Wh-Topics and Unpronounced Cases on Wh-phrases*

Hee-Don Ahn and Sungeun Cho
(Konkuk University and Sogang University)

A novel contrast is observed in this paper: namely, object \textit{wh}-phrases without case markers can have either D(iscourse)-linked or non-D-linked interpretation, while subject \textit{wh}-phrases without them have only D-linked interpretation. We propose that \textit{wh}-phrases without case markers in derived positions are left-dislocated (LDed) nominals with null resumptive pro located in argument positions and that only D-linked reading is induced like \textit{wh}-resumption or \textit{wh}-clitic doubling constructions observed in other languages. We further show that LDed \textit{wh}-phrases parallel \textit{nun}-marked \textit{wh}-topics in Korean. We propose that D-linking is the essential feature that correlates with topicality, which captures the commonality of the two as topics. We also indicate that the semantic difference between LDed nominals and \textit{nun}-marked nominals results from the contrastive nature of \textit{-nun}, and lend support to the claim that \textit{nun}-marked phrases should be uniformly treated as (contrastive) topics.

\textbf{Keywords}: unpronounced case markers, D-linked interpretation, left-dislocation (LD), \textit{wh}-topics, \textit{wh}-resumption, (contrastive) topics

1. Introduction

It is well-known that case in Korean is morphologically realized by case markers, which attach to nominals as suffixes. Recent analyses have pursued the view that unlike case markers on non-moved nominals, case markers on moved-nominals must be pronounced (Ahn & Cho 2005b, Kim 1998a,b). In this paper we consider the data from \textit{wh}-phrases that provide further evidence for the asymmetries which lie between moved and non-moved nominals. Case markers on \textit{wh}-phrases can be unpronounced as shown in (1a) and (2a).

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(1) a. **Nwukwu** Yenghi-lul manna-ss-ni?
    who Yenghi-Acc meet-Past-Q
    ‘Who met Yenghi?’

   b. **Nwu(kwu)-ka** Yenghi-lul manna-ss-ni?\(^1\)
      who-Nom Yenghi-Acc meet-Past-Q
      ‘Who met Yenghi?’

(2) a. Yenghi-ka **nwukwu** manna-ss-ni?
    Yenghi-Nom who meet-Past-Q
    ‘Who did Yenghi meet?’

   b. Yenghi-ka **nwukwu-lul** manna-ss-ni?
      Yenghi-Nom who-Acc meet-Past-Q
      ‘Who did Yenghi meet?’

The subject *wh*-phrase *nwukwu* ‘who’ in (1a) has only D(iscourse)-linked interpretation in the sense of Pesetsky (1987), whereas the object *wh*-phrase in (2a) can be interpreted either as D-linked or non-D-linked.

The well-formedness of (1a) that we judge runs counter to most previous approaches such as Hong (1994, 2004), Kim (1998a,b), Choi (2005), which consider (1a) ill-formed (Ko (2002) is a notable exception, however). (1a) becomes more acceptable if the *wh*-phrase is modified by D-link-inducing elements, as in (3).

(3) I **cwung-eyse** nwukwu Yenghi-lul manna-ss-ni?
    this group-among who Yenghi-Acc met-Past-Q
    ‘Which person of this group met Yenghi?’

As a result of domain specification like *i cwung-eyse*, (3) seems to be more natural than (1a). In both (1a) and (3), *wh*-phrases always have D-linked interpretations.

The phenomenon mentioned above raises the question as to why subject *wh*-phrases with unpronounced case markers have semantic restriction unlike object *wh*-phrases. According to Ahn (1999), nominals with unpronounced case markers in subject positions correlate with Left Dislocation (LD). Under this analysis, a left-dislocated (LDeD) nominal occupies a sentence-initial position, binding a resumptive pronoun located in an original argument position. Then, another question arises: how are *wh*-phrases with unpronounced case markers related to LD constructions in Korean, as put forward in Ahn & Cho (2005b)?

Further note that LDeD and *nun*-marked *wh*-phrases show parallel behavior.

(4) **Nwukwu-nun** Yenghi-lul manna-ss-ni?
    Who-Top Yenghi-Acc meet-Past-Q
    ‘Who met Yenghi?’

\(^1\) **Nwukwu** reduces to *nwu* when it is marked with nominative case.
The *wh*-phrase with topic marker -nun in (4) also exhibits only D-linked interpretation. In fact, parallel behavior of LDed and nun-marked nominals is a more general phenomenon as observed in the following data.

    I-Nom yesterday Mary-(Nom) like-Rel woman-Acc meet-Past-Dec  
    'Yesterday I met the woman who Mary likes.'

    I-Top home-at Mary-Nom John-Acc hit-Past-NM because got angry-Past-Dec  
    'I got angry because Mary hit John at home.'

    I-Nom yesterday Mary-Nom/Top like-Rel woman-Acc met-Past-Dec  
    'Yesterday I met the woman who Mary likes.'

    I-Top home-at Mary-Nom/Top John-Acc hit-Past-NM because got angry-Past-Dec  
    'I got angry because Mary hit John at home.'

As shown in (5) and (6), which are also indicated in Hong (2004, 2005), both LDed and nun-marked nominals are barred in embedded contexts. One of our main claims is that the parallel behaviors of nun-marked nominals and LDed nominals can be explained if they share the interpretive property of "topics."

Then, the natural question that comes up about the claim is what it means to be a *wh*-topic that looks at first glance semantically incongruent.² We will defend this claim and spell out what we mean by *wh*-topics and the notion of "topicality" throughout this paper.

The aim of this paper is to explore the correlation between non-pronunciation of case markers on *wh*-phrases and their interpretation and possibility of *wh*-topics. This paper is organized as follows: Section 2 reviews core assumptions related to non-pronunciation of case markers in Korean. Specifically, it summarizes essential claims made in Ahn & Cho's (2005b) EPP analysis of unpronounced case markers. Section 3, the main part of this paper, discusses the nature of LD and the implications for *wh*-topicality analysis of bare *wh*-phrases and nun-marked *wh*-phrases in Korean. Section 4 concludes this paper.

