Projection Analysis of the Displacement of *un/nun*

HAN-BYUL CHUNG
Seoul National University

1 Introduction

It is generally accepted among linguists that Korean nominal particle *un/nun* may function as either a marker of 'aboutness', or a marker of 'contrastiveness' (Y. Choi 1987; Choe 1995; Han 1998; Lee 1999; 2003; 2007; S. Choi 2000; Jun 2005; 2006; J.-R. Kim 2005; J. Kim 2011; I. Kim 2013, among others). When *un/nun* functions as a marker of contrastiveness, *un/nun* is generally observed to appear to the immediate right of the contrasted element, as in (1). The position of the contrastive marker seems to remain constant regardless of whether the contrasted element (marked by brackets) is nominal, as in (1a), or verbal, as in (1b). However, there are instances where the contrastive marker appears within a contrasted constituent, as in (1c). While the contrasted elements are the VPs, the contrastive marker *un/nun* appear to the immediate right of the internal arguments, within the VP, the contrasted constituent.

(1) a. John-i   [panana]-nun   mek-ess-ta.
     John-NOM   banana-CONT   eat-PAST-DECL
     'As for bananas, John ate them.'
   b. John-i   [ppally-lul   toli-ki]-nun   ha-yss-ta.
     John-NOM   laundry-ACC   spin-ki-CONT   do-PAST-DECL
     'As for washing the laundry, John did it.'
   c. John-i   [ppallay-nun   toly]-ess-ciman,
     John-NOM   laundry-CONT   spin-PAST-though
     [patak-ul   ssul]-ci-nun   ahn-ass-ta.
     floor-ACC   sweep-ci-CONT   NEG-PAST-DECL.
     'Though John washed the laundry, he did not sweep the floor.'

To account for the displacement of the contrastive marker in (1c), I argue that contrastive marker *un/nun* on a subconstituent may project up to a bigger constituent in Korean (cf. projection of information focus in English in Selkirk 1984; 1995).

2   Contrastiveness and Contrasted Constituents

Before we get into the main discussion, I will define contrastiveness as used in this paper. In this paper, contrastiveness is understood in the sense of Büring (1997; 2003). According to Büring (1997; 2003), the contrastive reading arises from an inference that there are unanswered questions (about the alternatives). For example, (2a) provides the expectation that a question about the alternatives to *apples* should follow the actual sentence, such as in (2b). And the contrastive reading arises as the question about *oranges* is left unanswered. In sum, contrastive reading presupposes a set which contains the contrasted element and its alternatives, and the truth value of the proposition about the alternatives remains unvalued.

(2) Context: John brought some apples and some oranges yesterday
    night, but there are not any left this morning.
   a. As for the apples, it was John who ate them.
   b. What about oranges, who ate them?'

If we understand contrastiveness as defined above, the contrasted element of a contrastive sentence can be diagnosed by examining what the alternative element in a natural followup question is. (2b) is a question about an alternative of *apples*. Thus, the contrasted element in (2a) is *apples*. A natural question that may follow (1a) is a question such as in (3a); a question about some alternative of *panana*. Therefore, the contrasted element in (1a) is the DP *panana*. Similarly, (3b) can be understood as a natural followup question to (1b). Thus, the contrasted constituent in (1b) is the VP. That the contrasted elements in (1c) are also the entire VPs is supported by the fact that (1c) can

be paraphrased with (3c), with *un/nun* appearing outside of the VP.[1]

(3) a. [sakwa]-nun   nwuka   mek-ess-ni?
    apple-CONT   who   eat-PAST-Q?
    'What about apples, who ate them?'
  b. John-i   [batak-ul   ssul-ki]-nun   ha-yss-ni?
    John-NOM   floor-ACC   sweep-ki-CONT   do-PAST-Q?
    'As for sweeping the floor, did John do that?'
  c. John-i   [ppallay-lul   toli-ki]-nun   ha-yss-ciman,
    John-NOM   laundry-ACC   spin-ki-CONT   do-PAST-though
    [patak-ul   ssul]-ci-nun   ahn-ass-ta.
    floor-ACC   sweep-ci-CONT   NEG-PAST-DECL.
    'Though John washed the laundry, he did not sweep the floor.'

