Tense and Honorific Interpretations in Korean Gapping Construction: A Constraint- and Construction-Based Approach[*]

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Chung (2001) claims that non-final conjuncts without overt tense morphemes which produce asymmetric tense interpretations are to be analyzed as TP; and Lee (2005) argues that the verbal honorific affix -si- never occurs in non-final conjuncts so honorific agreement between the subject and the verb takes place in the final conjunct only and thus the Korean gapping constructions should be analyzed as vP coordination. However, these two previous analyses seem to fail to make the generalizations on the distributional behaviors of gapping constructions, facing theoretical and empirical difficulties. To solve the problems they face, we claim that verbal gapping in Korean is allowed to occur in all non-final conjuncts when the covert predicates of the non-final conjuncts have an identical semantic relation value with that of the overt verb in the final conjunct, regardless of the consistency of the honorific and tense values between conjuncts. Yae-Jee Kim and Sae-Youn Cho, State University of New York at Buffalo, Kangwon National University.

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1   The Issues

The Gapping Construction in natural languages attracts empirical and theoretical interests due to its complex properties. Among the properties, the licensing conditions and the interpretations of the gapped verbs seem to vary between languages. It is well-known that verbal gapping in English is allowed when the predicate in the non-initial conjuncts has an identical tense value with that in the initial conjunct like *Johnny went to Buffalo, and Marcia, to Chicago*. However, in Korean, the phonological or morphological form of the gapped verb(s) in the non-final conjunct(s) does not appear to be identical to that of the verb in the final conjunct. Tense and honorifics, furthermore, are likely to induce ambiguities in the Korean gapping constructions. Korean verb gapping constructions in (1) may have symmetric and asymmetric interpretations of tense and honorifics as in (2).

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(1) a.   halapeci(-kkeyse)-nun   sewul-lo   (kuliko)   namtongsayng-un
            grandfather(-HON)-NOM Seoul-LOC   (CONJ)   younger brother-NOM
            pusan-ulo   ka(*-si)-ass-ta
            Pusan-LOC   go(*-HON)-PAST-DECL
            '(My) grandfather went to Seoul and (my) younger brother, to Pusan.'
      b.   namtongsayng-un   pusan-ulo   (kuliko)   halapeci(-kkeyse)-nun
            younger brother-NOM   Pusan-LOC   (CONJ)   grandfather(-HON)-NOM
            sewul-lo   ka*(-si)-ess-ta
            Seoul-LOC   go*(-HON)-PAST-DECL
            '(My) younger brother went to Pusan and (my) grandfather, to Seoul.'

(2) a.   halapeci(-kkeyse)-nun   sewul-lo   ka(-si)(-ess)-ko   (kuliko)
            grandfather(-HON)-NOM Seoul-LOC   go(-HON)(-PAST)-CONJ   (CONJ)
            namtongsayng-un   pusan-ulo   ka(*-si)-ass-ta
            younger brother-NOM   Pusan-LOC   go(*-HON)-PAST-DECL
            '(My) grandfather went to Seoul and (my) younger brother went to Pusan.'
      b.   namtongsayng-un   pusan-ulo   ka(-ass)-ko   (kuliko)
            younger brother-NOM   Pusan-LOC   go(-PAST)-CONJ   (CONJ)
            halapeci(-kkeyse)-nun   sewul-lo   ka*(-si)-ess-ta
            grandfather(-HON)-NOM Seoul-LOC   go*(-HON)-PAST-DECL
            '(My) younger brother went to Pusan and (my) grandfather went to Seoul.'

The possibility of verbal gapping constructions in Korean having both symmetric and asymmetric interpretations of tense and honorifics might stem from the fact that the gapping occurs in non-final conjuncts. According to Choi (2003), the elided verb at the gap of the non-final conjunct in (1a) can be construed as one of at least four different morphological forms in (3a-d); the gapped verb in (1b) as either (3b) or (3d).