2. EPP-based Analysis of Unpronounced Case Markers

The proposal advanced in this paper is based on several theoretical assumptions. We assume Ahn & Cho's (2005b) proposal which is crucial in exploring the correlation between

² We are grateful to Yeun-Jin Jung for raising this fundamental question to us, and to Chang-Yong Sim for bringing some related works (arguing for *wh*-topics) to our attention.
non-pronunciation of case markers on wh-phrases and the interpretative effects. The first assumption is the Determiner Phrase (DP) hypothesis originating with Abney (1987). Ahn & Cho (2005b) assume that argument nominals are in fact "DPs" (Abney 1987) and case markers belong to the category of D (Ahn 1988). Under this analysis, the argument nominals with unpronounced case markers are regarded as DPs whose heads are phonologically null Ds, as shown in (7).

(7)   
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   NP  
   |   D
   |   Chelswu ka/lul/ Ø
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The second assumption is based on Landau’s (2005) proposal that EPP is understood as a phonological selection requirement. Landau (2005) claims that the distribution of null heads is constrained by the EPP which is a selectional requirement imposed at PF. More specifically, the EPP is regarded as p-selection (in contrast to c- or s-selection). The selecting feature [P] on a head H of the attractor must be satisfied in a local configuration with a phonologically visible element, "local" meaning a sister of a [P]-bearing node. In this respect, the coverage of EPP is applied to the head of all the elements in derived positions. Landau’s (2005) main idea is that the head of the EPP-satisfier must be phonetically realized, as schematized in (8).

(8) a. In \([HP ZP[H'P]]\), Z must be pronounced.
   b. Alternatively: \(*[HP [ZP [Z∅ ]] [H' H[P]]]\)

According to (8a), if ZP moves to Spec of H in order to satisfy the EPP property on H, the head of ZP, Z must be phonetically realized. Otherwise, the sentence containing ZP is ruled out, as shown in (8b). In this case, some phonetic materials in a non-head position within the merged phrase cannot save the sentence.

Now, let us look at how Ahn & Cho (2005b) capture possibility of unpronounced case marker in the object position.

(9) Mary-ka Sue manna-ss-e.
   Mary-Nom Sue meet-Past-Dec
   ‘Mary met Sue.’

In (9), a phonetically null D occurs in the object position. (10) has the following structure at some point in the derivation:
As shown in (10), the object DP remains in its base-generated position without movement and the lexical category V doesn’t have an EPP feature. The object DP is not subject to the EPP and the head D can be phonologically null. By contrast, the subject DP moves to Spec-T in order to satisfy the EPP property on T. In this case, the head on DP is subject to the EPP and must be phonologically realized.

The EPP-based analysis also explains why non-pronunciation of case markers cannot occur in the subject position as in (11).

(11) John-ul  Mary-?*(ka) po-ass-e.
    John-Acc Mary-(Nom) see-Past-Dec
    'John, Mary saw.'

The sentence in (11) has the following structure at some point in the derivation.3

3 FP here is assumed to be ForceP. Force may express the illocutionary force (Rizzi 1997), modality (Whitman 1989) or the clausal type (Ahn & Yoon 1989). Grohmann (2000a) claims that clausal structure consists of three domains.

(i) The concept of prolific domains
   a. \(\Theta\)-domain: the part of the derivation where theta relations are created.
   b. \(\phi\)-domain: the part of the derivation where agreement properties are licensed
   c. \(\pi\)-domain: the part of the derivation where discourse information is established.

\(\Theta\)-domain, \(\phi\)-domain and \(\pi\)-domain are considered to be proliferation of \(vP\), TP and CP, respectively. Svenonius (2002:3) also notes that we can deconstruct the traditional subject into three components, one thematic-aspectual (the thematically most prominent argument of a predicate), one morphosyntactic (classically identified by case and/or agreement), and one discourse-informational (the topical or thematic entity named in a proposition). Based on these ideas, we assume that subjects in topic-prominent languages should move to the sites in which discourse
In (12), both the subject and the object undergo movement. The moved elements are subject to the EPP. Both Ds must have phonetic realization. Otherwise, the sentence will be degraded.\(^4\)

Ahn & Cho (2005b) claims that the alternative derivation like (13) cannot be possible.

\(^4\) As pointed out by Daeho Chung (p.c.), it will be an issue whether the p-selection on T is satisfied in the case of null subjects. Landau (2005) claims that the p-selection can be satisfied through verb movement to T in null subject languages. However, it is not clear that the same explanation can extend to Korean since unlike other null subject languages, Korean has relatively poor verbal morphology. Alternatively, we may assume that a null pronoun subject, which does not have structural case requirement, can occur with T which doesn’t have EPP and Nom. In this case, the EPP issue will not arise. We, however, will cast doubt on the overall picture of Landau’s EPP analysis of pro or null pronouns, and consider alternative accounts for the nature of unpronounced Cases and pro in Korean in our forthcoming work.
In (13), the object DP undergoes movement, while the subject DP remains in its base-generated position. If this kind of derivation were possible, non-pronunciation of case makers on the nominal Mary would be possible. However, following Landau (2005), Ahn & Cho (2005b) assume that the EPP feature on T is parasitic on the presence of some anchoring features like Case or Agreement. As long as T has an EPP feature, the subject DP must enter into local relation with T since the object cannot participate in Agree/Case Valuation with T. More discussion will be made in Section 3.

3. Left-Dislocation (LD) and Wh-topicality

3.1. Bare Subjects as LDed NPs

Following Kim (1998b) in part, Ahn (1999) treats a nominal with an unpronounced case marker in subject position as a LDed nominal. Ahn proposes that the structure of (14a) is equivalent to (14b) parallel to (14c).

(14) a. Mary ku chayk ilk-ess-ni?
   Mary the book read-Past-Q
   'Did Mary read that book?'

b. Mary pro ku chayk ilk-ess-ni?
   Mary the book read-Past-Q
   'Lit. As for Mary, did she read the book?'

c. Mary kunye-ka ku chayk ilk-ess-ni?
   Mary she-Nom the book read-Past-Q
   'Lit. As for Mary, did she read the book?'

The subtle difference between (14b) and (14c) results from the fact that the resumptive pronoun is unpronounced (or pro) in the former, and pronounced in the latter.