The notion of contrastiveness given above is distinct from an exhaustive reading (or identificational focus) in that the expected followup question is left unanswered. Exhaustive reading, on the other hand, provides the implication that the question about the alternatives turns out to be negative. They are also distinct from information focus in that contrastive element need not be presented as relationally new information.[2]

3   Apparent Constraints on the Displacement of *un/nun*

Assuming that the contrastive marker *un/nun* must appear to the immediate right of a contrasted constituent, what we see in (1c) is a displacement of the marker; While the VP is interpreted as the contrastive constituent, what is morphologically marked as contrastive is the internal argument of the VP. In this section, we will present two apparent constraints on the displacement of *un/nun* and examine whether they are truly constraints on the displacement. Some speakers who find (4a) grammatical find (4b) awkward. Based on the contrast, it has been suggested that the displacement of *un/nun* is allowed only when the contrasted VPs are semantically related. In other words, (4a) is acceptable, as we can easily imagine a situation in which doing the laundry and sweeping the floor are related in a sense that they are household chores, on the other hand, (4b) is awkward as eating bananas and doing the laundry are not semantically related in any sense. However, such a requirement on semantic relatedness seems to be a general requirement on contrastive constructions. A contrastive reading, as defined above, presupposes a superset

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[1] In this paper, we do not attempt to distinguish between contrastive focus and contrastive topic. Any element that fits the diagnostics given above will be identified as a contrastive element/constituent. For a detailed discussion on the issue, see Lee (2003), and Jun (2005, 2006).

[2] See Büring (1997; 2003) for detailed analysis on how contrastive elements are not always relationally new information.

which contains the contrasted element and its alternatives. Therefore, for (4a) to be interpreted as an acceptable contrastive construction, doing the laundry and sweeping the floor must be understood as viable alternatives to each other. Likewise, for (4b) to become an acceptable contrastive construction, speakers must presuppose a situation in which eating bananas is a viable alternative to doing the laundry. However, since such a situation is not readily imaginable, (4b) becomes awkward. If the awkwardness in (4b) is caused by the displacement of *un/nun*, (4c) without the displacement should be acceptable. However, speakers who find (4b) awkward also find (4c) awkward.[3]

(4) a. John-i [ppallay-nun toly-ess]-ciman,
  John-NOM laundry-CONT spin-PAST-though
  [patak-un ssul]-ci ahn-ass-ta.
  floor-CONT sweep-ci NEG-PAST-DECL.
  'Though John washed the laundry, he did not sweep the floor.'
 b. ??John-i ppallay-nun toly-ess-ciman,
  John-NOM laundry-CONT spin-PAST-though
  panana-nun mek-ci ahn-ass-ta.
  banana-CONT eat-ci NEG-PAST-DECL.
  'Though John washed the laundry, he did not eat bananas.'
 c. ??John-i ppallay-lul toly-ki-nun ha-yss-ciman,
  John-NOM laundry-ACC spin-ki-CONT do-PAST-though
  panana-lul mek-ki-nun ha-ci ahn-ass-ta.
  banana-ACC eat-ki-CONT ha-ci NEG-PAST-DECL.
  'Though John washed the laundry, he did not eat bananas.'

(4a) also forces a reading in which the contrasted VPs must exhaust the alternatives. In other words, (4a) is only acceptable in contexts in which doing the laundry and sweeping the floor are the only two things that John should have done. (4a) is awkward when other alternatives have been mentioned previously, as in (5b).

(5) a. John-i ppallay-to toly-ko, patak-to ssul-ko,
  John-NOM laundry-also spin-and floor-also sweep-and
  cemsim-to mek-ess-ni?
  lunch-also eat-PAST-Q
  'Did John do the laundry, sweep the floor, and eat lunch?'