(3) a.   ka-si-ess-ko: go-HON-PAST-CONJ   b.   ka-ass-ko: go-PAST-CONJ
      c.   ka-si-ko: go-HON-CONJ   d.   ka-ko: go-CONJ

On the other hand, Lee (2005) claims that the verbal honorific affix *-si-* never appears in the gapped non-final conjuncts and honorific agreement between the subject and the verb should take place only in the final conjunct. Korean gapping constructions are then a case of vP coordination, as illustrated in (4).
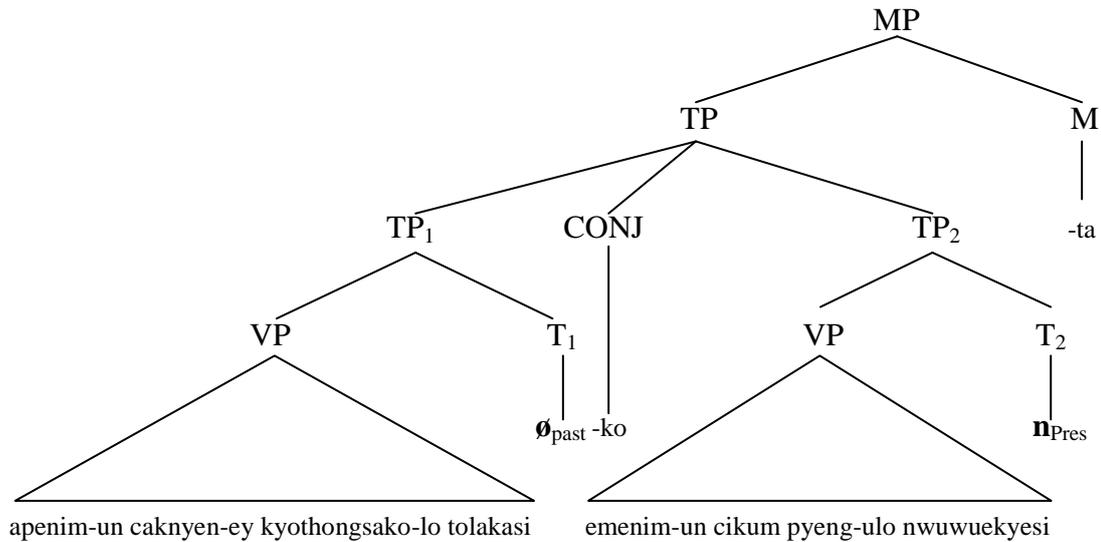
(4)   [CP [TP [AgrP [vP   ] kuliko [vP   ] Agr (-si/ø)] T] C]   (Lee, 2005)

Under this approach, both elided verbs in (1a) and (1b) are derived from the same morphological form as in (3d). If so, this analysis seems to be problematic in that it is not sufficient for explaining other possibilities: for example, the gapped verb in (1a) can be interpreted as (3a), (3b), or (3c) while the gapped verb in (1b) can be interpreted as (3b).

      As for the tense interpretations of the gapped verbs, we may have at least two candidate analyses, which are intended for the tense interpretations of the so-called Non-tensed coordination in Korean: the TP analysis by Chung (2001) and the Constraint-based one by Cho

(2006). If we assume a null T can be realized in the gapped verbs under Chung (2001), it is unclear how to rule out the future interpretations of the gapped position in the first conjunct of (1a) with the adverb *ecey* 'yesterday'. However, if we adopt Cho (2006), we may avoid such difficulties.

In this paper, we claim that verbal gapping in Korean is allowed in all non-final conjuncts when the covert verbs at the gap of the non-final conjuncts have the same semantic relation value as the overt verb in the last conjunct, regardless of whether the honorific and tense values of all conjuncts are consistent with each other or not. To support our claim, through examining gapping constructions in Korean, we demonstrate that the identity of semantic relational values between the covert predicates in the non-final conjuncts and the overt predicate in the final conjunct licenses verbal gapping in Korean. Based on the licensing condition for Korean verbal gapping, we propose a formalization of the Korean gapping construction, i.e. *K-gapping-cxt*, and show how gapping constructions in Korean are generated.

2 Previous Analyses

TP Coordination Analysis: In explaining tense interpretation of coordination constructions in Korean, Chung (2001) has argued that non-final conjuncts with no overt tense morphemes may produce asymmetric tense interpretation as well as symmetric tense interpretation. On the basis of the argument above, Chung claims that Korean coordination constructions with asymmetric readings produced by absence of a tense morpheme in non-final conjuncts are to be analyzed as cases of TP coordination where a null T is postulated in non-final conjuncts. Under this analysis, (5) can be represented as in (6).

