# [Tense] Values and Their Relation to Clausal Subordinateness in Korean\*

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Lee, Eun-ii. 2002. [Tense] Values and Their Relation to Clausal Subordinateness in Korean. The Linguistic Association of Korea Journal, 10(3), 77-99. In this paper I claim firstly that there is finite and nonfinite distinction among clauses in Korean, as in English. Those clauses where traditionally-called tense markers cannot appear are nonfinite ones, whereas those clauses where the tense markers can show up are finite ones. We assume that clauses which can have an overt tense marker but do not have any contain a null (or covert) tense marker. We claim secondly that Korean traditionally-called tense markers can receive either absolute or relative time reference interpretation. Tense markers which appear in subordinate clauses have relative time reference, whereas those which show up in matrix clauses have absolute time reference. Thirdly, we claim that controversial, traditionally-called tense markers in Korean are either [+tense] or [-tense], hence, they are either grammatical tenses or not. Tense markers which appear in matrix clauses are [+tense] as grammatical tenses, whereas those which show up in subordinate clauses are [-tense] and not grammatical tenses at all.

**Key words:** matrix/subordinate clauses, finite/nonfinite clauses, tense markers, absolute/relative time reference, grammatical tense

# 1. Introduction

In English (or similar languages), a grammatical category tense is represented by subject-verb agreement, that is, as a finite form. So, nonfinite forms such as infinitives, gerunds and participles are

According to Stowell (1982), while infinitives in ECM and raising have no tense operators, control infinitives have. Nevertheless, all of these infinitives are untensed.

assumed to be untensed. We assume that tensed verbs or clauses are [+tense], but infinitives, gerunds and participles are [-tense], [tense] being a grammatical tense feature. In English, while nonfinite verbs appear in subordinate clauses or phrases, finite verbs appear in either matrix or subordinate clauses. Wherever they show up, their tense value is constant, the former being [-tense] and the latter [+tense]. On the other hand, in Korean, where tense is not realized as subject-verb agreement, [+/-tense] distinction does not depend on (finite/nonfinite) forms.<sup>2)</sup> In this language, lexical items such as  $(nu)n^{3}$  and  $e/ass.^{4)}$ which appear only in predicative clauses, or nun and (u)n, which appear only in pre-modifying (hence, subordinate) clauses, are traditionally considered as tense markers. Linguists recently argue that they are neither all nor always tenses. However, there have been few hypotheses that have explanatory power in accounting for whether or where they are tenses. We assume that they are not arbitrarily [+tense] or [-tense] and that their forms being constant, they are [+/-tense], depending on where they show up. The purpose of this paper is to find out a mechanism which tells us whether or where they are tenses.

To achieve that goal, we will first examine in section 2 whether or where the above-mentioned tense markers are interpreted absolutely or relatively.<sup>5)</sup> If they are interpreted as being absolute time reference, it

2) We take clauses with traditionally-called tense markers finite clauses and those without them nonfinite clauses.

<sup>3)</sup> Nam (1978) do not consider (nu)n as an independent morpheme nor as a tense marker. On the other hand, Lee (2001b) argues for (nu)n as an independent morpheme. See the reference for details. At this point we assume temporarily it belongs to a group of the traditionally-called tense markers.

<sup>4)</sup> So-called tense marker *e/ass* may appear in pre-modifying clauses, but only with *ten*, the so-called retrospective marker.

<sup>5)</sup> To investigate whether the traditionally-called tense markers in Korean are grammatical tense forms, we rely on their interpretation, that is, semantics of them. We believe this reliance is a valid one since forms and meanings are interactive. Linguists believe that meanings are involved in determining forms, (and vice versa). For example, it is generally assumed that the subject in passives is originally present in the complement position of the verb in phrase

would indicate that they are [+tense] as tenses, whereas if they are interpreted as being relative time reference, it would indicate that they are [-tense] and do not behave as tenses. For example, in English, finite verb forms, which are [+tense], have absolute time reference, whereas nonfinite ones, which are [-tense], have relative time reference. Previously, linguists such as Nam (1978), Han (1996) and Sohn (1995) (with a little bit different approach, though) examined whether the traditionally-called tense markers are interpreted absolutely or relatively and when they do so. In this paper, we will show that some of their findings are not correct. In section 3, we will take a look at previous analyses of Korean tense markers and show that they have problems. In section 4, we will suggest a syntactic mechanism that tells us whether or where those markers are [+tense] as tenses.<sup>6)</sup> In section 5, we will conclude this paper.

# 2. Clausal (Non)Subordinateness and Absolute/Relative Time Reference

In this section, we will examine whether or where the traditionally-called tense markers in Korean are interpreted absolutely or relatively. Before moving on, we first briefly introduce absolute and relative tense.