A question that naturally arises at this point is what the LD structure in Korean is like. According to Grohmann (2000b) and Grohmann (2003), LD structure across languages can be split at least into two types. For example, German has two types of LD, referred to as Contrastive Left Dislocation (CLD) and Hanging Topic Left Dislocation (HTLD). He

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5 If \( v \) has an EPP [P] feature like T, this representation is also ruled out.
6 Unpronounced nominative case makers in complements are acceptable, as also indicated by an anonymous reviewer.

(i) Sue-ka Mary-(ka) silh-ess-e.
   Sue-Nom Mary-(Nom) dislike-Past-Dec
   'Sue disliked Mary.'

The EPP requirement of T is fulfilled by Sue-ka in (i), hence, the non-pronunciation of nominative case marker on Mary in (i) is allowed since it need not undergo movement solely for the EPP satisfaction.
notes that CLD and HTLD parallel Topicalization and LD in English, respectively. LD in Korean seems to pattern with German HTLD and English LD in non-trivial respects.

First, like HTLD in German and LD in English (given in translation of German example), there is an intonational break (‘#’) after the LDed nominal.

(15) I Kwangswu, # sosel-i te yumyenghata.  
Lee Kwangswu novel-Nom more famous  
‘As for Lee Kwangswu, novels are more famous.’

(16) Dieser Satz, # ich mag ihn besonders.  
this.Nom sentence I like him especially  
‘This sentence, # I like it especially.’ (Grohmann 2000b:140)

Second, just like HTLD in German and LD in English (given in translation of German example), LD in Korean is not allowed in the embedded context, as shown in (17-18).

(17)*Ich glaube dieser Satz, wir haben ihn nun alle satt. (Grohmann 2000b:145)  
I believe this sentence we have him now all enough  
‘I believe this sentence, we’ve all had enough of it by now.’

I-Nom yesterday Mary-(Nom) like-Rel woman-Acc meet-Past-Dec  
‘Yesterday I met the woman who Mary likes.’

I-Top home-at Mary-(Nom) John-Acc hit because got angry-Past-Dec  
‘I got angry because Mary hit John at home.’

Third, reconstruction effects do not hold in German HTLD and English LD, namely, the absence of variable-binding in (19a) (Grohmann 2000c:26), and no Binding principle C violation in (19b) (Grohmann 2000b:142).

(19) a.*[Sein(en)]1 Vater]2, jeder1 mag ihn2.  
his-Nom(Acc) father everyone likes him  
‘[His1 father]2, everyone1 likes him2.’

b. [Die Tatsache, daβ Alex arm ist]2, er1 miβt ihm2 keine Bedeutung bei.  
the-Nom fact that Alex poor is he measures it no meaning Prt  
‘The fact that Alex is poor, he doesn’t attach importance to it.’

As predicted, LD in Korean patterns alike: no reconstruction effects arise.7

7 There is some speakers’ variation concerning the contrast in (20). Perhaps the use of caki as a logophor obscures sharp judgment in (20a).
(20) a. *[Caki-uy1 apeci]₂ nwukwuna₁ ku-lul₂ cohaha-n-ta.
   self-Gen father anyone-Nom he-Acc like-Pres-Dec
   ‘His father, everyone likes him.’
   Alex-Nom is-poor-Dec-Rel fact he-self-Top it-Acc not-know-Past-Dec
   ‘The fact that Alex is poor, he himself didn’t know it.’

In sum, Korean LD exhibits highly revealing parallel behaviors with German HTLD and English LD.

Note further that LD in Korean is similar to HTLD in German with respect to linking possibility, as observed in (Frey 2005:105).

(21) a. Die Kinder hatten ihren ersten Ferientag.
   the children had their first day of vacation
b. Den Otto, ihn hatte Maria abgeholt.
   the-Acc him had Maria picked up.
   ‘Otto, Maria picked him up.’

(21a) provides the context for (21b) to be evaluated. Here HTLD in German does not impose a linking requirement on the referent of the left peripheral constituent. In the given context, the referent of *Otto* doesn’t have to belong to the set of the children. Similarly, LD in Korean does not impose a linking requirement on the left peripheral constituent, as shown in (22).

   the children-Nom vacation first day-Acc have-Past-Dec
   ‘The children had the first day of vacation.’
b. Chelswu, kay chwukkwu haki wenha-yss-e
   Chelswu, he soccer do want-Past-Dec
   ‘Chelswu, he wanted to play soccer.’

In the given context (22a), the LD structure (22b) is not necessarily interpreted such that *Chelswu* refers to a member of the set of children introduced by *ku aytul-i*. That is, LD in Korean is parallel to HTLD in German in this respect, too.

So far, we have shown that Korean LD exhibits parallel behaviors with German Hanging Topic Left Dislocation (HTLD) in many respects such as the presence of intonational break, the restriction in embedded contexts, the absence of variable-binding and no Binding principle C violation.

In what follows, although we will leave out the exact nature of CLD/scrambling operation, we further show that some (if not all) varieties of scrambling in Korean exhibit
parallel behaviors with German Contrastive Left Dislocation (CLD) and English Topicalization in several respects.

First, like CLD in German (Grohmann 2000b:140), scrambling in Korean can be connected to the matrix structure without intonational break.

    This.Acc sentence RP.Acc like I especially
    'This sentence, [it] I like especially.'
    John-Acc Mary-Nom really like-Pres-Dec
    'John, Mary really likes.'

Second, parallel to CLD in German and topicalization in English (Grohmann 2000b:145), scrambling in Korean is allowed in the embedded context, as shown in (24).

(24) a. Ich glaube, disen Satz, den haben wir nun alle satt.
    I believe this sentence RP have we now all satt
    'I believe that this sentence, we’ve all had enough of by now.'
    I-Top yesterday Chelswu-Acc Yenghi-Nom like-Rel fact-Acc hear-Past-Dec
    'I heard yesterday that Chelswu, Yenghi liked.'

Third, reconstruction effects hold in German CLD and English topicalization; namely, the presence of variable-binding in (25a) (Grohmann 2000c:26), and Binding principle C violation in (25b) (Grohmann 2000b:142).

(25) a. [Seinen Vater], den glaubt jeder kann er nachamen.
    his fatherAcc RPAcc believes everyone can he emulate
    'His father, everyone believes he can emulate.'
  b.*Der Tatache, daβ Alex arm its, der mißt er keine Bedeutung bei.
    the fact that Alex poor is RP measures he no meaning PRT
    'The fact that Alex is poor, he doesn’t attach importance to.'

