An Information-Status Theory of Case and NP Deletion in Korean: With a Focus on the Realization of Object[*]

Eon-Suk Ko

1. Introduction

In Korean, *-ka/-i* and *-lul/-ul* are commonly thought of as morphological case markers, the former for the nominative and the latter for the accusative case. Thus often subjects are indicated by *-ka/-i*, and the direct object by *-lul/-ul*. It is also commonly thought that Korean allows scrambling relatively freely due to the availability of these overt morphological case markers.

However, there are many cases where the subject marker *-ka/-i* or the object marker *-lul/-ul* is expected but does not occur. If the function of these markers is truly to mark the case of the stem morphologically, it is puzzling why sometimes they are present but absent in other times. Moreover, the commonly believed idea that Korean allows scrambling freely due to the presence of such markers becomes dubious when we consider that languages such as Modern English or Yiddish, which do not have an overt case marker, also allow some sort of rearrangement of word order such as topicalization, left-dislocation, heavy NP-shift, inversion, etc. In fact, it is not the case that in Korean the case marker should be obligatorily

present in scrambling either — the case markers in Korean can be dropped even in sentences exhibiting non-canonical word order.

Besides the optional presence of the case marker, the subject or object itself undergoes ellipsis very often, realized as a zero-pronoun. Therefore, there are three possible ways of an NP being realized in Korean[1]. From now on, I will focus the discussion on the NP forms of the objects since the subjects are dropped more often in discourse and, therefore, objects make it easier for us to make an analysis of the optional realization of the NP based on naturally occurring data. The examples in (1) taken from a telephone conversation illustrate the possible three NP forms with the case of object NP.

(1) Possible object NP forms
    a. NP-Acc
       <u>cenhwase-lul</u>   nay cwun-tay
       phone bill-Acc pay give-DECL
       'Somebody is willing to pay the <u>phone bill</u>'
    b. NP
       <u>tosilak</u> ssallako kulayssnun-tey
       lunch   pack   intend-DECL
       '(I) was going to make <u>lunch</u>'
    c. ϕ (zero-pronoun)
       ne-to ϕ po-ass-ul-ci-to   molu-keyss-ney
       you-also it   see-past-Acc-CONN don't know-DECL
       'You could have also seen it'

The realization of objects and object marker of Korean provides evidence that the given/new distinction is not binary, as has been pointed out in Prince (1981, 1992). However, previous studies attempted to explain either the optional realization of the case marker on one hand (Lee & Thompson 1989, Lee 1995), or the distribution of zero-pronoun from the perspective of Centering Theory (Kameyama 1986), on the other. Thus, it has been over-looked that the possible NP forms of realization in discourse are at least three instead of being binary.

This paper examines the distribution of the object and object case marker

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[1] A NP can be also realized with delimiters such as *-man, -nun, -to*, etc. However, I do not consider them as a separate category in this study since these forms occupy less than 10% of the frequency of object NP forms as will be shown in Table 1, and, more importantly, *-lul* will be argued to be one of such delimiters.

in Korean by means of a quantitative analysis of naturally occurring data, and provides a unified analysis of what determines the optional or obligatory realization of objects and the object marker.

Contrary to previous researches which tried to identify the context in which the case marker drops, I assume that the bare NP is the basic form of the object realization, and that -*lul* is introduced as an operator for semantic reasons. Adopting the definition of 'focus' suggested by Vallduví & Vilkuna (1998), I argue that -*lul* is a 'kontrastive' focus marker which generates a set of alternatives that become available to semantic computation as some sort of quantificational domain. I will further argue that the distribution of the demonstratives and zero-pronouns can be explained using the cognitive hierarchy theory of Gundel et al. (1993).

The arguments that will be made in this paper can be schematically illustrated as follows:
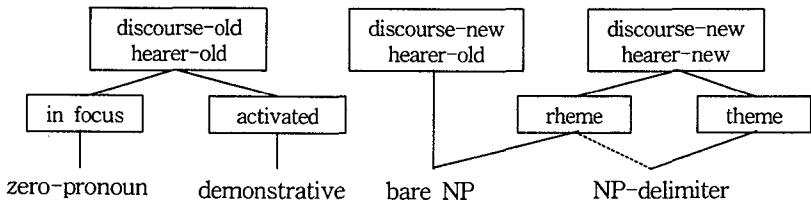
The terms used in the above picture are borrowed from Prince (1992), Gundel et al. (1993) and Vallduví and Vilkuna (1998), which will be explained later in this paper.