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[3] Even speakers who find (4b) awkward accepts the sentence as soon as doing laundry and eating bananas are provided as alternatives explicitly in a preceding context, as in (i). which further suggests that the awkwardness of (4b) is not caused by the displacement of *un/nun*.
(i) a. John-i ppallay-to toly-ko, panana-to mek-ess-ni?
  John-NOM laundry-also spin-and banana-also eat-PAST-Q
  'Did John washed the laundry and eat bananas?'

b. #John-i [ppallay-nun toly-ess]-ciman,
 John-NOM laundry-CONT spin-PAST-though
 [patak-un ssul]-ci ahn-ass-ta.
 floor-CONT sweep-ci NEG-PAST-DECL.
 'Though John washed the laundry, he did not sweep the floor.'

The requirement that alternatives must be completely exhausted is also not a restriction on displacement. Similar restriction is also found on contrastive constructions that do not involve displacement of *un/nun*, as in (6). (6b), without any displacement, still fails when the contrasted elements provided in (6b) does not exhaust the previously mentioned alternatives.[4]

(6) a. John-kwa Tom-un ttele-ciko, Mary-nun pwut-ess-ta
  John-and Tom-CONT fail-CONJ, Mary-CONT pass-PAST-DECL
  'John and Tom failed but Mary passed.'
 b. #John-un ttele-ciko, Mary-nun pwut-ess-ta
  John-CONT fail-CONJ, Mary-CONT pass-PAST-DECL
  'John failed but Mary passed.'

In sum, the two apparent constraints on displacement of *un/nun*, the semantic relatedness and completeness, seems to be a more general constraint on contrastive constructions, as the restrictions also apply to contrastive constructions that do not involve displacement.

4 Projection Analysis of *un/nun*

The apparent displacement of *un/nun* in (1c) can be accounted for if Korean contrastive marker *un/nun* may project up like English information focus (Selkirk 1984; 1995). Owing to the displacement, (1c) shows discrepancy between the contrasted constituent, the VP, and contrastive marked constituent, the internal argument. English information focus exhibits a similar discrepancy. In (7b), prosodic focus on a subconstituent, the internal argument *beans*, can be interpreted as to express focus on a larger constituent containing the focus marked constituent, the entire VP. (focus indicated by full capitalization).

(7) a. What did John do?
 b. John [FOC ate BEANS].

For cases like (7b), it has been argued that information focus (on the internal argument) may project up to a higher constituent (the VP). According to Selkirk (1995), information focus on a VP may be expressed by focus marking

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[4] In Miyagawa (1987), a similar constraint on exhaustion of alternatives, or completeness, has been proposed for the usage of Japanese contrastive *wa*.

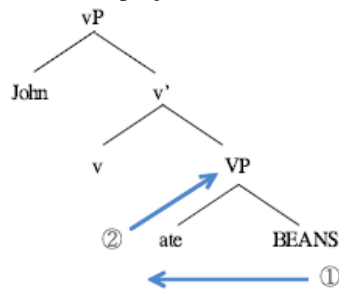an internal argument of a VP via a focus projection operation (8).

(8) Focus Projection[5]
   a. F-marking of the head of a phrase licenses F-marking of the phrase
   b. F-marking of an internal argument of a head licenses the F-marking of the head

That the F-marking on a nonargument cannot be interpreted as to express focus on the entire VP, as in (9b), shows that focus on a nonargument do not project, unlike focus on an internal argument, as in (7b).

(9) a. He only smoked [$_{FOC}$ in the TENT].
   b. *He only [$_{FOC}$ smoked in the TENT].
   c. He only [$_{FOC}$ SMOKED in the TENT].

Based on the focus projection rule, focus on the VP is licensed via a twostep process, as depicted in (10).

(10) Focus projection of F-marking on the head

First, focus prosody on the internal argument of the V head licenses focus on the V head. Then, focus on the V head projects up to the VP.[6]

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[5] In Selkirk (1995), focus projection above works together with a basic focus rule below to explain the distribution of accent pattern in English. Korean differs from English in that the F-marking is expressed by inflectional morphology.
(i) Basic Focus Rule
   An accented word is F-marked.

