

## Case Theory, ECM, and Causatives in Korean\*

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### (Abstract)

This paper claims that AGR is not the nominative Case assigner in Korean. Case-theoretic evidence from ECM and causatives will be presented for the above claim. Characterization of the infinitive vs. finite clauses will be presented in terms of the parametric variation of tense feature. V-to-I head movement presented in *Barriers*(Chomsky 1986) is crucial in the treatment of the ECM in Korean. The marked type of causatives is argued to involve [+anaphoric tense].

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## 격이론과 한국어의 대외적 격표시 및 사동구문

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### < 초 목 >

본 논문에서는 한국어에서의 주격부터 문제를 다룬다. 영어와는 달리 한국어에서는 주격이 일치소(AGR)에 의해서 부여되는 것 같지는 않다는 주장을 펴는다. 이 주장을 뒷받침 해줄 증거로서 예외적 격표시 현상과 사동구문에서의 격부여 현상을 살펴본다. 시제자질의 매개변수를 이용하여, 시제문과 비시제문의 특성을 설명한다. 그리고 장벽이론(츄스키, 1986)의 핵이동 방식을 채택하여 예외적 격표시 현상을 다루며, 사동구문중 유표적 타입은 [+조용적 시제]의 개념을 도입하여 설명한다.

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### 0. Introduction

In this paper we will consider Case making properties of Exceptional Case Marking constructions and periphrastic causatives in Korean. It will be shown here that it is not AGR

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but [+tense] that assigns nominative Case.<sup>1)</sup> Case properties of ECM constructions will be accounted for in terms of [-lexicalized tense] and V-to-I head movement(Chomsky 1986). Causatives will be classified into marked and unmarked types. Unmarked causatives will be accounted for in terms of anaphoric tense. Theoretical framework of GB Theory (Chomsky 1981;1982;1986) will be assumed throughout the discussion.

## 1 . Subject-honorification

Quite unlike some Romance and Germanic languages and others, Korean lacks inflections showing agreement between the subject and its verb of the sentence, as the following examples clearly show :

- (1) a. Nae-ka hakkyo-e ka-n-ta.  
I-NOM school-to go-PRES-DEC  
b. Ki-ka hakkyo-e ka-n-ta.  
He-NOM  
c. Ne-ka hakkyo-e ka-n-ta.  
You-NOM  
d. Ki-til-i hakkyo-e ka-n-ta.  
They-PL-NOM

These examples show that verbal inflections in Korean do not mark explicitly the person number and gender of the subject. So it can be said that Korean does not have AGR comparable with the kind found in Indo-European languages. This observation has led some linguists to think that there is no AGR in Korean(Yang 1987). Choe(1986) and Han(1987), on the other hand, argue that there exists an agreement phenomenon between the subject NP and its verb in Korean. They cite subject-honorification as an example of such agreement .

- (2) Apenim-i ka-ci-ess-ta  
Father-HON-NOM go-HON-PAS-DEC

Thus, they postulate AGR in Korean and argue further that nominative Case in Korean is assigned by this AGR to the subject NP under government.

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- 1) The fundamental properties of Case-assignment are as follows .  
 (i) NP is nominative if governed by AGR  
 (ii) NP is objective if governed by V with the subcategorization feature : \_\_NP(i.e transitive)  
 (iii) NP is oblique if governed by P  
 (iv) NP is genitive in [ $NP-\bar{X}$ ]  
 (v) NP is inherently Case-marked as determined by properties of its [ $-N$ ] governor

Let us now consider the question of whether there is AGR in tenseless clauses in Korean. Quite unlike English, infinitives in Korean can have nominative Case marked lexical NPs as an honorific subject .

- (3) Nae-ka [<sub>S</sub> apenim-i ka-ci-tolok] towatuly-ess-ta  
I-NOM father-HON-NOM go-HON-to helped

Now it looks as if it is not [+tense] but AGR that assigns Case. In the next section however, some case-marking phenomena in Korean will be presented which are quite incompatible with the analysis of AGR as nominative Case assigner

## 2 . Two Problems with AGR

### 2.1. Exceptional Case Marking and Causatives

The so-called ECM constructions present the first problem with AGR as the nominative Case assigner in Korean. Consider the following examples :

- (4) a. John-i [<sub>S</sub>' [<sub>S</sub> Mary-ka papo la-ko]] saengkakhan-ta  
John-NOM Mary-NOM fool be Comp think  
John thinks Mary is a fool  
b. John-i [<sub>S</sub>' [<sub>S</sub> Mary-lil papo la-ko]] saengkakhan-ta.  
Mary-ACC  
John thinks Mary to be a fool

One thing to note of (4a-b) is that they lack any apparent tense marker in the embedded clauses. Another thing is that despite this apparent lack of inflection or rather tense, the lower subject NP Mary in (4a) is nominative Case marked while it is accusative Case marked in (4b). (4a) can be explained if we assume as in section 1 that even when tense is absent, AGR is still there and assigns Case accordingly. We are, however, quite unable to figure out how, then, embedded subject in (4b) has the accusative Case lil. Some may rush to the conclusion that there is in fact no AGR in (4b) and that sometimes AGR is missing from the tenseless clauses. But we have evidence showing that such a hasty conclusion is wrong.