The structure of this paper is as follows: I will provide an analysis of the distributional pattern of NP forms in three different speech styles (section 2). I will then review previous analyses and address potential problems in analyzing the data in terms of information status theory (section 3). Adopting the notion of 'kontrast' from Vallduví & Vilkuna, and the 'cognitive hierarchy' from Gundel et al. (1993), I will propose an analysis of the object NP forms in Korean (section 4).

2. Distribution of NP Forms in Different Speech Styles

In this study, three different styles of discourse that vary in terms of the degree of formality are investigated to explain the realization of object NP forms. They are as follows:

(2) Data[2]

    a. Informal telephone conversations between two people of the same honorific level, i.e. friends.

    b. Informal narratives by four people freely expressing what they think about a certain topic in a newsgroup for housewives.

    c. Four formal TV news broadcast scripts.

The criterion for classifying formal vs. informal in the above is the usage of the verbal ending, i.e. if the verbs end in the $-ta$ form, it is considered formal, and if it ends in the $-e$ (yo) form, informal.

To my knowledge, few previous studies looked at Korean newsgroup narratives as a subject of pragmatic studies, at least not to explain the realization of NP forms in Korean. However, with the growing number of population involved in internet-based communication in recent years, the way people address their opinions in newsgroups has become one of the established styles of communication. The data (2b) included in this study has interesting dual properties, i.e. although a written text, they use an informal speech style with the colloquial ending $-yo$ instead of the formal $-ta$. It is thus expected that this speech style will show a pattern that stands between the informal (2a) and the formal (2c) data.

I found a total of 363 tokens where the object form is an issue as below:

Table 1. Distribution of object NP forms in three different speech styles

	Telephone conversation		Newsgroup		News broadcast	
object-lul(Acc. marked)	59	29%	44	64%	67	74%
object(Bare NP)	56	28%	10	14%	21	23%
zero-pronoun	68	33%	8	12%	3	3%
object-delimiter	20	10%	7	10%	0	0%
Total	203	100%	69	100%	91	100%

The results suggest that there is a close correlation between the elision (both of the case marker and of the object) and the style of the discourse: if the discourse is more formal, it is more likely to elide either the case marker or the object. Numerical details are as follows:

(3) The frequency of the occurrence of the Acc marker
    News broadcast (74%) > Newsgroup (64%) > Telephone (27%)

It appears that the Acc marker *-lul* is deleted most frequently in tele-phone conversation. Following Lee & Thompson, I included the NP's incorporated with the light verb *ha-* 'do' in counting the number of the bare NP's.[3]

An opposite tendency is found with the frequency of the zero-pronoun as illustrated in (4):

(4) The frequency of the elision of the object NP
    Telephone (33%) > Newsgroup (12%) > News broadcast (3%)

As expected, the informal newsgroup narrative stands in the middle of the telephone conversation and the news broadcast in the frequency of both the occurrence of the Acc marker and the elision of the NP. This confirms the common observation that what determines the frequency of the reali-zation and elision of these two factors is the degree of formality. In addition to the above distributional pattern, it was found that the formal report (2c) does not frequently use an object with pragmatic particle such as *-man* 'only', *-to* 'also', *-nun* 'contrastive topic marker', etc.

In the discourse of informal conversation, the distribution of the objects among the three possible types of NP realization is almost identical:

(5) Distribution of object NP forms in telephone conversation
    overt case marked (29%), bare NP (28%), elided NP (33%)

Then, the question arises as to what determines the choice of the object NP forms among these three possibilities. This will be our subject of discussion in the remaining sections.

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[3] The percentage of the nouns occurring with the Acc marker goes up as high as 93% in the news broadcast if the incorporated nouns were excluded from the tokens, since news broadcast has the highest percentage of the verbs formed as a result of the nouns incorporated with the light verb *-ha* 'do'.

3. Previous Analyses and Problems

The distributional pattern of NP forms in the informal telephone conversation observed in the end of the previous section poses an interesting linguistic problem in that both the speaker and hearer should be able to reflect or infer what they may know or hypothesize about each other's belief-state from the linguistic form.

