to match either. If we assume that focus is assigned on the subject and the verb in the first conjunct, a set of alternatives would be (26a). And the set of alternatives for the second conjunct would be (26b), assuming that the subject and the dummy *do* are assigned focus. The sets of alternatives in (26a-b) do not entail each other, which violates Hartmann's condition (19iii).

(26)   a.   {Cathy met her husband at the station, Mary met her husband at the station, Cathy called her husband at the station, Mary called her husband at the station, Cathy found her husband at the station, Mary found her husband at the station…}

       b.   {Mary did meet her husband at the station, Cathy did meet her husband at the station, Mary didn't meet her husband at the train station, Cathy didn't meet her husband at the train station…}

To summarize this section so far, Hartmann's licensing conditions for RNR seem to encounter both under-and over-generation problems. The conditions are not strong enough to predict that RNR is grammatical between structurally different but semantically identical conjuncts, such as in (24), and they are too strong to capture acceptable sentences such as (25b). In addition, Hartmann provides semantic licensing conditions for RNR, but she does not account for syntactic or phonological licensing conditions. She speculates that the deletion process targets the string immediately after the focused pre-RNRed element in the first conjunct at PF. In section 4.3, I will revise Hartmann's licensing conditions, to avoid those problems and capture further empirical evidence. In section 5, I will propose more concrete and comprehensive licensing conditions for RNR that cover the syntactic, semantic, and phonological aspects of RNR.

4.3   Semantic Licensing Conditions

4.3.1   Mutual Entailment

The problems for Hartmann's licensing conditions have been recognized as their strict attachment to structural isomorphism. My proposal for licensing conditions for RNR, instead, is more dependent upon semantic identity; a mutual entailment relationship between the antecedent and the elided part must be established at LF for RNR to be licensed (e.g. Sauerland (1998), Fox (1999, 2000), Merchant (2001), *contra* Rooth (1992)). Among the various theses of semantic identity in ellipsis literature, I will adopt Merchant's (2001) e-GIVENness in this paper in (27).

(27)   e-GIVEN
       An expression E counts as e-given iff E has a salient antecedent A and, modulo ∃-type shifting,
       (i)   A entails F-clo (E), and
       (ii)   E entails F-clo (A)

                                                                    (Merchant 2001: 26)

I argue that RNR is required to satisfy Merchant's e-GIVEN conditions in order to be licensed. Let us reconsider (20), repeated in (28), with respect to e-GIVENness. (28a-b) represent the antecedent and the elided part, respectively. After the existential closure of the focus constituents (F-closure), the antecedent and the elided part are identical (28c). As a result, A entails F-clo (E) and E entails F-clo (A), so the RNR is licensed.

(28)   [TP1[JOHN]F [SOLD]F ~~the car~~], and [TP2[MARY]F [BOUGHT]F the car].
    a.   A = MARY BOUGHT the car.
    b.   E = JOHN SOLD the car.
    c.   F-clo (A) = F-clo (E) = $\exists$x.$\exists$R. x R-*ed* the car.

As Merchant (2001) argues, an interesting prediction that e-GIVEN can provide is the differences between ellipsis and deaccenting with the strength of the e-GIVENness conditions (Contra Rooth (1992), who claims that ellipsis additionally needs to satisfy structural parallelism between the conjuncts). Deaccenting needs to satisfy weaker licensing conditions than ellipsis (29).

(29)   Deaccenting (Merchant 2001)
        A entails F-clo (E), but E does not need to entail F-clo (A).

Let us consider how the strength of e-GIVEN can license RNR and deaccenting with an example (30).[4] In (30a), the antecedent and the elided part mutually entail each other, so this is an environment where both RNR and deaccenting are licensed. On the other hand, the environments in (30b-c) can license deaccenting, but not RNR, since the antecedent clause entails the RNRed clause, but not vice versa. The detailed computations for (30b-c) are shown in (31).

(30)   RNR vs. Deaccenting
    a.   MARY COULDN'T ~~eat the snail at the French restaurant~~, but JOHN
          COULD eat the snail at the French restaurant.
    b.   *MARY COULDN'T ~~eat a French dish~~, but JOHN COULD eat the
          snail at the French restaurant.
    c.   MARY COULDN'T *eat a French dish*, but JOHN COULD eat the snail at the
          French restaurant.