In Reihenbach's (1947) tense system, tense is given its time interpretation in a way that an event time is determined, based on the speech time and the reference time. In Comrie's (1985) tense system, which is developed from Reihenbach's, tense can be interpreted as

marker since it is the complement of the verb, which assigns a semantic role to it, that is, meanings are reflected in forms of phrase structures. To give one more example, we assume to have TP (tense projection), NegP (neg projection), and the like, in phrase marker, considering the semantics of them, which contribute to determining the meanings of the sentences where they appear.

<sup>6)</sup> This paper is an extended version of Lee (2001a), where it is examined whether the traditionally-called tense markers which appear in predicative clauses are interpreted absolutely or relatively.

absolute or relative time reference. With absolute tense, the reference time point for determining time of a situation is the present moment that is the moment of speech, whereas with relative tense, the reference time point is given in the context, that is, for example, a matrix tense can determine the reference time point for the time interpretation of an embedded verb; a verb under absolute tense receives absolute time reference interpretation, whereas a verb under relative tense has relative time reference interpretation. For example, in English, a finite verb has absolute time reference, regardless of whether it is in a matrix or subordinate clause, while a nonfinite verb has relative time reference. Let us take a look at one more example. Comrie (1985) reports that in Imbabura Quechua a matrix verb has absolute time reference, whereas a subordinate verb mostly has relative time reference, and this is true of many languages. However, as Comrie reports, absolute or relative time reference interpretation is not derived by the context such as (non)subordinateness, but is part of the meaning of the (verb) form. So, for example, in Imbabura Quechua, verbs in relative clauses have absolute time reference and suffixes are distinct for absolute and relative tense.

Korean, we have lexicalized (traditionally believed) In morphemes such as (nu)n or e/ass of predicative clauses and nun or (u)n of pre-modifying clauses. Nam (1978) for the first time observes correctly that these morphemes are interpreted absolutely or relatively. However, he claims that since their absolute or relative interpretations are unsystematical, those morphemes are not grammatical tenses and even do not belong to any grammatical category. We will show below this claim is wrong. Han (1996) examines where the traditionally-called tense markers are interpreted absolutely or relatively. However, some of his findings are not correct, as we will show below.

#### 2.1. Subordinate Clauses

### 2.1.1. Non-Finite Clauses

In Korean there are conjunctive clauses where (nu)n and e/ass cannot show up,<sup>7)</sup> which we call non-finite clauses. They are led by certain subordinate conjunctives. One of these is given in (1).<sup>8)</sup>

(1) Chelswu-ka ku meli-pis-ul [ e e sa-(\*ass)-se]
nom that hair-brush-acc buy-past-after
Yenghi-eykey cwu-ess-ta.
to give-past-dec
'Chelswu bought the hair brush and gave it to Yenghi'

There is another nonfinite type of subordinate clauses, which are all verbal complements.<sup>9)</sup> Following is an example of these clauses.

(2) Chelswu-nun [ e Yenghi-wa kyelhonha-(\*ess)-ko] siph-ess-ta.

top with marry-past-to want-past-dec
'Chelswu wanted to marry Yenghi.'

Chelswu-nun [nayil e Yenghi-lul mana-ass-emyen] ha-ess-ta.
top tomorrow acc meet-past-if do-past-dec
'Chelswu wished that he would have met Mary tomorrow (but he met her yesterday).'

This definitely indicates that the time references of the subordinate verbs are relative.

<sup>7)</sup> Sohn (1995) postulates the null tense morpheme  $\phi$  in this case. According to Sohn's analysis, there is no distinction between finite clauses which can take overt tense morphemes but where none of them appears, and nonfinite clauses which can not take any tense morphemes. She postulates  $\phi$  in both cases. We will see below that this claim of Sohn's is problematic. Also see Lee (2001b) for an argument against postulating the  $\phi$  morpheme. To Nam (1978) and Han (1996), distinction between those two kinds of clauses exists in Korean.

<sup>8)</sup> From now on, we take (nu)n and e/ass in the gloss as present and past tense respectively, following tradition, for convenience's sake.

<sup>9)</sup> There is a finite type of verbal complement in Korean, where *e/ass* can appear. The verbs of the verbal complements have relative time reference in this case of finite type, too. We see in the example below that a future time adverbial is compatible with *e/ass*, a so-called past tense marker.

Verbs in these clauses are nonfinite, bare forms. They have relative time reference, their time interpretation depending on the tense of the matrix clauses, like nonfinite verbs in English.

# 2.1.1. Finite Clauses

# 2.1.2.1. Predicative Clauses

There are clauses where (nu)n or e/ass can appear,  $^{10}$  which we call finite clauses. Now, the finite verbs in all subordinate (predicative) $^{11}$  clauses have relative time reference in Korean. We will look at three types of subordinate finite clauses: conjunctive, nominalized, and quotative clauses. For conjunctive clauses, we see in (3) that e/ass is compatible with a present (a) time adverbial and a past time adverbial shows up without e/ass (b).