(5)   [$_{MP}$ [$_{TP}$ [$_{VP}$ apenim-un   caknyen-ey   kyothongsako-lo   tolakasi]-**ø** $_{[past]}$]-ko
           father-NOM   last year   traffic accident-due to   pass away-CONJ
         [$_{TP}$ [$_{VP}$ emenim-un   cikum   pyeng-ulo   nwuwuekyesi]-**n**$_{[Pres]}$]-ta]
           mother-NOM   now   illness-due to   lie in bed-PRES-DECL
         'My father passed away in a traffic accident last year and my mother is lying in bed
         due to an illness now.'   (Cho, 2006)

(6)

MP
├── TP
│   ├── TP₁
│   │   ├── VP → apenim-un caknyen-ey kyothongsako-lo tolakasi
│   │   └── T₁ → **ø**$_{past}$ -ko
│   ├── CONJ
│   └── TP₂
│   ├── VP → emenim-un cikum pyeng-ulo nwuwuekyesi
│   └── T₂ → **n**$_{Pres}$
└── M → -ta

Since T_1 and T_2 project tense values independently under this approach, the predicate of the non-final conjunct, *tolakasi-ko*, whose null T value is PAST yields a past interpretation for the non-final conjunct, producing an asymmetric tense interpretation of the sentence in (5).

The TP analysis, however, gives rise to a certain question: what determines the tense value of a null T in non-final conjuncts? That is, the question on how the PAST value of the null T in the non-final conjunct in (6) is licensed is not explainable by this analysis.

vP Coordination Analysis: Honorific agreement phenomena have been taken as providing strong evidence for the vP coordination analysis of gapping constructions in Korean. Lee (2005) claims that Korean gapping constructions are to be analyzed as vP coordination with ATB (Across The Board) movement since honorific agreement between the subject and the verb never occurs in the gapped non-final conjuncts. Under this vP analysis, (7a) can be analyzed as (7b).

(7) a. emeni-ka   panana-lul   kuliko Mary-ka   sakwa-lul   sa-ass-ta
        mother-NOM   banana-ACC and   Mary-NOM   apple-ACC   buy-PAST-DECL
        '(Mary's) mother (bought) banana and Mary bought apples.'
    b. [$_{CP}$[$_{TP}$[$_{AgrP}$[$_{vP}$ emeni panana v$_t$] kuliko [$_{vP}$ Mary sakwa v(sa)] Agr(ø)] T(-ass)] C(ta)]
                    NP   NP   Probe
                                                                    (Lee, 2005)

According to Lee (2005), in Korean gapping constructions, the subject NP in the non-final conjuncts never agrees with the verbal honorific affix *-si-* while the subject NP in the final conjunct must agree with it. Under this analysis, (7a) can be construed as (8).

(8) emeni-ka   panana-lul   sa-ass-ko   (kuliko)
     mother-NOM   banana-ACC   buy-PAST-CONJ   (CONJ)
     Mary-ka   sakwa-lul   sa-ass-ta
     Mary-NOM   apple-ACC   buy-PAST-DECL
     '(Mary's) mother bought banana and Mary bought apples.'

Specifically, the non-final conjunct in (7a) receives a non-honorific reading as in (8) since the verbal honorific affix -si- never appears in the non-final conjuncts of gapping constructions and honorific agreement between the subject and the verb never occurs in the non-final conjuncts according to Lee (2005)'s vP coordination analysis.

   However, it seems that (7a) may have more than one interpretation since it may have symmetric or asymmetric interpretations of tense and honorifics as in (9).

(9) emeni-ka   panana-lul   sa(-si)(-ess)-ko   (kuliko)
     mother-NOM   banana-ACC   buy(-HON)(-PAST)-CONJ   (CONJ)
     Mary-ka   sakwa-lul   sa-ass-ta
     Mary-NOM   apple-ACC   buy-PAST-DECL
     '(Mary's) mother <u>buys/bought</u> banana and Mary bought apples.'

The gapped verb in (7a) can be construed as *sa-si-ess-ko*, *sa-ass-ko*, *sa-si-ko*, or *sa-ko*. When the gapped verb is interpreted as *sa-si-ess-ko*, (7a) has an asymmetric honorific interpretation with symmetric past tense. If it is construed as *sa-ass-ko*, non-honorific interpretation with past tense is produced symmetrically from the both conjuncts. On the other hand, *sa-si-ko* interpreted in the gapped verb can result in an asymmetric interpretation of tense and honorifics. When the gapped verb is interpreted as *sa-ko*, (7a) has an asymmetric tense interpretation with a symmetric non-honorific interpretation. Accordingly, the vP coordination analysis cannot account for all these possible interpretations.

3   A Constraint- and Construction-Based Analysis of V-Gapping

To account for all the possible interpretations Korean gapping constructions may have, we propose that verbal gapping in all non-final conjuncts may occur if the covert verb at the gap of the non-final conjuncts has the same semantic relation value as the overt verb in the last conjunct, regardless of whether the tense and honorific values of all conjuncts are consistent with each other or not. The Verbal Gapping Principle can be postulated for Korean as follows:

(10) **The Verbal Gapping Principle (Korean Version)**

      In Korean, verbal gapping is allowed in all conjuncts except the last conjunct if
      the covert verbs at the gap of the non-final conjuncts have the same semantic
      key-relation value as the overt verb in the last conjunct, regardless of the tense
      and honorific values of all conjuncts.