(31)   Computations for (30b-c)
    a.   A = MARY COULD eat the snail at the French restaurant.
    b.   E = JOHN COULDN'T eat a French dish at the French restaurant.
    c.   F-clo (A) = $\exists$x. $\exists$R. x R-*Aux* eat the snail at the French restaurant.
    d.   F-clo (E) = $\exists$x. $\exists$R. x R-*Aux* eat a French dish at the French restaurant.

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[4] Deaccenting is represented by italicized subscripts.

4.3.2   Structural Mismatches

With e-GIVEN, we can easily account for such a case as (24), repeated in (32), where the structure of the antecedent does not match that of the RNR clause but where the two conjuncts nevertheless have the same truth conditions.

(32)   Bill might wish [$_{TP(E)}$ he HAD **~~driven this car~~**], but [$_{TP(A)}$ this ISN'T a car he has driven].

I assume that there are several logically equivalent possibilities for the antecedent clause of (32). (33) shows some examples. I argue that semantic identity can be satisfied by matching one of the LFs, entailed by the antecedent, with the RNRed clause. In the case of (32), (33c) can used for the antecedent, which matches with the RNRed part.

(33)   a.   This isn't a car he has driven $t_{a\ car}$.
       b.   It's not the case that this is a car he has driven $t_{a\ car}$.
       c. $^{\sqrt{}}$It's not the case that he has **driven this car**.

A crucial question is, then, what triggers this accommodation. One possible answer could be found in Kehler's (2000, 2002) *Coherence Theory*. Kehler observes that voice mismatches in VP ellipsis can be tolerated in (34) when the non-resemblance information structure between the conjuncts is established (See Table 1). The details of Coherence Theory are beyond the scope of this paper, but I argue that whatever is responsible, something divides cases of accommodation from cases without accommodation. I claim that non-resemblance relationship between the two conjuncts triggers accommodation.

(34)   Voice mismatches
        a.   *This problem was looked into by Bob and John did too.
        b.   This problem was to have been looked into, but obviously nobody did.
                                                                            (Kehler 2002: 53)

Table 1. Resemblance vs. Non-Resemblance

Resemblance (non accommodation)	Non-Resemblance (accommodation)

• Parallel:
  e.g. *Bill likes to play golf. Al enjoys surfing the net.*
	• Cause-effect:
	  e.g. *Bill was about to be impeached. He called his lawyer.*

• Contrast:
  e.g. *John voted for Clinton, but Mary voted for Dole.*
	• Explanation:
	  e.g. *Bill called his lawyer. He was about to be impeached*

	• Violated expectation: e.g. *Bill was about to be impeached, but he didn't call his lawyer.*
	• Denial of preventer: e.g. *Bill didn't call his lawyer, even though he was about to be impeached.*

                                                                            (Kehler 2000: 541-543)

Let us return to (32). It seems that accommodation is triggered in (32) since the conjuncts construct one of the non-resemblance information structures (i.e. *violated expectation*). Accommodation enables the sentence (32) to take the appropriate antecedent (33c), with the result that the set of alternatives generated by each conjunct mutually entail each other, as shown in (35). Therefore, RNR is licensed in (32).

(35)   TP$_{(A)}$ = {It IS the case that Bill has driven this car, It ISN'T the case that Bill has
           driven this car}
        TP$_{(E)}$ = {Bill HAD driven this car, Bill HADN'T driven this car.}

5.   The Ellipsis Feature in RNR

In section 4, I have argued the semantic licensing conditions for RNR. In this section, I will address syntactic and phonological aspects of RNR licensing conditions and ultimately propose E(llipsis) features for RNR (cf. Merchant 2001, 2004). Merchant (2004) claims that fragment answers to wh-question, e.g., *The syntax of silence* in (36), undergoes focus movement to SpecFocP, and the focus head can bear a feature E, which instructs PF not to pronounce its complement.[5]

(36)   Q: What did John read last night?
        A: [$_{FocusP}$ [$_{DP}$ The syntax of silence] Foc$_{[E]}$ [TP ~~John read t last night~~]]].

