Defaults, Tense, and Non-Tensed Verbal Coordination*

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Cho, Sae-Youn. 2006. Defaults, Tense, and Non-tensed Verbal Coordination. *The Linguistic Association of Korea Journal, 14*(3), 195–214. Unlike English coordination, only the final conjunct needs to be marked with the tense feature in Korean. To capture the generalizations on the distributional behaviors of morpho-syntactic features in Non-Tensed Verbal Coordination Structure (NTC), Yoon (1994) claims that the overtly projected T combines with coordinated bare VPs and that T has its scope over all coordinated VPs. Against Yoon (1994)'s claim, Chung (2001) argues that NTC with asymmetric reading must be analyzed as TP coordination where a null T is postulated in non-final conjuncts. On the other hand, Lee (2004) based on Yoon (1994) proposes that when the conjunct is c-commanded by the T, this gives rise to symmetric tense interpretations, whereas when there is a temporal adverb in the conjunct, the adverb takes precedence over the c-commanding tense in providing temporal interpretation. However, the two previous analyses seem to face theoretical and empirical difficulties. To cope with the difficulties, I claim that the temporal interpretations of the non-final conjuncts of NTC can be obtained in terms of the interaction between temporal adverbs and the T dominating all conjuncts.

Key Words: non-tensed verbal coordination, tense feature, coordinated VPs, TP coordination, symmetric/asymmetric readings, temporal adverbs, time adverbials

1. Introduction

It is well known that there are two types of verbal coordination in English, i.e. TP coordination as in (1a) and Non-Tensed VP

coordination (NTC) as in (1b):

(1) a. Johnny [ate rice] and [drank water].
   b. Johnny will [eat rice] and [drink water].

Each tense verb provides a temporal interpretation for each conjunct in (1a) while the auxiliary verb 'will' offers a common temporal interpretation for both conjuncts in (1b). Hence, it is quite easy to see which temporal interpretation each conjunct can get from given verbal coordination structures in terms of either overt tense morphemes or auxiliaries. However, English coordinate structures such as (2), where a conjunct does not have an overt tense morpheme, are ill-formed.

(2) *Johnny [ate rice] and [drink water].

   Unlike English verbal coordination, only the final conjunct needs to be marked with the tense feature in Korean, as shown in (3).

(3) Johnny-ka   [**pap-ul   mek-ko**]   [ppang-ul   mek-ess-ta].
    J-Nom   rice-Acc eat-and   bread-Acc   eat-Past-Decl
    'Johnny eats/ate rice and ate bread.'

If coordinate structures such as (3) are possible, the following question immediately follows: How can we get correct temporal interpretation(s) from the non-final conjunct, *pap-ul mek-ko*, of the NTC in (3), though there is no overt tense morpheme in the verb, *mek-ko*, of the non-final conjunct?
   To answer this question, there appear to be at least two previous analyses for NTC: one is the vP analysis by Yoon (1994) and Lee (2004), where the overt T in the final conjunct shares with non-final conjuncts in NTC, and the other is the TP analysis by Chung (2001), in which NTC is analyzed as TP coordination. Though these previous analyses provide various ways to account for how NTC can get temporal interpretation(s) for (3), they, however, seem to face some

theoretical and/or empirical problems in explaining the NTC with temporal adverbials as in (4).

(4) Johnny-nun [**cikum** pap-ul mek-ko] [**ecey(-nun)**
    J-Top now rice-Acc eat-and yesterday
    kwulm-ess-ta].
    starve-Past-Decl
    'Johnny eats/ate rice NOW and didn't eat anything yesterday.'

Comparing to the NTC in (3), each conjunct of the NTC in (4) has a temporal adverb. In other words, the non-final conjunct contains the temporal adverb *cikum* 'now' which may occur with a predicate with a past or a non-past tense, while the final conjunct has *ecey* 'yesterday' which can occur only with a predicate with a past tense. The non-final conjuncts of the NTC such as (4) may have symmetric and/or asymmetric temporal interpretations with respect to various temporal adverbs.

In this paper, I claim that the tense value of the predicate in the final conjunct and the temporal adverb in the non-final conjunct interact with each other in determining possible temporal interpretations in NTC. To support my claim, I provide an explanation for NTC data such as (3) and (4) in which the previous analyses seem to be hard to avoid difficulties.

This paper is organized as follows: In section 2, I introduce two previous analyses of NTC: the TP analysis with a null T by Chung (2001) and the vP analysis by Lee (2004) based on Yoon (1994). To see whether or not the previous analyses properly work, I present some further data of NTC like (4) and point out their demerits in section 3. Providing a new proposal within current HPSG, section 4 shows that the new analysis is more preferable than the previous ones. In conclusion, I argue for the claim that the temporal interpretation of NTC in Korean can be determined in terms of the interaction between temporal adverbs in the non-final conjunct and the overt tense in the final conjunct, though there must be some pragmatic factors in

providing correct temporal interpretation(s) for NTC.

