Copy theory of movement and apparent ECM constructions*

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Lee, Wooseung. 2014. Copy theory of movement and apparent ECM constructions. *Linguistic Research* 31(1), 69-101. This paper reassesses a recent conceptualization of movement, the copy theory of movement (CTM, henceforth) and examines if CTM successfully accounts for so-called ECM constructions in Japanese and Korean (J/K). Despite various conceptual and empirical advantages it does have, CTM leads to non-trivial problems in the application to the analysis of so-called J/K ECM constructions. In this paper, we go over Abe's (2013) implementation of Japanese ECM constructions based on CTM. Despite an interesting formulation of P-L Match condition coupled with CTM, his proposal poses a number of empirical as well as conceptual problems when applied to Japanese and Korean. As an alternative, we propose FocP for apparent ECM constructions in Korean. In particular, the Acc-marked NP (or DP) is proposed to occupy the Spec of Focus Phrase, which is posited on top of CP layer. We then show how the proposed analysis accounts for a variety of empirical phenomena attested in apparent Korean ECM constructions. **(Konkuk University)**

Keywords copy theory of movement, ECM constructions, Focus Phrase

1. Introduction

1.1 Copy theory of movement

Movement in GB era was viewed as something similar to a physical movement accompanied by a process of inserting a 'syntactically active' trace in the extraction site. With the advance of Minimalist Program, however, movement has been conceptualized in a different tack than that in GB era. Chomsky (2001) provided a different conceptualization of movement, in which a copy of some element within a structure is merged with the structure itself (Cook and Newson 2008). In this case,

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the copy is pronounced while the original source undergoes deletion. Under this new conceptualization of movement, i.e. the copy theory of movement, Hornstein (2009), among others, put forward an Agree-less approach toward movement. Under this approach, the overt vs. covert movement is differentiated by which copy is pronounced of the resulting chain involved in a series of movement. The ideas of the Agree-less approach have been taken up by several works, especially in analysing two representative constructions in syntax, i.e. Control and ECM constructions. Specifically, the presence of backward control phenomena constitutes a good piece of evidence for CTM that allows the option of pronouncing a lower copy of a chain (Potsdam 2009 etc.). In a similar vein, Abe (2013) argues that various interpretations observed in Japanese ECM constructions are well predicted by P-L Match condition coupled with CTM. In section 2 of this paper, we first revisit some binding facts and backward control constructions that support CTM and then go over Abe's CTM-based account for Japanese ECM constructions. Crucially, we review Abe (2013) by closely observing how his proposal works in Japanese and point out potential problems that it could pose in Japanese and Korean. Section 3 proposes an alternative line of analysis based on the elaboration of Lee (2012). We propose FocP for Korean ECM constructions with the Acc-marked NP occupying the Spec of Focus Phrase. Section 4 concludes and discusses some implications that the current analysis does have.

2. An overview: The rationale for the copy theory of movement

2.1 Binding theory revisited

As a rationale for CTM, we first revisit some puzzling binding facts. Although Binding Principles account for the distribution of various NPs in GB theory, a well-known example (1) (cf. Chomsky 1993, Fox 1999) challenges Principle A in that the anaphor 'himself' is structurally higher than its antecedent 'John' and cannot be c-commanded.

(1) [Which picture of himself$_j$]$_i$ did John$_j$ discard t$_i$?

Given Principle A, this configuration predicts example (1) to be unacceptable, contrary to fact. The proposed analysis under GB was to assume that the bracketed DP except the determiner 'which' is placed back into the original position at LF. The determiner remains in the Spec position of CP for a correct scope interpretation. LF reconstruction analysis leads us to postulate a structure as in (2).

(2) [Which t_i] did John$_j$ discard [picture of himself$_j$]$_i$?

It now seems to meet Principle A, but still violates one grammatical principle, namely, ECP in GB theory. Specifically, the trace within the DP is not properly governed. This problem however does not arise under CTM within Minimalist Program. Given this theory, so-called "traces" are identical to the moved element except that only their phonological features are stripped. Since both syntactic and semantic features are still present, there is no need to resort to reconstruction. Consider (3) again.

(3) [Which picture of himself$_j$] did John$_j$ discard [which picture of himself$_j$]?

As illustrated above, the reflexive which is still present in the lower position can be interpreted as coreferential with a c-commanding phrase 'John' in its domain. This satisfies Principle A of Chomsky and Lasnik's (1993) version of the Binding Theory, which is formulated in terms of interpretive principles, without making reference to indices.[1] ECP violation does not occur since no lowering movement takes place in (3).

Other than accounting for an apparent counterexample to Binding Theory as in (1) above, CTM is advantageous for the following respects. Conceptually, the copy theory observes the Inclusiveness Condition in that it does not adopt new elements such as traces that were not listed in the numeration. Empirically, as will be

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[1]   Binding Theory

   (i) Principle A:
     If α is an anaphor, interpret it as coreferential with a c-commanding phrase in its domain.
   (ii) Principle B:
     If α is a pronoun, interpret it as disjoint from every c-commanding phrase in its domain.
   (iii) Principle C:
     If a is an R-expression, interpret it as disjoint from every c-commanding phrase.

discussed in subsections 2.2-2.3, it nicely explains cases such as Backward Control (Potsdam 2009, among others) and Backward Binding (Abe 2013) where the traces (lower copies) are pronounced rather than the head (the top copy). It also successfully accounts for data such as (4) where more than one copy survives PF deletion and maintain their phonetic features.

(4) Verb focalization in Vata (Koopman 1984)

| **li** | a | **li**-da | zue | saka. |
| eat | we | eat-PAST | yesterday | rice |

'We ATE rice yesterday.'

Given the assumption that the focalization moves the verb to a pre-TP focus position, a focalised verb is duplicated in the original position occupied by the verb 'li-da' as exemplified in (4). Thus, CTM gains both conceptual and empirical support in Minimalist Program.

2.2 Backward control (Potsdam 2009, among others)

As stated in Hornstein and Polinsky (2008), recent works on control (Monahan 2003, 2005, Polinsky & Potsdam 2006, Polinsky 2007, Potsdam 2009) have concentrated on eliminating PRO in control theory and then adopted movement theory into control constructions. One of the rationales behind adopting CTM into the area of control has much to do with an empirical reality called backward control. Example (5) schematically illustrates the structure of Backward control using English glosses. These are argued to be attested in many languages including Tsez (Polinsky & Potsdam 2002), Malagasy (Potsdam 2009), Japanese (Fujii 2006), Circassian (Polinsky & Potsdam 2006), among others as pointed out in Hornstein and Polinsky (2008: 12).

(5) a. John persuaded PRO_1 [$Bill_1$ to leave].
    b. PRO_1 began [$John_1$ to leave].

The salient feature of backward control is that a silent argument is structurally higher than an overt DP and binds it. The above structure (5) is a serious challenge toward

a PRO theory of control in the following respects. First, PRO is posited in a Case position in (a-b) examples of (5) and is being governed by a transitive verb and a finite I respectively. This obviously violates PRO theorem stating that PRO must be ungoverned. Second, PRO should be bound by an antecedent for interpretation, i.e. it resorts to an antecedent for referential properties. However, the PROs in (5) are structurally higher than the overt controllers, never being able to be bound. As for these, Polinsky and Potsdam (2002) proposed that backward control is well-explained by movement analysis where the top copy is deleted and the bottom one pronounced. According to them, example (5) of backward control is similar to forward control except that they choose a different copy to pronounce. Following (a) and (b) examples of (6) exhibit how forward and backward control arise.

