

Case in Korean 'Raising Constructions'

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This paper deals with the case marking pattern found in the Korean structure exemplified by the sentence *John-i Yengmi-lul aphu-tako mit-ess-ta* 'John believed Yengmi to be ill'. Based on constraints on the type of embedded verb that can occur in this pattern, it is suggested that the relevant syntactic structure must include a constituent consisting of the matrix verb and *aphu-tako*. It is then shown that this structure not only predicts the existence of the accusative case suffix on the 'subject' argument of the embedded verb, but that it is also compatible with a variety of subtle semantic contrasts that distinguish it from a related construction in which *Yengmi* bears the nominative case.

1. Introduction

Like many other languages, Korean permits *believe*-type verbs to take two quite different types of non-NP complements. The first, exemplified in (1), is unproblematic and is universally assumed to involve an ordinary sentential complement. I will henceforth refer to it as the 'ordinary complement pattern'.

(1) The ordinary complement pattern

John-i [_S Yengmi-KA aphu-tako] mit-ess -ta.
John-N Yengmi-N sick-Comp believe-Pst-Decl
'John believed that Yengmi is sick.'

* This is a revised version of a presentation that I gave in May of 1990 in the Language Research Seminar Series at Seoul National University. I would especially like to thank Professors Sang-Oak Lee, Dong-Whee Yang, Chung Min Lee, Han-Kon Kim and other members of the audience for their comments. In addition, I would like to acknowledge helpful comments and suggestions received from several colleagues at the University of Hawaii, especially D. J. Lee, John Haig, Stan Starosta and Kazue Kanno. Any errors are, of course, my responsibility.

Somewhat more puzzling is the structure in (2), which I will henceforth refer to as the Exceptional Case Marking (ECM) pattern, consistent with the current general practice.

(2) The ECM pattern

John-i Yengmi-LUL aphu-tako mit-ess -ta.
 John-N Yengmi-Ac sick-Comp believe-Pst-Decl
 'John believed Yengmi to be sick.'

Here the apparent subject of the lower verb, *Yengmi*, bears the accusative case rather than the expected nominative. This is, of course, reminiscent of the English construction exemplified in (3b).

- (3) a. John believes (that) SHE is sick.
 b. John believes HER to be sick.

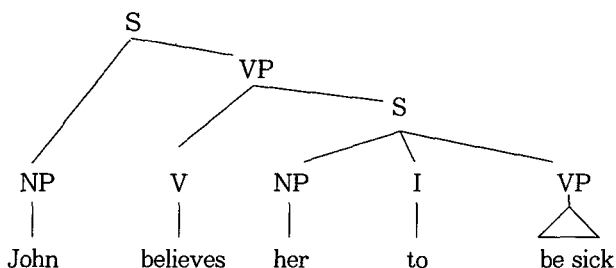
As can easily be seen, the pronominal subject of the embedded VP has the nominative form (*she*) in (3a), but the accusative form (*her*) in (b).

The traditional analysis for this contrast in transformational grammar (e. g. Postal 1974) assumes that the (b) pattern is derived by raising the subject of the embedded verb into the direct object position of a matrix clause containing a *believe*-type verb. (Gerds 1986 and Choi 1988 propose analogs of this analysis for Korean within the framework of Relational Grammar.)

More recently, it has been suggested (e. g. Chomsky 1981, 1986) that the pattern in (3b) does not involve movement at all, but that the verb *believe* has a special property that allows it to govern and case-mark the subject of the embedded verb.¹

¹ Chomsky (1981) suggests that the property involves deletability of S', leaving an S as complement of the *believe*-type verb in surface structure. Chomsky (1986) proposes that *believe*-type verbs can select an S-type argument to begin with. In both analyses, the government relation must be defined in such a way that the matrix verb can govern and hence Case-mark the subject of the embedded clause.

(4)



Analyses similar in all relevant respects to this one have also been proposed for Korean (e. g. Young joo Kim 1990).

An advantage of both the raising analysis and the government analysis is that they attribute the possibility of the ECM pattern to a special property of the matrix verb. As the following sentences illustrate, this seems to be at least partly correct since the ECM pattern cannot occur with just any verb that takes a propositional complement in either English or Korean.