Scrambling in Korean also exhibits parallel reconstruction effects.

(26) a. [Caki-uy₁ apeci-lul₁]₂ nwukwuna₁ cohaha-n-ta.
    Self-Gen father-Acc anyone-Nom like-Pres-Dec
    '[His₁ father]₂, everyone₁ likes.'
  b.*Alex-lul₁ ku-ka₁ piphanha-yss-ta
    Alex-Acc he-Nom criticize-Past-Dec
    'Alex₁, he₁ criticized.'
In sum, Korean scrambling patterns with German CLD and English topicalization in numerous respects.

The parallelism between Korean LD and German HTLD gives us additional explanation to ill-formedness of (11a), repeated here as (27) where scrambled object is followed by LDed subject.

(27) John-ul Mary-*(ka) po-ass-e.
   John-Acc Mary-(Nom) see-Past-Dec
   ‘John, Mary saw.’

Given the fact that scrambling in Korean parallels CLD in German, the LD-ed nominal Mary must precede the scrambled nominal John-ul in (27) on a par with the HTLDed element that must precede the CLDed one in German, as noted in Grohmann (2000c). Hence, the possibility of LDed subject is excluded, and the case marker on Mary must be pronounced in (27). The relative word order between two types of sentential initial elements (HTLD-type vs. CLD-type) is observed cross-linguistically: (28), (29), and (30) are data in German, English and Italian, respectively.

(28) a. [Der Frosch]i [einen kuβ]k, denk hat die Prinzessin ihr/ihr gegeben
   The frogNom a kissAcc RPAcc has the princess him/RPDat give
   ‘The frog, a kiss (*it) the princess gave him (*it).
   b.*[Dem Frosch]i [einen kuβ]k, denk hat die Prinzessin ihn/ihr gegeben
   The frogDat a kissNom RPDat has the princess it/RPDat give
   ‘The frog, a kiss (*it) the princess gave him (*it).’ (Grohmann 2000c:22)

(29) a. Johnk, Maryi hek likes t.
   (LD+Topicalization)
   b.*Maryi, Johnk, hek likes t.
   (Topicalization+LD)

(30) a.*A GIANNI, un libro di poesie, lo regalerete.
   To GIANNI a book of poems you will give it.
   b. Un libro di poesie, A GIANNI, lo regalerete.
   a book of poems To GIANNI you will give it

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8 Moon (1989) posits an abstract D(iscourse)-morpheme in the matrix Comp position to license discourse topic and its correlate in the sentence. She further notes that an element which functions as topic occupies the topmost projection. The Force Projection might be equivalent to Moon’s D-indexed Comp. However, following Rizzi (1997), we assume that topic isn’t located in the topmost functional projection in C-domain, and it can be iterated contra Moon’s one-topic-per-sentence restriction (Moon (1991) also points out that the function of sentential topic is similar to a certain type of Left-Dislocation). Although finer-grained structure on varieties of dislocated constructions will be explored in our future research, our tentative idea (a preliminary version) is as follows.

(i) LDed element > nun-marked topic > scrambled element

According to (i), the LDed element is located within the topmost functional projection in C-domain. We simply indicate here that when topic elements such as LDed XP and nun-marked YP co-occur in the same clause, the LDed must precede the nun-marked. We abstract away from the further details in this paper.
'You will give a book of poems to Gianni.' (Benica and Poletto 2004:54)

Boeckx (2003) and Boeckx & Grohmann (2004, 2005) argue for a unified movement analysis of LD constructions in many languages including HTLD (and CLD) in German. According to Boeckx & Grohmann (2005), HTLD is the result of the movement of LDed antecedent away from its resumptive pronoun (RP) associate, as depicted in (31).

(31) NP;…[TP…[DP RP [<NP>]]…]

Boeckx & Grohmann (2004:11) dubs this kind of movement SubMOVE (movement of a constituent from a larger functional shell). More specifically, the underlying structure of an antecedent/resumptive pronoun is schematized in (32).

(32) D           NP
              pro dislocated nominal

They further claim that the movement of LDed nominal takes place under Match only, irrespective of Agree.9 Since the phi-feature bearing element D is stranded, as shown in (32), the moving element becomes incapable of triggering agreement (Boeckx 2001, 2003).10

We are not in a position to defend a particular analysis of LD structures here. However, we have argued in Ahn & Cho (2005a) that all movements, including Scrambling, to C-domain in Korean do not accompany Agree such as Case or Phi-feature valuation (cf. Suh (2002) for Korean scrambling, and Kitahara (2002) for Japanese scrambling). We termed this type of movement as pure EPP-driven movement that seems in a sense equivalent to pure Match-driven movement advanced by Boeckx (2003). Here we depart from Boeckx &

9 Following Chomsky (2001), we assume that Match determines the kind of category the Probe seeks; Agree establishes the feature checking relation between Probe and Goal (valuing the Goal’s formal features); The EPP property triggers Move. Following Boeckx (2003), we further assume that Agree is not taken as a prerequisite for Move; in particular, Move can take place solely under Match in the absence of Agree. See Boeckx (2003, 2004) and Boeckx & Grohmann (2004, 2005) for extensive arguments in favor of allowing pure Match-driven Move.

10 Regarding CLD, Boeckx & Grohmann (2005) suggest that Agree is involved in such cases, as depicted in (i). (RP = Resumptive Pronoun)

(i) NPi…[<NP> −RP] [TP…<NP>…]

The RP in this construction is assumed to be a (minimal) spell-out of the lower copy of the moving NP. In contrast to German CLD, only some instances of Korean scrambling seem to exhibit this formal property. We will not explore the nature of formal differences between the two operations in this paper.
Grohmann (2005) in that Match-driven (without Agree) movement source cannot determine essential defining property of HTLD or LD in general since Scrambling in Korean also exhibits Match-driven property with respect to scope phenomena (see Ahn & Cho 2005a for details). In line with this reasoning, we assume that (14b), which is repeated here as (33) has the structures like (34). The following two structures are possible, depending on the presence of EPP on T.

(33) Mary pro ku chayk ilk-ess-ni?
Mary the book read-Past-Q
'Lit. As for Mary, did she read the book?'