(3) a. Chelswu-ka cikum hakkyo-ey ka-ass-taka tolao-n-ta.

nom now school-to go-past-but-then return-pres-dec
'Chelswu is now going back home after he has been to school.'

b. Chelswu-ka ecey ku il-ul ha-ki-ey
nom yesterday that work-acc do-to-since
na-to ku il-ul ha-ess-ta.
I-also that work-acc do-past-dec

'Since Chelswu did the work yesterday, I did it, too.'

<sup>10)</sup> Opposing the hypothesis of the  $\phi$  morpheme as a present tense (Park (1994), Sohn (1995), among others), Lee (2001b) suggests that when a clause which can have a traditionally-called tense morpheme does not have any such morpheme, it would have the covert or null present tense (Pres<sub>null</sub>) by default for its time interpretation. According to this suggestion, where e/ass does not show up, the verbs are not nonfinite, bare forms, but have  $Pres_{null}$  for its time interpretation.

<sup>11)</sup> Morpheme (nu)n does not appear in subordinate predicative clauses, but in matrix ones.

This fact clearly indicates that the subordinate verbs have relative time reference.<sup>12)</sup> As for nominalized clauses, interestingly enough for our purpose, both past and future time adverbials are compatible with the same forms of the finite verbs in these clauses.

(4) Chelswu-nun [Yenghi-ka ecey/nayil Seoul-ul ttena-ki]-lul wonha-ess-ta. top nom yesterday/tomorrow acc leave-to-acc want-past-dec 'Chelswu wanted Yenghi {to have left Seoul yesterday/to leave Seoul tomorrow}.'

It explicitly shows that the subordinate verb receives relative time interpretation. For English indirect quotations, the verbs of the embedded clauses are finite and have absolute time reference. In contrast, for Korean indirect quotations, the embedded verbs are finite but have relative time reference, the tense of the matrix clause determining the reference point in time. Nam (1978) claims that for indirect quotations, the embedded verbs have absolute as well as relative time reference. We immediately see that this claim is wrong. Notice that the past and future time adverbials are compatible with the so-called future (l+kes in 5a)14) and past (ess in 5b) tense markers respectively in indirect quotations.

<sup>12)</sup> It should be noted that in (3) the time adverbials modify not only matrix but also subordinate VPs. That is, their scopes are not only matrix but also subordinate clauses.

<sup>13)</sup> In English, in certain contexts, the embedded verb can receive relative time reference interpretation.

<sup>(</sup>i) Chelswu will say that Yenghi {a. is reading / b. has read} the book. However, such situations are very limited in English. Thus, only when the matrix verb is future-tensed, the subordinate verb is present-tensed with a meaning of future time.

<sup>14)</sup> The expression *-l kes*, which is interpreted as the future time, is assumed to be structured as an irrealis mood marker plus a degenerate noun. A clause led by a degenerate noun is a kind of pre-modifying one. Since the one that is involved in giving a future time interpretation to this kind of clauses is in fact the irrealis mood marker (which is not a tense), the clause always receives relative time interpretation. For that matter, we will argue below that verbs in pre-modifying clauses always receive relative time reference.

- (5) a. Na-nun [Yenghi-ka ecey o-l kes-i-lako] malha-ess-ta.

  I-nom nom yesterday come-irr dn-be-comp say-past-dec
  'I said that Yenghi would come yesterday.'
  - h Kii-iin [ e navil kıı ha-ess-ta-kol he-top tomorrow that work-acc do-past-dec-comp taum cwu-ey sangkwan-eykey malha-l kes-i-ta. next week-in boss-to sav-irr dn-be-dec 'He will say to his boss next week that he has done the work tomorrow.'

This shows definitely that the embedded verbs have relative time reference only. It should be noted that the same forms of the finite verbs in indirect quotations have absolute time reference when they appear in direct quotations. Thus, in this case, the past and future time adverbials, such as we saw in (5), are not compatible with the so-called future or past tense markers respectively.

- (6) a. \*Na-nun malha-ess-ta, "Yenghi-ka ecey o-l kes-i-ta."

  I-nom say-past-dec nom yesterday come-irr dn-be-dec

  '\*I said, "Yenghi will come yesterday."'
  - b. \*Ku-un taum cwu-ey sangkwan-eykey malha-l kes-i-ta he-top next week-in boss-to say-irr dn-be-dec "Nayil e ku il-ul ha-ess-ta" tomorrow that work-acc do-past-dec-comp '\*He will say to his boss next week, "He did the work tomorrow."

This fact clearly shows that indirect quotations are different in property from direct ones in Korean, although the forms of the verbs concerned here are same in each instance.