Inspired by Merchant (2004), I assume that focus can bear an E feature. The focused pre-RNR element enters the syntactic derivation bearing E, and instructs PF to leave the RNRed element unpronounced.[6] With this assumption, let us examine (37). (37a-c) are acceptable, but (37d) is not. This indicates that a certain type of contrast between the two conjuncts is required to license RNR, but not necessarily ellipsis. Therefore, I propose that not just any focus licenses RNR: Only *contrastive* focus can contain an E feature (henceforth, E$_{RNR}$) and license RNR. In (37d), RNR is not licensed since the focus on the pre-RNR element is not contrastive.

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[5] Ultimately, Merchant (2004) retracts the idea that the focus head bears E since it encounters problems in cases like (i), where the focus movement inevitably violates CNPC. If focus had E and ellipsis can repair island violations, then the answer of (i) should be grammatical. Instead, he proposes the C head bear E, so that there still remains a defective intermediate trace *t'* undeleted and crashes, as shown in (ii).
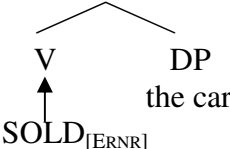
(i)   Q: Does Abby speak the same Balkan language that *Ben* speaks?
        A: *No, Charlie.
(ii)   A: [$_{FocusP}$ [$_{DP}$ Charlie] [$_{CP}$ t' C$_{[E]}$ [$_{TP}$ ~~Abby speaks the same Balkan language that t
        speaks~~]]].

(Merchant 2004: 708, (166))

[6] Compared with Merchant (2001, 2004) where E is merged with a syntactic head, I propose that E$_{RNR}$ enters the derivation with a contrastively focused lexical item. The differences could be understood in terms of the differences between specifier and complement positions (Uriagereka 1988, Bartos 2001). RNR targets part of the *specifier* position of &P (Munn 1993), so no further syntactic alteration, such as focus movement, is available. I assume that checking E in the specifier position is still possible, so that C can check E$_{RNR}$ in the first conjunct.

(37)   a.   John likes Mary, but Bill doesn't.   (Ellipsis – contrast in polarity)
       b.   John DOES, but Bill DOESN'T like Mary.   (RNR – contrast in polarity)
       c.   John likes Mary, and Bill does, too.   (Ellipsis – no contrast)
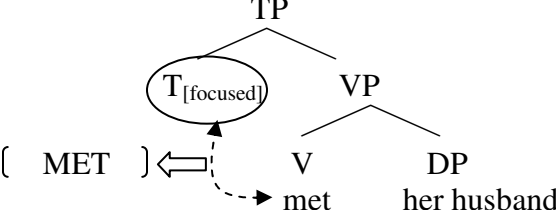   d.   *John DOES, and Bill LIKES Mary.   (RNR – no contrast)

E$_{RNR}$ is formalized in (38) with an example, *Mary SOLD, and John BOUGHT the car*. The focused verb *SOLD* is merged bearing the E$_{RNR}$ feature in syntax. E$_{RNR}$ is an uninterpretable feature, subject to be checked by the focus feature from C. E$_{RNR}$ instructs PF to leave the RNR target unpronounced. Finally, e-GIVEN must be observed in RNR.

(38)   a.   Syntax of E$_{RNR}$ b.   Phonology of E$_{RNR}$

                                                XP(s) $\rightarrow$ Ø/ E$_{RNR}$ _____]$_{TP1}$.

       c.   Semantics of E$_{RNR}$: e-GIVEN must be observed in RNR.
            i)   Mary sold the car $\rightarrow$ F-clo (E) = $\exists x.\exists R.$ x R-ed the car
            ii) John bought the car $\rightarrow$ F-clo (A) = $\exists x.\exists R.$ x R-ed the car