An anonymous reviewer points out the difference between an LDed nominal and nun-marked nominal with respect to reconstruction, as shown in (i).

(i) a. [Caki-uy1 ceyca]2 motun sensayngnim-i1 t2 salangha-si-ess-ta
   self-Gen student every teacher-Nom love-Hon-Past-Dec
   'His student, every teacher loved.'

b. [Caki-uy1 ceyca]-nun2 motun sensayngnim-i1 t2 salangha-si-ess-ta
   self-Gen student-Top every teacher-Nom love-Hon-Past-Dec
   'His student, every teacher loved.'

We assume that the difference is related to nature of movement the nominals undergo. Since the LDed nominal undergoes SubMove, it doesn’t show reconstruction effects. By contrast, the nun-marked nominal can undergo full phrase movement. Hence, it shows reconstruction effects. We leave more discussion for future research.
In (34), movement operations satisfy the EPP requirement because the head on the moved element (N, here) is not null. Note, however, that (34b) is more plausible than (34a) since the EPP feature on T, which is accompanied by Agree/Case valuation, cannot be fulfilled by bare NP in (34a). Note further that the LD-ed nominal undergoes movement to the specifier position of topmost functional categories in C-domain. We further assume that the
scrambled nominal undergoes movement to the specifier position below the position LDed nominal occupies. Another crucial assumption is that scrambling is not SubMove but Move (full phrase movement). In this case, no resumption (i.e. stranding D-pro) is involved. This is supported by the fact that scrambling doesn’t necessarily induce D-linked interpretation. Although more elaborate analysis is needed with respect to differences between LD and scrambling, in this paper we would like to simply indicate that LD in Korean parallels HTLD in German (and LD in English) in crucial respects, and the nature of parallelism \textit{per se} is left unexplained here.\footnote{12}

3.2. Left-dislocated nominals and nun-marked topics

Rizzi (2004:18) observes that in Italian, preverbal subjects are possible in "out of the blue" contexts (e.g., as answers to "what happened?" type questions), while \textit{bona fide} topics, expressed by Clitic Left Dislocation (CLLD), are not felicitous in such contexts, as illustrated in (35A) and (35A'), respectively.

\begin{verbatim}
(35) Q. Che cosa e successo?
   'What happened?'
   A. Un camion ha tamponato l'autobus per Toma.
   'A truck has bumped-into the bus for Rome.'
   A'. L'autobus per Toma e stato tamponato da un camion.
   'The bus for Rome, a truck has bumped-into it.'
\end{verbatim}

LDed and nun-marked topic nominals in Korean pattern closely with CLLD in Italian in this respect.

\begin{verbatim}
(36) Q. Mwusun il-i ilena-ss-ni?
    what event-Nom happen-Past-Q
    'What happened?'
    A. Thulek-*(i) loma-hayng pesu-lul pat-ass-e.
       Truck-(Nom) Rome-for bus-Acc bump-into-Past-Dec
       'A truck has bumped-into the bus for Rome.'
\end{verbatim}

\footnote{12 Upon completion of this paper, we have realized that nun-Topic constructions in Korean pattern more alike CLD in German: amongst others, (i) they both usually give rise to "contrastive" usage, (ii) some of them, but not all, exhibit connectivity effects, (iii) the dislocated phrases in general cannot be stacked (i.e., they are restricted to a unique occurrence per clause), (iv) they cannot be freely embedded. Scrambling in Korean, on the other hand, is more akin to CLLD in Greek or Italian, contrary to the text analysis. We have also observed that some LDed XPs in Korean can be stacked like HTLD in German, contrary to the text observation. Thus, instead of bipartite parallels in text analysis, we are led to the tripartite parallels, following Grohmann (2003) essentially: Korean LD = German HTLD, Korean nun-Topicalization = German CLD, Korean Scrambling = Greek CLLD. We will lay out the fuller picture in our forthcoming work. We will also elaborate on SubMove analysis and the articulated structure of DP in Korean to account for formal property of LD in forthcoming work.}
Thus, it seems that LD is semantically and pragmatically equivalent to nun-marked topicalization. Observe further supporting evidence to show the parallel behavior of LD and topicalization in Korean. Kim (1999) observes the following contrast. Case markers on the referential and weak DPs may be covert.

(37) a. Sey salam-(i) wa-ss-ni?
   three people-(Nom) come-Past-Q
   ‘Did three people come?’

b. John-(i) wa-ss-ni?
   John-(Nom) come-Past-Q
   ‘Did John come?’

c. Nwukwu(-ka) wa-ss-ni?
   someone-(Nom) come-Past-Q
   ‘Did someone come?’

d. Ku salam-(i) wa-ss-ni?
   the man-(Nom) come-Past-Q
   ‘Did the man come?’

Strongly quantified non-referential DPs, on the other hand, must pronounce their case markers (marginal acceptability indicated as ?? is based on Kim’s (1999) judgment).

(38) a. Motun salam-??(i) wa-ss-ni?
   all people-(Nom) come-Past-Q
   ‘Did all the people come?’

b. Taypwupunuy salam-??(i) wa-ss-ni?
   most people-(Nom) come-Past-Q
   ‘Did most people come?’

c. Sey myeng-??(i) wa-ss-ni?
   three Cl-(Nom) come-Past-Q
   ‘Did three people come?’

Note that topicalization of quantified non-referential DPs also gives rise to marginal acceptability.

(39) a. Motun salam-??(un) wa-ss-ni?
   all people-??(Top) come-Past-Q
Wh-Topics and Unpronounced Cases on Wh-phrases

'Did all the people come?
b. Taypwupwun-??(un) wa-ss-ni?
most-??(Top) come-Past-Q
'Did most people come?'
c. Sey myeng-uy haksayng-??(un) wa-ss-ni?
three Cl-Gen student-??(Top) come-Past-Q
'Did three students come?'

We suggest that the source of deviancy in (38) and (39) is the same: namely, the dislocated phrases NP-nun and bare NPs, are all instances of topics. Since topics inherently resist quantificational or non-referential interpretations, (38) and (39) are predictably ruled out. 13

Note further restrictions on LDed phrases, as observed in Lee & Cho (2003).

(40) *[Sakwa sey kay] nay-ka mek-ess-ta.
    apple 3 Cl I-Nom eat-Past-Dec  (Kim 1993:76)
    'Three apples, I ate.'