Traditionally a bare NP was considered as a form where the case marker is missing (Lee & Thompson 1989). Lee & Thompson provide an explanation for the non-occurrence of the Acc marker based on two styles of colloquial Korean, i.e. informal narratives and dialogues. In their analysis, the conditions that allow the elision of the Acc marker can be summarized as follows:

(6) Contexts for the non-occurrence of Acc marker (Lee & Thompson 1989)

    a. Compounds: an incorporation of a direct object to a light verb *ha-* 'do'

      ...ilekhey nul   <u>sayngkak</u> *ha*-ku   iss-ta-ku

       such   always thought do-CONN exist-DECL-COMP

      'I always think so'

    b. Pragmatic particles: *-man* 'only', *-nun* 'topic', *-to* 'also', etc.

      <u>pap</u>-un cal chac-a   mek-na

      rice-TOP well find-CONN eat-INDET

      'whether (somebody) is eating well'

    c. Grammatically and lexically determined bare nominals

      ku ke   <u>kaps</u> com   pat-a   tal-la-y

      that thing   price a little receive-CONN give-IMPER-IND

Lee & Thompson propose that the principle of 'sharedness between communicators' subsumes all the above contexts for bare nominals. That is, the greater the amount of 'sharedness', i.e. shared experience, shared context, and shared cultural background, the less necessary it is to specify grammatical relations.

Lee (1995) also makes a similar analysis of the optional realization of the case marker. He contends that an NP form with the Acc marker *-lul* signals that the event involved is rather *unexpected* and attention is paid to the NP. On the other hand, deletion of the case marker occurs when the event involving the NP referent is rather expected. In his view, formal and

written text has a relatively low frequency of case deletion since not much is assumed familiar or expected.

As such, the notion of 'sharedness' has been an important notion in a given/new theory of information status (Clark & Haviland 1977, Prince 1981). In Prince (1992), it has been developed into a more refined theory of information status that considers the status of the hearer and speaker in a separate domain, which generates three possible dimensions of information status instead of the binary new/old. Prince suggests that, using the terminology of the familiarity scale[4] (Prince 1981), *brand-new* entities are discourse-new/hearer-new, *unused* entities are discourse-new/hearer-old, and *evoked* entities are discourse-old/hearer-old.

Applying this to Korean, we could then assume roughly the following sort of distributional pattern for NP forms in Korean:

(7) Application of Prince (1992)'s information status theory (to be modified)

	hearer-old	hearer-new
discourse-old	zero-pronoun	N/A
discourse-new	NP-ϕ	NP-lul

Such an explanation of the distribution of NP forms based on the information status theory seems to be supported by the acquisitional data. In a study of NP drop in children's speech, Cho (1995) found a tendency for subjects to be dropped most often, followed by object and dative drop. Since it is well known that subjects tend to represent old information and serve as a topic element, her result suggests that old information tends to drop more often than others do.

More support for such a direction of analysis can be found from the realization of NPs whose information status is *inferrable* as illustrated in (8a) (Prince 1992).

(8) a. I got on a bus yesterday and <u>the driver</u> was drunk.
    b. # I got on a bus yesterday and <u>the student</u> was drunk.
    c. I got on a bus yesterday and <u>a student</u> was drunk.

Inferrables are like *hearer-old* entities in that they rely on certain assumptions about what the hearer knows, and they are like *discourse-old*

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[4] Evoked > Unused > Inferrable > Containing inferrable > Brand new anchored > Brand new

entities in that they rely on there being already in the discourse-model
some entity to trigger the inference. At the same time, inferrables are like
hearer-new entities in that the hearer is not expected to already have in
his/her head the entity in question.

   The question then arises as to what linguistic form of NP's represent
inferrables. In English, although it is not impossible to find cases where the
inferrable entities are expressed as an indefinite NP, often they take the
form of a definite NP form. That is, inferrables are expressed using the
linguistic form which is typically used for *hearer-old* information.

   In (8a), it is inferrable from the first part of the conjunction that the
'driver' was the one who drove the bus that I got on yesterday, and the
inferrable NP took the form of a definite NP. If, however, a non-inferrable
NP takes the form of a definite NP, the felicity of the whole sentence
breaks down as illustrated in (8b) with the example of 'student'. Naturally,
when a non-inferrable NP takes an indefinite NP form as in (8c), the
construction is felicitous.