[6] One apparent limitation of the focus projection rule in (8) is that it does not seem to block focus projection from the V head to the VP, as in (i) (Bosch and van der Sandt 1994). Büring (2006) argues that focus projection as in (ib) is blocked by the F-interpretations rule (given in (ii)). When F-marking on the V head project to the VP in (ib), internal argument is still not F-marked. Therefore, according to the F-interpretation rule, the internal argument should be interpreted as given. According to Büring (2006), (ib) fails because the question forces a new information reading of *beans*.
(i) a. What did John do?
   b. #John [$_{FOC}$ ATE beans.]
(ii) F-Interpretation:

Suppose that *un/nun* is subject to a projection operation similar to (10), we would expect to find similar constraints as to what projects. And it seems that while *un/nun* on the internal arguments of VPs may project, as in (11a), *un/nun* on adjuncts cannot, as in (11b).[7]

(11)a. John-i   [sensayngnim-kkey-nun sakwa-lul   ponay-ss]-ciman,
      John-NOM   teacher-to-CONT   apple-ACC   send-PAST-though
      [apeci-kkey   panana-nun   tuli]-ci   ahn-ass-ta.
      Father-to   banana-CONT   give-ci   NEG-PAST-DECL.
      'While John sent apples to his teacher, he did not give bananas
      to his father.'

   b. *John-i   [kuphakye-nun   ppallay-lul   toly-l swu iss]-ciman,,
      John-NOM   hurriedly-CONT   laundry-ACC   spin-can-though
      [chenchenhi-nun   patak-ul   ssul   swu   eps-ta.
      Slowly-CONT   floor-ACC   sweep   can   NEG-DECL.
      Intended meaning: 'Though John can washed the laundry hurriedly,
      he cannot sweep the floor slowly.'

   c. John-i   [kuphakye-nun   patak-ul   ssul   swu iss]-ciman,
      John-NOM   hurriedly-CONT   floor-ACC   sweep   can-though
      [chenchenhi-nun   patak-ul   ssul   swu   eps-ta.
      Slowly-CONT   floor-ACC   sweep   can   NEG-DECL.
      'Though John can sweep the floor hurriedly, he cannot sweep
      the floor slowly.'

Disjunctive coordination requires coordinated sentences to possess a single contrasted constituent that occupies the same position in both coordinated sentences. Coordination fails if the contrasted constituents do not occupy the same position, as in (12).

(12) *[John]-un   yenge-lul   kongpwu   ha-yss-ciman
     John-CONT   English-ACC   study   do-PAST-though
     Mary-ka   [swuhak]-un   kongpwu   ha-ci   ahn-ass-ta.
     Mary-NOM   math-CONT   study   do-ci   NEG-PAST-DECL
     '*As for John, he studied English, but as for math,
     Mary did not study it.'

In (11a) both arguments within the VP are dissimilar. Thus, coordination

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    a. F-marked constituent but not FOC: new in the discourse

    b. constituent without F-marking: Given

    (c. FOC: either Given or new)

[7] Some speakers my find (11a) unacceptable. If a speaker finds it awkward to contrast the two events given in (11a), the sentence will be unacceptable regardless of whether there is a displacement of *un/nun* or not, as discussed in section 3.

would succeed only if the contrasted constituent is the entire VP. Therefore, that (11a) is grammatical, even though contrastive marking on the first sentence appears on the indirect object, while contrastive marking on the second sentence appears on the direct object, suggests that contrastiveness on either of the internal arguments (IO and DO) may project up to the VP.

On the other hand, (11b) is ungrammatical. In (11b), the dissimilar parts are the adjuncts and the internal arguments. Here again, coordination would succeed only if the contrasted constituents are interpreted as the entire VPs. However, since contrastiveness on the adjunct adverbials do not project to the VP, coordination fails. The grammaticality of (11c) shows that coordination succeeds if the contrastive marking on the adjuncts is interpreted as to show contrastiveness of the adjuncts.

The projection rule in (8) states that both F-markings on heads and arguments may project. Thus, we should also expect contrastive marking on heads to project to phrasal level, if contrastiveness projection in Korean indeed follows the rule in (8). Unfortunately, such a projection is not observed in Korean VPs. However, the absence of such a projection may be due to a morphological constraint; contrastive markings cannot attach directly to V heads in Korean, as in (13a). Whenever contrastive markings appear on verbal element, verbal elements must be nominalized by *ki*, as in (1b) (repeated below as (13b)).