(41) Q:[Sakwa sey kay] mek-ess-ni?
    apple 3 Cl eat-Past-Q
    'Those three apples, who ate them?'
A:[Sakwa sey kay] nay-ka mek-ess-ta. way?
    apple 3 Cl I-Nom eat-Past-Dec why
    'Those three apples, I ate them. Why?'  (Lee & Cho 2003, fn. 3)

Although (40) is considered to be infelicitous if the sentence is uttered in "out of the blue" contexts, (41A) in the question-answer pair becomes much more acceptable. The reason is that in the latter, the entity which sakwa sey kay refers to is linked to the previous utterance. Hence, it renders the LDed phrase more specific and topic-like. Then, (41A) can be an instance of LD, as represented in (42) parallel to topic construction in (43).

(42) [Sakwa sey kay] nwu-ka pro mek-ess-ni?
    apple 3 Cl who-Nom pro eat-Past-Q
    'Those three apples, who ate them?'

13 Han (1998) judges the following examples well-formed with intended interpretation.

    John-Nom all apple-NUN eat-Past-Dec
    'John ate every apple, but not other apples.'  Han (1998:4)
(ii) Motun sakwa-nun masi-ss-ta
    all apple-NUN taste-good-Past-Dec
    'All apples taste good.'  Han (1998:8)

We, however, judge these sentences at best marginal. Thus, the above fact dictates topic nature of LDed nominal.
(43) [Sakwa sey kay]-nun nwu-ka pro mek-ess-ni?
   apple 3 Cl Top who-Nom pro eat-Past-Q
   'Those three apples, who ate them?'

Hence, (41A) with case on LDED QP unpronounced is predicted to be well-formed and interpreted as topically.

3.3. Bare *wh*-subjects and D-linking

Now, let us turn to the sharp contrast related to non-pronunciation of case makers on *wh*-phrases as shown in (1) and (2) repeated here.

(1) a. Nwukwu Yenghi-lul manna-ss-ni?
   Who Yenghi-Acc meet-Past-Q
   'Who met Yenghi?'

b. Nwu-ka Yenghi-lul manna-ss-ni?
   Who-Nom Yenghi-Acc meet-Past-Q
   'Who met Yenghi?'

(2) a. Yenghi-ka nwukwu manna-ss-ni?
   Yenghi-Nom who meet-Past-Q
   'Who did Yenghi meet?'

b. Yenghi-ka nwukwu-lul manna-ss-ni?
   Yenghi-Nom who-Acc meet-Past-Q
   'Who did Yenghi meet?'

As noted earlier, the bare subject *wh*-phrase *nwukwu* in (1a) contrasts with the bare object *wh*-phrase in (2a) in that D-linked interpretation is imposed only on the former bare *wh*-subject.

Note that there is a strong correlation between D-linked *wh*-phrases and resumption or clitic doubling, as shown in the following Rumanian (Dobrovie-Sorin 1990) and Albanian (Kallulli 2005b) examples.

(44) a.*Pe care (baiat) ai vazut?
   PE which boy have seen
   'Which one (/which boy) did you see?'

b. Pe care (baiat) l-ai vazut?
   PE which boy CL-have seen
   'Which one (/which boy) did you see?'

(45) a. Çfarë (*e) solli Ana?
    what (itCL Acc) brought Ana
    'What did Anna bring?'
b. Cil-in librarian (e) solli Anna?
   which-theAcc book (itCLAcc) brought Ana
   'Which book did Ana bring?'

(44) shows that Rumanian D-linked wh-phrases must be doubled by a clitic; (45) indicates that clitic doubling under wh-movement is restricted to D-linked wh-phrases in Albanian.

Given that subject with an unpronounced case marker is an LD nominal, nwukwu in (1a) is an LD nominal that is located in a sentence-initial position while a resumptive pronoun is located in an original subject position, as shown in (46).

(46) [Nwukwu] [pro Yenghi-lul manna-ss-ni]

We assume that bare wh-phrases in Korean cannot variable-bind overt resumptive pronouns (Montalbetti 1984, Hong 1985), hence only pro can appear as resumption (Boeckx 2004). Consequently, the chain <nwukwu, pro> in (46) induces only D-linked reading on a par with wh-resumption or wh-clitic doubling in many other languages (see extensive discussion in Boeckx 2003, Boeckx & Grohmann 2004, Grohmann 2005, Hirose 2003, Jaeger 2004).

Assuming that accusative case markers can be freely unpronounced when the nominals stay in their base-generated positions, we claim that (2a) and (2b) have the same structure. Hence, they don’t have any crucial interpretive differences.

Furthermore, when an object wh-phrase with an unpronounced case marker undergoes scrambling, only D-linked reading is induced, as shown in (47).

(47) Nwukwu Yenghi-ka manna-ss-ni?
    who Yenghi-Nom meet-Pass-Q
    'Who is such that Yenghi meet (him)?'

Under our analysis, nominals which undergo movement are subject to the EPP. Hence, the heads on the moved nominals must be pronounced. However, since the object wh-phrase nwukwu in (47) does not have a pronounced case marker, our analysis predicts that the object wh-phrase nwukwu is a left-dislocated nominal. Our prediction is borne out since (47) which involves the chain <nwukwu, pro> has only D-linked reading.

Note that nwukwu-nun ‘who-Top’ can replace the scrambled wh-phrase in (47), and the sentence also induces D-linked reading only.

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14 Thus, the following sentence is not well-formed.

(i)*Nwukwu ku-ka Yenghi-lul manna-ss-ni?
   Who he-Nom Yenghi-Acc meet-Pass-Q
   'Who is such that he met Mary?'
The minimal and essential difference between nun-marked and LD nominal seems to be that only the former denotes "contrastive" interpretation unmarkedly (See Jung (2001) and Hong (2005) for further discussion).15

As is well-known, *wh-the-hell* constructions in English induces non-D-linked reading only (Pesetsky 1987).

(50)*Which the hell book does he want to read?

The phrase *totaychey* 'the hell' in Korean, in contrast, is freely compatible with D-linked *which*-phrases as in (51) (see similar patterns with Chinese *daodi* and Japanese *ittai*, as observed in Huang & Ochi 2004).