2. Previous Analyses: Chung (2001) and Lee (2004)

To capture the generalizations on the distributional behaviors of morpho-syntactic features in NTC, Yoon (1994) claims that the overtly projected T combines with coordinated bare VPs, i.e. vPs, and that T has its scope over all coordinated vPs. Under this vP analysis, sentence (3) can be analyzed as in (5).

(5) a. [TP[[VP Johnny-ka   [pap-ul   mek]-ko   [VP ppang-ul
       mek]-ess]-ta].
   b.
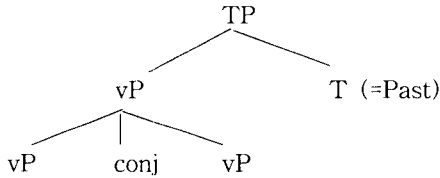
According to Yoon (1994), the non-final conjunct of (5a), consequently, can get a past interpretation since the T, i.e. Past feature, has its scope over all coordinated vPs.

   Against the vP analysis by Yoon (1994), Chung (2001) claims that NTC must be analyzed as TP coordination where a null T is posited in non-final conjuncts, on the basis of the coordinate structures like (6) where the temporal interpretation of the first conjunct is different from that of the second conjunct.

(6) [apenim-un caknyen-ey   kyothongsako-lo   tolakasi-ko]
    father-Nom last year   traffic accident-due to   pass away-Conj
    [emenim-un cikum   pyeng-ulo   nwuwuekyesi-n-ta]
    mother-Nomnow   illness-due to lie in bed-Pres-Decl
    'My father passed away in a traffic accident last year and my
     mother is now lying in bed due to an illness.'

According to the TP analysis by Chung (2001), sentence (6) can be represented as in (7).

(7) [MP[TP[VP apenim-un caknyen-ey   kyothongsako-lo
            father-Nom   last year   traffic accident-due to
    tolakasi]-$\emptyset_{[Past]}$]-ko   [TP[VP emenim-un   cikum   pyeng-ulo
    pass away-Conj   mother-Nom   now   illness-due to
    nwuwuekyesi]-$\mathbf{n}_{[Pres]}$]-ta]
    lie in bed-Pres-Decl

Specifically, the non-final conjunct in (6) is understood as delivering a past event. Since Chung (2001) suggests that the predicate of the non-final conjunct, *tolakasi-ko*, has a null Past T as in (7), the NTC in (6) may have a past interpretation.

   However, it seems to be hard to get the interpretation under Yoon (1994) because the predicate of the non-final conjunct in (7) has to have a Present feature. To cope with the difficulty of the vP analysis, Lee (2004) adopting 'aspect shift' by Zucchi (1998) tries to explain how the non-final conjunct in (7) can be construed as a past event, though the Present tense has scope over the predicate 'tolakasi-ko'. In doing so, Lee (2004) claims that "if Zucchi's aspect shift mechanism is adopted, the tense in (7) might be treated as Nonpast (=Present), which arises due to the presence of the zero Nonpast morpheme and this sentence is just a case of simple present coordination after undergoing 'shift'".[1]

   Furthermore, Lee (2004) argues that there are some problems with the   TP   analysis   with   various   null   Ts   in   analyzing   NTC: Morphologically, the null Past in (7), -$\emptyset_{[past]}$, in the TP analysis is problematic since there is no concrete linguistic evidence in Korean, while null Non-Past (=Present) is plausible in that *mek-ko* 'eats' can be analyzed into *mek-$\emptyset_{[pres]}$-ko*, since the Non-past morpheme *-nun-* in   **mek-nun-ko*   cannot   be   morphologically   realized   in   Korean.

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1) For the further discussions on 'aspect shift', refer to Lee (2004: pp 615).

Syntactically, there is no evidence that the Non-final conjunct of NTC is TP. For this, Lee (2004) adopts Yoon (1994) showing that non-tensed conjuncts behave like something smaller than TPs, i.e. vPs, through presenting contrasts between full TP coordination and NTC. Semantically, the TP analysis is problematic in accounting for the temporal interpretation of NTC like (8).[2]

(8)	*Mary-ka	i-nyen-cen	elkul-i	**kil-ko**
	J-Nom	2 years ago	face-Nom	long-Conj
	cikum	him-i	**sey-ta**.	
	now	power-Nom	strong-Decl	

'Mary had a long face two years ago, and she is now strong.'

Lee (2004; pp 615)

Since tense is interpreted via a null T, it is not easy to account for why sentence (8) is ungrammatical under the TP analysis. Hence, the TP analysis is refuted by Lee (2004) on the basis of the argumentation above, which I agree with.