(13) a. *John-i   ppally-lul   [toli-nun]   ha-yss-ta.
        John-NOM   laundry-ACC   spin-CONT   do-PAST-DECL
     b. John-i   [ppally-lul   toli-ki]-nun   ha-yss-ta.
        John-NOM   laundry-ACC   spin-ki-CONT   do-PAST-DECL
        'As for washing the laundry, John did it.'

However, that the contrastive marking on a nominal head in (14) may express contrastiveness on the entire nominal phrase shows that contrastive marking on (nominal) heads may project up to the phrasal level.[8]

(14) [Ppalkan cha]-nun   coh-ciman   [phalan cha]-nun   silh-e.
     red   car-CONT   like-though   blue   car-CONT   hate-DECL
     'Though I like red cars, I do not like blue cars.'

In sum, we see that only contrastive marking on heads and internal arguments of heads, but not on adjuncts, may express contrast on the entire VP in Korean, which is precisely what we would expect if the apparent displacement of *un/nun* is a result of a projection rule similar to the one given in (8).

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[8] Projection of contrastive marking on heads are not blocked here as *ppalkan* 'red' and *phalan* 'blue', sub-constituents that are not F-marked, are interpreted as given. (See footnote 6 for how giveness reading may block focus projection)

5 What Allows Projection of *un/nun* and Why?

So far, I have argued that Korean contrastive marker *un/nun* may project up. A question remains as to what makes such a projection operation available. Kiss (1998) observes that identificational focus (exhaustivity) and informational focus in English and Hungarian behave differently with respect to the possibility of projection. While sentences with informational focus on the internal argument may be used to answer questions regarding the entire VP, as in (15b), sentences with identificational focus on the internal argument cannot be used in such a situation, as in (16b). In short, information focus projects, while identification focus do not.

(15) a. What did John do?
      b. John [FOC ate BEANS]

(16) a. What did John do?
      b. #It is APPLES that John ate.

According to Kiss (1998), focus projection is only available to focus functions that are not structurally dependent. Information focus may project because information focus assignment in English and Hungarian is not associated with a specific syntactic position. On the other hand, Identificational focus in English and Hungarian requires focused constituents to appear at a specific syntactic position; clefted constituents of it-clefts in English, as in (17a), or preverbal position in Hungarian, as in (18a).

(17) a. It was a hat and a coat that Mary picked for herself.
      b. Mary picked A HAT AND A COAT for herself.

(18) Hungarian (Kiss 1998; 250)
      a. Mari egy kalapot és   egy kabátot nézett ki magának.
         Mary a   hat.ACC and   a   coat.ACC picked out herself.to
         'It was a hat and a coat that Mary picked for herself.'
      b. Mari ki   nézett magának   EGY KALAPOT ÉS
         Mary out picked herself.DAT a   hat.ACC and
         EGY KABÁTOT.
         a   coat.ACC
         'Mary picked A HAT AND A COAT for herself.'

In this regard, projection of contrastiveness may be available in Korean as contrastiveness function in Korean is not associated with a specific structural position.[9] As previously noted, *un/nun* may mark aboutness or contrastive-

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[9] According to Chung (2017), focus projection is sensitive to structural dependency in Korean as well. While information focus on the internal argument, marked by prosodically nonprominent *ul/lul*, may project up to the VP, as shown by the possibility of (ib), identificational focus on the internal argument, marked by prosodically prominent *ul/lul*, cannot project up to the VP, as

ness. While *un/nun* marked DPs with aboutness reading must move to a sentence initial position, contrastive *un/nun* marked DPs do not require movement to a specific structural position; contrastive *un/nun* marked DPs may appear in a sentence medial (*v*P internal) position, as in (19a), as well as sentence initial position, as in (19b). In short, at least superficially, contrastiveness elements marked by *un/nun* do not seem to be associated with a specific syntactic position. If so, it would explain why projection of *un/nun* is allowed in Korean; projection is available to functions that are independent of syntactic structure.

(19) a. John-i   sakwa-nun   mek-ess-ta.
     John-NOM   apple-CONT   eat-PAST-DECL?
     'As for apples, John ate them.'
    b. sakwa-nun   John-i   mek-ess-ta.
     apple-CONT   John-NOM   eat-PAST-DECL
     'As for apples, John ate them.'