(5)

a. Hear with an ordinary sentential complement

John heard (that) [_s she is sick].

b. Hear with an ECM complement

*John heard her to be sick.

(6)

a. tut-ta with an ordinary sentential complement

*ohn-i [_s Mary-ka yeyppu-tako] tul-ess-ta.

John-N Mary-N pretty-Comp hear-Pst-Decl

'John heard (that) Mary is pretty.'

b. tut-ta with an ECM complement

*John-i Mary-lul yeyppu-tako tul-ess-ta.

John-N Mary-Ac pretty-Comp hear-Pst-Decl

'John heard Mary to be pretty.'

However, ECM complement structures are subject to a second restriction, which is not so easily captured by this analysis. In particular, although the

ECM pattern is possible when the embedded verb phrase is stative or generic (see *aphu-ta* 'be sick' in (2)), it is unacceptable when it denotes a more dynamic action, as in (7).

(7) ECM complement

*Chelswu-ka Yengmi-lul ttwin-tako mit-ess-ta.
 Chelswu-N Yengmi-Ac run-Comp believe-Pst-Decl
 'Chelswu believes Yengmi to be running.'

As (8) shows, there is no such restriction on patterns with an ordinary sentential complement.

(8) Ordinary sentential complement

Chelswu-ka [_S Yengmi-ka ttwin-tako] mit-ess-ta.
 Chelswu-N Yengmi-N run-Comp believe-Pst-Decl
 'Chelswu believes (that) Yengmi is running.'

It is hard to see how the standard analysis can provide a natural account for this fact. According to the common assumption (e. g. Baltin 1989), selection is a relation holding between a head and its arguments. Yet the head-argument relation in the standard analysis holds between the matrix verb and a complement clause (see (4)), not the matrix verb and the lower VP. The observed selectional restriction is thus unexpected. Moreover, since this analysis takes the complement of *believe* to be an S in both the ordinary complement pattern and the ECM pattern, it is unclear why the observed restriction should be found only in the latter structure.

In the remainder of this paper, I will develop an alternative analysis of sentence formation and case marking in Korean that not only accounts for the two complement patterns found with *believe*-type verbs, but can also accommodate the restriction on the ECM structure in an entirely natural fashion. I begin by outlining the general analytic framework within which I will work.

2. Categorical Grammar

For the purposes of this paper, I will use the simple version of categorial

grammar adopted in O'Grady (1991). The key assumption of this approach is that sentences are built from the 'bottom up' as words combine with each other to create larger phrases and ultimately a sentence. The following system of sub-sentential categories is assumed. (N stands for 'nominal', IV for 'intransitive verbal' and TV for 'transitive verbal'. As in traditional work in categorial grammar, no notational distinction is made here between lexical and phrasal categories since this is not relevant to the point at hand. Thus, the IV label is used for any word or phrase that takes a single nominal argument.)

Table 1 Subsentential categories and their properties

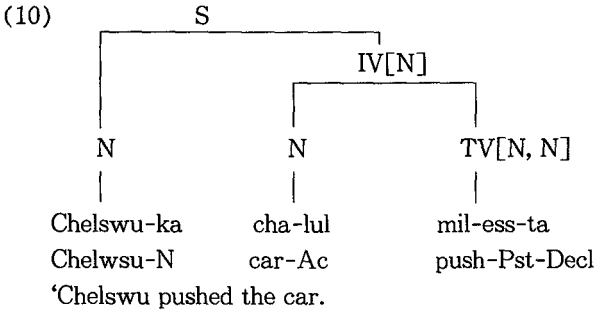
Category	Properties	Examples
N	no argument of the relevant type	<i>Chelswu, cha</i> 'car', <i>yeca</i> 'girl'
IV	requires one N-type argument	<i>anc-ta</i> 'sit', <i>o-ta</i> 'come'
TV	requires two arguments, one of the N-type and one of either the N-type or the S-type	<i>mil-ta</i> 'push', <i>mit-ta</i> 'believe'

In addition to these subsentential categories, we will need the sentential category S, which I treat as the result of combining an IV with an N argument.

Unlike a conventional generative grammar, the sentence-building system that I propose does not make use of phrase structure rules or any similar X-bar mechanism. Rather, categories combine with each other in accordance with their inherent argument dependencies and the following principle.