3. Further Data: NTC with Time Adverbs

The TP analysis by Chung (2001) and the vP analysis by Lee (2004) provide somewhat different explanations for the temporal interpretations of NTC. Especially when the previous analyses account for the distributional behaviors of tense features in NTC with time adverbs, they assume different hypotheses as follows: Chung (2001), first of all, assumes the hypothesis that tense is interpreted through a null T regardless of the existence of the time adverbs in NTC as in (9).

(9) <u>Hypothesis by TP analysis</u>
   Tense is interpreted through a null T regardless of time adverbs in NTC

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2) I wonder whether the unacceptability of (8) is due to the stative predicates in both conjuncts or not. I will discuss the data (8) in Section 4, again.

Lee (2004) postulates the following hypothesis to get temporal interpretations:

(10) Hypothesis by vP analysis
    1. When the conjunct contains a null Non-past tense morpheme, this is an example of real TP coordination.
    2. When the conjunct is c-commanded by a tense morpheme that has scope over the entire coordination, this gives rise to symmetric tense interpretations. (This is vP coordination.)
    3. When there is a temporal adverb in NTC, the temporal adverb in the conjunct takes precedence over the c-commanding tense in providing temporal interpretation.
    4. Certain conjuncts denoting past events are actually present tense conjuncts.   Lee (2004; pp 616-617)

So far, I have introduced how the previous analyses provide temporal interpretation for NTC with or without time adverbs.

To see whether these previous analyses work to get the right temporal interpretations, I present NTC data with various time adverbs as in (11)

(11) Johnny-nun [**cikum** pap-ul mek-ko] [**ecey(-nun)**
    J-Top   now   rice-Acc eat-and   yesterday
    kwulm-ess-ta].
    starve-Past-Decl
    'Johnny eats/ate rice NOW and didn't eat anything yesterday.'

There are two different time adverbs in (11): *cikum* 'now' and *ecey* 'yesterday'. The former, *cikum*, is a temporal adverb which may occur with a predicate with either a past tense or a non-past tense, i.e. *Present* or *Future*, as in (12).

(12) a. Johnny-ka   cikum   pap-ul   mek-**ess**-ta.
        J-Nom   NOW   rice-Acc   eat-Past-Decl

Lit: 'Johnny ate rice NOW.'   <Past>
   b. Johnny-ka cikum   pap-ul   mek-**nun**-ta / mekul-**kes**-ita.
      J-Nom   NOW   rice-ACC eat-**Pres**-Decl/eat-**Fut**-Decl
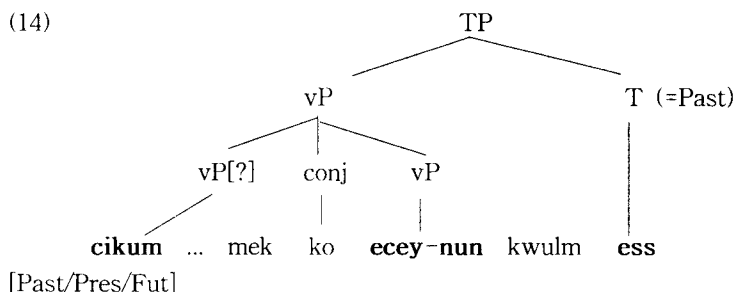   Lit: 'Johnny is eating /will eat rice NOW.'   <**Nonpast**>

But the latter, *ecey*, is a time adverb which can co-occur only with a predicate with past tense as in (13).

(13) a. Johnny-ka   ecey   pap-ul   mek-**ess**-ta.
        J-Nom   yesterday   rice-Acc   eat-Past-Decl
        Lit: 'Johnny ate rice yesterday.'   <**Past**>
     b. *Johnny-ka ecey   pap-ul   mek-**nun**-ta / mekul-**kes**-ita.
        J-Nom   yesterday rice-ACC eat-**Pres**-Decl/eat-**Fut**-Decl
                                                              <**Nonpast**>

Keeping this in mind, let's consider data (11). Under the TP analysis, the hypothesis (9) wrongly predicts that the non-final conjunct with *cikum* can be construed as either a past or a non-past event since the null T can be realized into Past null T or Non-past null T, which is not the case. As the given glossary shows, (11) can be construed as either a Present or a Past event. Hence, the TP analysis appears to be too powerful.

On the other hand, the hypothesis (10-1) under the vP analysis predicts that the non-final conjunct of (11) can be understood as a Non-past event. If Non-past tense can be divided into Present and Future, the Non-past tense in this case, must be Present, not future. So the vP analysis fails in providing precise temporal interpretations. Furthermore, as shown in (14), the hypothesis (10-3) has difficulties in accounting for (11) in the sense that it is undecidable which tense is given to the non-final conjunct of (11) since the adverb *cikum* can co-occur with any tense as illustrated in (12). Specifically, (10-3) is insufficient to deal with temporal adverbials in (15a-b) which can occur with a predicate with various tense values. It is so because the adverbs in the non-final conjuncts in the vP coordination must decide temporal

interpretations by the definition of (10-3).