(51) Totaychey enu namca-ka Mary-lul manna-ss-ni?
    the hell which man-Nom Mary-Acc meet-Past-Q
    'Lit. Which the hell man met Mary?'

Thus, *the hell* compatibility is not a reliable test for D-linking in Korean besides unpronounced case on *wh*-phrases (See, however, some other interesting properties of *wh-the hell* in Chinese and Japanese that are compatible with that in English, as discussed in Huang & Ochi (2004)).

Note, however, that bare subject and object *wh*-phrases exhibit parallel behaviors with respect to indefinite interpretation (52) and neg-quantifier reading (53) (see Ko (2002, 2004) for alternative judgments).

    now outside someone-Nom you-Acc came-to-see-Past-Dec
    'Someone came to see you outside.'

15 Syntactically, however, the two constructions are treated differently in our forthcoming work.
b. I an-ey mwe-(ka) tuleiss-ta.
   here-in something-Nom is-Dec
   'Something is in here.'

   Swuni-Top someone-Acc meet-to out-Past-Dec
   'Swuni went out to meet someone.'

d. Minswu-nun cikum pang-eyse mwe-(lul) hako-iss-ta.
   Minswu-Top now room-in something-Acc doing-is-Dec
   'Minswu is doing something in the room.'

   who-Nom knows I-Nom first place do-Guess
   'Who knows (=Nobody knows) I may become first place?'

b. Nwu(kwu)-*(ka) kukes-ul an ha-kesse?
   who-Nom it-Acc not do-Future
   'Who won’t do it? (=Anybody will do it.)'

c. Nay-ka i sanghwang-eyse nwukwu-*(lul) mit-ulswuisskeyss-ni?
   I-Nom this situation-in who-Acc trust-can-Q
   'Who can I trust in this situation? (=I can’t trust anybody in this situation.)'

d. Nay-ka i sanghwang-eyse ney-key mwe-*(lul) cwul- ulswuisskess-ni?
   I-Nom this situation-in you-to who-Acc give-can-Q
   'What can I give to you in this situation?
   (=I can’t give anything to you in this situation.)'

(52) shows that cases on $wh$-phases can be unpronounced when they are interpreted as indefinite. In (53), by contrast, cases on $wh$-phrases must be pronounced when they are employed in rhetorical questions. These two diagnostics, thus, fail to have significant bearing on the distinction between $wh$-subject and $wh$-object concerning presence or absence of case markers. Further study is needed to uncover the nature of this contrast.

### 3.4. Topicality and $wh$-topics

As mentioned in Section 1, considering the distribution, LD and nun-marked elements are different sides of the same coin: namely, "topics" in some extended sense. Let us consider (4), repeated here as (54).

(54) Nwukwu-nun Yenghi-lul manna-ss-ni?
   Who-Top Yenghi-Acc meet-Past-Q
   'Who met Yenghi?' or 'Lit. Who is such that he met Yenghi?'

A question regarding the topic property of $wh$-phrases can arise: that is, $wh$-question is
commonly believed to be associated with focus rather than topicality. However, based on Jaeger & Oshima (2002) and Lambrecht (1994), Jaeger (2004) argues that topicality is defined independently of focus. According to them, a semantic object may be focused and topical at the same time. As pointed out by most linguistics, the notion of topic is one of hot controversial research issues. Nevertheless, the "aboutness" concept of topic given in (55) proposed by Reinhart (1981) is adopted by many linguists working on information structure.

(55) a. A topic is an expression whose referent the sentence is about. The concept "topic" is a category of pragmatic aboutness.
   b. An indefinite DP may be an aboutness topic. If so, it has a specific interpretation.

Note that the notion "specificity" may accommodate D-linking, hence D-linked wh-phrases can function as a topic of sentence, following the definition in (55b) (see also Kiss 1993, Grohmann 1998). Rizzi (2004) and Rizzi & Shlonsky (2005) put forward a definition of topics as [+aboutness +D-linking] in contrast to subjects as [+aboutness] plus [D-linking] feature unspecified. The relation "aboutness" can occur if some kind of predication is involved: "a process selecting an argument as the starting point of the event description, and expressing the event as somehow involving that argument" (Rizzi 2004:18). Following Rizzi’s idea of topicality, parallel behaviors of nun-marked nominals and LD nominals can be explained as they share the interpretive property of D-linking, in addition to aboutness. Jaeger (2004), however, points out that topicality is equivalent to "aboutness," the notion that is more broadly accepted as whatever a piece of discourse is ‘about’ and ‘given’ in the discourse, as given in (55). He further assumes that aboutness essentially implies D-linking. We will not attempt to make a particular choice among the definitions of aboutness or topicality here, but simply indicate that nun-marked nominals and LD nominals have crucial semantic/discourse properties in common, namely "D-linkedness."

Evidence for wh-topicality is observed with Bulgarian. According to Jaeger (2004), clitic doubling (CD) of fronted constituents marks topicality. CD is possible in questions. At this time, the notion of topicality is closely related to D-linking. CD of wh-question can be judged to be felicitous in the following context.

(56) a. Some of the most popular painters in town recently made portraits of a couple of my friends know that each of my friends wanted to be painted by a particular artist, but I don’t know whom. So the question is:
   b. Kogo koj go e narisuval?
      whom who DOC has painted.16

16 DOC stands for direct object clitic.
The question in (56b) is judged to be felicitous in the context such as (56a). Here, the set of friends has mentioned and is salient in the discourse.

Further evidence for wh-topicality is detected in German. Grohmann (2005:23-24) notes a crucial difference between multiple wh-questions in English and German. Consider the following context, and the acceptability contrast in English and German multiple wh-questions.

(57) A jeweler comes home to his wife for lunch and exclaims excited: "I had a great morning, honey! I sold a platinum watch, a gold necklace, and a titanium wedding and."
   a. Who bought what?
   b. *Wer hat was gekauft?
      who has what bought
      ‘Who bought what?’

As seen in (57), German does not allow for a felicitous binary wh-question if the set of individuals is not part of the common ground between speaker and hearer, i.e., D-linked. Based on this observation, Grohmann claims that all wh-phrases in a multiple wh-question in German are instances of topics, and must be D-linked.