- (9) The Inheritance Principle: Unsatisfied argument dependencies are inherited upwards.

The following example illustrates how sentences are formed in this system. For illustrative purposes, I use bracketted Ns to indicate a category's argument dependencies and dotted lines to represent inheritance.



In (10), the TV *mil-ta* 'push' combines with the N *cha* 'car'. This satisfies one of the verb's argument dependencies, leaving the other to be inherited by the phrase *cha-lul mil-ta* 'push the car'. As a category requiring one N argument, this phrase is by definition an IV (see Table 1 above). Combination with the missing N argument (*Chelwsu*) then gives the S category.

In accordance with the proposal developed in detail in O'Grady (1991), I assume that case marking in Korean complies with the following two conventions.

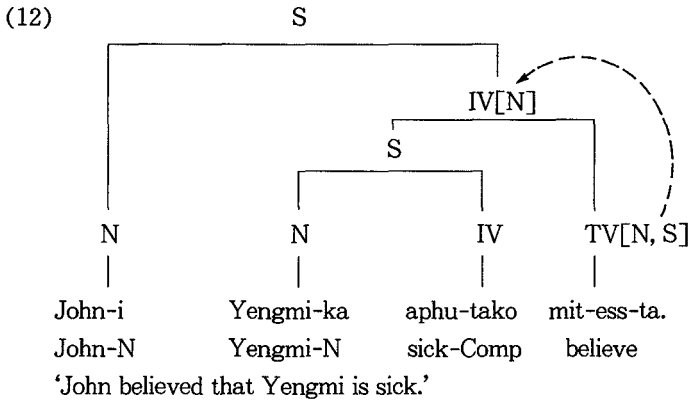
(11) Korean case marking conventions

- a. The nominative marks an N that combines with an IV category.
- b. The accusative marks an N that combines with a TV category.

As can easily be seen, case assignment in (10) complies with these conventions. Thus, the N that combines with a TV (*cha* 'car') bears the accusative case while the N that combines with an IV (*Chelwsu*) bears the nominative marker.

3. *Believe-type Verbs*

Returning now to the complement patterns found with *believe-type* verbs, let us first consider the structure that will be assigned when there is an ordinary sentential complement, as depicted in (12). (I pay no attention here to how the element *tako*, often treated as a complementizer, is incorporated into syntactic structure; this matter is dealt with in detail in O'Grady (1991).) As it is used in (12), the TV *mit-ta* 'believe' differs from *mil-ta* 'push' (cf. (10)) in being able to take one S argument and one N-type argument rather than two N-type arguments. In every other respect, however, the



formation of (12) parallels that of (10). Thus, the TV *mit-ta* combines with its first argument (the S formed by combining the IV *aphu-ta* 'be sick' with the NYengmi), yielding the phrase *Yengmi-ka aphu-tako mit-ess-ta* 'believed Mary is sick'. Since this constituent inherits *mit-ta*'s still unsatisfied dependency on an N argument, it is by definition an IV. Subsequent combination with the appropriate N argument (*John*) then yields the matrix S. Case assignment is also straightforward, with both nominals receiving nominative case in recognition of the fact that each combines with an IV category.

Now let us consider the ECM counterpart of this structure, as exemplified in (2) above (repeated here).

- (2) John-i Yengmi-lul aphu-tako mit-ess-ta.
 John-N Yengmi-Ac sick-Comp believe-Pst-Decl
 'John believed Yengmi to be sick.'

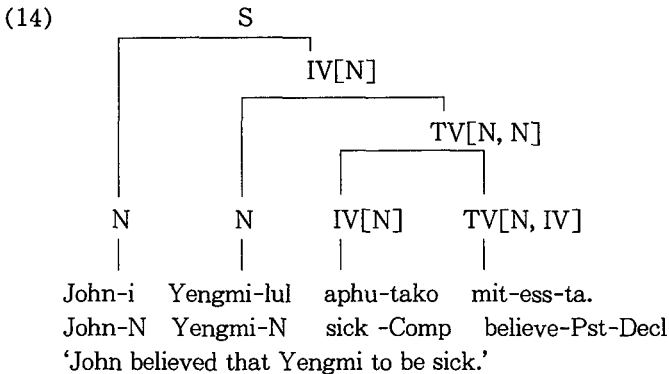
Consistent with tradition, I take the ECM pattern to be the marked variant—both because it is relatively unusual in the world's languages (it has no direct counterpart in French or Spanish, for example) and also because it is subject to special lexical restrictions. As noted above, these restrictions place limits on both the type of matrix verb (e. g., *mit-ta* 'believe', but not *tut-ta* 'hear') and the type of embedded IV (typically, generic or stative) that can occur in this pattern.