# 2.1.2.2. Pre-Modifying Clauses

In Korean, the traditionally-called tense system is different between

predicative and pre-modifying clauses. What we have seen so far is the one for predicative clauses: (nu)n (for the present) and e/ass (for the past). In pre-modifying clauses,  $^{15)}$  nun (for the present) and (u)n (for the past) show up. And (u)l appears for future time reference in both predicative and pre-modifying clauses.  $^{17)}$  Pre-modifying clauses are located immediately before nouns and have two kinds: relative clauses and noun complements. They are all subordinate clauses. And they all have relative time reference. We will see it shortly.

Most of the linguists in Korean, including Nam (1978) and Han (1996), claim that the verbs in relative clauses can have absolute (as well as relative) time reference. Their claim is based on examples like the following. Let us first take a look at (7) for illustration.

(7) Chelswu-ka [ e chengsoha-nun] salam-ul ttayli-ess-ta.

nom clean-pres man-acc hit-past-dec
'Chelswu hit the man who was/is cleaning.'

In (7), the embedded verb has relative time reference, its time reference being the present in the past. This interpretation (the subject-oriented interpretation) is unmarked. The subordinate verb can also have absolute time reference, its time reference being the present moment. However, this absolute time reference interpretation (the speaker-oriented interpretation) is triggered by a pragmatic situation. That is, when the speaker speaks the sentence, s/he is watching the man cleaning right in front of her/his eyes. If a speech-time-oriented indexical is added, the embedded verb would have absolute time

<sup>15)</sup> There have been controversies for morphemes nun, (u)n and (u)l in their morpheme boundaries and identifications. We do not go into details of them since they are not directly related to the argument in this paper. However, at this point we temporarily assume those morphemes belong to a group of tense markers, following tradition.

<sup>16)</sup> With stative verbs and adjectives, (u)n is interpreted as present time reference. For them, e/ass-ten is used for past time reference.

<sup>17)</sup> For future time reference, phrase (*u*)*l kes-i* 'irr dn-be' is used with predicative clauses and solitary (*u*)*l* with pre-modifying clauses.

reference only.

(8) Chelswu-ka [ e ce chengsoha-nun] salam-ul ttayli-ess-ta.

nom that clean-pres man-acc hit-past-dec
'Chelswu hit that man who is cleaning.'

However, this phenomenon of having absolute time reference is only The speech-time-oriented indexicals, but not the context of clause. subordinate (relative) trigger absolute time interpretation. Thus, without the speech-time-oriented indexicals or in unmarked case, the embedded verbs would have relative time reference. For relative time reference interpretation, the present moment is just one of the possible reference time points, like that determined by the tense of the matrix clause. It should be noted now that any time adverbials are compatible with the same forms of the verbs in relative clause with regard to tense.

- (9) a. [Ecey/Nayil sang-ul tha-l] salam-i acik an nathana-n-ta. yesterday/tomorrow prize-acc get-fut man-nom yet not appear-pres-dec 'The man who {would have got the prize yesterday/ will get the prize tomorrow} has not appeared yet.'
  - b. Na-nun i ton-ul [eccy/nayil ku il-ul I-top this money yesterday/tomorrow that work-acc ha-n] salam-eykey cwu-l kes-i-ta.
    do-past man-not appear-fut dn-be-dec
    'I wll give this money to the man {who did the work yesterday/will have done the work tomorrow}.'

We see in (9) that a past time adverbial shows up with the so-called future and present tense markers and a future time adverbial with the so-called past tense marker. All of it clearly indicates that embedded verbs of relative clauses have relative time reference. In Korean we have a kind of noun complement whose head is a degenerate noun such as *kes*. The verbs of noun complements, like those of relative clauses,

have relative time reference. 18)

(10) Na-nun [Chelswu-ka ecey Mokpo-ey ka-l] kes-ul al-ass-ta.

I-top nom yesterday to go-fut dn-acc know-past-dec
'I knew that Chelswu would go to Mokpo yesterday.'

We see in (10) that a past time adverbial is compatible with the so-called future tense marker. We have seen in this section that clauses which are embedded within nouns such as relative clauses and noun complements all have relative time reference.

#### 2.2. Non-Subordinate Clauses

In Korean, matrix verbs are all finite, so that they can appear with traditionally-called tense markers such as (nu)n and e/ass. And they all have absolute time references, like finite verbs in English.

(11) a. Chelswu-nun cikum/\*ecey Mokpo-ey ka-n-ta.
top now/yesterday to go-pres-dec
'Chelswu is going to Mokpo now/\*yesterday.'

b. Chelswu-nun ecey/\*cikum cha-lul kochi-ko iss-ess-ta. top yesterday/now car-acc fix-ing be-past-dec 'Chelswu was fixing a car yesterday/\*now.'

Thus, past and present time adverbials are not compatible with present and past tense morphemes respectively.