(6) a. John persuaded Bill [Bill to go].
    b. John began [John to leave].

In overt syntax, (5a-b) would be represented as (6a-b). Forward control arises when the bottom copy is deleted and the top copy is pronounced. Backward control arises when the bottom copy is maintained and the top one undergoes deletion. Interestingly, for phonetic form, only one of the two copies is pronounced, but for interpretation, both copies participate in LF interpretation. This view of control no longer takes PRO as a key component of the theory and is quite compatible with the view of Movement as Copy-Delete (Cook and Newson 2008). Under this view of movement, the original element undergoes deletion and hence only the copy is pronounced. The deleted source is taken as what has been dubbed a trace in GB theory. As pointed out in Potsdam (2006, 2009), the existence of backward control is well predicted by theoretical combination of CTM and the option of pronouncing a lower copy of a chain. If backward control is an empirical reality, it constitutes decisive evidence for PRO-less movement theory of control. Nonetheless, backward control is still controversial in that it not widely attested cross-linguistically. According to Potsdam (2006, 2009), Malagasy exhibits backward control as shown in (7).

(7) a. tranon'iza   no   naneren' i Mery   ahy hofafana?   forward
       house'who FOC   force.CT   Mary   me sweep.TT
    b. tranon'iza   no   naneren' i Mery   hofafa-ko?   backward
       house'who FOC   force.CT   Mary   sweep.TT-me
       'Whose house did Mary force me to sweep?'

Note that this language does not possess object *pro*-drop. Thus, example (7) cannot be taken as a non-obligatory control with *pro* in the object position, unlike in Korean. For instance, Korean exhibits a pattern like (7b), which can be taken as a non-obligatory control with object *pro*-drop. Consider (8).

(8) Cheli-ka Yenghi-ka hakkyo-ey ka-tolok   seltukhay-ss-ta.
    C-nom   Y-nom   school-to   go-Comp   persuade-pst-decl
    'Cheli persuaded Yenghi to go to school.'
    'Cheli persuaded someone (her parents, for example) that Yenghi should
    go to school.'

As translated above, (8) has two readings. The second reading contains a null object that is semantically controlled by the discourse. Monahan (2003, 2005) originally introduced (8) as an example of backward control, based on the fact that the overt controller occurs in the embedded clause, and the matrix clause has a silent element. However, his proposal was discarded or revised in subsequent works since it ignored the fact that Korean allows object *pro*-drop. In this light, Malagasy at least offers a genuine instance of backward control and supports the movement theory of control.

2.3 (Japanese and English) ECM constructions

As discussed above, various syntactic phenomena such as binding, backward control and duplication of a focalised verb lend support to the copy theory of movement. This section reviews Abe (2013) since it is the latest work on Japanese ECM constructions based on CTM. Specifically, a la Hornstein (2009), he made an agreeless approach on movement, where it is a crucial issue to choose which copy is pronounced and which copy participates in LF interpretation.[2] According to Abe (2013), CTM, coupled with the option of pronouncing either copy, derives a relevant

interpretation in ECM constructions. Despite a lot of discussion on ECM constructions throughout various incarnations of syntactic theory, Abe (2013) will be reviewed in subsection 2.3.1 since his analysis of ECM is the latest, relatively novel approach based on CTM. We explore how his proposal works in accounting for various interpretations allowed in Japanese ECM constructions.

2.3.1 A summary of Abe (2013)

This section briefly summarizes Abe's (2013) proposal on Japanese ECM constructions. Recent minimalism assumes that Case is checked by Spec-Head relation in a uniform fashion. Given the assumption that accusative Case is checked in the Agr projection, *Mary* in (9) is proposed to raise covertly to the matrix Spec of Agr. Covert raising is necessary here to obtain a correct word order.[3]

(9) John [$_{AgroP}$ <Mary> [$_{VP}$ believes [$_{TP}$ Mary to be honest]]]

However, Lasnik and Saito (1991) offers ample evidence to support overt raising of ECM subject to the matrix object. To negotiate these claims, Chomsky (2008) proposes that an ECM subject is raised overtly to Spec VP, capitalizing on Koizumi's (1995) split VP hypothesis. The proposed solution is schematically represented in (10).

(10) John [$_{vP}$ v+believes [$_{VP}$ Mary t$_{believes}$ [$_{TP}$ <Mary> to be honest]]]

Now, given CTM, there arises an intriguing question which copy of *Mary* is pronounced in (10) since pronunciation of either copy does not make difference in word order. As for this question, Abe (2012) proposes the following (11) regarding

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2   There are two major proposals to account for overt vs. covert movement. One is based on the notion of Agree advanced by Chomsky (2000), where overt movement is motivated by the presence of an EPP feature on the probe while covert movement is not. Under this proposal, overt movement is featured as movement before Spell Out and covert movement as post-Spell Out operation. The other is put forward by Hornstein 2009 among others and dispenses with the notion of Agree. Under this analysis, the overt vs. covert movement is differentiated by which copy is pronounced of the resulting chain involved in a series of movement.

3   Following Abe (2013), angled brackets are used to signal that the inside material is unpronounced.

which copy of an A-chain is pronounced.

(11)   In the case of an A-chain, any member can be the target for pronunciation.

Based on (11), he accounts for the optional "raising to object" observed in English ECM construction as in (12), noted by Lasnik (1999). According to Abe (2012), sentence (12) can be represented either as (13a) or (13b), which yields the identical surface structure.

(12)   John believes Mary to be honest.
(13)   a. John [$_{vP}$ v+believes [$_{VP}$ Mary t$_{believes}$ [$_{TP}$ <Mary> to be honest]]]
        b. John [$_{vP}$ v+believes [$_{VP}$ <Mary> t$_{believes}$ [$_{TP}$ Mary to be honest]]]

The Japanese ECM construction is known to exhibit the same type of optionality:

(14)   a. John-ga   [Bill-ga   baka   da   to]   omotteiru.
           J-Nom   B-Nom   stupid   be   Comp think
           'John thinks that Bill is stupid.'
        b. John-ga   [Bill-o   baka   da   to]   omotteiru.
           J-Nom   B-Acc   stupid   be   Comp think

Kuno (1976) takes (14b) as an example of subject-to-object raising, in which the embedded Subject *Bill-o* is marked with accusative Case. Given that accusative Case is assigned by the higher matrix verb, example (14b) is assumed to involve movement as indicated below:

(15)   John-ga [$_{VP}$ Bill-o [$_{CP}$ [$_{TP}$ Bill-o baka   da] to]   omotteiru.
        John-Nom   B-Acc   B-Acc stupid be   Comp think

The Agree-less approach, coupled with the proposal (11), predicts that either copy of *Bill-o* can be pronounced, which is borne out:

(16) John-ga [mada Mary-o   kodomo da to]   omotta.
     J-Nom   still M-Acc   child be Comp thought
     'John thought that Mary was still a child.'   (Hiraiwa 2001, p. 72)

(17) Yamada-wa Tanaka-o   orokanimo [tensai da to]
     Y-Top   T-Acc   stupidly   genius be Comp
     omotteita.
     thought
     'Yamada stupidly thought that Tanaka was a genius.'