I take *believe*-type verbs to have the following special property in languages that permit the ECM pattern.

(13) A *believe*-type verb can take either S or IV as complement.

This is just another way of saying that ECM verbs have the special option of taking an IV rather than an S as their first argument. We thus revise the third row in Table 1 above to allow a TV to take as its arguments an N (corresponding to the subject) and either another N, an S, or (very exceptionally) an IV as complement.

All three possibilities are found with Korean *mit-ta*. The N complement appears in simple monoclausal sentences (e. g. *Sue-ka kecinmal-ul mit-ess-ta* 'Sue believed a lie') while the S complement is manifested in the biclausal structure depicted in (12) above, about which nothing further need be said. In contrast, choice of an IV argument gives the structure depicted in (14).



Here, *mit-ta* 'believe' combines with an IV, satisfying its dependency on a first argument. The resulting category *aphu-tako mit-ta* 'believe to be sick' then inherits two N argument dependencies—one corresponding to the theme argument of *aphu-ta* 'sick' and the other corresponding to the cognizer argument of *mit-ta* 'believe'. By definition, then, it is of the TV type.² Combination with

² A similar effect is achieved for the comparable English construction by Dowty (1978: 416), who simply stipulates that the matrix verb in the ECM pattern combines with an IV complement to form a TV. As noted above, the categorial status of the TV follows from a general principle in my analysis.

As described in detail in O'Grady (1991), my analysis is equivalent in certain respects to saying that *believe*-type verbs can combine with an IV via functional composition, a special type of combinatorial operation permitted in categorial grammar. An analysis along these lines is proposed for a similar pattern in Japanese by Abe (1985). Kang (1988) considers a parallel analysis for Korean, but rejects it because of problems that it creates for case-marking in his theory. These problems do not arise in the system of case-marking that I employ.

Yengmi (the theme argument) satisfies one of these dependencies and yields a category (*Yengmi-lul aphu-tako mit-ta* 'believe Yengmi to be sick') that exhibits a single remaining dependency and is therefore by definition an IV. Combination with the N *John* (the cognizer argument) then produces the complete S depicted in (14).

Although *Yengmi* corresponds to the theme argument of *aphu-ta* 'sick' in (14), the situation is slightly different from what is found in the ordinary complement pattern (i. e. (12)), in which *aphu-ta* combines directly with this N. However, as I will show below, this difference corresponds to an interesting semantic distinction between the two sentence types and is therefore motivated.

This analysis has a number of other advantages, only two of which can be mentioned here.³ First, it allows the case-marking facts to follow from the same simple system outlined above. Thus, *Yengmi* bears the accusative case in (14) for the same reason that it does in a simple sentence such as *John-i Yengmi-lul po-ass-ta* 'John saw Yengmi': It combines with a category of the TV type (the verbal complex *aphu-tako mit-ess-ta* 'believed to be sick').

Second, by treating the embedded IV phrase as the argument of the *believe*-type verb in the ECM pattern, we posit the very type of combinatorial relation associated with the existence of selectional restrictions (i. e., the head-argument pattern, as noted above). Hence the existence of a restriction on the type of embedded IV in the ECM pattern can be captured by revising (13) above, as follows.

(13') An ECM verb can take as complement:

- i) S
- ii) IV (stative or generic only)

This generalization is consistent with the head-argument nature of selectional restrictions in that it places a constraint on the type of verbal category permitted in the ECM pattern but not the ordinary complement pattern, in which S rather than IV is the first argument of the *believe*-type

³ For a detailed discussion of other advantages of treating the accusative-marked N as part of the matrix clause, see (for Korean) Choi (1988) and (for Japanese) Kuno (1972).

verb.⁴ This is consistent with the facts: As shown by the contrast in (7)-(8) above, repeated here, only the ECM pattern is unacceptable with a non-generic verb.