In Korean, certain conjunctives which allow finite verbs to show up always derive absolute time interpretation. These are all coordinate conjunctives. Some of coordinate conjunctive clauses are given in (12).

<sup>18)</sup> This is true of noun complements led by other degenerate nouns like *cwul* (for declaratives), *ci* (for questions).

(12) a. Chelswu-nun ecev Pusan-ev ka-\*(ass)-ci-man. top yesterday go-past-dec-but to Kyengjwu-ev ka-ass-ta. Yengswu-nun ton to go-past-dec 'Chelswu went to Pusan, but Yenghi went to Kvengiwu, vesterdav.' b Chelswii-niin ecev silhem-11 ha-\*(ess)-una top yesterday that experiment-acc do-past-but Yengswu-nun cikum ku silhem-ul top now that experiment-acc do-pres-dec 'Chelswu did the experiment yesterday, but Yenghi is doing it now.'

The finite verbs of the clauses which are led by coordinate conjunctives never have relative time reference, but only have absolute time reference, as we see in the above examples.

# 2.3. Clauses with Ambiguity

In Korean, some of the conjunctives are ambiguous, so that clauses which are led by these conjunctives can have absolute or relative time reference. Conjunctives such as -ko and -(u)mye belong to this group. Let us first take a look at -ko for illustration.

(13) a. Chelswu-nun ecey Pusan-ey ka-(ass)-ko,
top yesterday to go-past-and
Yengswu-nun onul achim-ey Keyngjwu-ey ka-ass-ta.
top today morning-in to go-past-dec
'Chelswu went to Pusan yesterday and
Yengswu went to Kyengjwu this morning.'
b. Yenghi-nun cacenke-lul tha-(\*ass)-ko hakkyo-ey ka-ass-ta.
top bicycle-acc ride-past-while school-to go-past-dec
'Yenghi went to school, riding a bicycle.'

In (13a), the conjunctive -ko means and, being a coordinate conjunctive.

The finite verb of the clause led by -ko with that meaning has absolute time reference as a matrix verb. In this case, the clause led by -ko can be without e/ass. This is only a property of -ko when it is a coordinate conjunctive. The other coordinate conjunctives do not have this property, as we can see in (12). As is well known, in (13a), in the case where e/ass is absent, the sentence is analyzed as in (14).

(14) [[Chelswu-nun ecey Pusan-ey ka-]ko, [Yengswu-nun top yesterday to go-and top onul achim-ey Kyengjwu-ey ka]]-ass-ta. today morning-in to go-past-dec

In (14), the two clauses are in the domain of e/ass, which is located on the higher position in phrase structure tree. On the other hand, in (13b), the conjunctive -ko means while, being a subordinate conjunctive. The verbs of the clauses led by -ko with that meaning have relative time reference as subordinate verbs. They are nonfinite, bare forms, while e/ass cannot be present. The time interpretation of the subordinate clauses depends on the tense of the matrix clauses. Take a look at another conjunctive which is ambiguous, for more illustration.

(15) a. Myech-pwun cenev Chelswu-nun hakkyo-ey some-minute before school-to top ka-\*(ass)-umye, Yengswu-nun ka-ass-ta. cip-ey go-past-and top home-to go-past-dec 'Chelswu went to school and Yengswu went home, some minutes ago.'

b. Chelswu-nun sinmwun-ul po-(\*ass)-mye pap-ul top newspaper-acc see-past-while meal-acc mek-ess-ta. 'Chelswu ate a meal, eat-past-dec while reading a newspaper.'

In (15a), -(u)mye means and and behaves as a coordinate conjunctive. In this case, the finite verb of the clause led by the conjunctive has absolute time reference as a matrix verb. The absence of e/ass is not

allowed, while the time reference of the clause led by the conjunctive is the past. <sup>19)</sup> In contrast, in (15b), the same conjunctive behaves as a subordinate conjunctive. In this case, even though the time reference of the clause led by the conjunctive is the past, *e/ass* is not allowed to be present. The subordinate verb is a nonfinite, bare form. The time interpretation of the subordinate clause depends on the tense of the matrix clause. As we saw, the verbs of the clauses led by the conjunctives which are ambiguous have absolute or relative time reference, depending on whether the conjunctives behave as coordinate or subordinate ones.

#### 3. Previous Accounts

We have seen so far that while matrix verbs have absolute time reference, subordinate verbs have relative time reference. There have been two main analyses with regard to this absolute or relative time reference interpretation. In this section, we will examine them and show that they have some problems.

### 3.1. Co-Indexing and Condition C

Sohn (1995) analyzes the traditionally-called tense markers in Korean, taking a little bit different approach from the one in this paper. Sohn does not analyze them (with regard to [+/-tense]) in terms of having absolute or relative time reference, but in terms of binding theory. Now I briefly introduce Sohn's analysis, and then show some problems of Sohn's analysis.