   In Korean, where there is no definite article as in English, inferrables
typically take a bare-NP form as the following examples illustrate:

   (9) a. tolo-eyse   <u>wuncen</u> ha-nun kes-to   wihemhayse...
           driveway-on driving do-REL thing-also dangerous-CONN
           'it is also dangerous to drive in the driveway'
       b. # tolo-eyse <u>cwum</u> cwu-nun kes-to   wihemhayse...
           driveway-on dancing dance-REL thing-also dangerous-CONN
           'it is also dangerous to dance in the driveway'
       c. tolo-eyse   <u>cwum-ul</u> cwu-nun kes-to   wihemhayse...
           driveway-on dancing-ACC dance-REL thing-also dangerous-CONN
           'it is also dangerous to dance in the driveway'

In (9a), the act of 'driving' is inferrable since the most natural thing one
can expect to do on a driveway is to drive. In (9b), however, the act of
'dancing' on the driveway is not something that a hearer can infer based on
the speaker's beliefs about the hearer's beliefs and reasoning ability. Thus,
when 'dancing' is accompanied with *-lul* as in (9c), 'inferrability' is removed
and the construction is felicitous.

   If we assume that the linguistic form an inferrable takes in different
languages is sensitive to the information status associated with the NP
form, the examples in (8) and (9) are consistent with the assumption that

the bare NP in Korean is associated with hearer-old and discourse-new information as illustrated in (7).

However, it turns out that the information status model for Korean as illustrated in (7) is too simple and needs to be modified to be able to explain the following difficulties: First, the demonstratives are also dis-course-old and hearer-old entities like zero-pronouns, but are nevertheless realized as a sentential element. Second, the NP-Acc form is actually often used for a discourse entity which was already evoked in the discourse segment, thus not a new entity any more. An extreme example of the second problem would be the demonstrative NP's followed by a case marker, i.e. *ku kes-ul* 'that thing-Acc.', since demonstrative NP's always refer to an old enitity.

The first problem can be explained by adopting the cognitive hierarchy theory suggested by Gundel et al. (1993), which provides a finer-grained hierarchy for Prince's notion of 'evoked' into 'in focus' and 'activated'. In section 4, I propose that objects can be dropped only when it is in focus and that demonstratives cannot be dropped since they occupy the next highest level of 'activated'.

The second problem is a more intricate and interesting one since it is paradoxical in that the stem, which is old information, can be followed by a suffix -*lul* which seems to represent new information. This paradox will be discussed in detail in the next section.

4. Proposal

4.1. -*lul* as a Delimiter: Kontrastive Focus

Here is a good place to carefully examine the notion of 'new' and 'old'. The notion of 'new' and 'old' used in literature can be divided into two separate components: the first one is about the 'newness' of a discourse entity — more specifically, how the information status of a discourse entity is encoded in terms of linguistic forms for a cooperative conversation between a speaker and a hearer. The second is how the information status of a certain syntactic constituent is conveyed through its location in a syntactic structure.

In the previous section, the example such as *ku kes-ul* 'that thing-Acc' has been pointed out as paradoxical from the perspective of the information

status theory illustrated in (7) since the linguistic expression combines a
new and old information at the same time. Interestingly, English also has
exactly the same sort of paradox between new and old information as
illustrated by the following example:

(10) It was *him* that I was thinking about.

The above *it-cleft* sentence is a typical example of the so-called
focus-presupposition constructions[5] (Chomsky 1971), which structure the
proposition that they convey into two parts: an open proposition as in (11a),
and an instantiation of the variable in that open proposition as in (11b):

(11) a. I was thinking about x.
     b. x=him

The open proposition is generally taken to be 'old' information, already in
the discourse-model or at least known or inferrable, while the focus is
taken to be the 'new' information. The paradox here is that the focused
entity in (10), i.e. him, is a pronoun which generally represents an 'old'
discourse entity.