6   Cross Linguistic Consequences

Mismatches between contrastively marked constituent and contrasted constituent do not only occur in Korean but is also observed in English and Japanese as well. Büring (2003) observes that contrastive prosody (or B-accent) may appear on subconstituents of a DP to express contrast on the DP in English, as in (20b). Contrastive prosody may appear on a subconstituent of a

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shown by the infelicity of (iib). According to Chung, while *ul/lul*-marked DPs in (ib) and (iib) seem to occupy the same position at the surface, non-prominent DP remains within the vP, while prominent DP with identificational focus is located at a *v*P-external position that license identificational focus.

(i)   a.   What did John do?
     b.   John-un   sakwa-lul   mek-ess-e.
        John-TOP   apple-ACC   eat-PAST-DECL
        'John ate apples.'
(ii)   a.   What did John do?
     b.   #John-un   SAKWA-LUL   mek-ess-e.
        John-TOP   apple-ACC   eat-PAST-DECL
        'It is APPLES that John ate.

Note that not all exhaustive interpretations seem to be structurally dependent in English or Korean. When *only* or *man* is used to express identificational focus, the focused element does not seem to be associated with a specific structure. Interestingly, focus expressed by *only* or *man* allows projection, which further supports the above claim that functions of markers that are allowed to project are functions that are not structurally dependent.

(iii) a.   What did John do?
     b.   John [ate only apples].
     c.   John-un   [sakwa-man   mek-ess-e].
        John-TOP   apple-only   eat-PAST-DECL
        'John ate only apples'

contrasted VP as well, as in (21b). Similarly, contrastive marker *wa* in Japanese has been observed to appear within a contrasted constituent, as in (22).

(20) Büring (2003)
   a. Where will the guests at Ivan and Theona's wedding be seated?
   b. [FRIENDS and RELATIVES of the couple] will sit at the table.
(21) a. Did John marinate the pork and stuff the chicken?
   b. ?John [MARINATED the pork], but did not [STUFF the chicken].
   c. *John [marinated THE PORK], but did not [stuff THE CHICKEN].
(22) Japanese (Kuno 1973)
   [AME-WA   hut-ta]   kedo [GAKKO-NI-WA   it-ta]
   rain-CONT fell-PAST   but school-to-CONT   go-PAST
   'Rain fell but I went to school.'

Büring (2003) accounts for the mismatch in (19b) by proposing that contrastive prosody is given to new information within a contrastive constituent. His proposal may account for the distribution of contrastive prosody in contrasted DPs, as in (20b), but fails to account for the distribution of contrastive prosody in contrasted VPs, as in (21). In (21b), contrastive prosody appears with V heads, which are already given in the previous discourse. This is unexpected if contrastive prosody must appear with new information within contrasted constituents.

Assuming that contrastiveness is assigned independent of structure in English and Japanese, as well, mismatches observed in (20b), (21b), and (22) may be accounted for by the projection rule in (8); contrastive marking on the head has projected up to the phrasal level in both (20b) and (21b), while contrastive marking on the internal argument projects in (22).[10] Unlike focus projection, contrastive marking on the head may project as subconstituents of contrasted constituents without contrastive marking are interpreted as given.

7   Some Remaining Questions

In this paper, I have argued that the apparent displacement of *un/nun*, as in (1c), can be accounted for if morphological markers are subject to a projection operation similar to Selkirk's projection rule in (8). I have also proposed that Korean contrastive marker *un/nun* may project as contrastiveness expressed by *un/nun* is a function independent of structure.

I attempted to extend my proposal to other languages that show mismatches between contrastive morphology and a contrastive constituent, such as English and Japanese, and proposed that mismatches observed in English and

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[10] Here again, like Korean contrastive projection, I assume that contrastive marked subconstituents need not be interpreted as discourse new.

Japanese may also be accounted for by projection mechanism.

However, some questions remain. Kiss (1998) shows fairly clearly that projection mechanism, as in (8), is not available to functions that are dependent on structure. However, it is still unclear why projection is possible in the first place.