Example (16) suggests that the bottom copy of the resulting A-chain is pronounced since the adverbial *mada* 'still' modifying the embedded clause precedes the accusative-marked subject *Mary-o.* This idea is illustrated in (18):

(18) John-ga [$_{VP}$ <Mary-o> [$_{CP}$ [$_{TP}$ [$_{vP}$ mada Mary-o   kodomo]
     John-Nom   still Mary-Acc child
     ta]   to] omotta].
     be   Comp   thought
     'John thought that Mary was still a child.'

By contrast, example (17) displays that the top copy of the resulting A-chain survives deletion at PF. Specifically, the accusative-marked subject *Tanaka-o* precedes the matrix adverbial *orokanimo* 'stupidly', which demonstrates the pronunciation of the top copy:

(19) Yamada-wa [$_{VP}$ Tanaka-o   orokanimo [$_{CP}$ [$_{TP}$ [$_{vP}$ <Tanaka-o>
     Y-Top   T-Acc   stupidly
     tensai   da]] to]   omotteita**.**
     genius be Comp   thought
     'Yamada stupidly thought that Tanaka was a genius.'

Even though he allows free choice in the pronunciation of copies, he gives restrictions to the interpretation by proposing what he calls P-L Match Condition as stated in (20).

(20)   <u>P-L Match Condition</u>
[SF] and [PF] must be carried by the same member of an A-chain.
a. The semantic feature [SF] indicates that its carrier can participate in LF interpretation.
b. The phonetic feature [PF] indicates that its carrier must be pronounced.

Abe motivates this proposal by examining the English ECM construction and then extends it to Japanese ECM constructions as in (21), originally presented by Sakai (1998)[4].

(21)   a.?*Rie-wa [karera-ga   muzitu   da to]   otagai-no
Rie-Top   they-Nom   innocent be Comp   each other-Gen
syoogen-niyotte   sinziteiru.
testimony-by   believe
'Rie believes that they are innocent by each other's testimonies.'
b. Rie-wa [karera-o   muzitu   da to]   otagai-no
Rie-Top they-Acc   innocent be Comp each other-Gen
syoogen-niyotte   sinziteiru.
testimony-by   believe
'Rie believes that they are innocent by each other's testimonies.'

Example (21a) is unacceptable since *karera-ga* 'they-Nom' in the embedded subject position cannot c-command *otagai* 'each other' associated with the matrix clause. The acceptability of (21b), however, suggests that the accusative-marked NP *karera-o* 'they-Acc' is not within the embedded clause but is raised into the matrix object position, where it c-commands and licenses *otagai* 'each other'. P-L Match condition accounts for the grammaticality of (21b) by proposing that the top copy of the produced A-chain carries both [PF] and [SF] as represented in (22):

(22)   Rie-wa [$_{VP}$ karera-o [SF][PF] [$_{CP}$ [$_{TP}$ [$_{vP}$ <kareka-o>   muzitu
Rie-Top   they-Acc   innocent   be

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4   See Abe (2012) for English ECM constructions.

da]] to]
Comp
[otagai-no   syoogen-niyotte]   sinziteiru]
each other-Gen   testimony-by   believe
'Rie believes that they are innocent by each other's testimonies.'

Finally, some apparent counterexamples (Kobayashi and Maki 2002) to the P-L Match Condition are explained by the proposal that the A-chain resulting from movement of the ECM subject involves a replacement process into **theta-position** in the matrix clause with the bottom copy pronounced. Take (23) for instance.

(23)   Rie-wa [kaminoke-no ippon-ni itaru made karerai-o muzitu   da
       Rie-Top hair-Gen   one-to   as far as they-Acc innocent be
       to]   otagaii-no   syoogen-niyotte   sinziteiru.
       Comp   each other-Gen   testimony-by   believe
       'Rie believes them$_i$ to be every inch innocent based upon each other$_i$'s testimonies.'

Note that the accusative-marked NP *karera-o* 'they-Acc' is preceded by the italicized adverbial phrase modifying the embedded clause. This suggests that it stays in the embedded clause without raising into a higher position. The grammaticality of (23), however, indicates that it binds *otagai* 'each other' in the matrix clause, contrary to what the P-L Match Condition predicts.

   Abe takes this as backward binding in line with backward control (Polinsky and Potsdam 2002) in that the lower copy seems to bind the higher one. Intriguing as it seems, it raises non-trivial problems as will be discussed in 2.3.2.

2.3.2 A critical review of Abe (2013)

   Despite apparent advantages, close examination reveals that his analysis encounters a number of empirical and theoretical problems. First, his P-L match condition, combined with the one presented in (11)[5], fails to tease apart backward

5   It is reintroduced as (i) for ease of exposition.
     (i) In the case of an A-chain, any member can be the target for pronunciation.

binding from forward binding without offering any satisfactory account. Specifically, his example in (21b) above as reintroduced in (24) was provided to show how P-L match condition works. According to P-L Match condition, both phonetic and semantic features must be carried by the same member of the chain. To be specific, *karera-o* 'them' is pronounced and given interpretation at the matrix clause, where *otagai* 'each other' is located. This configuration successfully meets binding principle A since it allows *otagai* 'each other' to have a *clausemate* antecedent *karera-o* 'them'.

(24)   Rie-wa [VP karera-o [SF][PF] [CP [TP [vP <karera-o>   muzitu
       Rie-Top   they-Acc   innocent   be
       da]] to]
       Comp
       [otagai-no   syoogen-niyotte]   sinziteiru]
       each other-Gen   testimony-by   believe
       'Rie believes that they are innocent by each other's testimonies.'

Given the existence of backward binding mentioned at the end of 2.3.1, however, the acceptability of (21b)/(24) can be readily explained by backward binding proposal as well, i.e. the proposal that the *top* copy 'karera-o' participates in LF interpretation while the *bottom* one '<karera-o>' is pronounced. Due to the lack of any constraints to block backward binding under his proposed P-L match condition, all the examples originally presented for the justification of P-L match condition can be reclassified as instances of backward binding (cf. Fujii 2006 backward control, Abe 2012 backward anaphora etc.), which was initially proposed for the account of failure of P-L match condition.[6]

Crucially, binding principle A can be satisfied in (24) by the proposal that the *top* copy 'karera-o' at the matrix clause participates in LF interpretation while the *bottom* one '<karera-o>' at the embedded clause is pronounced. This backward binding account is available since *otagai* 'each other' can have a *clausemate* antecedent *karera-o* 'them' at LF, meeting binding principle A. This nullifies P-L Match Condition since the example (24) can be taken as backward binding, i.e.

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6   Abe himself admitted this unconstrained behavior of his proposed condition (p.c.).

failure of P-L Match even though it is originally provided as an example for P-L March Condition.

Other than this problem, Abe's proposal faces challenges when applied to Korean ECM constructions that look quite similar to Japanese counterparts in overt syntax. To be specific, his proposal based on the CTM fails to explain examples where the apparent subject of the embedded clause does not originate in the embedded TP Spec as in the following example (25).[7] Specifically, an NPI 'amwuto' in (25) is proposed to be in the matrix clause since it needs a clausemate negation in Korean (Choi 2007, among others).[8] To meet the clausemate condition on NPIs, Lee (2012) proposed that (25) should be analyzed as in (26), where the NPI is outside the embbedded TP clause and readily related to the matrix clause by being base-generated in FocP Spec position[9]. A detailed discussion of FocP will be made in section 3.1.