The interpretation of 'old' and 'new' in focus-presupposition construction
thus needs to be defined as follows: The division of the sentence as 'new'
and 'old' is to divide the sentence into the following two parts — an *open
proposition* with a variable and the *instantiation* of the variable in the open
proposition (Prince 1986). The open proposition is *old* in the sense of being
'shared knowledge' or 'salient', and the instantiation of the variable is *new*
in the sense of not being a part of 'shared knowledge'. Thus in our
example (10), what is *old* is the open proposition (11a), and what is *new* is
the fact that 'him' is the instantiation of the variable x.

The notion of 'new'ness thus differentiated between discourse entities and
constructions, let us consider the paradoxical example in Korean. I propose
that the 'newness' of a NP associated with the Acc marker *-lul* is two-fold:
it may come from the newness of the discourse entity, or from its oper-
ational property which performs an identificational function over a set of
alternative members generated by *-lul*. In other words, I suggest that *-lul*
is a focus marker in the sense of the alternative semantics of Rooth (1985)

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[5] Other examples of such constructions include Inversion (Birner 1994), Topi-
calization (Prince 1998), Gapping (Kuno 1976, Prince & Levin 1996), and so on.

which is elaborated in Vallduví & Vilkuna (1998): a set of alternatives for the 'focused' constituent is generated as an additional denotation.

Before discussing the kontrastiveness of the NP-Acc form in Korean, let us briefly review the notion of 'focus' in Vallduví & Vilkuna. They make a distinction between informational *rhematicity* and quantificational *kontrast*, which have been often used under the single term 'focus'. Informational *rhematicity* is defined as the new information of the sentence, the elements in the sentence that are contextually unbound, what pushes the communication forward (Firbas 1964), or what is asserted rather than presupposed. Languages differ in ways of realizing rheme/theme structurally utilizing syntactic, prosodic or morphological strategies.

Quantificational *kontrast*, on the other hand, is defined as an operator-like element whose exact semantic import varies from author to author: exhaustiveness (Szabolsci 1981), contrastiveness (Rooth 1992), and identificational operator (Horvath 1986). Thus, if an expression **a** is kontrastive, a membership set M={...,a,...} is generated and becomes available to semantic computation as a quantificational domain. The exact membership of M is determined both ontologically and contextually.

Importantly, kontrastiveness as defined by Vallduví and Vilkuna is orthogonal to informational rhematicity and thematicity. Therefore, a kontrast may be coextensive with a sentential rheme, in which case a given expression is doubly focal in the sense of being rhematic and kontrastive as illustrated in (12).

(12) John introduced [Bill]$_{R/K}$ to Sue.

In the above example, the effect of kontrast is merely 'identificational': as Rooth (1985) paraphrases it, if a proposition of the form 'John introduced x to Sue' is true, then 'John introduced Bill to Sue' is true. Informally it is defined as in (13) which has an interpretation that if property P holds of x, which is a member of M, then property P holds of **a**.:

(13) Identificational kontrast: if M={a,b,c} and P($x \in$ M), then P(a).

The orthogonality of kontrast and rheme is further shown by the fact that kontrast may be thematic as well. A well-defined type of such kontrast is the so-called 'contrastive topic' (Szabolcsi 1981, Gundel 1989), which is by definition thematic. Given their contrastive nature, they are often called 'focus' or 'new', but it has not been clear in what sense they are 'focal'. Vallduví & Vilkuna claim that since they are, by definition,

thematic, they cannot be rhematic, but they can be indeed be kontrastive. It
is illustrated by the following kind of data:

(14)   [Beer]$_K$ I [LIKE]$_R$.

According to Vallduví & Vilkuna, thematic kontrast, just as any other
kontrast, introduces a set M={...,a,...}. The interpretive effect obtained is that
if property P holds of **a**, then other properties P' hold of the other members
of M. This interpretive effect is described in (15) (adapted from Ronat 1979)[6]:

(15)   Thematic kontrast: if M={a,b,c} and P(a), then P'(($y \in$ M) $\neq$ a)

The notion of theme and rheme thus defined, let us turn our attention to
how each language encodes such information. Different languages utilize
different strategies for information packaging (Chafe 1976, Vallduví 1993).
For example information structure exploits syntax in Catalan but prosody in
English, whereas kontrast exploits syntax in Finnish and prosody in
English.