Consider the following :

- (5) a. John-i [[apenim-i aekukca ci la-ko]] mitnin-ta  
John-NOM father-HON-NOM patriot-HON be-Comp]] believe  
John believes that his father is a patriot  
b. John-i [[apenim-lil aekukca-ci la-ko]] mitnin-ta  
father-HON-ACC  
John believes his father to be a patriot

In (5b) the embedded clause clearly shows the presence of the subject honorific marker ci

-, thus arguably proving the supposed presence of AGR even in infinitival clause. But the question is how the embedded subject NP is in accusative Case. Some may say that AGR may sometimes assign accusative Case hi. The following example, however, proves it wrong:

- (6) a. Apenim-i aekukca-ci-i-ess-ta.  
 father-HON-NOM patriot-HON-be-PAST-DEC  
 My father was a patriot
- b. \*Apenim-lil aekukca-ci-i-ess-ta  
 father-HON-ACC patriot-HON-be-PAST-DEC  
 My father was a patriot

Ungrammaticality of (6b) clearly demonstrates that AGR does not assign accusative Case to its subject.

Now let us consider (5b) again. The question this example poses is this: How come its embedded subject Mary has the accusative Case marker hi? Here the only Case assigner is the matrix verb mit-ta. It is a transitive verb like its English counterpart believe which also can assign accusative Case to the embedded subject of the infinitive clause<sup>2)</sup> However, quite unlike the English ECM verbs, mit-ta does not have to assign accusative Case to the subject of its lower infinitival clause as (5a) shows. If there really were AGR in (5a-b), why should it optionally allow the matrix verb mit-ta to assign accusative Case?

Causative constructions in Korean present another problem to the postulation of AGR. It is commonly assumed that there are two types of causative in Korean: lexical and periphrastic causatives. Here only periphrastic causatives will be considered. Examine the following data.

- (7) a. Youngsoo-ka [s apenim-i wust-ci]-ke ha-ess-ta.  
 Youngsoo-NOM father-HON-NOM smile-HON caused
- b. Youngsoo-ka [s apenim-lil wus-ci]-ke ha-ess-ta.  
 father-HON-ACC smile caused

Clearly, we see the same set of phenomena observed in the ECM constructions.

## 2.2. Binding Condition(B)

In Section 2.1. we saw the same set of phenomena obtain in both ECM constructions and periphrastic causatives in Korean. There is, however, one difference between the two

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2) English has a marked rule of S'-deletion for complements of verbs of the believe-category, permitting the verb to govern the subject of the embedded complements, thus excluding PRO and permitting phonetically realized NP.

constructions with regard to Binding Principles.<sup>3)</sup> Here I will consider Binding Condition(B) and the possibilities of pronominal coreference in both types of sentences.

Look at the following set of data :

- (8) a. Youngsoo-ka [[ki-ka chuncae la-ko]] saengkakhan-ta  
 Youngsoo-NOM he-NOM genius be Comp think  
 Youngoo thinks he is a genius
- b. Youngsoo-ka[[ki-lil chuncae la-ko]] saengkakhan-ta.  
 Youngsoo-ka him to be a genius

In (8a), the embedded pronominal subject ki has nominative Case, and it can be coreferential with the matrix subject Youngsoo. Therefore, the embedded sentence in (8a) must be the governing category(henceforth, GC) of the pronominal ki. In (8b), on the other hand, the embedded pronominal subject ki is assigned accusative Case by the matrix verb saengkakha-ta. Since Case is assigned under government, the GC of the pronominal in (8b) must be the entire sentence. By Binding Condition (B) pronominal ki cannot have the matrix subject as its possible antecedent in (8b).

Let us now consider the possibilities of pronominal coreference in periphrastic causatives in the following examples :

- (9) a. Youngsoo-ka [ki-ka ka]-ke ha-ess-ta.  
 Youngsoo-NOM HE-NOM go caused  
 \*Youngsoo caused he to go
- b. Youngsoo-ka [ki-lil ka-]ke -ha-ess-ta.  
 Youngsoo-NOM him go caused  
 \*Youngsoo caused him to go

In (9b) the embedded pronominal subject has accusative Case marking. It means that the matrix causative verb has assigned accusative Case to the embedded subject under government. Therefore, the entire sentence in (9b) must be the GC of the pronominal. By Binding Condition(B), the pronominal must be free in its GC. This is why the matrix subject and the accusative Case marked pronominal cannot be coreferential. In (9a) however, the embedded pronominal subject has nominative Case. If it is assigned nominative Case by AGR under government, then the embedded clause must be its GC. Then by Binding Condition (B) it can be coreferential with the matrix subject. This prediction, however, is not