(25)   Cheli-nun   amwuto   yeppu-ta-ko   mit-ci anh-nun-ta.
       C-Top   anyone   be.pretty-decl-comp   believe-Neg-pres-decl

(26)   Cheli-nun [$_{FocP}$ amwuto$_i$ [$_{TP}$ pro$_i$ yeppu-ta-ko]]
       C-Top   anyone   be.pretty-decl-comp
       mit-ci anh-nun-ta.
       believe-Neg-pres-decl
       'Cheli does not believe of anyone that they were pretty.'

As for (26), Abe (2013) will have to postulate a derivation like (27), which violates clausemate condition since the NPI does not have a clausemate negation within the embedded TP. In order to meet the clausemate condition, the NPI 'amwuto' cannot

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7   One of the reviewers pointed out that the sentence becomes marginal if the embedded predicate is marked with the past morpheme ‑ess. The sentence can be still fine, given an appropriate context. It is just that the embedded predicate 'yeppu-ess-ta' sounds a bit awkward since, in terms of lexical aspects, it belongs to statives that signify 'unchanging and lasting duration'.

8   One of the reviewers pointed out that this problem under CTM-based analysis could be circumvented by the revised 'loosened' condition that NPIs construed as the embedded Subject can be licensed by the negation at the matrix clause (Kang 1988, among others).

9   FocP Spec is similar to an adjunct here; sometimes it is related to the matrix clause and sometimes to the embedded clause since being an adjunct, metaphorically speaking, is like being on a balcony as first mentioned in Haegeman (1998) and subsequently discussed in Kim (2011) and Lee (2012).

be argued to originate from within the embedded TP clause, contra Abe's CTM-based proposal.

(27) Cheli-nun   amwuto   [CP [TP [vP<amwuto> yeppu]-ta]-ko]
      C-Top   anyone   be.pretty-decl-comp
      mit-ci anh-nun-ta.
      believe-Neg-pres-decl
      'Cheli does not believe of anyone that they were pretty.'

Following sets of examples (28-29) point to the same account[10].

(28) a. Na-nun   Seoul-i   Namsan-i   alumtap-ta-ko
         I-top   Seoul-nom   namsan-nom   be.beautiful-decl-comp
         sayngkakha-n-ta.
         think-pres-decl
         'I think that, as for Seoul, Namsan is beautiful.'
      b. Na-nun   Seoul-ul   Namsan-i   alumtap-ta-ko
         I-top   Seoul-acc   namsan-nom   be.beautiful-decl-comp
         sayngkakha-n-ta.
         think-pres-decl
         'I think that, as for Seoul, Namsan is beautiful.'
      c. Na-nun   Seoul-ul   Namsan-ul   alumtap-ta-ko
         I-top   Seoul-acc   namsan-acc   be.beautiful-decl-comp
         sayngkakha-n-ta.
         think-pres-decl
         'I think that, as for Seoul, Namsan is beautiful.'
      d.*Na-nun   Seoul-i   Namsan-ul   alumtap-ta-ko
         I-top   Seoul-nom   namsan-acc   be.beautiful-decl-comp
         sayngkakha-n-ta.
         think-pres-decl
         'I think that, as for Seoul, Namsan is beautiful.'

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10 As for data sets (28-29), grammatical judgments of (a) through (d) examples remain the same even in the presence of an overt tense marker '-ess' as in 'alumtawu-ess-ta-ko' and 'ttokttokhay-ss-ta-ko'.

(29) a. Na-nun   haksayng-i   seymyeng-i   ttokttokha-ta-ko
       I-top   student-nom   three.perple-nom   be.smart-decl-comp
       sayngkakha-n-ta.
       think-pres-decl
       'I think that three students are smart.'

    b. Na-nun   haksayng-ul   seymyeng-i   ttokttokha-ta-ko
       I-top   student-acc   three.perple-nom   be.smart-decl-comp
       sayngkakha-n-ta.
       think-pres-decl
       'I think that three students are smart.'

    c. Na-nun   haksayng-ul   seymyeng-ul   ttokttokha-ta-ko
       I-top   student-acc   three.perple-acc   be.smart-decl-comp
       sayngkakha-n-ta.
       think-pres-decl
       'I think that three students are smart.'

    d. *Na-nun   haksayng-i   seymyeng-ul   ttokttokha-ta-ko
       I-top   student-nom   three.perple-nom   be.smart-decl-comp
       sayngkakha-n-ta.
       think-pres-decl
       'I think that three students are smart.'

The grammatical contrast illustrated above in (28-29) is not given a satisfactory explication under Abe's account. Specifically, Abe (2013) does not predict the ungrammaticality of (d)-examples of (28-29) since his analysis accepts an accusative-marked NP in the subject position of the embedded clause.[11] He will thus need an independent principle or constraint in order to rule out (d)-type sentences.[12]

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[11] An accusative marked NP can enter into the derivation as is and then stay within the embedded clause without raising into the higher clause. For instance, Abe (2013) argues that *Mary-o* in (i) stays in the embedded clause, where it is given phonetic realization and semantic interpretation in accordance with P-L Match Condition.

   (i) John-ga   [mada Mary-o   kodomo da to]   omotta.
       John-Nom still Mary-Acc child   be Comp thought
       'John thought that Mary was still a child.'   (Hiraiwa 2001, p. 72)

[12] As for this, one of the reviewers suggested that (d)-examples of (28-29) be ruled out under Abe (2013) by positing an independent constraint that bars movement of the Minor (grammatical)

The above grammatical contrast rather suggests that the acc-marked NP should be located outside or above the embedded TP. This fact is clearly revealed by the comparison of acceptable (b)-sentences with unacceptable (d)-examples of (28-29).

Forth, the accusative-marked 'subject' in Japanese ECM was claimed in a variety

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Subject over the Major Subject. Even though the constraint accounts for the ungrammaticality of (d)-examples, it now invites a question how to rule in (c)-examples. Specifically, under the proposed movement analysis, both the Major Subject 'Seoul-ul' and the Minor Subject 'Namsan-ul' are subject to movement to the matrix clause. Given the above constraint, the movement of the Major Subject must occur prior to that of the Minor Subject. However, once the Major Subject merges with the matrix Spec VP, the Minor Subject cannot be merged internally to the structure so as not to violate 'No Tamper Condition'. That is, once a structure is built, we cannot tamper with its internal arrangements. This poses a problem since that sequence of movement yields an undesirable word order 'the Minor Subject followed by the Major Subject'. In addition, the proposed derivation cannot be argued to satisfy the above constraint 'No movement of the Minor Subject Over the Major Subject' since under the proposed derivation the Minor Subject is supposed to move over the full-fledge copy (or, trace) of the Major Subject, which is assumed to be syntactically active although invisible.

Crucially, as pointed out by one of the reviewers, an outstanding question is how our proposed analysis accounts for an example as in (i)?

(i) Seoul-ul   Namsan-ul   Na-nun alumtap-ta-ko
Seoul-acc namsan-acc I-top   be.beautiful-decl-comp
sayngkakha-n-ta.
think-pres-decl
'Seoul, specifically Namsan, I think that it is beautiful.'

A plausible line of thinking is as follows. The above construction (i) is preposing and, as is well-known, a preposed argument serves as a link to the preceding discourse, and must be closely related information previously introduced into the discourse (Huddleston and Pullum 2007). Of course, the term 'preposing' is used without any implication for 'movement' operation in a similar way that the term 'RNR' is often used without any implication for 'raising or movement' operation. Consider an English sentence (ii) with a preposed element.