(14)

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                              TP
                    ┌─────────┴─────────┐
                   vP                    T (=Past)
            ┌───────┼───────┐            ┊
          vP[?]    conj     vP           ┊
          ╱         ┊        ┊            ┊
      cikum  ...  mek  ko  ecey-nun  kwulm  ess
  [Past/Pres/Fut]
```

(15) a. *cikum* can occur with predicates with **Past** or **Non-past**.
   b. *kumpang* can occur with a predicate with **Past** or **Future**
                                          (Cf. Lee K. (1983))

Moreover, when the verb of the final-conjunct contains a Non-past
(=future) tense in NTC as in (16), the non-final conjunct with *cikum*
can be construed as a future or a present event, though *cikum* can
occur with a predicate with a past tense. This can be predicted by the
vP analysis in terms of the hypothesis (10). However, it is questionable
how the vP analysis predicts that the non-final conjunct of (16) cannot
be construed as a Past event in terms of the hypothesis (10).

(16) Johnny-nun   [**cikum** pap-ul   mek-ko]   [**nayil(-nun)**
    J-Top   now   rice-Acc eat-and   tomorrow
    kwulmul-kes-ita].
    starve-Fut-Decl
    'Johnny eats/will eat rice NOW and will not eat anything
    tomorrow.'

In addition, it is also unclear how Lee (2004) theoretically implements
the hypothesis (10) into current Minimalist Theory. Formally, Lee (2004)
does not account for how the tense feature of time adverbs in NTC can
be decided theoretically.

In sum, the TP analysis appears to be problematic mainly because it has no morphological and syntactic evidence for NTC as TP coordination, as Lee (2004) points out. Empirically, as mentioned above, it appears to be too powerful in that the non-final conjunct of NTC can get any temporal interpretation regardless of the existence of time adverbs, which is not the case. On the other hand, the vP analysis also seems to be problematic in that it has empirical and theoretical difficulties in providing the right temporal interpretations of NTC with time adverbs which can occur with various tense values. The demerits of the previous analyses are related to the fact that the crucial factor in determining correct temporal interpretation of NTC is either (null) T or time adverbs under the hypotheses they assume.

4. A Proposal under the Constraint-Based Analysis

To avoid the difficulties that the previous analyses face, I propose that the tense value of the non-final conjunct of NTC can be determined by the interaction between the tense value of the verb in the final conjunct and that of the time adverbs in the non-final conjunct. This can be summarized as follows:

(17) Hypothesis by the Constraint-Based (CB) analysis

    1. When the conjunct contains a null **Present** tense morpheme, -*nun*, this is an example of real TP coordination. (Cf. the Hypothesis in (10-1))

    2. When there is no time adverb in NTC, the tense value of the predicate in the final conjunct shares with that of non-final conjuncts where the tense value should be 'default'.[3]

    3. When there is a temporal adverb in NTC, the tense value

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3) This hypothesis can be easily accommodated in current HPSG by adding the information to the Coordination Rule in HPSG (2003). (Cf. HPSG (2003; pp 502) and Cho (2004))

of NTC is the intersection of that of the adverb and that
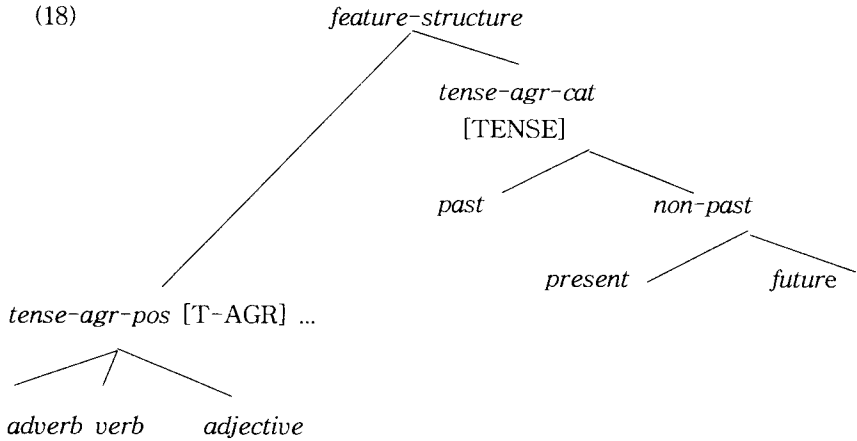of the predicate in the non-final conjunct.

Following (10-1), I posit the hypothesis in (17-1) to account for why
the non-final conjunct in NTC like (3) can be construed as a present
event.

(3) Johnny-ka [**pap-ul**   **mek-ko**] [ppang-ul   mek-ess-ta].
    J-Nom   rice-Acc   eat-and   bread-Acc   eat-Past-Decl
    'Johnny eats/ate rice and ate bread.'

The hypothesis (17-2) enables us to correctly predict that the non-final