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### 3) Binding Theory

- (A) An anaphor is bound in its governing category
- (B) A pronoun is free in its governing category
- (C) An R-expression is free

See Chomsky(1981 , p.187-188)

borne out. In (9a) the pronominal *ki* cannot be coreferential with the matrix subject, inspite of the fact that the pronominal is clearly marked with *nominative Case*. This is exactly the one difference I mentioned between the so-called ECM constructions and causatives. In case of ECM constructions as in (8a) if the embedded subject is assigned *nominative Case*, the pronominal subject of the embedded clause can be coreferential with the matrix subject. If AGR is responsible for *nominative Case* marking in both (8a) and (9a), this difference in coreferential possibilities cannot be accounted for in any reasonable way. Considering the above Binding-theoretic and Case-theoretic problems entailed by the postulation of AGR in Korean syntax, we have to look for an alternative explanation. In the following Section 3, I will propose a feature [-lexicalized tense], an extension of the feature [-tense] and the theory of head-movement as in *Barriers*(Chomsky 1986).

### 3 . ECM Constructions in Korean and [-lexicalized tense]

Within Government-Binding Theory, the position of an infinitival clause cannot be filled by a lexical noun unless some special mechanisms are available.<sup>4)</sup>

- (10) a. John tried [<sub>S'</sub> [<sub>S</sub> PRO to go]]  
 b. \*John tried Bill to go  
 c. John-i [<sub>S'</sub> [<sub>S</sub> ec ka]ko]cip-e han-ta.  
 John-NOM [[ec go]Comp]want  
 d. \*Na-nin [[Youngsoo-ka ka]ko] cip-ta.  
 I-Top [[Youngsoo-NOM go] Comp] want

English, for example, employs the S-deletion mechanism in infinitival complements with lexical subjects, while French does not:<sup>5)</sup>

- (11) a. John believes Bill to have lied.  
 b. \*Jean croit Bill avoir menti.

In (11a) this special mechanism applies obligatorily, allowing the matrix verb *believe* to assign accusative Case to the lexical NP *Bill*. In other word, PRO cannot be the subject of (11a) in English, while PRO subject is perfectly acceptable in French:

- (12) a. \*John believes [[PRO to have lied]]  
 b. Jean croit [[PRO avoir menti]]

Furthermore, *nominative lexical nouns* cannot occupy the subject position of the above

4) See J. Bresnan(1982) for a different approach. In *Lexical Functional Grammar*, the verb *try*, for example, subcategorizes for V-COMP.

5) For details see R. Kayne(1984)

infinitive in English :

- (13) a. John believes[\*he/him to have lied]

In this context, we pose the following question · Is the so-called ECM construction in Korean identical to that of English or that of French or different from both? Like in English but quite unlike in French, Controlled PRO may not fill the subject position of the complement of the ECM verbs in Korean ·

- (14) \*John-i [[PRO chuncae la]ko] mit-nin-ta,  
John-NOM genius be Comp believes

(14) does not mean that John believes himself to be a genius. thus, in this respect Korean is more like English than French There is another point of similarity between English and Korean. That is, lexical NP subject with accusative Case may fill the subject position of the complement of ECM verbs :

- (15) a. John believes [him to be honest]  
b. John-i [kɨ-lil cengcik ha-ta]ko] mitn-ta  
he-ACC honest be believe

There is, however, one difference between Korean and English ECM constructions. Korean ECM verbs allow nominative lexical subject while English does not.

- (16) a. \*John believes [he to be honest]  
b. John-i [[kɨ-ka cengcik ha-ta]ko] mitnin-ta.  
he-NOM

Now we can fully appreciate the mysterious behavior of ECM constructions in Korean. As is clear from(14), the subject position of the complement of an ECM verb must be governed, since PRO is not allowed in this position. And if the subject position is governed, it must be governed by the matrix ECM verb, as in (15a). If that is the case, then nominative lexical subject must not be allowed, as in English(See(15a)). The truth, however, is that nominative lexical subject is allowed, against our prediction. Furthermore, if we accept the commonly held assumption that ko in (15a) is a complementizer, then we cannot say that S' deletion applies in Korean as it does in English. Consequently, either ko is not a complementizer or some other special mechanism is available or both. Even if ko is not a complementizer, but the Specifier of CP and there is an invisible complementizer, S' deletion cannot be available in Korean. Then we can conclude that PRO is available as the subject of the complement of the ECM verbs in Korean, but as has already been discussed PRO may not fill the subject position(cf.(14)) Consequently, we can say that the subject position of the complement of the ECM verbs in Korean must be a governed position. That is, there must be a governor inside the complement clause. What can it be? The only available candidate is [+tense] under the

Infl node. But the crucial question is: if there really is [+tense], then why does the matrix ECM verbs assign accusative Case to the embedded lexical subject as in (15b)? In the next section an analysis of tense will be proposed that can reconcile the conflicting properties of the ECM constructions in Korean.