At least in Korean, it could be argued that the projection mechanism may be necessitated by the need to mark contrastiveness of constituents that contrastive marker *un/nun* cannot attach to directly. Contrastive marker *un/nun* cannot attach to the verbal (and adjectival) elements directly, presumably for morphological reasons. However, projection of contrastiveness is not the only available option. To express contrastiveness on the VP, contrastive marking may attach to a subconstituent of the VP and 'projects up', as in (1c), or the contrastive marking may attach to a VP that is nominalized by a nominalizer *ki*, as in (1b). There seems to be no significant difference between the two contrastive marked VPs as shown by the fact that they can appear in conjunction, as in (3c). In sum, it remains a mystery as to why projection mechanism is available in the first place. It may as well be a free operation available to any semantic markers that express functions independent of structure.

References

Bosch, P. & R. van der Sandt. 1994. *Focus and Natural Language Processing*. IBM Deutschland GmbH.

Büring, D. 1997. *The meaning of topic and focus: the 59th Street Bridge accent*. London: Routledge.

Büring, D. 2003. On D-trees, beans, and B-accents, *Linguistics and Philosophy* 26: 511–545.

Büring, D. 2006. Focus projection and default prominence. *Studies in Generative Grammar 82, The Architecture of Focus*, eds. V. Molnár & S. Winkler, 365–391. Berlin/New York: Mouton de Gruyter.

Choe, H. 1995. Focus and topic movement in Korean and licensing. *Discourse configurational languages*, ed. K. É. Kiss, 269–334. Oxford: Oxford University Press.

Choi, S. 2000. *Topicality, genericity, and logophoricity: The postpositional markers 'nun' in Korean and 'wa' in Japanese from an argument perspective,* Doctoral dissertation, Yale University.

Choi, Y. 1987. *{ka} wa {nun} uy uymi pikyo* (semantic comparison between {ka} and {nun}). M.A. thesis, Seoul National University. (in Korean)

Chung, H. 2017. Exhaustivity, Genericity and vP-external Subjects. *Studies in Generative Grammar* 27: 591–610.

Han, C. 1998. Asymmetry in the Interpretation of-*(n)un* in Korean, *Japanese/Korean Linguistics* 7: 1–15.

Jun, Y. 2005. Contrastive focus in Korean. *Eoneohak* 43: 215–237. (in Korean)

Jun, Y. 2006. Korean marker "nun" for contrastive topic and contrastive focus. *Hangeul* 274: 171–200. (in Korean)

Kim, I. 2013. *Korean '-(n)un', salience, and information structure*. Doctoral dissertation, Yale University.

Kim, J. 2011. Pragmatics behind the Usage of *-nun*, *Eoneohak* 19: 21–42.

Kim, J. 2005. What *-nun* marks in Korean and its implication for English. *Korean Journal of English and Language and Linguistics* 5: 195–211. (in Korean)

Kiss, K. É. 1998. Identificational focus versus information focus. *Language* 74*:* 245–273.

Kuno, S. 1973. *The structure of the Japanese language* 3. Cambridge, MA: MIT press.

Lee, C. 1999. Contrastive topic: a locus of the interface–evidence from Korean and English, *The semantics/pragmatics interface from different points of view*, ed. K. Turner, 317–342. Elsevier Science Ltd.

Lee, C. 2003. Contrastive topic and/or contrastive focus. *Japanese/Korean Linguistics* 12: 352–364.

Lee, C. 2007. Contrastive (predicate) topic, intonation, and scalar meanings. *Topic and focus: cross-linguistic perspectives on meaning and intonation*, eds. C.Lee, M. Gordon & D. Büring, 151–175. Springer.

Miyagawa, S. 1987. *Wa* and the WH phrase. *Perspectives on Topicalization: The case of Japanese Wa*, eds. J. Hinds, S. Iwasaki, & S. K. Maynard, 185–217. Amsterdam/Philadelphia: John Benjamins Publishing Company.

Selkirk, E. 1984. *Phonology and syntax: The relationship between sound and structure.* Cambridge, Mass:MIT Press.

Selkirk, E. 1995. Sentence prosody: Intonation, stress, and phrasing, *The handbook of phonological theory*, ed. J. A. Goldsmith, 550–569. Cambridge, MA:Blackwell.