With E$_{RNR}$, one of the problems that Hartmann's licensing conditions can be resolved. Let us revisit (25b), repeated in (39). (39) is puzzling under Hartmann's (2000) analysis, since the conjuncts appear to generate different sets of alternatives. I argue that it is the null T (cf. [Verum Focus]), not the verb in the first conjunct, that is focused.
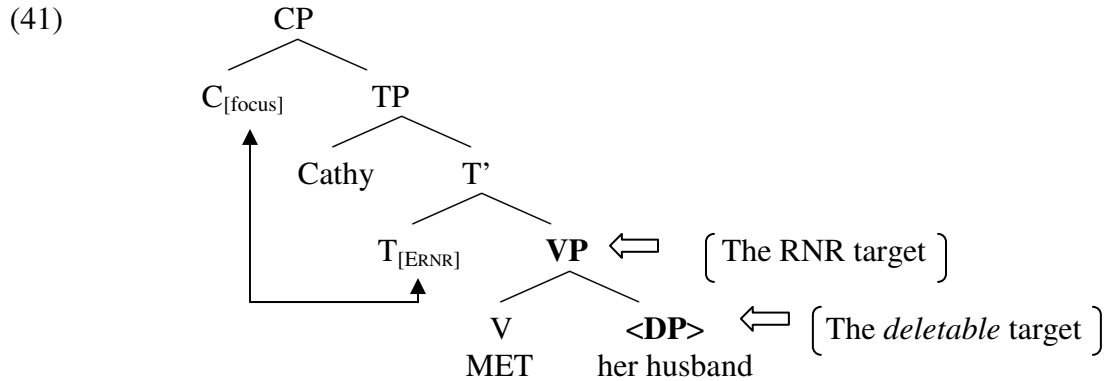
(39)   Cathy MET, but Mary DIDN'T meet her husband at the train station.

Since focus features must be phonetically realized but cannot be realized on the null T, the verb picks up the focus pronunciation, as in (40), in the same way that the main verbs pick up tense morphology (c.f., Halle and Marantz 1993).
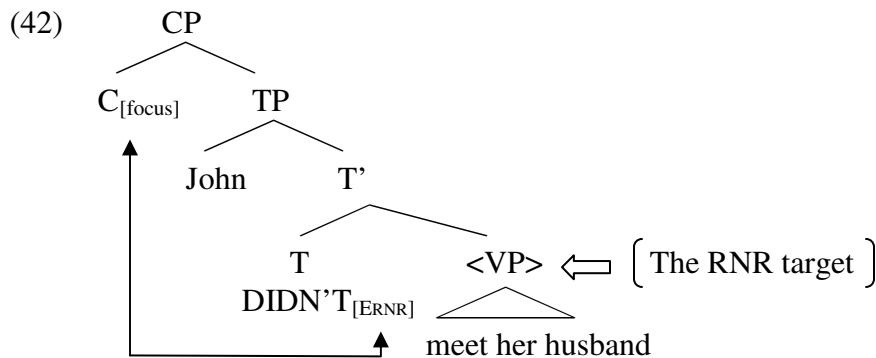
(40)

The focus feature in C agrees with E$_{RNR}$ in the null T, and licenses RNR in (41). However, the whole VP cannot be elided since there is an intervening focused verb, so only the object DP is deletable in (41) (MaxElide, Takahashi and Fox 2005).[7]

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[7] Takahashi and Fox (2005) argue that the target of ellipsis must be the largest within some Parallelism Domain (PD). An elided clause is considered a PD when it is semantically identical to an antecedent clause. It is important to notice that the target of ellipsis within PD may differ from the actual deletable target due to an independent factor. T&F (2005) discuss such cases in re-binding phenomena of ellipsis, and here I report that the elision of the RNR target is blocked due to the intervening focus in (41).

(41)

```
            CP
         /      \
   C[focus]     TP
      ↑       /    \
         Cathy      T'
                  /    \
             T[ERNR]   VP  ⇐  [ The RNR target ]
                  ↑   /    \
                     V     <DP>  ⇐  [ The deletable target ]
                    MET  her husband
```

If either a modal or an auxiliary exists, it picks up the focus pronunciation, since it is closer to T than the verb, shown in (42). E_{RNR} is checked by the focus feature from C, and licenses the deletion of VP. Here the RNR target is the same as the deletable target.

(42)

```
          CP
        /     \
   C[focus]    TP
      ↑      /    \
        John       T'
                 /    \
                T     <VP>  ⇐  [ The RNR target ]
          DIDN'T[ERNR]  /\
               ↑    meet her husband
```

6. Conclusion

In this paper, I argued that RNR is a type of ellipsis, and licensed by a variant of ellipsis features, *E_{RNR}*. The licensing conditions of the previous research encounter several problems and are not concrete enough to capture every aspect of the RNR licensing conditions. I proposed syntactic, semantic and phonological licensing conditions for RNR, in line with conditions on normal ellipsis. Therefore, the success of the *E_{RNR}* analysis in accounting for the data further supports the claim that RNR is an ellipsis phenomenon.