(ii) The books they said he could have.

In this case, "the books" refers to those already mentioned in the preceding discourse. This is consistent with the Given-New Contract in the sense of Biber et al. (1999). Specifically, this sort of *non-canonical* order is preferred to observe the Given-New Contract that the given (or, old) information comes first in a sentence.

Let us now return to example (i) again. The acceptance of this sentence demonstrates that no movement is involved in the construction. It has also *non-canonical* word order, which indicates that both 'Seoul-ul' and 'Namsan-ul' are 'given information' or *Topic*, which are possibly mentioned in the preceding discourse. Accordingly, as for a sentence like (i), we propose a base-generated TopP whose Specs are occupied by two focused elements 'Seoul-ul' and 'Namsan-ul', I.e. two FocPs. In this proposed analysis as well, multiple Topic feature checking is assumed to be available in line with Ura (1996).

of previous literature to be base-generated as the object of the higher verb that binds the embedded null subject identified as *pro*. This is illustrated in (30). Abe (2013), however, put forward a different analysis as illustrated in (31), in accordance with Hornstein's (1999, 2001) movement theory of control, which involves A-movement of 'Bill-o' into theta-position.

(30) John-ga   Billi-o   [CP [TP *pro*i   baka   da   to]   omotteiru.
       John-Nom   Bill-Acc   stupid be   Comp   think
       'John thinks of Bill that he is stupid.'

(31) John-ga   Bill-o   [CP [TP [vP <Bill-o>   baka   da]] to]
       John-Nom   Bill-Acc   stupid be   Comp
       omotteiru.
       think
       'John thinks of Bill that he is stupid.'

The proposed structure in (31) however poses a problem since it predicts that the bracketed CP, as an argument, can undergo scrambling, contrary to fact:[13]

(32)* [CP [TP [vP <Bill-o>   baka   da]] to]   John-ga Bill-o omotteiru.
                              stupid be   Comp John-Nom Bill-acc think
       'John thinks of Bill that he is stupid.'

This contrasts with a genuine CP argument attested in control constructions. Let us

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13   Korean also exhibits the same behavior as in (i).

(i) *[CP ttokttokha-ta-ko]i   na-nun Cheli-lul   ti   mit-nun-ta.
        be.smart-decl-comp I-top   Cheli-acc   believe-pres-decl
    'I believe Cheli to be smart.'

This contrasts with CP scrambling in control constructions. CP argument can undergo scrambling in control as in (ii). This suggests that the bracketed CP in (i) does not constitute a genuine argument nor does the acc-marked NP. On the other hand, the acc-marked NP and the bracketed CP serve as complements in control example (ii). ECM (or, SOR) thus should be given a different analysis than control constructions even under the CTM framework.

(ii) [CP ___ tayhak-ey   ka-tolok]i na-nun   Cheli-lul   ti seltukhay-ss-ta.
            university-to go-comp I-top   Cheli-acc   persuade-pst-decl
   'I persuaded Cheli to go to university.'

employ Korean example (33) for ease of exposition.

(33)   Chelswu-nun   Yenghi$_i$-lul   [____$_i$ tomangka-tolok] seltukhayssta.
         Chelswu-TOP   Yenghi-ACC   run.away-COMP persuaded
         'Chelswu persuaded Yenghi to run away.'

The bracketed CP in control constructions in (34) can undergo scrambling as in (34) since it is an argument of the predicator 'seltukhayssta'.

(34)   [$_{CP}$____i   tomangka-tolok]$_j$ Chelswu-nun   Yenghi$_i$-lul   t$_j$
                    run.away-COMP   Chelswu-TOP   Yenghi-ACC
         seltukhayssta.
         persuaded
         'Chelswu persuaded Yenghi to run away.'

Interestingly, as for (33), Polinsky (2007) proposed the following CTM-based structure (35), which has a similar configuration to the CTM-based ECM in (31). Despite apparent similarity in the proposed structures, CP argument in control constructions can undergo scrambling as in (34) while that in ECM cannot as in (32). We take it that the acc-marked NP does not move into the theta position, contra Abe (2013).

(35)
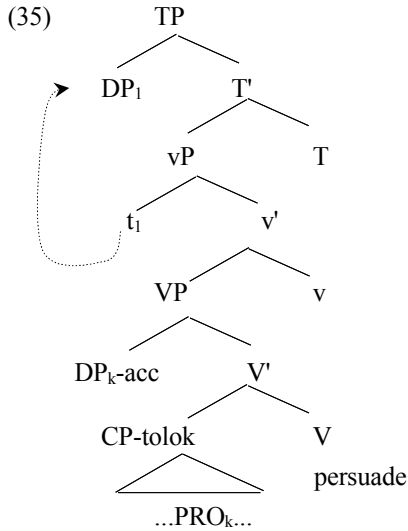
As mentioned in footnote (13), with the acc-marked NP excluded, scrambling of CPs in ECM and Control results in two contrastive grammatical judgments.

The scope of adverbs also demonstrates that the acc-marked NP cannot be within the embedded (TP) clause, unlike Abe's proposal. For instance, the adverb 'yeicenpwuthe' can modify either the matrix predicate or the embedded one as indicated by two different translations in (36). (cf. Hong and Lasnik 2010)

(36)   Cheli-nun   yeicenpwuthe   namnye-ka   phyengtungha-
        Cheli-top   since.a.long.time.ago   males.females-nom   be.equal-
        ci anh-ta-ko   sayngkakhay-ss-ta.
        neg-decl-comp   think-pst-decl
        'Since a long time ago Cheli had thought that there existed gender
        inequality (in our society).'
        'Cheli thought that since a long time ago gender inequality had
        existed (in our society).'

Note however that the adverb 'yeicenpwuthe' can modify the matrix predicate only, when it occurs with the Acc-marked NP as in (37).

(37)   Cheli-nun   yeicenpwuthe   namnye-lul   phyengtungha-
       Cheli-top   since.a.long.time.ago males.females-acc   be.equal-
       ci anh-ta-ko   sayngkakhay-ss-ta.
       neg-decl-comp think-pst-decl
       'Since a long time ago Cheli had thought that there existed gender
       inequality.'

Taken together with the ambiguous example (36), this disambiguation observed in
(37) clearly indicates that while the nom-marked NP stays within the embedded
clause, the acc-marked NP is outside (or cannot be within) the embedded (TP)
clause, undermining Abe's analysis.

   A related problem occurs under the consideration of (38).

(38)   a. na-nun   celtaylo kutul-i   kecismalcayngi-ka ani-la-ko
          I-top   at.all   they-nom   liar-nom   be.not-decl-comp
          sayngkakha-n-ta.
          think-pres-decl
          'I think that they are not liars at all.'
       b.?*na-nun   celtaylo kutul-ul   kecismalcayngi-ka ani-la-ko
          I-top   at.all   they-acc   liar-nom
          be.not-decl-comp
          sayngkakha-n-ta.
          think-pres-decl
          (Intended) 'I think that they are not liars at all.'

The adverb 'celtaylo' in (38b) belongs to the matrix clause since it precedes the
acc-marked NP and thus is outside of the embedded TP. Although it is required to
have a corelate negation 'ani' in the matrix clause in (38b), it does not have one,
failing to be licensed. As for (38b) as well, Abe wrongly predicts that it is
acceptable since he allows an acc-marked NP to remain in the embedded CP or TP.