In Finnish, the *structural position* of an NP is determined by *kontrast*
rather than rhematicity; or, kontrast 'wins' over information structure
(Vallduví & Vilkuna 1998).

(16) a. A : What things did Anna get for her birthday?
        B : Anna sai [KUKKIA]$_R$.   'Anna got FLOWERS.'
      b. A : What is it that Anna got for her birthday?
        B : [KUKKIA]$_{R/K}$ Ann sai.   'FLOWERS, Anna got.'

In (16a-b), *kukkia* is rhematic in both cases, yet its structural position is
not the same since *kukkia* is non-kontrastive in (16a) but kontrastive in (16b).

I propose that, in Korean, kontrast exploits the *morphology* of an NP, i.e.
the NP form is determined by kontrast rather than rheme. Specifically, I
propose that *-lul* is used as an operator just like other delimiters such as
-man 'only', and *-to* 'also' in Korean[7].

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[6] Vallduví & Vilkuna proposes another kontrastive function, Exhaustiveness
kontrast, defines as below:

(i)   Exhaustiveness kontrast: if M={a,b,c} and P($x \in$ M), then $\neg$(P(($y \in$ M)$\neq$a)).

Korean contrastive topic marker *-nun* may convey this function.

[7] Chae (1999) comes up with similar analysis based on independently grounded

When a NP is kontrastive, it should be followed by an appropriate delimiter which serves as an operator of the related function. NP's followed by *-lul* is focal either in the sense of rhematic or thematic, or both. Importantly, rhematicity alone cannot determine the NP form since both bare NP's and *NP-lul* forms can be rhematic.

The following examples in (17) illustrate that NP's followed by *-lul* is kontrastive, which can be rhematic or not.

(17) a. A: Nana-hanthey [os]$_R$ ponay-ess-ni?
                'Did you send *the clothes* to Nana?'
        B: I'm sorry. I forgot to do it.
    b. A: What is in the packet?
        B: Nana-ka [os-ul]$_{R/K}$ ponay-ess-e.
            'Nana sent *clothes*.'

In (16a), *os* 'clothes' is a 'shared knowledge' between the two speakers, and it is not kontrastive but rhematic since it does not generate a membership set but pushes the communication forward. In (16b), however, *os-ul* 'clothes-Acc' is kontrastive since it identifies an element from a 'wh-set', analogous to the set of alternatives. It is also at the same time rhematic since it pushes the communication forward by instantiating an open parameter.

As mentioned, the operator-like interpretation associated with *-lul* is mainly identificational. Examples are illustrated in the following:

(18) a. Hankuk-eyse-nun cwulo <u>yachay,   kimchi conglyu-lul</u> mek-unikka...
        Korea-in-TOP   mainly vegetable kimchi kind-ACC eat-CONN
        'In Korea, they mainly eat *vegetable, kimchi kind of stuff*'
    b. Hamburger 70 cen i-lanikka, <u>90 cen-ul</u>   ccik-ko   iss-e
        hamburger 70 cent be-CONN 90 cent-ACC type-CONN be-DECL
        'I said hamburgers are 70 cents, but she's typing in *90 cents*'

In (18a), the comparable members of the generated set would be kinds of food such as beef, kimchi, noodle, and so on, among which a specific member is identified. Similarly, the set of alternatives generated in (18b) would include comparable amounts of price for a hamburger, among which

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syntactic arguments.

a specific value is identified. Absence of the Acc marker in the above sentences would be infelicitous although grammatically well-formed.

Supportive evidence for viewing −*lul* as an operator comes from examples where adjuncts are followed by −*lul*. The following examples illustrate:

(19) a. <u>Kyohoy</u> ka−ass−ta   o−ko?

        church   go−PAST−CONN come−Q

        'Did (you) go to *church*?'

    b. <u>Kyohoy−lul</u> ka−ass−ta   o−a?

        church−acc go−PAST−CONN come−Q

        'You mean if I went to *CHURCH*?'

In the above examples (19a−b), *kyohoy* 'church' is a complement of the verb *ka*− 'go', which would not take an accusative NP as its complement. Besides *ka*− 'go', there are several other verbs that can take complements of NP-Acc form (the so called *adverbial nominals*) such as *nol*− 'play', *kwulm*− 'starve', *ttena*− 'leave', etc. Under the traditional perspective that regards −*lul* as a simple case marker, it is not explained why intransitive verbs take accusative nominal complements, and that even optionally.