References

Abels, Klaus. 2004. Right Node Raising: Ellipsis or ATB movement? In *Proceedings of NELS 34*, 45-59. GLSA, University of Massachusetts, Amherst.

Bachrach, Asaf, and Roni Katzir. 2006. *RNR and delayed spell-out*. =Ms. MIT.

Bartos, Huba. 2001. Sound-form non-insertion and the direction of ellipsis. *Acta Linguistica Hungarica* 48: 3–24.

Bošković, Željko. 1997/2004. Two notes on Right Node Raising. *University of Connecticut Working Papers in Linguistics* 12: 13-24.

Fiengo, Robert, and Robert May. 1994. *Indices and identity*. Cambridge, MA: MIT Press.

Ha, Seungwan. 2006a. Multiple Dominance CAN'T, but Ellipsis CAN account for Right Node Raising. To appear in *Proceedings of Chicago Linguistic Society 42*.

Ha, Seungwan. 2006b. An ellipsis account for Right Node Raising. To appear in *Proceedings of Workshop on Altaic in Formal Linguistic 3 (WAFL3)*. MITWLP.

Halle, Morris, and Alec Marantz. 1993. Distributive morphology and the pieces of inflection. In *the view from Building 20*, eds. Ken Hale and Samuel J. Keyser. Cambridge, MA: MIT Press.

Hartmann, Katharina. 2000. *Right Node Raising and gapping: interface conditions on prosodic deletion*. Amsterdam: John Benjamins.

Johnson, Kyle. 1996. When VP go missing. *Glot International* 2: 2-9.

Kehler, Andrew. 2000. Coherence and the resolution of ellipsis. *Linguistics and Philosophy* 23: 533-575.

Kehler, Andrew. 2002. *Coherence, Reference, and the Theory of Grammar*. CSLI Publications.

Lasnik, Howard. 1999. Verbal morphology: *Syntactic Structures* meets the Minimalist Program. *Minimalist Analysis,* 97-119. Malden, MA: Blackwell.

McCawley, James. 1982. Parentheticals and discontinuous constituent structure. *Linguistic Inquiry* 13: 91-106.

Merchant, Jason. 2001. *The syntax of silence.* Oxford: Oxford University Press.

Merchant, Jason. 2004. Fragments and ellipsis. *Linguistics and Philosophy* 27: 661-738.

Postal, Paul. 1998. *Three investigations of extraction*. Cambridge, MA: MIT Press.

Rooth, Matt. 1992. A theory of focus interpretation. *Natural Language Semantics* 1: 75-116.

Ross, John. 1967. *Constraints on variables in syntax*. Ph.D. dissertation, MIT.

Sabbagh, Joseph. 2003. Ordering and linearizing rightward movement. In *Proceedings of West Coast Conference on Formal Linguistics* 22: 436-449. Somerville, MA: Cascadilla Press.

Sauerland, Uli. 1998. *The meaning of chains*. Ph.D. dissertation, MIT.

Takahashi, Shoichi, and Danny Fox. 2005. MaxElide and the re-binding problem. To appear in *Proceedings of Semantics and Linguistics Theory* 15.

Wilder, Chris. 1999. Right Node Raising and the LCA. In *Proceedings of West Coast Conference in Formal Linguistics* 18: 586-598. Somerville, MA: Cascadilla Press.

Wexler, Ken, and Peter Culicover. 1980. *Formal principles of language acquisition*. Cambridge, MA: MIT Press.

Yoon, James, and Wooseung Lee. 2005. Conjunction reduction and its consequences for noun phrase morphosyntax in Korean. In *Proceedings of the 24th West Coast Conference on Formal Linguistics*, 379-387. Somerville, MA: Cascadilla Proceedings Project.

Program in Applied Linguistics
Boston University
96 Cummington St. #246
Boston, MA 02215

seungwan@bu.edu