conjunct can be construed as a past event. This is so because the tense
value of the non-final conjunct should be past as a default ('/') in
terms of (17-2). When there is a temporal adverb in NTC as in (11),
the hypothesis (17-3) works. The time adverb, *cikum*, may have {/past,
/non-past} as a TENSE value, while the tense value of the predicate in
the conjunct is {/past}. Hence, the intersection of the two sets is
{/past}, and thus if there is no semantic or pragmatic constraints, the
default value becomes the tense value of the non-final conjunct. Of
course, the present reading for the non-final conjunct in (11) can be
obtained from the hypothesis (17-1).

(11) Johnny-nun [**cikum**   pap-ul mek-ko]   [**ecey(-nun)**
     J-Top   now   rice-Acc   eat-and   yesterday
     kwulm-ess-ta].
     starve-Past-Decl
     'Johnny eats/ate rice NOW and didn't eat anything yesterday.'

   To implement this idea into HPSG (2003), I provide some theoretical
tools. First of all, I assume that predicates such as verbs and adjectives
belong to the type *agr-pos* (agreement-part of speech) which has to
have AGR. The feature AGR must have TENSE whose value is a set
of tense values. This can be represented as in (18).

(18)

feature-structure

tense-agr-cat
[TENSE]

past   *non-past*

present   *future*

tense-agr-pos [T-AGR] ...

adverb *verb*   *adjective*

Second, I postulate a so-called Tense Agreement Principle as in (19) to ensure that the TENSE value of a time adverbial and that of a predicate are determined by the intersection.

(19) **Tense Agreement Principle**
   I. The TENSE value of a time adverbial and that of its head (predicate) are determined by the intersection of the two TENSE values.
   II. The TENSE value of the predicate in the non-final conjunct and that of the final conjunct are identical but the former must be 'default'.

Third, as shown above, there are two types of temporal adverbials: one is temporal adverbs such as *cikum* which may occur with a predicate with various tense values, and the other is time adverbs such as *ece* which can co-occur only with a predicate with a tense. As for the different adverbs, I suggest that the TENSE value of each adverb is specified in the lexicon as follows:

(20) Korean Lexicon
   a. <ece,   [$_{adv-lxm}$ SYNTAX [TENSE {*past*}]] >

b.   <cikum,   [_adv-lxm SYNTAX [TENSE {/past, /non-past
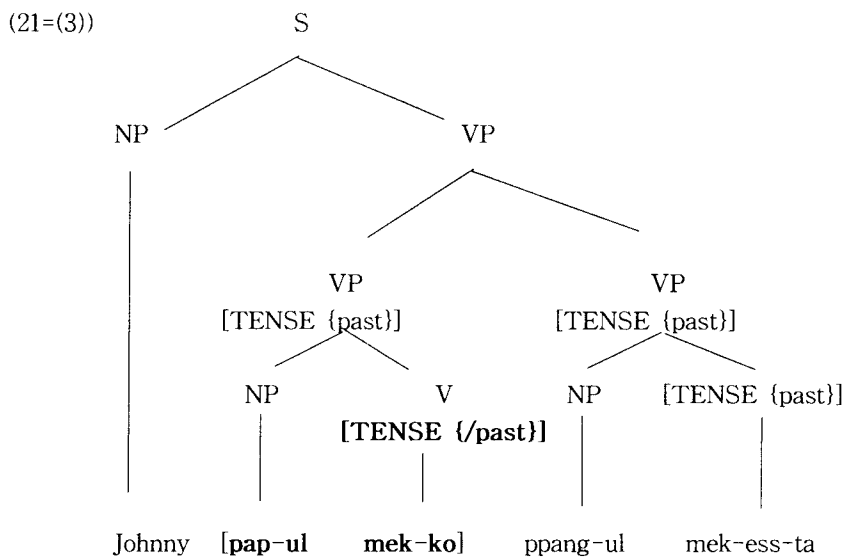   (=/present, /future)}]] >

It is worth noting that the TENSE value of *ece* in (20a) is not the 'default' value whereas that of *cikum* is the 'default' value. This difference enables us to correctly predict that sentence (13a) with *ece* is grammatical while (13b) is ungrammatical.

(13) a. Johnny-ka   ecey   pap-ul   mek-**ess**-ta.
        J-Nom   yesterday   rice-Acc   eat-Past-Decl
        Lit: 'Johnny ate rice yesterday.'   <**Past**>
     b. *Johnny-ka ecey   pap-ul mek-**nun**-ta / mek**ul**-**kes**-ita.
        J-Nom   yesterday rice-   eat-Pres-Decl/eat-Fut-Decl
                                                    <**Nonpast**>

Moreover, the difference also enables us to predict the grammaticality of the sentences with *cikum* in (12).

(12) a. Johnny-ka   cikum   pap-ul   mek-**ess**-ta.
        J-Nom   NOW   rice-Acc   eat-Past-Decl
        Lit: 'Johnny ate rice NOW.'   <**Past**>
     b. Johnny-ka cikum   pap-ul   mek-**nun**-ta / mek**ul**-**kes**-ita.
        J-Nom   NOW   rice-ACC eat-Pres-Decl/ -Fut-Decl
        Lit: 'Johnny is eating Now.'
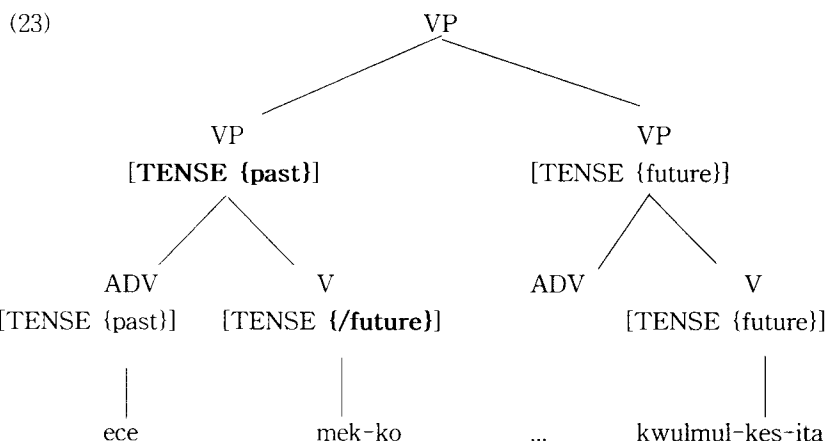   OR 'Johnny will eat rice NOW.'   <**Nonpast**>

With the newly added tools in HPSG (2003), I can provide an explanation for the distributional behaviors of the TENSE feature in NTC under the so-called CB analysis. The first representative data that I pursue is the NTC such as (3) where there is no time adverb in the non-final conjuncts. Under the CB analysis, The sentence (3) can be represented as in (21).
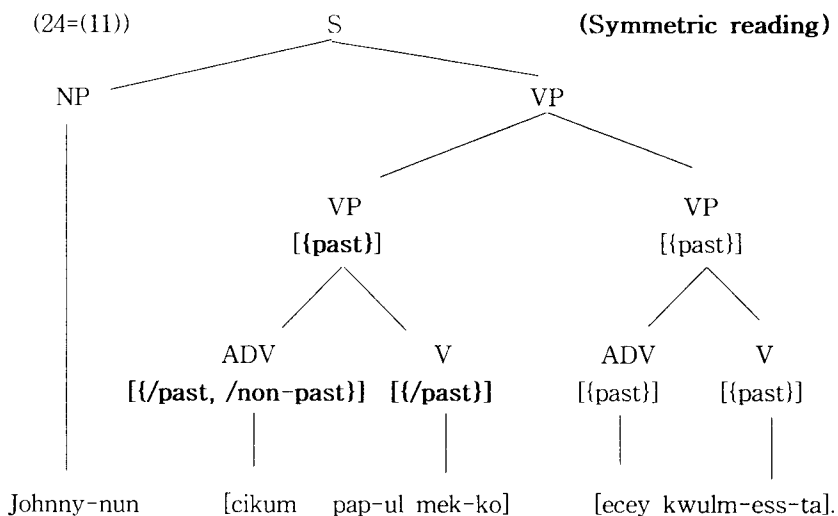
(21=(3))