<sup>19)</sup> When the time reference of the clause led by the conjunctive is the present, we do of course not have e/ass there, as shown below.

Chelswu-nun cikum hakkyo-ey ka-mye, Yenghi-nun cip-ey ka-n-ta top now school-to go-and top home-to go-res-dec 'Chelswu is now going to school, and Yenghi is going home.'

In this case, the subordinate verb is not a nonfinite, bare form, unlike (13b) and (15b) in the text, but we have  ${\rm Pres}_{\rm null}$  for present time interpretation.

Sohn proposes free indexing of tense and tense only, treating it like a Sohn suggests that tense marker e/ass is an R-expression, which is subject to Condition C and null-form tense  $\phi$  is a pronominal. which is anaphoric or deictic. Sohn postulates  $\phi$  whenever no overt tense morpheme appears, and value of  $\phi$  varies, being past or nonpast (present and future), depending on whether it is anaphoric (past) or deictic (nonpast). Sohn claims that matrix e/ass is a tense<sup>20)</sup> which is past, whereas subordinate e/ass is not a tense (due to Condition C), (but aspect which is perfective). In the latter case, null-form tense  $\phi$ is postulated for time interpretation. According to Sohn, matrix  $\phi^{(21)}$  is a tense which is always deictic, whereas subordinate  $\phi$  is a tense which is anaphoric or deictic, (or something else, probably aspect). Further, Sohn claims that the traditionally-called tense markers, such as (u)n, nun, and (u)l, which appear in pre-modifying clauses are not tenses at all. So, Sohn postulates null-form tense  $\phi$  in all those clauses for time interpretation.

Sohn's analysis introduced above has some problems. First, Sohn does not distinguish finite clauses from nonfinite ones. As we see in section 2, among subordinate, predicative clauses, those where traditionally-called tense markers such as e/ass cannot appear are taken to be nonfinite clauses, whereas those where e/ass can appear are taken to be finite clauses, regardless of whether it appears or not. Thus, under Sohn's analysis, there is no overt distinction between nonfinite clauses and finite clauses where e/ass does not appear. Sohn argues that for those clauses where e/ass cannot appear, it cannot appear because of Condition C.

(16) Chelswu-nun [ e hakkyo-ey ka-\*assi-ese] Yenghi-lul manna-assi-ta.

top school-to go-past-while acc meet-past-dec
'Chelswu met Yenghi, while he has been at school.'

20) Except that matrix e/ass behaves as perfect. In this case, she postulates  $\phi$  for time interpretation.

<sup>21)</sup> Sohn does not consider matrix (nu)n (for present) or (u)l kes-i (for future) tense markers. So, she postulate  $\phi$  for time interpretation in this case.

As illustrated in (16), if ass is present in the subordinate clauses, the higher ass would bind the lower ass, violating Condition C. Notice that this argument is based on the assumption that the subordinate e/ass is a tense, which has index. However, it is contradictory to Sohn's own claim that subordinate e/ass is not a tense (but aspect).

Suppose it is an aspect, which has no index. In this case, null-form tense  $\phi$  is postulated for time interpretation, according to Sohn.

(17) Chelswu-nun [ e hakkyo-ey ka-\*ass- ∅ i-ese] Yenghi-lul
top school-to go-past-while acc
manna-assi-ta.
meet-past-dec
'Chelswu met Yenghi, while he has been at school.'

Then, there would be no violation of Condition C. But, the sentence is still ungrammatical.

Now, suppose e/ass is a tense, which has index, as in (17), for argument's sake. Then, we would have a violation of Condition C. However, there are ways by which a violation of Condition C is avoided. First, if matrix tense is not past, but present  $(manna-n_j-ta)$  or future  $(mana-l_k \ kes-i-ta)$  with different indices, then no violation of Condition C would occur. The sentence should be grammatical, contrary to fact. Second, suppose the subordinate clause is preposed as in (18).

(18) [ e hakkyo-ey ka-\*ass<sub>i</sub>-ese] Chelswu-nun Yenghi-lul school-to go-past-while top acc manna-ass<sub>i</sub>-ta.

meet-past-dec
'While he has been at school, Chelswu met Yenghi.'

There would be no violation of Condition C, the embedded *e/ass* not being c-commanded by the matrix *e/ass*. But, the sentence is still ungrammatical. We conclude that nonfinite clauses exist separately

from finite ones in Korean.

Under Sohn's analysis, all subordinate (as well as matrix) clauses have tenses, thanks to postulation of null-form tense  $\phi$ . However, existence of this null-form tense is suspicious in some ways. First, according to Sohn, value of  $\phi$  can be past or nonpast (present and future). That is, it can be interpreted as being any time reference. Thus, it is compatible with any (past, present, or future) time adverbials. This exactly means that it is not tense at all.