### 3.2. Tense in Korean

Chomsky(1977) observes that [there is no formal distinction in Korean between tensed and nontensed clauses, but there is a category of embedded clauses that……are much like the infinitival clauses of English and the Romance languages…]. His remark should be considered with caution, but there is some truth in it, as the analysis of the ECM constructions show. To put it simply, the complement of the ECM verbs in Korean is not infinitival since it does not allow PRO subject. It is, however, like an English infinitive in that matrix verb assigns accusative Case to the embedded subject. Still more strangely, it is like a tensed clause in that the subject may be in nominative Case. A clause, however, cannot be both tensed and nontensed at the same time. Apparently, however, the complement clause of the ECM verbs in Korean looks as if it is both, an impossibility at least within the framework of Government-Binding Theory. This riddle can be solved using the notion of Tense Parameter and the variations of its values across different languages.

Let us now consider the problem of tense in Korean. Present tense in Korean is marked by n-, attached after verbs:

- (17) Youngsoo-ka hakkyo-e ka-n-ta.  
 Youngsoo-NOM school-to go-Pres-DEC

When the predicate of a sentence is either a noun or an adjective, however, present tense marker n- is absent:

- (18) a. Youngsoo-ka haksang i-(\*n)-ta.  
 Youngsoo-NOM student be-(\*Pres)-DEC.  
 Youngsoo is a student.  
 b. Sookhee-ka yeppi-(\*n)-ta.  
 Sookhee-NOM pretty-(\*Pres)-DEC.

Past tense marker -ess-, however, can attach to nominal and adjectival predicates:

- (19) a. Youngsoo-ka haksang i-ess-ta.  
 Youngsoo-NOM student be-Past-DEC  
 Youngsoo was a student.  
 b. Sookhee-ka yeppi(t)-ess-ta.  
 Sookhee-NOM pretty-Past-DEC.  
 Sookhee was pretty.



Whatever the reason that present tense marker is not lexicalized with predicate nominals and adjectives, we can still say that present tense is abstractly present since past tense marker is possible with them. The abstract cooccurrence of tense with the predicate nominals and adjectives can be supported by the fact that an ECM verb *saengkakha-ta* subcategorizes for a tensed complement, as shown by the following examples :

- (20) a. \*Na-nin [[ki-ka hakkyo-e ka-ta-ko]] saengkakhan-ta.  
 I-TOP he-NOM school-to go-DEC-Comp thing  
 b. Na-nin [[kɛ-ka hakkyo-e ka-n -ta-ko]] saengkakhan-ta.  
Pres

All the ECM construction we have considered thus far have predicate nominal and adjective in the complement clauses. Let us see if the subject of the complement with verbal predicate can be assigned accusative case by the matrix verb :

- (21) ??/\*Na-nn [[ki-lil hakkyo-e ka-n-ta-ko]] saengkakhan-ta.

The degraded grammaticality of (21) shows that exceptional Case marking in the presence of tense marker is not as acceptable as the cases of nominal and adjectival predicates. Same effects can be observed even in the case of nominal and adjectival predicates marked with past tense :<sup>6)</sup>

- (22) a. ? / ? ? Na-nm [[Youngsoo-lil papo-i-ess-ta-ko]] saengkak-han-ta.  
 I-TOP Youngsoo-ACC fool-be-Past-DEC-Comp think  
 b. ? / ? ? Na-nin Sookhee-lil yepp(i)-ess -ta-ko saengkakhan-ta  
 pretty-Past

Even in English ECM constructions, the complement clause must be infinitival, with the added stipulation of S' deletion. How are infinitives characterized in general? The usual answer is that they are [-tense]. Now the question is : how can we characterize ECM effects in Korean? My proposal is that they be specified as [-lexicalized tense]. I argued above that the complement of the Korean ECM verbs are tensed (Cf. (20a-b)) and that ECM verbs can exceptionally Case-marked the subject of their complement only when the embedded predicate is [-lexicalized tense] which is allowed only when the predicate is either nominal or adjectival. One thing to note here is that [-lexicalized tense] does not entail [-tense] As was clearly mentioned above, the complement of the ECM verbs in Korean is [+Tense] but [-lexicalized tense]. Now we are almost ready to explain some of the contradictory charac-

6) Oddly, examples(21) and (22a-b) and other similar sentences sound better and better with more exposure to them. Such examples as the following seems be perfect :