   Similar to the coordination construction presented by Beavers and Sag (2004), we posit a Korean gapping construction, i.e. *K-gapping-cxt*, based on the principle in (10) as illustrated in (11).

(11)   *K-gapping-cxt* $\Rightarrow$

$$
\begin{bmatrix}
\text{MTR} \begin{bmatrix} \text{DOM} & \boxed{B_2} \oplus \boxed{C} \oplus \boxed{B_1} \oplus \boxed{A} \\ \text{SYN} & \boxed{0} \end{bmatrix} \\[2em]
\text{DTRS} \left\langle
\begin{bmatrix}
\text{DOM} & \boxed{B_2}_{ne-list} \oplus \left\langle \begin{bmatrix} verb \\ \text{HD} & \boxed{H_1}: \text{VFORM} \boxed{V_n} \\ \text{SEM} [\text{REL} \boxed{X_1}] \end{bmatrix}, \dots \right\rangle \\
\text{SYN} & \boxed{0} \\
\text{CRD} & -
\end{bmatrix}, \right. \\[3em]
\left.
\begin{bmatrix}
\text{DOM} & \boxed{C} \left\langle \left(\begin{bmatrix} \text{SYN } cnj \end{bmatrix} \right) \right\rangle \oplus \boxed{B_1}_{ne-list} \oplus \\
& \boxed{A} \left\langle \begin{bmatrix} verb \\ \text{HD} & \boxed{H_1}: \text{VFORM} \boxed{V_m} \\ \text{SEM} [\text{REL} \boxed{X_1}] \end{bmatrix}, \dots \right\rangle \\
\text{SYN} & \boxed{0} \\
\text{CRD} & +
\end{bmatrix}
\right\rangle
\end{bmatrix}
$$

As shown in (11), the domain of the mother begins with some unique material $\boxed{B_2}$ from the left conjunct. The mother's DOM list next contains the right conjunct's coordinator, *kuliko*, (if present ($\boxed{C}$) since it is optional), some unique material $\boxed{B_1}$ from the right conjunct, and finally the material $\boxed{A}$ whose corresponding material in the left conjunct's DOM list is elided and hence it is not preserved in the mother's DOM list. Note that our use of the KEY-REL(ation) value ensures that elided elements involve the same semantic relations as their licensing counterparts. In English, the form of the gapped verb in the non-initial conjunct should be almost identical to that of the verb in the first conjunct; especially, the tense values are involved in English gapping. On the other hand, in Korean, *mek-ta, tul-ta, tu-si-ta,* and *capsu-si-ta* are phonologically and morphologically distinct but have the identical semantic key-relation ('eat') so the one in the non-final conjunct can be elided when they are coordinated. In other words, the elements that are elided must share at least their KEY-REL values with the constituent in the rightmost conjunct, i.e. the predicate in the final conjunct.

In terms of *K-gapping-cxt* in (11), (1a) can be represented as in (12).