Second, Sohn assumes that null-form tense  $\phi$  can be either anaphoric or deictic in all subordinate clauses. Furthermore, even though all else being equal, it can be anaphoric or deictic, depending on a time adverbial it is accompanied with.

(19) Chelswu-nun [Yenghi-ka a. ecey hakkyo-ey ka-
$$\phi_i$$
-m]-ul top nom yesterday school-to go-past-nm-acc b. nayil  $\phi_j$  tomorrow fut

al-assi-ta.

know-past-dec

'Chelswu knew that Yenghi a. went to school yesterday.'
b. would go tomorrow

According to Sohn, in (19a) the embedded  $\phi$  is past, which is the same with the matrix tense, and so it is anaphoric; in (19b) it is future, which is different from the matrix tense, and so it is deictic. However, the fact that the embedded  $\phi$  is compatible with both past and future time adverbials clearly indicates that it gets specified, being deictic, as past or future by the past or future time adverbials respectively and happens to be same with or different from the matrix tense.

Third, Sohn stipulates that when the (embedded) null-form tense  $\phi$  is deictic, it is nonpast (present or future), implicitly showing that when it is anaphoric, it is past. This stipulation is ad hoc. Suppose that the matrix tense in (19) is present or future, as well as past, and that the time adverbial is a present, as well as past or future, one.

(20) Chelswu-nun [Yenghi-ka ecey hakkyo-ey ka-\$\phi\_i-m\$]-ul al-assi-ta.

top nom yesterday school-to go-past-nm-acc know-past-dec

nayil  $-\phi_{j}$  —  $-l_{j}$  kes—i—tomorrow fut fut dn—be cikum —  $\phi_{k}$  —  $-n_{k}$ —now pres pres

Sohn shows only that in (20) the embedded  $\phi$  is deictic when it is compatible with the future and present time adverbials, with the matrix tense being past, as in (19). We wonder whether the embedded  $\phi$  is deictic or anaphoric when it appears with the future time adverbial with the matrix tense being future and when it shows up with the present time adverbial with the matrix tense being present. We see that in (20) the embedded  $\phi$  is compatible with any time adverbials. Further, even if with no time adverbials, it can be any time reference in accord with the matrix tense. All of these definitely indicate that the embedded null-form tense  $\phi$  is unspecified and further not tense at all.

### 3.2. Tense Interpretation Principle

Han (1996) examines conjunctive clauses, considering whether they have absolute or relative time reference, concluding correctly that when conjunctive clauses are subordinate, they have relative time reference, whereas when they are coordinate, they have absolute time reference, and suggests the following tense interpretation principle for conjunctive clauses.

#### (21) Tense Interpretation Principle (TIP):

In conjunctive clauses, when a tense marker A is c-commanded by another tense marker B, A's reference time point is the time reference of B. Otherwise, A's reference time point is the present or speech time.

The TIP states that subordinate (conjunctive) clauses have relative time

reference, whereas coordinate clauses have absolute time reference.

Han's account above has some problems, however. First, the TIP is ad hoc since it is applied particularly for conjunctive clauses. However, Han tries to generalize the TIP, applying it correctly to other kinds of clauses such as nominalized clauses and quotative clauses.

As for pre-modifying clauses, Han claims that they have absolute as well as relative time reference. This is not what the generalized TIP predicts. According to what it predicts and as we saw in section 2 above, relative clauses should have relative time reference only. Han argues that relative clauses can have absolute time reference since NPs within which relative clauses are embedded can function as a kind of blocker to relative time reference interpretation. However, it is not crystal-clear (i) why an NP sometimes functions as a blocker and sometimes it does not; (ii) when an NP functions as a blocker and when it does not; (iii) why an NP can be a blocker anyway. Furthermore, in the case of adverbials like -(u)l ttay-ey '-comp time-at', a relative clause is embedded within an NP, which is in turn embedded within a PP.

(22) Nav-ka ecey/nayil Mokpo-ey ka-ass-ul ttay-ey I-nom vesterday/tomorrow to go-past-comp time-at Chelswu-lul manna-ass- / -l e kes-i-ta. meet-past fut dn-be-dec 'When I went/have been to Mokpo yesterday/tomorrow, I met/will meet Chelswu.'

Nevertheless, the relative clause has relative time reference, as we see in (22), where the past and future time adverbials are compatible with the so-called past tense marker *e/ass*. It clearly shows that neither NPs nor PPs are blockers to relative time reference interpretation.

Second, the TIP is just a stipulation. It would be better if we have an account for it. That is, it should be accounted for why a tense marker A would be interpreted relatively when it is c-commanded by another tense marker B, and when it is not, it would be interpreted

absolutely. It should also be accounted for why it is not the other way around. Further, we need a mechanism to guarantee that a tense marker A would have relative time reference when it is c-commanded by another tense marker B, and when it is not, it would have absolute time reference, but not the other way around. We will suggest one mechanism in the next section.