(1) Youngsoo-nin [ki-lil cuk-ess-ta-ko] saengkak-ha-ess-ta.  
 Youngsoo him die-Past though

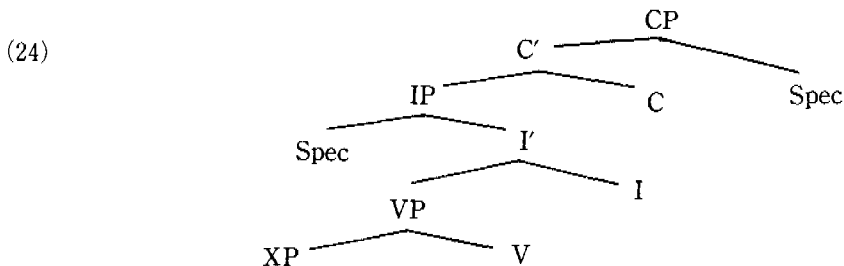
teristics of the ECM constructions in Korean. First, I claimed above (cf.(14)) that PRO is not permitted to appear in the subject position of the complement of the ECM verbs. This is precisely because the complement clause is tensed and tensed Infl governs the subject position. Therefore, PRO cannot appear in that position without violating the PRO Theorem. Another characteristic is that it is equivalent to the S'-deleted infinitival complement of the ECM verbs in English in that it allows the matrix verb to assign accusative Case to its subject. It means that [-lexicalized tense] is strong enough to govern the subject position but at the same time not strong enough to prevent its matrix ECM verb from assigning accusative Case to the subject position of its own. Now there remains one last property of the ECM constructions in Korean' that is, the subject NP of their embedded complement may optionally have nominative Case. Obviously, if [-lexicalized tense] is sufficiently strong, then matrix ECM verbs may not exceptionally assign accusative Case to the subject of the complement clause. Therefore, it can be claimed that [-lexicalized tense is] not strong enough to assign nominative Case. Then how are we to explain the fact that the embedded subject of the ECM construction can have nominative Case? Explication of this last property will constitute the topic of the next section. There it will be proposed that Infl movement to the head position of Comp neatly accounts for this last property.

### 3.3 Verb Movement to Infl in Korean

There are two types of movement : substitution and adjunction. We will not be concerned with adjunction here. As for substitution, Chomsky(1986) claims that it obeys the following conditions :

- (23) a. Only X- $\theta$  can move to the head position.  
 b. Only X-max can move to the Spec position.

Typical examples of (23b) are Wh-Movement and NP-Movement. Wh maximal phrases move to the specifier of CP. NP moves to the specifier of IP. (23a) allows V(erb) to move to Infl and Infl to move to C of CP. In addition to these conditions, X-bar schema will be assumed in its full generality for sentences in Korean as follows : <sup>7)</sup>



7) S used to be regarded as an exception to the endocentricity.

Now Infl is the head of S(entence). This is even extended to Comp being the head of CP.

With these theoretical assumptions, let us consider the following sentence with adjectival predicate :

- (25) Sookhee-ka yeppi-ta/yepp-ess-ta.  
pretty-DEC/pretty-Past-DEC

From (25) we can see that in Korean adjectival predicate does not require copula verb like English be. In keeping with the X-bar theoretic assumption as in (24), I will assume an empty verb in (25). Consider now sentences with nominal predicates as follows .

- (26) a. Youngsoo-ka papo-ta/papo-i-ess-ta.  
fool-DEC/fool-Past-DEC  
b. Youngsoo-ka haksang-i-ta.  
student-be-DEC

We can see that copula i- cooccurs with nominal predicates, even though it may be deleted in the PF Component(Cf (26a)) Copula i- will be assumed here to be a purely formal device since it doesn't seem to a  $\theta$ -marking verb It is similar in character to auxiliary verbs Now the crucial question here is this : Does the copula i- move up to I(nfl) or does I(nfl) move down to V(erb)? I claim that copula i- moves up to I, not the other way around This claim is motivated by the fact that auxiliary verbs in Korean are the ones that carry Inflection Consider the following examples

- (27) a. Youngsoo-ka sakwa-lil make-peri-ess-ta.  
apple-ACC eat-aux-Past-DEC  
b. Yongsoo-ka Kyungou-kkaci catongha-ro ka-po-ess-ta.  
Kyungcu-to car-by go-aux-Past-DEC