```
                              S
                  _____/ _____
                 /                         \
               NP                          VP
                |                    _____/ _____
                |                   /               \
                |                 VP                 VP
                |          [TENSE {past}]      [TENSE {past}]
                |            __/   \__          __/    \__
                |           /         \        /          \
                |         NP           V      NP       [TENSE {past}]
                |                [TENSE {/past}]
                |          |         |        |             |
             Johnny    [pap-ul   mek-ko]   ppang-ul    mek-ess-ta
```

By the definition of the Tense Agreement principle in (19), the TENSE value of the non-final conjunct in (21), which is bold-faced. is given by the verb in the final conjunct, and so the non-final conjunct can be construed as a past event. As mentioned above, a present reading can be obtained from the hypothesis (17-1).

The second data I account for is the NTC, in which there is a temporal adverb in the non-final conjunct. Since there are two different temporal adverbs, I , first, demonstrate how the non-final conjunct with *ece* in NTC like (22) can be analyzed. Under the CB analysis, (22) can be represented as in (23).
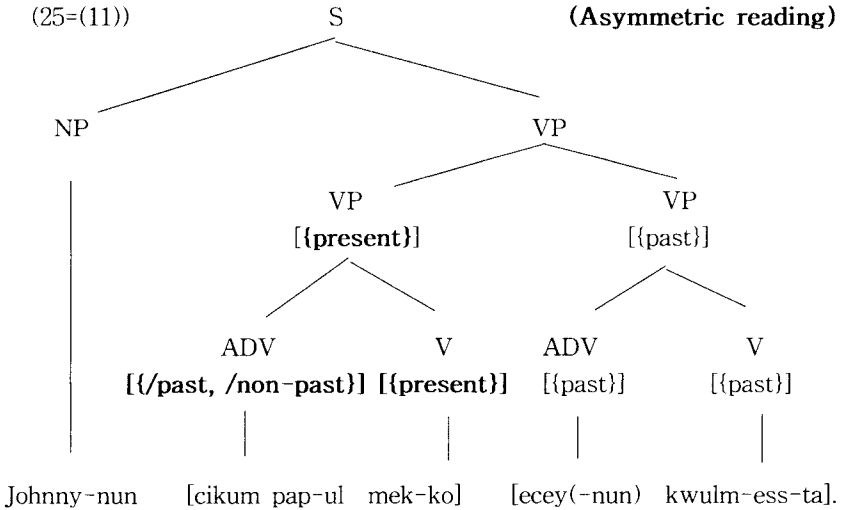
(22) Johnny-nun   [ece   pap-ul   mek-ko]   [nayil(-nun)
     J-Top   yesterday   rice-Acc   eat-and   tomorrow
     kwulmul-kes-ita].
     starve-Fut-Decl
     'Johnny ate rice yesterday and will not eat anything tomorrow.'

(23)

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                              VP
              ┌───────────────┴───────────────┐
             VP                               VP
        [TENSE {past}]                   [TENSE {future}]
         ┌────┴────┐                      ┌────┴────┐
        ADV        V                     ADV        V
  [TENSE {past}]  [TENSE {/future}]           [TENSE {future}]
        │         │                                │
       ece      mek-ko              ...      kwulmul-kes-ita
```