# 4. (Non)Subordinate Clauses and Their [Tense] Value

We have seen in section 2 that, in Korean, subordinate verbs, regardless of whether they are finite or nonfinite, receive relative time reference interpretation, whereas matrix verbs, including those within coordinate conjunctive clauses, which are all finite, get absolute time reference interpretation. In other words, finite verbs have relative or absolute time reference, depending on whether they appear in subordinate or matrix clauses, whereas nonfinite verbs, which are always subordinate, have relative time reference only.

To account for this phenomenon, let us take a look at the English case first for explicit illustration. In English, finite verbs represented by tense/Agr always have absolute time reference, regardless of whether they show up in matrix or subordinate clauses.<sup>22)</sup> Tense/Agr is a tense marker, being [+tense], which is specified. Hence, it derives absolute time reference interpretation. On the other hand, nonfinite verbs, being [-tense], always derive relative time reference interpretation and their

However, the relative time reference interpretation is not triggered by the context where they are in subordinate clause, but by grammatical forms of the past of the auxiliary in (ia) and the past perfect in (ib). These forms themselves determine the relative reference time point for time interpretation of the embedded verbs. Of course, those grammatical tense forms are determined by the tense form of the matrix clauses by the grammatical tense form agreement in English.

<sup>22)</sup> A reviewer points out that a finite verb can have relative time reference, presenting the following examples.

<sup>(</sup>i) He said that he would come.

<sup>(</sup>ii) He said that he had been to New York.

reference time point is time reference of a higher tense/Agr.

We see that a tense marker (or verb/clause) which is [-tense] receives relative time reference interpretation, whereas those which are [+tense] get absolute time reference interpretation. Then, it follows that in Korean, a subordinate tense marker/verb/clause, which has relative time reference, is [-tense], whereas a matrix one, which has absolute time reference, is [+tense]. We now have the following principle for grammatical tense in Korean.

# (23) Principle for Tense (PFT):

A tense marker A is [-tense] if and only if it is c-commanded by another tense marker B. Otherwise, it is [+tense].

A subordinate, finite or nonfinite, verb in Korean is [-tense] and a matrix, always finite, verb is [+tense] by the PFT. Hence, the former has relative time reference and the latter has absolute time reference. By the PFT, matrix *e/ass* (or (*nu*)*n*) of predicative clauses is [+tense] as a grammatical tense. On the other hand, subordinate *e/ass* is [-tense], not being a grammatical tense. Further, by the PFT, the traditionally-called tense markers, (*u*)*n*, *nun*, or (*u*)*l* of pre-modifying clauses are all [-tense] and not grammatical tenses. By the PFT, a subordinate tense marker/verb/clause never has absolute time reference, and a matrix one never has relative time reference. And, the PFT guarantees that the former receives relative time reference interpretation, whereas the latter gets absolute time reference interpretation.

Interestingly, even in sentential adverbials like *-ki ttaymwun-ey* 'comp reason-for', the subordinate verb receives relative time reference interpretation.

(24) Nay-nyen-ey nay-ka ku il-lo ton-ul manhi next-year-in I-nom that work-with money-acc much pel-myen. [e ton−ul manhi pel-ess-ki monev-acc much earn-past-comp ttaymwun-ey] e talun il-ul ani ha-l kes-i-ta. other work-acc not do-fut dn-be-dec reason-for 'If I make big money with that work next year, I will not do other work since I have made big money.'

We see here that a future time adverbial is compatible with a so-called past tense marker. It clearly indicates that the subordinate tense marker (or verb) has relative time reference and it is [-tense]. Thus, the subordinate, so-called past tense marker *e/ass* in (24) is not tense. It follows that the sentential adverbial of reason is adjoined to IP and the subordinate tense marker is c-commanded by the matrix one.

# 5. Conclusion

We conclude this paper by claiming firstly that there is finite and nonfinite distinction among clauses in Korean, as in English. clauses where traditionally-called tense markers cannot appear are nonfinite ones, whereas those clauses where the tense markers can show up are finite ones. We assume that clauses which can have an overt tense marker but do not have any contain a null (or covert) tense marker (see footnote 10 for it). We claim secondly that Korean traditionally-called tense markers can receive either absolute or relative time reference interpretation. Tense markers which appear in subordinate clauses have relative time reference, whereas those which show up in matrix clauses have absolute time reference. Thirdly, we claim that controversial, traditionally-called tense markers in Korean are either [+tense] or [-tense], hence, they are either grammatical tenses or Tense markers which appear in matrix clauses are [+tense] as grammatical tenses, whereas those which show up in subordinate clauses are [-tense] and not grammatical tenses at all.

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