From the point of view of argument structure and subcategorization, main verbs in (27) are “mek-” and “ka-”, respectively. Auxiliaries like “per-” and “po-” seem to modifies the meaning of main verbs in various ways without affecting the argument structures of the main verbs. The crucial point here is that these auxiliaries carry inflection. Of course in case a main verb doesn't have auxiliary, the main verb itself carries inflection. It means that *Infl* lowers to V(See Barriers(Chomsky 1986) for details). This phenomenon doesn't seem to be exclusively limited to Korean auxiliary system. English, and Romance languages have this property Even in English copula be moves to *Infl*, not the other way around. Thus considerations of  $\theta$ -marking properties, argument structure, subcategorization and cross-linguistic properties of auxiliary systems lead us to the conclusion that Korean copula i- moves up to *Infl*. Now what happens if V moves to I? Within the Barriers system *Infl*, being nonlexical category, cannot be an inherent barrier. When V, a lexical category, moves into it, however, *Infl* becomes a barrier since it has incorporated a lexical category now. It has become a lexical head. Thus outside governor cannot govern across the amalgamated [V+I] cate-

gory. This new category itself, however, can be governed by another governor, for example by the matrix verb if the [V+I] is an element of the complement clause as in ECM constructions.

Now we are ready to explain why nominative lexical subject is allowed in Korean ECM constructions. We claimed that the complement of ECM verbs is [+tense] but [-lexicalized tense]. Now due to the head movement of V to I, the newly created [V+I] category is now lexical. That is, the feature [tense] is now lexicalized. Consequently, Infl is now not only specified as [+tense] but also specified as [+lexicalized tense]. In the next section, we will discuss similar phenomena in Italian.

### 3.4. Exceptional Nominative Case in Italian

In Italian as in other languages like French and English, only PRO can fill the subject position of infinitives :

- (28) \* ? Possiamo ritenere [queste persone avere sempre fatto illoro dovere]  
 We can believe [these persons to have always done their duties]

Rizzi(1982) observes that at a very formal, literary level of style, however, (28) can be grammatical when the subject NP and the aspectual auxiliary or copula are inverted .

- (29) Questa commissione ritiene [aver loro sempre ottemperatoagli obblighi previsti dalla legge]  
 This commission believes [to-have they/them always fulfilled the legal duties]

To account for (29), he argues that auxiliary moves to COMP and this auxiliary in COMP assigns nominative case to the lexical subject NP of the infinitives. In the terminology of Barriers framework, it means that auxiliary and copula move from V to I and finally to C. Now we have seen that the same mechanism is used in another language completely unrelated with Korean and that this mechanism is used for almost identical phenomena in their properties.

## 4 . Causatives

The so-called periphrastic causatives in Korean have interesting properties with regard to Binding Theory and Case Theory. I propose to explain these properties in terms of anaphoric tense.

### 4.1. Binding Condition(B)

As already noted in Section 2.2, periphrastic causatives in Korean have one property in common with ECM constructions in Korean :

- (30) a. Youngsoo-ka [k<sub>i</sub>-ka ka]-ke ha-ess-ta

- Youngsoo he-NOM GO caused
- b. Youngsoo-ka [ki-lil ka]-ka ha-ess-ta  
           he-ACC
- c. Youngsoo-ka [[ki-ka chuncae la-ko]] saengkakhan-ta.  
           he-NOM
- d. Youngsoo-ka [[ki-lil chuncae la-ko]] saengkakhan-ta.  
           he-ACC

That is, causatives also allow embedded subject NP to be either in nominative Case or in accusative Case. There is, however, one crucial difference between causatives and ECM constructions in terms of Binding Condition(B). In (30c), an ECM construction, matrix subject Youngsoo can be coreferential with the embedded nominative pronoun ki-. In (30a), causative with the embedded subject in nominative Case, however, the embedded subject pronoun cannot be interpreted as coreferential with the matrix subject. The problem is: why is there this difference? How are we going to explain this difference? As for (30b) and (30d), pronoun is necessarily interpreted as noncoreferential with the matrix subject because the entire sentence is the GC of the pronoun involved

As the first step toward solving this difficulty with Binding Condition (B), let us review some of the claims made here with regard to nominative Case marking in Korean.(1) even when tensed, Infl with [-lexicalized tense] cannot assign nominative Case to its subject NP: (2) Thus, Infl with [-lexicalized tense] allows Exceptional Case Marking: and (3) V-to-I head movement allows this [-lexicalized tense] Infl to be lexicalized and then nominative Case is assigned to its subject NP

With these assumptions in mind, let us first decide whether the embedded complement of causative verbs is tensed or nontensed. We notice immediately that quite unlike the ECM constructions, the complement clause of a causative verb cannot have tense-marking

- (31) a. Youngsoo-ka [[nae-ka ca-n-ta-ko]] saengkakhan-ta.  
           I-NOM sleep-Pres think
- b. \*Youngsoo-ka [[nae-ka ca-ta-ko]] saengkakhan-ta
- c. \*Youngsoo-ka [[na-lil ca-n-ta-ko]] saengkakhan-ta.
- d. \*Youngsoo-ka [[na-lil ca-ta-ko]] saengkakhan-ta.
- e. \*Youngsoo-ka [[ki-ka ka-n-ka]] ha-ess-ta.
- f. \*Youngsoo-ka [[ki-lil ka-n-ke]] ha-ess-ta.