In the proposed analysis, these adverbial nominals are subject to the same explanation as the nominal complements for transitive verbs. That is, in (19a), which is taken from a naturally occurring conversation made on a Sunday, the speaker assumes that the hearer normally goes to church on Sundays. Therefore, it is not necessary for the discourse entity to generative a set of alternatives, which explains the lack of the delimiter −*lul*. In (19b), on the other hand, the speaker is implying that he has other places to go on Sundays but not church. Thus, it is reasonable to assume that a set of alternative places is generated by the operator −*lul* in (19b).

Another point that I should address before closing this section is the ambiguity of focused constituents. In English, for example, the rhematicity of a NP signaled by H* may percolate up to a VP or an IP. Thus, in example such as (20), it may be ambiguous if the focus is narrow or broad.

(20) [[The PIPES]$_R$ are rusty.] $_R$

Likewise, in Korean, −*lul* may signal kontrast for a NP or a VP depending on the context. For example, look at the following hypothetic conversation in (21) taking place in a swimming pool.

(21) A: What's wrong with Nana?
　　B: [swuyeng hata   [mul-ul   mek-ess-tay]K.] R
　　　　swim   do-CONN water-ACC drink-PAST-DECL
　　　　'She DRANK WATER(=almost drowned) while swimming'

In (21), although the Acc marker $-(l)ul$ is morphologically associated with *mul* 'water', it is more reasonable to assume that the alternative set is generated for the whole VP, i.e. M={drowning, falling on the floor, injury from diving...}, rather than to assume a narrow focus on 'water' and generate an alternative set for it.

Compare with the following hypothetic conversation in a bar (22):

(22) Ne-nun ba-ey o-ase   [mwul-ul]K/R masi-ni?
　　 you-TOP bar-to come-CONN water-ACC   drink-Q
　　 'Are you drinking WATER in a bar?'

In this situation, it is reasonable to assume a narrow focus for 'water' and generate an alternative set such as M={milk, water, martini, beer...}, although it would be not impossible to assume a broad focus over the VP as well depending on contexts.

That $-lul$ can operate over the whole VP is supported from the verbs that take cognate objects (cf. Choe 1999):

(23)　Ne-nun ilen   tey-kkaci o-ase cam-ul   ca-ni?
　　　you-TOP such place-even come sleep-ACC sleep-Q
　　　'Can you SLEEP even when you came to such a place?'

For verbs taking cognate objects, there is no other option for the object than their cognates. Therefore, in such situation, it is more reasonable to assume that $-(l)ul$ operates over the entire VP than that it has a narrow scope over the NP.

4.2. NP Forms and Cognitive Hierarchy

In this section, to explain the distribution of zero-pronouns and demonstrative NP, I propose to adopt the cognitive hierarchy of Gundel et. al. (1993). Based on data from English, Gundel et. al. suggested the following mapping of cognitive hierarchy to NP forms:

(24) In focus (it) > activated (that, this, this N)> familiar (that N) >
uniquely identifiable (the N) > referential (indefinite this N) >
type identifiable (a N)

The above hierarchy appears to be similar to the familiarity scale of
Prince (1981), but it differs in that it distinguishes the 'evoked' status of
Prince into 'activated' and 'in focus'. A referent is defined as 'activated'
when it is in current short-term memory, and as 'in focus' when it is not
only in short-term memory but is also at the current center of attention.

In Korean, I propose that the zero-pronouns occupy a higher position in
the hierarchy than the demonstratives, each corresponding to the 'in focus'
and the 'activated' status, and that only the entities in the 'in focus' status
are realized as a zero-pronoun. Bare NP's and NP's with a delimiter will
come in the next position of the hierarchy, although I leave it open where
exactly they map in the hierarchy of (24).