   Korean is typologically similar to Japanese in that both languages allow free
word order such as scrambling and an extensive use of null arguments (Hale 1983).
Despite this syntactic similarity, some grammatical constraints apply only to either
language, e.g. double *o* constraint for Japanese (Kuroda 1965) and controversy of

verb raising for Korean (*Han et al. 2007*). However, CTM-based approach turned out to be desirable neither to Japanese nor to Korean ECM constructions in the following respects. CTM-based approach to Japanese ECM is argued to have a non-trivial problem in that it cannot distinguish forward binding from backward binding. The approach, being applied to Korean ECM constructions, could not deal with several types of examples involving NPIs, Quantifiers, Multiple Subject Constructions and Adverb Scope.

Next section will propose an alternative analysis of ECM constructions in Korean. Specifically, an elaborated analysis based on Lee (2012) will be proposed to readily deal with the examples that CTM-based approach does not have a good handle on.

3. A proposal

3.1 Focus phrase

So far we have revisited the applicability of CTM to various syntactic analyses for binding, control and ECM/SOR constructions. Although CTM seems to deal with some puzzling facts found in binding and (backward) control, it was argued to have difficulty dealing with ECM constructions despite a recent proposal by Abe (2013). It was also argued to pose potential problems when applied to a typologically related, agglutinative language, Korean, expecially with regard to Multiple Subjects, Quantifiers, NPIs and Adverb Scope. This section proposes an alternative analysis, based on the elaboration of Lee (2012) and confirms that our analysis is on the right track.[14] Given below are two crucial assumptions that were implicit but unstated in

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14 Postulation of FocP as for the acc-marked NP is understood in a similar way that English echo questions are. According to Huddleston and Pullum (2007), echo questions in English serve to check or clarify a stimulus that was not clearly perceived or was surprising. Given a dialogue between (a) and (b), (ib) is used to check if the hearer correctly heard what the speaker said (or meant to say). Likewise, (iib) is uttered in need of confirmation or clarification.

(i) a. She ate some chicken.
　 b. She ate some chicken? (That's surprising. She is allergic to chicken!)
(ii) a. He invited Tom.
　 b. He invited who? (That's unexpected. He hated Tom a lot!)

Lee (2012):

(i) The 'base-generated' accusative-marked NP occupies the Spec of FocP and checks 'focus' feature against the Focus head through Spec-Head agreement configuration. The focus-bearing NP semantically binds *pro* in the embedded TP Spec.

(ii) Crucially, an element (normally an AdvP) preceding FocP on top of CP is assumed to be related with the matrix clause, not the embedded one in that the embedded CP, a complement of the Focus head, expresses the (minimal) proposition which is predicated of the acc-marked Focused element and any adverbs occurring outside of the FocP layer are construed as modifiers of the matrix clause.[15]

Echo questions are among typical *non-canonical* questions, which serve to express *surprise* and is *prosodically focused* by sharp rising intonation or stress.

The acc-marked NP in apparent ECM constructions, since it is understood as the subject of the embedded clause, is taken to have a *non-canonical* Case marking and is thought to be bearing some *stress* (See footnote 15 as well). For instance, (iiib) can be uttered by a speaker for the purpose of putting some emphasis on 'Yenghi-lul' in case others keep saying that Swumi is pretty. Specifically, 'Yenghi' is marked with non-canonical 'Acc' Case even though it serves as the subject of the embedded clause.

   (iii) a. ne-nun   nwu(kwu)-*ka*   yepputa-ko   sayngkakha-ni?
         you-top   who-nom   be.pretty-comp   think-Q
         'Who do you think is pretty?'
      b. na-nun Yenghi-*lul*   yepputa-ko   sayngkakha-y.
       I-top   Yenghi-acc be.pretty-comp   think-decl
       'I think that Yenghi is the one that is pretty (although others keep saying that Swumi is pretty).'

In a similar vein, (ivb) can be an answer to a question that begs to repeat what was just said. Similar remarks apply to (ivb).

   (iv) a. ne-nun nwu(kwu)-*lul* yepputa-ko   sayngkakha-n-ta-ko......?
         you-top who-nom   be.pretty-comp think-pres-decl-comp
        'Who did you say you think was pretty?'
        (I could not hear you. <u>Or</u>, It's unbelievable! Can you please repeat it?)
      b. na-nun Yenghi-*lul* yepputa-ko   sayngkakha-n-ta-ko   (haysse)!
       I-top Yenghi-acc be.pretty-comp think-pres-decl-comp did.say
       'I said I thought that Yenghi was the one that is pretty.'

[15] Other than these assumptions, justification for the postulation of FocP can be found in Schutze (1996) as well. As for the *(l)ul*-marked adjuncts, he also made a proposal that *(l)ul* is a focus-marker on the grounds that *(l)ul*-marked adverbials can have a distinct pitch accent as if they are focused. For instance, (ia-b) involve *non-canonical (l)ul*-marked adjuncts, which put an emphasis on the duration of the adverbials.

   (i) a. na-nun hankangpyen-ul sey   sikan-*ul*   talli-ess-ta.

Our proposed analysis predicts the unacceptability (or, marginality) of (39).

(39) *? na-nun celtaylo kutul-ul kecismalcayngi-ka ani-la-ko
    I-top at.all they-acc liar-nom be.not-decl-comp
    sayngkakha-n-ta.
    think-pres-decl
    (Intended) 'I think that they are not liars at all.'

Under our proposed analysis, the acc-marked NP occupies the Spec of FocP.[16] Since the adverb preceding the acc-marked NP is assumed to be outside of the FocP and related to the matrix predicate, it has no clausemate negation and is responsible for the unacceptability of the example.

Example (40) is given a similar account. Since the adverb 'yeicenpwuthe' preceding the acc-marked NP is assumed to be outside of the FocP and related only to the matrix predicate, it is construed as a modifier of the matrix clause, not the embedded one, disambiguating the sentence.[17]

(40) Cheli-nun yeicenpwuthe namnye-lul phyengtungha-
    Cheli-top since.a.long.time.ago males.females-acc be.equal-
    ci anh-ta-ko sayngkakhay-ss-ta.
    neg-decl-comp think-pst-decl
    '<u>Since a long time ago</u> Cheli had <u>thought</u> that there existed gender inequality.'

        I-top the Han river.side-acc three hours-acc run-pst-decl
        'I ran by the Han river for as many as three hours.'
    b. ne cinancwu-ey myechil-*ul* oypakhay-ss-ni?
      you last.week how.many.days sleep.outside-pst-Q
      'How many days did you sleep outside last week?'

[16] Yoon (2007) claims that the Major Subject, the initially-occurring Subject in multiple Nominative constructions, undergoes raising to the matrix clause. Even when there is a single subject in the complement clause of SOR verbs, SOR is to take place as long as the entire Sentential Predicate (CP) following the acc-marked NP can be construed as expressing a characteristic property of the Major Subject. Our proposed analysis is similar to Yoon (2007) in that both take the CP to be predicated of the preceding acc-marked NP. Those two analyses crucially diverge in that the former suggests that the acc-marked NP bears Focus by the postulation of FocP while the latter does not have that implication.

[17] Abe predicts that (40) is ambiguous since the acc-marked NP is allowed to stay within the embedded clause.

Example (41) involving an NPI is readily dealt with by the proposed FocP analysis. The NPI 'amwuto' should be related with the negative element 'anh' in the matrix clause since it requires a clausemate negation in order to be licensed (Choi 2007).[18]

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[18] One of the reviewers pointed out that the following (i) with an overt counterpart of the covert pronominal '*pro*' is marginal under our proposed '*pro*' analysis.