Further questions arise with respect to our idea that LD and nun-marked elements are uniformly treated as topics. The first question is concerned about the function of -nun in Korean. Many researchers claim that a nun-marked nominal can result in a "contrastive focus" reading (Han (1998), Choi (1999, 2004), Jun (2005), Kim (2004) and others). Their analysis raises a non-trivial question related to the following contrast.

(58) Q. Minho-ka mwues-ul sa-ss-ni?
   Minho-Nom what-Acc buy-Past-Q
   ‘What did Minho bought?’
   A: CD-lul Minho-ka sa-ss-e.
      CD-Acc Minho-Nom buy-Past-Dec.
      ‘CD, Minho bought.’
   A’:?*CD-nun Minho-ka sa-ss-e.
      CD-Top Minho-Nom buy-Past-Dec.
      ‘As for CD, Minho bought.’

Given that a scrambled object also results in a contrastive focus reading (Choi 1999, 2004), the ill-formedness of (58A’) doesn’t seem to be accounted for under the analyses mentioned above. Actually, nun-marked nominals seem not to be appropriate answers to variable questions nor alternate questions.
(59) Q. Aytul-i mwuel ha-yss-ni?
   Children-Nom what do-Past-Q
   'What did the children do?'
A. *Kongpwu-nun ha-yss-e.
   Study-Top do-Past-Dec
   'They studied.'

(60) Q: Aki-ka ton-ul mence cipess-ni pheyn-ul mence cip-ess-ni?
   Baby-Nom money-Acc first picked-Q pen-Acc first pick-Past-Q
   'Did the baby pick the money first or the pen first?'
A: Ton-ul mence cip-ess-e.
   Money-Acc first pick-Past-Dec
   'He picked the money first.'
A': Ton-un mence cip-ess-e.
   Money-Top first pick-Past-Dec
   'He picked the money first.' (Lee 2003:6)

The deviance of (59A) and (60A') raises a non-trivial problem to the contrastive focus analysis of nun-marked nominal since there is no reason to exclude these answers as infelicitous if nun in this context can be interpreted as contrastive focus.

In this paper, we advance that nun invariably functions as a topic marker along the similar veins in Lee (2003). Given that the answer of a variable question and an alternate question should be the focus of a sentence, we can account for inappropriateness of nun-marked NPs in the context such as (59A) and (60A'). More specifically, we assume that the usage of nun-markers in Korean is either a plain topic or contrastive topic marker. We advance that the relation among four categories is captured by the two features of [D-linked] and [exhausted], as shown in (61) (cf. Jun 2005). 17

<table>
<thead>
<tr>
<th></th>
<th>[+D-linked]</th>
<th>[-D-linked]</th>
</tr>
</thead>
<tbody>
<tr>
<td>[+exhausted]</td>
<td>Contrastive Topic</td>
<td>Contrastive Focus</td>
</tr>
<tr>
<td>[-exhausted]</td>
<td>Plain Topic</td>
<td>Plain Focus</td>
</tr>
</tbody>
</table>

In (61), the feature [exhausted] divides contrastive topic from plain topic, as shown in (62).

(62) Yenghi-nun haksayng-i-ta.
   Yenghi-Top student-Cop-Dec
   'Yenghi is a student.'

17 Note, however, that despite full possibility as described in (61), nun-marked phrases unmarkedly give rise to "contrastive" topicality, while LDed phrases unmarkedly display non-contrastive topicality, as noted before.
(62) doesn’t mean that Yenghi is the only student. Hence, the nun-marker functions as a plain topic marker in (62).

The second question is concerned with the structural position of plain/contrastive topic and LD nominal. Following Rizzi’s idea (1997) that CP is conceived as an articulated domain, we assume that they are located in the Spec of Force in C-domain. This assumption is partly based on the observation that nun-marked nominals cannot occur in embedded contexts (cf. Whitman 1989, Yang 1994 and Hong 2005).

(63) a. [Kaul-i/*un o-nun] soli-ka tuli-n-ta.
    autumn-Nom/Top come-REL sound-Nom hear-Pres-Dec
    ‘The sound of autumn coming can be heard.’

b. Kyewul-i/*un o-myen pom-i mel-ci anh-ta
    winter-Nom/Top come-if spring-Nom far-Comp not-Dec.
    ‘When winter comes spring isn’t far off.’ (Lee & Im 1983)

To recapitulate the difference between LD nominal and nun-marked nominal, the minimal semantic distinction results from the contrastive nature of -nun (cf. Hong 2005, Jung 2001). Han’s (1995) proposal in (64) can be utilized for describing this particular semantic property of -nun.

(64) X-nun: ∃(y ≠ x)

(64) dictates that if there is x, there also exists y in addition to x. Let us compare (65a) with (65b).

(65) a. Nwukwu Yenghi-lul manna-ss-ni?
    who Yenghi-Acc meet-Past-Q
    ‘Who met Yenghi?’

b. Nwukwu-nun Yenghi-lul manna-ss-ni?
    who-Top Yenghi-Acc meet-Past-Q
    ‘Who met Yenghi?’

Unlike (65a), the sentence (65b) presupposes that there are other people besides the people who met Yenghi in the discourse domain and implicates they didn’t meet Yenghi.

4. Concluding remarks

In this paper, we have captured meaning differences in wh-phrases with or without case markers. In particular, we have observed previously unnoticed contrasts to show that object wh-phrases without case markers can have either D-linked or non-D-linked interpretation,
whereas subject *wh*-phrases without them have only D-linked interpretation. Our main idea is that *wh*-phases without case markers in derived positions are left-dislocated nominals with null resumptive pronoun located in linked-argument positions. Hence, only D-linked reading arises in these constructions parallel to *wh*-resumption or *wh*-clitic doubling constructions found in many other languages (cf. Boeckx 2003). We have further discussed a novel fact that the behavior of *nun*-marked *wh*-topics pattern with LDed *wh*-phrases in Korean in some significant respects. We claim that D-linking is the core feature that determines semantic topicality (cf. Rizzi 2004), which underlies the commonality of the two dislocated constructions. We have also indicated that the semantic difference between LDed nominals and *nun*-marked nominals results from the contrastive nature of *-nun*, and argued for the proposal that *nun*-marked phrases should be uniformly treated as (contrastive) topics, as put forward in Lee (2003).

References


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