Though the TENSE value of the non-final conjunct is a default future
tense, the non-default past tense of the adverb, *ece*, overrides the
default value so that the TENSE value of the non-final conjunct is
{past} in (23). The next case that I examine is the NTC like (11),
where there are adverbs such as *cikum* in the non-final conjunct. Under
the CB analysis, the NTC (11) can be represented as in (24).

(24=(11))   S   **(Symmetric reading)**

```
         ┌───────────────┴───────────────┐
        NP                               VP
         │                 ┌──────────────┴──────────────┐
         │                VP                             VP
         │             [{past}]                       [{past}]
         │              ┌───┴───┐                      ┌───┴───┐
         │             ADV      V                     ADV      V
         │      [{/past, /non-past}] [{/past}]     [{past}]  [{past}]
         │              │       │                     │        │
    Johnny-nun      [cikum   pap-ul mek-ko]     [ecey kwulm-ess-ta].
```

In (24), though the TENSE value of the head in the non-final conjunct is past tense as a default in terms of the Tense Agreement principle (19-II), the intersection of the TENSE value of the adverb, {/past, /non-past}, and that of the head, {/past} is {/past} by the definition of (19-I). Hence, the non-final conjunct of the NTC (11) may have a past interpretation. As for the present reading of (11), the hypothesis (17-1) enables us to predict that the head of the non-final conjunct is {present} so that the intersection of the TENSE value of the adverb, {/past, /non-past}, and that of the head, {present}, is {present} as in (25). Thus, we can get a present interpretation from the non-final conjunct in (11).