(12)
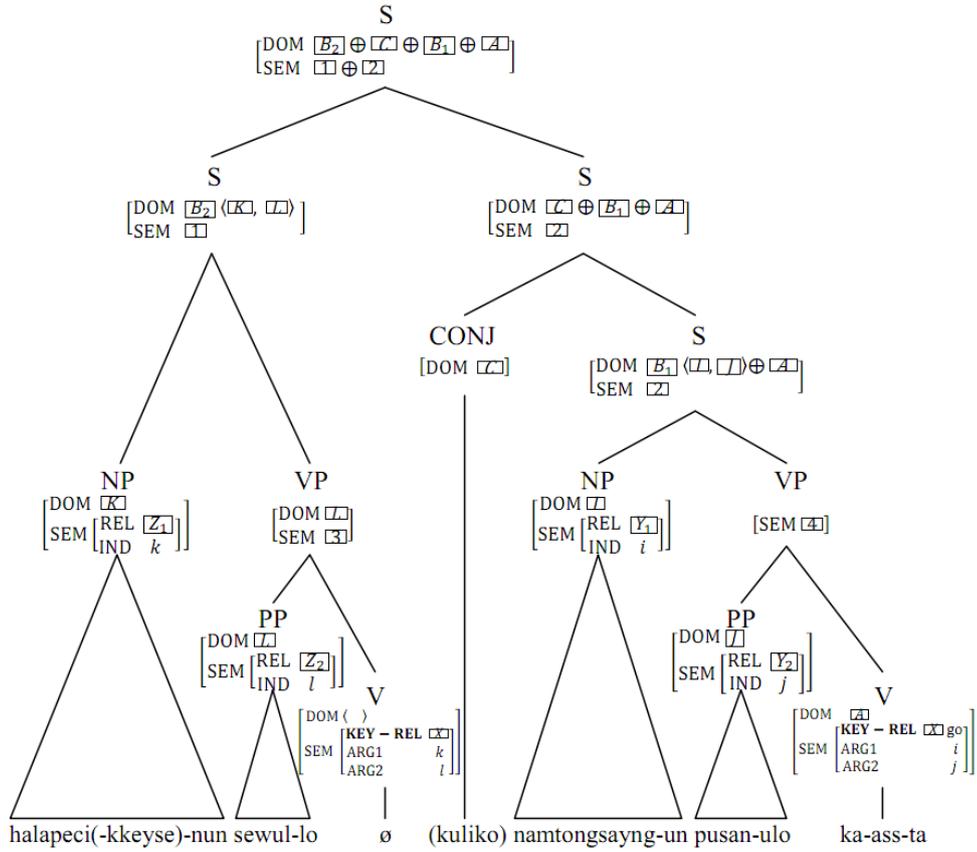
In the domain of the mother of (12), B_2 from the left conjunct consists of the NP$_k$ *halapeci(-kkeyse)-nun* and the PP$_l$ *sewul-lo* in the non-final conjunct and the optional right conjunct's coordinator C consisting of *kuliko* is followed by B_1 from the right conjunct which is comprised of the NP$_i$ *namtongsayng-un* and the PP$_j$ *pusan-ulo* in the final conjunct. The final element A in the mother's DOM list is composed of V *ka-ass-ta* whose corresponding material in the left conjunct's DOM list is elided and thus is not preserved in the mother's DOM list. By the definition of the Verbal Gapping Principle for Korean in (10), the KEY-REL value X of the verb in the non-final conjunct is identical to that of the verb *ka-ass-ta* in the final conjunct so the verb in the non-final conjunct can be elided. As discussed above, a gapping sentence as in (12) may have diverse interpretations with respect to tense and honorifics. To get both symmetric and asymmetric tense interpretations in Korean gapping construction, we adopt Cho (2006)'s analysis suggesting that either (A) the tense interpretation of covert verbs can be identical to that of the overt one, or (B) it can be construed to be PRESENT tense as a conjunct of TP coordination. To show how it works, we consider the gapped verb in (1a) which can be understood as *ka-ko* or *ka-ass-ko*. The PAST interpretation of *ka-ass-ko* can be obtained from the (A) clause of Cho's proposal, while the PRESENT interpretation of *ka-ko* can be obtained in terms of the (B) clause of his proposal. As for the honorific interpretations, we adopt Choi (2003)'s analysis proposing that the verb should specify honorific information which is identical to that of its subject. For example, (1a) can be construed as (2a). The gapped verb in the non-final conjunct of (1a) can be construed as the verb *ka-si-* with HON+. The gapped verb in (1a)

does not specify any honorific information while the verb in the final conjunct specifies HON−. The HON value of the non-final conjunct is positive (+) owing to *halapeci* 'grandfather', though the final conjunct containing a subject with HON− has HON−. Hence, the underspecified honorific feature is specified as + in terms of background discourse information such that the speaker owes honor to *halapeci* 'grandfather'.

4   Conclusion

There have been a variety of attempts to analyze coordination constructions, such as the TP analysis by Chung (2001) and the vP analysis by Lee (2005). Though the two previous analyses are theoretically different in accounting for the linguistic phenomena at issue, they seem to fail to provide a complete account of tense and honorific interpretations of non-final conjuncts of coordination constructions.

To solve the problems that the previous analyses face, we claim that verbal gapping in Korean can occur in all non-final conjuncts when the predicate of the non-final conjuncts shares the identical semantic key-relation value with that of the predicate in the final conjunct, regardless of the consistency of the honorific and tense values of all conjuncts. To support our claim, we have proposed a constraint- and construction-based analysis within the HPSG framework, similar to Beavers and Sag (2004)'s Ellipsis-Based analysis. Based on this analysis, we have shown how a variety of tense and honorific interpretations of gapping constructions in Korean can be accounted for, if we adopt Choi (2003) and Cho (2006). Therefore, we believe that this treatment is preferable to the previous analyses because it captures significant generalizations on the linguistic behaviors of gapping constructions at least in Korean.

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