(i) Cheli-nun [FocP   amwuto$_i$ [CP [TP   pro$_i$/??kutul-i$_i$ yeppu]-ta-ko]]]
    C-Top   anyone   be.pretty-decl-comp
    mit-ci anh-nun-ta.
    believe-Neg-pres-decl
    'Cheli does not believe of anyone that they were pretty.'

However, as discussed in many linguistic literature, the principles governing the restriction on where different types of NPs appear in a sentence, the binding principles in Korean seem to be different than those in English. For instance, as mentioned in Lee (2014), anaphors such as 'caki' and 'casin' do not necessarily be bound within the binding domain as in (ii-iii).

(ii) Cheli-nun$_i$ [caki-ka$_i$ pan   eyse   il tung-ul   hay-ss-ta-ko]
     Cheli-top   self-nom   class   in   get first-pst-decl-comp
     mit-nun-ta.
     believe-pres-decl
     'Cheli believes that he got first in class.'
(iii) Cheli-nun$_i$ [casin-i$_i$ pan   eyse   il tung-ul   hay-ss-ta-ko]
      Cheli-top   self-nom   class   in   get.first-pst-decl-comp
      mit-nun-ta.
      believe-pres-decl
      'Cheli believes that he got first in class.'

The same account applies to pronouns as well. Pronouns such as 'ku' *must* be free in certain contexts in Korean (Polinsky 2007, inter alia):

(iv) a. Cheli-nun$_i$ [e$_i$ pan   eyse   il tung-ul   hay-ss-ta-ko]
        Cheli-top   class   in   get.first-pst-decl-comp
        mit-nun-ta.
        believe-pres-decl
        'Cheli believes that he got first in class.'
     b. Cheli-nun$_i$ [ku-ka$_{?*i/j}$ pan   eyse   il tung-ul   hay-ss-ta-ko]
        Cheli-top   class   in   get.first-pst-decl-comp
        mit-nun-ta.
        believe-pres-decl

Thus, these issues are under further extensive investigation and it is not necessarily the case that the above (i) undermines our *pro*-based analysis.

(41) A: Cheli-nun   amwuto   yeppu-ta-ko   mit-ci anh-nun-ta.
        C-Top   anyone   be.pretty-decl-comp   believe-Neg-pres-decl

   = B: Cheli-nun [$_{FocP}$ amwuto$_i$ [$_{CP}$ [$_{TP}$ *pro*$_i$ yeppu]-ta-ko]]]
        C-Top   anyone   be.pretty-decl-comp

        mit-ci anh-nun-ta.
        believe-Neg-pres-decl

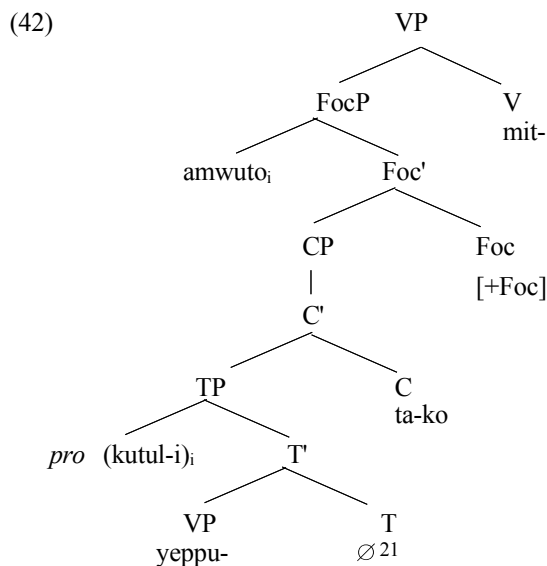   'Cheli does not believe of anyone that they were pretty.'

Under the proposed analysis, the NPI occupies a base-generated Spec position of
FocP and semantically binds *pro* in the subsequent predicative CP clause as depicted
in (42). As speculated in Lee (2012), FocP Spec is like an adjunct here.[19] As
mentioned above in footnote 9, sometimes it is related to the matrix clause and
sometimes to the embedded clause since being an adjunct, metaphorically speaking,
is like being on a balcony (Haegeman 1998, among others), which makes us easily
accessible to both the inside and the outside of the studio. Crucially, as an adjunct,
the focused NP does not need to check theta features against any predicates. On the
LF side, however, the principle of Full interpretation might exclude any "excess"
constituents in a structure, such as NPs without theta roles. Still, the presence of an
adjunct focused element does not cause any problems since it is a focused phrase
and, as an adjunct, has its own theta role such as 'Focus'.[20]

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[19] One of the reviewers suspected that the acc-marked NP might be an argument. Although it is a
plausible line of thinking, it is then equivalent to the proposal that predicates such as *mit-ta*
'believe', *kancwuha-ta* 'consider' are *three place* predicates, analogous to verbs such as *noh-ta*
'put' and *ponay-ta* 'send'. This differs from the traditional views on the argument structure of the
relevant verbs and is left for further research.

[20] Adjunct theta features are not checked against the verb as in the following example (i).

   (i) I hit the ball over the fence that day. (Larson 1985: 606)

   As suggested in (i), theta roles borne by adverbial NPs such as 'that day' might be assigned freely
   and licensed by the semantics of the clauses.

(42)

```
                              VP
                        ┌─────┴─────┐
                      FocP           V
                   ┌───┴───┐        mit-
               amwuto_i    Foc'
                        ┌────┴────┐
                       CP          Foc
                        |        [+Foc]
                        C'
                    ┌───┴───┐
                   TP        C
                 ┌──┴──┐    ta-ko
              pro (kutul-i)_i  T'
                        ┌──────┴──────┐
                       VP              T
                     yeppu-          ∅ 21
```

Let us now consider so-called Multiple Subject Constructions:22

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21 As mentioned in Lee (2012), unlike past tense morphemes, present morphemes are often times realized as zero. Here I assume that Korean declarative marker always attaches to tense morpheme. In this case, we posit a null tense marker as a present marker, which is widely accepted in Korean linguistics (Lee and Yoon 2007, among others). Even in the example (i) below, we assume that a null present morpheme exists, which correctly predicts a historic present interpretation. Historic present is found in English as well, where the present morpheme is overtly expressed as shown in (ii).