(25=(11))   S   (**Asymmetric reading**)

```
                    ┌──────────────┴──────────────┐
         NP                                       VP
          │                              ┌─────────┴─────────┐
          │                    VP                           VP
          │                [{present}]                    [{past}]
          │              ┌─────┴─────┐              ┌─────────┴─────────┐
          │          ADV            V          ADV                     V
          │  [{/past, /non-past}] [{present}] [{past}]              [{past}]
          │          │            │            │                     │
   Johnny-nun   [cikum pap-ul   mek-ko]   [ecey(-nun)           kwulm-ess-ta].
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So far, I have shown how the CB analysis can account for the distributional behaviors of the tense feature in NTC in accordance with tense interpretations.[4]

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4) A reviewer of this paper suggests that the distributional behaviors of the tense feature in NTC can be explained without using 'default'. However, I will not pursue this issue here because of space limit.

The next NTC data that I will explore is the example (7) provided by Chung (2001) and the example (8) presented by Lee (2004). The non-final conjunct in (7) can be construed only as a past event, though there is no overt tense morpheme, This is why Chung (2001) believes there is a null Past in Korean, rejecting Yoon (1994)'s idea. To cope with this problem, Lee (2004) employs Zucchi's aspect shift mechanism.

(7) [$_{MP}$[$_{TP}$[$_{VP}$ apenim-un <u>caknyen-ey</u> kyothongsako-lo
　　　　　　　father-Nom　last year　　traffic accident-due to
　　tolakasi]-$\varnothing$[past]]-ko　[$_{TP}$[$_{VP}$ emenim-un　　　<u>cikum</u>
　　pass away-Conj　　　　　　　mother-Nom　　now
　　pyeng-ulo　　　nwuwuekyesi]-$\mathbf{n}$[Pres]]-ta]
　　illness-due to　lie in bed-Pres-Decl

As for this example, the CB analysis can provide a neat explanation for why the non-final conjunct can be construed only as a past interpretation without employing additional mechanisms. Namely, though the predicate, *tolakasi-ko*, in the non-final conjunct can have {/present} in terms of the Tense Agreement Principle (19-II), the intersection of the TENSE value of the predicate, {/present}, and that of the adverb *caknyen-ey*, {past}, is {past} via (19-I), because a non-default value overrides a default one. Thus, the fact that only the past interpretation is possible for (7) follows under the CB analysis.

　　Lastly, Lee (2004) presents NTC data like (8) whose predicates are adjectives to reject the TP analysis by Chung (2001). This NTC data appears to be interesting in that there is no overt tense morpheme in the whole sentence.

(8) *Mary-ka　　i-nyen-cen　　　elkul-i　　　　**kil-ko**
　　J-Nom　　　2 years ago　　face-Nom　　　long-Conj
　　cikum　　　him-i　　　　　**sey-ta**.
　　now　　　　power-Nom　　strong-Decl
　　'Mary had a long face two years ago, and she is now strong.'
　　　　　　　　　　　　　　　　　　　　Lee (2004; pp 615)

Different from Lee (2004)'s suggestion, I don't think that the
unacceptability of (8) is due to the different distributional behaviors of
tense features in NTC between stative verbs and non-stative verbs in
Korean. Rather than that, the oddness of (8) appears to be semantic or
pragmatic factors for coordination which I will not pursue here. So,
instead of (8), I analyze the NTC (26) with stative predicates under the
CB analysis

(26) Marcia-(eykey)-nun   i   chima-ka   i-nyen-cen-ey-nun
     J-Dat-Top   this   skirt-Nom   2 years ago-TOP
     kil-ko   cikum-un   **ccalp-ta**.
     long-Conj   now   short-Decl
     Lit: 'To Marcia, this skirt was long two years ago and it is
          short now.'

Unlike (8), the NTC (26) is acceptable though both conjuncts are
headed by the stative verbs, *kil-ko* and *ccalp-ta*. The temporal
interpretation for this sentence can be accounted for under the CB
analysis, if the stative verb in the final conjunct, *ccalp-ta*, is regarded
as a predicate with a non-past tense similar to the non-tensed
predicates such as *mek-ko* in the non-final conjunct of the NTC.
Specifically, if *ccalp-ta* in (26) is a predicate with a non-past tense, the
TENSE value of the predicate *kil-ko* in the non-final conjunct is
{/non-past} and that of the adverb *i-nyen-cen* is {past}. Hence, the
intersection of the two values is {past} because the non-default value,
{past}, overrides the default value, {/non-past}. Hence, the CB analysis
predicts that the non-final conjunct in (26) is construed as a past event.
    So far, I have shown how the CB analysis I proposed here can
explain the distributional behaviors of the Tense feature in NTC with
the various NTC data which are hard to deal with under the previous
analyses. Throughout the discussions above, I have demonstrated that
the CB analysis based on the hypothesis (17) seems to be more
preferable than the previous analyses in accounting for the temporal

interpretations of various NTC.

5. Conclusion

There have been at least two previous analyses of NTC to capture the generalizations on the distributional behaviors of morpho-syntactic features in NTC: the TP analysis by Chung (2001) and the vP analysis by Lee (2004) based on Yoon (1994). Though they have theoretically different tools to account for the phenomena at issue, they simply fail in providing an explanation for the temporal interpretation of various NTC. The difficulties they face appear to be directly related to their hypotheses that the crucial factor in determining correct temporal interpretation of NTC is either (null) T or time adverbs.

   To avoid the difficulties that the previous analyses face, I claim that the tense value of the non-final conjunct of NTC can be determined by the interaction between the tense value of the predicate in the final conjunct and that of the time adverbs in the non-final conjunct. To support my claim, I have proposed a so-called CB analysis in HPSG and demonstrated how well it can explain the NTC at issue. Though the CB analysis proposed here is not a full picture of how the temporal interpretation of NTC can be obtained, I think the CB analysis is more preferable than the previous analyses to capture the generalizations on the distributional behaviors of morpho-syntactic features in NTC in Korean.

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