(7) ECM complement

*Chelswu-ka Yengmi-lul ttwin-tako mit-ess-ta.
 Chelwu-N Yengmi-Ac run-Comp believe-Pst-Decl
 'Chelswu believed Yengmi to be running.'

(8) Ordinary sentential complement

Chelswu-ka [_S Yengmi-ka ttwin-tako] mit-ess-ta.
 Chelswu-N Yengmi-N run -Comp believe-Pst-Decl
 'Chelswu believed (that) Yengmi is running.'

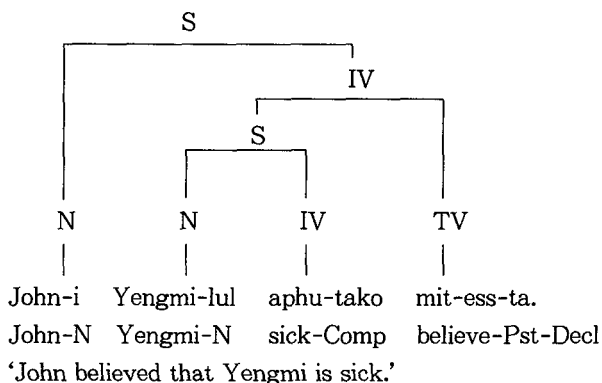
In summary, then, the structure I propose for the ECM pattern (i. e. (14)) does more than just ensure assignment of the accusative case to the argument of the embedded IV. This structure has the additional advantage of being INDEPENDENTLY motivated by the selectional considerations. In particular, it allows the restriction on the embedded IV in the ECM pattern to be stated in a manner consistent with the general head-argument character of selectional constraints while at the same time (correctly) predicting that there should be no such restriction in the ordinary complement pattern.

4. A Semantic Contrast

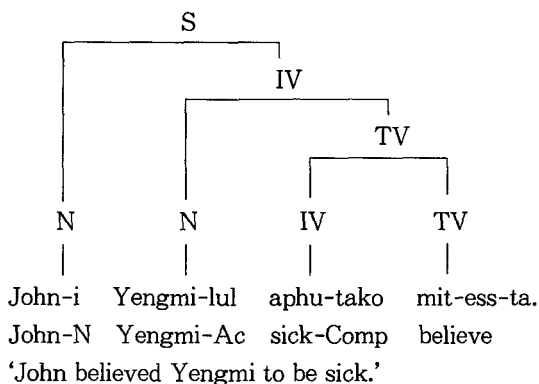
Before closing, I would like to draw attention to an issue that I have not been able to resolve and that will probably require the careful attention of linguists who are native speakers of Korean. To the extent that the ordinary sentential complement pattern and the ECM pattern are formed by combining words (and therefore presumably meanings) in different ways, it seems reasonable to expect a corresponding semantic difference between the two constructions. Reconsider in this regard the syntactic structures in (12) and (14).

⁴ In order to simplify, I have deliberately employed examples in this paper where the embedded IV phrase consists of a single intransitive verb. In cases where the phrase consists of more than one word (e. g. *acwu aphu-ta* '(to be) very sick', etc.), I assume that the stative property of the verb percolates up to the IV phrase that it heads.

(12)



(14)



Note that whereas *mit-ta* 'believe' in the ordinary sentential complement pattern involves a two-way relation between a cognizer (John) and a proposition (that Yengmi is sick), the same verb in the ECM pattern enters into a three-way relation involving a property (being sick), an individual of whom that property is predicated (Yengmi) and a cognizer (John). Put another way, whereas (12) seems to indicate simply that John believes a particular proposition, (14) suggests that he believes a particular property to hold of a particular individual. Uehara (1982: 80) makes a similar observation for Japanese, noting that in the ordinary complement pattern the embedded sentence constitutes a single 'information unit' while the ECM pattern involves two distinct information units — one corresponding to a property and the other to the entity of which it is predicated.