The above array of data seems to suggest that the causative verb does not subcategorize for tense complement With this in mind, consider the following sentence :

- (32) Youngsook-ka [[ki-lil ka-ka]] ha-ess-ta

Now we can explain why the subject of the embedded complement clause is assigned

accusative Case. That is, the matrix causative verb governs and exceptionally assign accusative Case to the subject of the non-tensed complement. Furthermore, (32) doesn't present any problem with Binding Condition (B) since the entire sentence is the GC of the pronoun ki and it is free in that GC. Therefore, we will temporarily hypothesize that causative verbs subcategorize for nontensed complement clauses. This analysis, however, runs immediately into a problem with such an example as follows:

(33) Youngsoo-ka [[ki-ka ka-ka]] ha-ess-ta.

In (33) the embedded subject has nominative Case. If the complement clause of the causative verb is [-tense], where does it get its nominative Case? We noted above that unlike the ECM constructions the Infl of the complement clause of a causative verbs is not marked with any tense-marking. Let us suppose then that causative verbs subcategorize or both tensed and nontensed complements and that in case of tensed complement, tense-markings do not show up and that this invisible tense-marker assigns nominative Case. This will take care of the nominative Case in (33). The consequence of this analysis is that Case marking phenomena in causatives reduce to ECM phenomena. That is, in both cases, [-lexicalized tense] will account for nominative Case assignment. There are, however, at least two problems with this analysis. First, it doesn't explain why tense-marking must show up in the ECM construction in (31a) and it doesn't show up in the causatives. Second, it doesn't explain why Binding Condition (B) applies differently in the two constructions:

(34) a. Youngsoo-ka<sub>i</sub> [[k-ka<sub>i</sub> /<sub>j</sub>] ca-n-ta-ko]] saengkakhan-ta.  
 b. Yongsoo-ka<sub>i</sub> [[ki-ka\*<sub>i</sub> /<sub>j</sub>] ca-ke]] ha-ess-ta.

In the ECM construction (34a), pronoun ki can be coreferential with the matrix subject Youngsoo. This means that the GC of the pronoun is the embedded clause. On the other hand in the causative (34b), pronoun ki cannot be coreferential with the matrix subject. It means that the GC of the pronoun is the entire sentence, and thus the pronoun is free in its GC. This array of binding facts leads to the conclusion that we cannot just simply postulate [-lexicalized tense]. There must be something more or different is going on in the causatives. The problem is: What is it? In the next section, we will suggest a solution to this problem. We will propose that in Korean there is a type of anaphoric tense that doesn't constitute GC on its own.

#### 4.2. Anaphoric Tense in Causatives

In most languages of the world, according to J. Aissen(1979), the subject NP of the complement clause of a causative verb has either accusative Case or dative Case, depending on the characteristics of the language involved. Therefore, we can assume that the accusative

8) See Chomsky(1981 ; p.8-9)

subject NP of the embedded clause be accounted for by the unmarked options permitted by the principles of Universal Grammar (UG). On the other hand, the rarity of the nominative subject NP of the embedded complement of a causative verb leads us to the hypothesis that there exists a language-specific option available for the assignment of nominativeCase to the embedded subject of a causative construction in Korean. This special option, then, must be a marked one permitted by the principles of UG.

Going back to the unmarked case, i.e., the accusative subject NP, we can say that in this case, the complement clause must be infinitival since in this unmarked case accusativeCase is assigned to the lexical subject. In addition, S' must either be deleted or transparent to government by the matrix verb since case assignment is accomplished under government. One thing to note here is that we don't have to stipulate S' deletion or S' transparency. This is forced by Case Theory, unless, of course, there are other options available such as Case-assigning prepositional complementizer such as English for. Interesting thing is, however, that even in English this option is not taken in the case of causatives. Maybe we don't even need S' deletion itself since we can simply assume that causative verbs just subcategorize for S-complement whichever option we take, another interesting consequence is that though the complement clause of a causative verb is infinitival, PRO cannot occur as the subject because of S' deletion or simple subcategorization for S-complement. Furthermore, the embedded subject is necessarily disjoint in referent with the matrix subject, a natural consequence of Binding Condition(B)

Let us now go back to the marked option available in Korean. i.e., the case of the nominative embedded lexical subject NP. We will consider this problem from the point of view of learnability. First, let us assume that children learn only from positive evidence.<sup>8)</sup> There are at least two pieces of positive evidence. First, the lexical embedded subject is in the nominativeCase. Second, Binding Condition(B) tells them that the embedded clause is not the GC of the pronoun subject of the embedded clause. One possibility is that children decide that even in the marked case, the complement of the causative verbs is infinitival and that tenseless Infl may optionally govern the subject position since in Korean sometimes PRO and lexical NPs are not in complementary distribution as the following data show :