The following chunk of data, which is segmented for the sake of
discussion, demonstrates how the proposed anlaysis would explain the
realization of the NP forms in a naturally occurring conversation:

(25) a. A: e,   Wuri **kaori-to** tuykye mek-ess-e
              Mm, we kaori-also   fry   eat-PAST-DECL.
              'Mm, we also had fried **kaori fish**.'
         B: **kaori**?
            '**kaori**?'

      b. A: Eng, keki ku   semonakey   sayngkin ceki mweya
              uh,   there that triangle-ADV shaped   *like* what-Q
              'Yeah, you know, that triangle-shaped ...'
         B: ung, anuntey   mikwuk-to   **kulen-ke** mek-e?
              Yes, know-but america-also such-thing eat-Q
              'Yes, I know, but do they eat **such things** in America?'

      c. A: eng, **kuke** wuri abbaka ceki pata ka kaciko ku naksilo capusin ke ketun
              Uh, that my   father *like* sea go and   the reel-with catch thing-DECL
              'Um, **that thing**, my father went to the sea and fished with a reel'

      d. B: eng,   **kuke** capusy-ess-ta-ku?
              what, that   catch-PAST-DECL-Q
              'What, **that thing**, your father caught?'

      e. A: kulayse appaka φ ssise kacikonun nayngcangkoe φ ellye noassessnuntey
              so   father φ wash then   refridgerator φ freezeput-past-DECL
              'So father washed **it** and then put **it** in the fridge to freeze, and'

cipey kase ф kacko   wasstaka yopene   ф hay mek-ess-e
home go   ф bring-and come this occasion ф cook eat-past-DECL
'I went home and brought *it*, and cooked and ate *it* recently'

In the above examples, all the underlined words refer to the same discourse entity, *kaori*, realized in various linguistic forms. (25a), the NP takes the form of a NP followed by a delimiter -*to* 'also', then a bare NP when it is no longer kontrastive. In (26b), it takes a form of longer demonstrative pronoun *kulen-ke* 'such thing' and then in (26c-d) a shorter form *kuke* 'that'. Finally in (25e), it is realized as a zero-pronoun as it occupies the highest position in the cognitive hierarchy of the speaker as the conversation moves on.

5. Summary and Further Issues

In this paper, I have reviewed the distributional pattern of NP forms in different speech styles and provided a unified explanation for three possible ways of realizing object NP forms in discourse utilizing the notion of kontrast (Vallduví & Vilkuna 1998) and cognitive hierarchy (Gundel et. al. 1993).

In principle, the proposed analysis should be extendable to the nominative case marker -*ka*. However, since subject position in Korean involves freer stacking of NP's and since cross-linguistically subject position and object position involve other different factors of information packaging, a further study is necessary before making a brute extension.

A radical extension of the proposal here would eliminate the morphological case in Korean. That is, a NP in Korean is only subject to structural case, and the case markers such as -*ka* and -*lul* are in fact an allomorphical realization of underlying information features, whose phonetic form is conditioned by the syntactic case of the stems to which they attach. In other words, Korean case markers can be seen as a portmanteau morpheme, where the information about the information status and the case are fused together. This idea finds support from a comparison with some classical languages with morphological case markers. Languages such as Ancient Greek or Classical Arabic have overt case marking like Korean. However, a nominal stem form in these languages cannot stand by itself but should always be marked its case by an overt morphological ending just like

a verbal stem cannot stand by itself in Korean. Therefore, the feature of the morphological case endings in such languages seems to be truly case in contrast to Korean. Again, however, whether we can eliminate the property of a case marker completely from *-ka* and *-lul* is to be further investigated.

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ABSTRACT

An Information-Status Theory of Case and NP Deletion in Korean: With a Focus on the Realization of Object

Eon-Suk Ko

This paper examines the realization of the object and object case marker in Korean by means of a quantitative analysis of naturally occurring data, and provides a unified analysis of what determines the optional or obligatory realization of objects and the object marker through the information status theory of Prince (1992), the cognitive hierarchy theory of Gundel et al. (1993) and a focus theory of Vallduví and Vilkuna (1998). In a statistical analysis of the data, it is shown that the realization of the object and object case marker in Korean is closely related to the formality of the speech. It is also proposed that the object case marker -lul is a delimiter that conveys kontrastive function, evoking a set of alternative members. This paper provides a typological addition to ways of information packaging by showing that morphology is exploited for conveying information in Korean while some languages mainly exploit syntax and/or prosody.

Department of Linguistics
University of Pennsylvania
619 Williams Hall
Philadelphia, PA 19143, USA
E-mail: esk@ling.upenn.edu