This characterization of the distinction between the two patterns is sup-

ported by an interesting but subtle semantic contrast that has been noted for languages other than Korean. Thus, Davison (1980: 17) observes that whereas the (a) sentence below implies 'nothing about the basis for the speaker's knowledge of the state of affairs described in the subordinate clause', the ECM pattern in the (b) sentence suggests that the speaker has 'personal and direct knowledge' about the referent of the second N (see also Postal 1974: 357-59).

- (15) a. Sue believes that Winston is obstinate.
 b. Sue believes Winston to be obstinate.

This implication makes sense on the view that the ECM pattern represents the cognizer's belief as applying to the relationship between a property (here, 'being obstinate') and an individual (Winston).

Davison also suggests (*ibid.* 38) that the ECM pattern is especially appropriate when the speaker wants to qualify a proposition by giving its 'epistemic basis'—indicating to the addressee possible grounds for assessing its truth. This observation seems to fit naturally with the claim that the relationship between a property and the entity of which it is predicated is mediated in the ECM structure by a 'believe' relation involving the referent of the matrix subject. Thus, (15b) emphasizes the fact that it is Sue's OPINION that Winston is obstinate.

Another important observation about the semantics of ECM structures has been made by Tomoda (1976-77: 362), who notes the following contrast in Japanese.

- (16) a. Ordinary complement pattern
 !John-wa [Mary-ga Mary de nai to] omotte iru.
 John-Top Mary-N Mary be not Comp thinking is
 'John thinks that Mary is not Mary.'
- b. ECM pattern
 John-wa [Mary-o Mary de nai to] omotte iru.
 John-Top Maru-Ac Mary be not Comp thinking is
 'John thinks Mary to not be Mary.'

According to Tomoda, (16a) is bizarre since it says that John believes a

contradiction (that Mary is not Mary). The ECM pattern in (16b), on the other hand, encounters no such problem. Rather, it implies that John does not know 'that the woman who he believes not to be Mary is [in fact] Mary.' This is to be expected on my analysis since the *believe*-relation in a sentence such as (16b) does not involve a proposition (i. e., 'Mary is not Mary') but rather a property ('not being Mary') and an individual (with the name *Mary*). Since it is always possible to believe of the person named *Mary* that she is not in fact Mary, no contradiction is associated with this sentence.

We see, then, that there is some reason to think that the syntactic configurations associated with the two patterns that have been the focus of this paper enter into semantic contrasts with the expected properties in English and Japanese. Although it remains to be seen whether identical or similar semantic distinctions can be documented for Korean, preliminary indications are promising. Consider in this regard the following contrasts.

(17) a. Ordinary complement pattern

(Cey-ka) [ce tocek-i chinkwu i-lako] mit-ess-ta.

(I) that thief-N friend be-Comp believe

'I believed that the thief is a friend.'

b. ECM pattern

(Cey-ka) [ce tocek-ul chinkwu i-lako] mit-ess-ta.

(I) that thief-Ac friend be-Comp believe

'I regarded the thief as a friend.'

(18) a. Ordinary complement pattern

(Cey-ka) [ton-i ton-i an-i-lako] mit-ess-ta.

(I) money-N money-N not-be-Comp believe

'I believed that money is not money.'

b. ECM pattern

(Cey-ka) ton-ul ton-i an-i-lako mit-ess-ta.

(I) money-Ac money-N not-be-Comp believe

'I believed the money to not be money.'

D. J. Lee (personal communication) informs me that ECM pattern in (17b) implies more direct, personal knowledge of the thief than does the regular complement pattern in (17a)—parallel to the contrast observed for English in (15). Likewise, the ECM pattern in (18b) does not entail belief of a contradiction, contrary to the ordinary complement pattern in (18a); this parallels the contrast from Japanese exemplified in (16). Hopefully, further research can uncover additional contrasts of this sort.

5. Concluding Remarks

Summarizing, then, I have proposed that the ECM pattern permitted with certain *believe*-type predicates in Korean (and perhaps other languages as well) stems from the fact that these verbs have a special property: unlike their less marked counterparts, they can take either an S or an IV as their first argument. Whereas the first option gives the familiar sentential complement pattern, the second option yields the much less usual ECM pattern. The resulting combinatorial relations, depicted in (14) above, account not only for the otherwise unexpected use of the accusative marker for the argument of the embedded IV but also for the possibility of a semantic restriction on the class of IVs that can participate in this structure.

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