- (35) a. Youngsoo-nin [[PRO ka-ki-ro]] kyulcung ha-ess-ta  
 Yongsoo-TOP [[PRO go-to-Comp]] decided  
 b. Youngsoo-nin [[ki-ka ka-ki-ro]] kyulcung ha-ess-ta.  
 he-NOM

The problem with this analysis is that the embedded pronoun in nominativeCase ki-ka may be coreferential with matrix subject. Thus, the embedded clause must be the GC of the pronoun. Therefore, this analysis predicts that the same binding effect holds even in the case of the marked causative construction. This prediction, however, is not borne out, as (34b) clearly illustrates. There is, however, a simpler analysis consistent with the two positive

8) See Chomsky (1981, p. 8-9)

pieces of evidence mentioned above. That is, they will assume that the complement clause must be [+tense] in this marked case since its subject is assigned nominative Case. They then take the second positive evidence into consideration. That is, the embedded nominative subject is disjoint in reference with the matrix subject, quite unlike in (35b). Thus, the entire sentence is the GC of the embedded pronoun. These two pieces of positive evidence will force children to conclude that there is an Infl with [+tense] that assigns nominative Case to its subject but that this Infl is defective in that it is not the accessible SUBJECT to the subject pronoun. Let us call this defective tense anaphoric tense. Its another defective property is that it is not lexically realized. This anaphoric tense appears in the complements of such verbs as mantl-ta, and herakha-ta which form a semantically coherent set with ke-ha-ta. Of these verbs herakhata do not allow accusative Case assignment to the embedded subject. This peculiar property of the verb can be traced to the fact that this verb is syntactically complex in the sense that the light verb ha-ta has incorporated the noun herak which is its syntactic complement (See J.Grimshaw & A.Mester 1988).

Additional but indirect evidence for anaphoric tense comes from the binding differences between indicative and subjunctive complements in Romance languages (See Picallo 1984-1985 & Raposo 1985-1986).

- (36) a. O Manel pensa que (ele) le bastantes livros.  
           M think that (he) reads-Ind. enough books  
       b. O Manel deseja que (ele) leia mais livros.  
           M wishes that (he) read-Subj. more books.

The crucial point here is that in (36a) with indicative mood, its pronoun subject can be coreferential with the matrix subject, while such coreference is not possible when the complement is in subjunctive mood. Clearly, subjunctive mood in Romance languages corresponds nicely to the anaphoric tense in Korea.

## 5 . Conclusion

In this paper we have claimed that the complement clauses of ECM verbs in Korean are actually [+tense]. When the feature [+tense] is not lexicalized, however, the complement clauses show the characteristic property of an infinitival clauses: exceptional accusative case marking of the embedded subject. Here we see parametric variations in languages. That is, in English and Romance languages the feature [-tense] is simply the defining characteristic of an infinitive. Then we can define an infinitive as follows:

- (37) An Infl-max is an infinitive if [-(lexicalized) tense].

The element in parenthesis, i.e., lexicalized applies to Korean. A V-to-I movement has also been proposed to lexicalize the feature [+tense] in the ECM construction in Korean. Though



invisible, the copular-like verb, being a lexical category, is fully specified as [+V,-N]. Thus the [V+I] category lexicalize the feature [+tense]. This head-to-head movement has its analogues in Italian and European Portuguese(See Raposo 1987).

As for causatives in Korean, they have been classified into two types: unmarked vs marked case. The marked case, i.e., the one with nominative embedded subject, has been claimed to involve anaphoric tense in the complement clause. This claim is based upon the effect of Binding Condition(B). This anaphoric tense is equivalent to the subjunctive mood or tense in Romance languages. In the final analysis, then, AGR may not be the relevant factor in the assignment of nominative Case in Korean.

### Bibliography

- Choe, H-S(1986), "AGR, Control and Multiple Identical Case Construction," ms., MIT
- Chomsky, N(1977), "On *Wh*-movement," in Culicover, Wasow and Akmajian, eds.
- Chomsky, N(1981), *Lectures on Government and Binding*, Foris.
- Chomsky, N(1986), *Barriers*, MIT Press.
- Han, HS(1987), *The Configurational Structure of the Korean Language*, Doctoral dissertation  
University of Texas at Austin.
- Kayne, R(1984), *Connectedness and Binary Branching*, Foris.
- Picallo, M(1985), "Opaue Domain," in *The Linguistic Review* : 4
- Raposo, E(1986), "Some Asymmetries in the Binding Theory in Romance," in *The Linguistic Review* : 5
- Raposo, E(1987), "Case Theory and Infl-to-Comp. The Inflected Infinitive in European Portuguese," in *Linguistic Inquiry*, vol.18
- Rizzi, L(1982), *Issues in Italian Syntax*, Foris.