  (i) kiwoncen 49 nyen   Caesar-ka Rubicon   Kang-ul   kenne-∅-ta.
      BC   49 year   C-nom   Rubicon   river-acc cross-pres-decl
      'Caesar crosses the Rubicon BC 49.' (Lee 2012: 707)

  (ii) I <u>was</u> waiting at the bus stop when this guy <u>drives</u> up and <u>offers</u> me a lift in his BMW, so I say 'Well, I don't know,' and he says 'You can trust me, I'm a grammarian,' so I <u>get</u> in, and off we <u>go</u>. (Huddleston and Pullum 2007:46)

Normally, T is [-finite] in English ECM constructions, but T can be [+finite] in heavily agglutinative languages such as Korean/Japanese and Hungarian under the assumption that ECM refers to a construction where the acc-marked NP is construed as the subject of the following predicate. One relevant ECM construction from Hungarian is provided below:
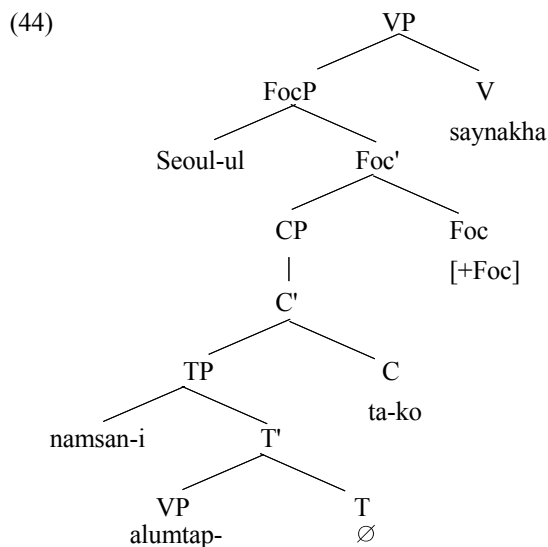
  (iii) Pelin [[yegen-i]-ni   lise-ye   basla-yacak]   san-iyor.
        Pelin niece-3sg-acc   high school-dat start-fut   think-pres
        'Pelin thinks her niece will start high school.'   (Sener and Takahashi 2010: 96)

22 One of the reviewers suggested that inalienable possessors or kinship possessors work better for

(43) a. Na-nun   Seoul-ul   Namsan-i   alumtap-ta-ko
          I-top   Seoul-acc   namsan-nom   be.beautiful-decl-comp
          sayngkakha-n-ta.
          think-pres-decl
          'I think that, as for Seoul, Namsan is beautiful.'
      b. Na-nun   Seoul-ul   Namsan-ul   alumtap-ta-ko
          I-top   Seoul-acc   namsan-acc   be.beautiful-decl-comp
          sayngkakha-n-ta.
          think-pres-decl
          'I think that, as for Seoul, Namsan is beautiful.'
      c.*Na-nun   Seoul-i   Namsan-ul   alumtap-ta-ko
          I-top   Seoul-nom   namsan-acc   be.beautiful-decl-comp
          sayngkakha-n-ta.
          think-pres-decl
          'I think that, as for Seoul, Namsan is beautiful.'

Analysis of (43a) requires no extra postulation of *pro* due to the fact that the embedded predicate is saturated, i.e. it checked off all its theta features against the second occurrence of the subject. A schematic representation of the relevant part follows:

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this test. Although we appreciate the suggestion, we will keep our original data since the above contrast is still valid. As for the multiple occurrences of accusative-marked NPs, something like multiple focus feature checking via Spec adjunction will be assumed under our proposed FocP analysis in section 3 in line with Ura's (1996) multiple Case feature checking via Spec adjunction.

(44)

```
                        VP
                   ┌────┴────┐
                 FocP        V
              ┌───┴───┐    saynakha
          Seoul-ul   Foc'
                  ┌───┴───┐
                 CP       Foc
                 |       [+Foc]
                 C'
            ┌────┴────┐
           TP         C
        ┌───┴───┐   ta-ko
     namsan-i   T'
            ┌───┴───┐
           VP        T
        alumtap-     ∅
```

Example (43b), on the other hand, carries two consecutive Focus-marked elements, which are schematically represented as in (45).[23]

(45)   [_{FocP} Seoul-ul Namsan-ul [_{Foc'}[_{CP}[_{C'}[_{TP}[_T[_{VP} *pro* [_{V'}[_V   alumtap-]]][_T ∅]]
Seoul-acc namsan-acc   be.beautiful-

[_C ta-ko]]][_{Foc} [+foc]]]
decl-comp

'....that, as for Seoul, Namsan is beautiful.'

Example (43c) is ruled out since the first occurrence of the nom-marked NP in multiple subject constructions occupies Spec position within TP and marks a clause boundary.[24] The acc-marked NP, serving as a minor subject, has no empirical or theoretical motivation of accusative feature checking in the proposed structure schematically represented below:

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23   For multiple focus feature checking and relevant configuration, we resort to Ura (1996)'s multiple Case feature checking under the multiple Spec proposal. An exact implementation and structure for multiple feature checking, especially focus feature checking, is beyond the scope of this paper and left for future research.

24   Again, refer to Ura (1996)'s multiple Case feature checking under the multiple Spec hypothesis for implementation and relevant structure.

(46) *[CP[C'[TP   Seoul-i   namsan-ul[T[VP   alumtap-][T ⌀]]]
                Seoul-acc   namsan-acc   be.beautiful-
       [C ta-ko]]
          decl-comp
       '....that, as for Seoul, Namsan is beautiful.'

Our proposed analysis further demonstrates that there is no genuine ECM constructions in Korean as argued in Lee (2012). The acc-marked NP, which is understood as an apparent subject of the embedded clause, is actually a base-generated focused element that semantically binds *pro* in the lower TP Spec. Crucially, an element (normally an AdvP) preceding FocP on top of CP is assumed to be related with the matrix clause, not the embedded one in that the embedded CP expresses the (minimal) proposition which is predicated of the acc-marked Focused element and any adverbs occurring outside of the FocP layer are construed as modifiers of the matrix clause.

3.2 Comparison of the proposed analysis with the previous movement one

This section briefly compares the proposed analysis with the previous movement (or, CTM-based) one. A crucial difference is that one assumes base-generation while the other derivation by movement. In addition, the former takes the acc-marked NP as a focus while the latter does not have that implication. The former does not allow the acc-marked NP to be located within the embedded TP while the latter allows it to remain in the embedded clause.

Essentially, the major syntactic properties of the proposed analysis yield desirable consequences and correct predictions; [1] an element preceding the acc-marked NP, as an adjunct, does not need to check its theta feature against any predicates and has its own theta role 'focus' without violating Full Interpretation. [2] It cannot be construed with the following CP, which is predicated of the focused element. This makes correct predictions in a variety of sentences involving NPIs, quantifiers, multiple subjects and diverse adverbial scope as witnessed in 3.1. [3] The proposed structure has some implication on the order of functional layers by positing Focus Phrase on top of CP (cf. Lee 2013).

4. Conclusion and implication

This paper reflected a recent proposal on movement: the copy theory of movement, which replaces a traditional GB view that movement or displacement leaves a trace. Since CTM postulates a full-fledged copy in the original position, it could successfully account for various intriguing phenomena that could not be readily dealt with under GB account. The presence of a full-fledged copy in the original position opens up the possibility that the lower copies can contribute to meeting some syntactic and semantic requirements. In fact, the existence of the lower copy offers a satisfactory account of some puzzling phenomena such as unbound anaphors and backward control since it preserves its own syntactic and semantic features, being stripped of phonetic features only.

In this paper, several empirical facts regarding binding, control and ECM were revisited in the context of CTM and then Abe's CTM-based proposal on ECM was critically reviewed and rejected based on several pieces of empirical evidence involving NPIs, quantifiers, multiple subjects and diverse adverbial scope. An alternative proposal, FocP, was put forward as for the structure of so-called "exceptional clauses", where the acc-marked NP is assumed to be base-generated in FocP Spec and semantically bind a covert pronoun *pro* in TP Spec position. It is thus concluded that CTM has limitations in accounting for Japanese and Korean ECM constructions although it has various theoretical and empirical advantages in accounting for some binding facts and backward control. With the rejection of Abe's recent proposal and the incorporation of additional empirical evidence, this research solidifies our previous proposal on ECM that Korean does not possess English-type ECM constructions. The apparent ECM constructions observed in Korean are argued to be some focused element followed by its own CP predication.

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