Internally Headed Relative Clause in Korean: Structure and Interpretation*

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Choi, YoungSik. (2014). Internally Headed Relative Clause in Korean: Structure and Interpretation. *The Linguistic Association of Korea Journal, 22*(3), 43-64. I suggest that the internally headed relative clause in Korean is an adjunct serving as the topic for the main clause, with *pro* projecting a separate projection in the argument position of the main clause. I suggest that Korean utilizes two ways of construal for the covert pronoun in the main clause: coreference and e-type anaphora. Korean internally headed relative clause construction allows a proper noun as its head noun as well. This lends further support to the present thesis that the structure in question is not an internally headed relative clause construction, given the cross-linguistic observation as in Williamson (1984, 1987) that the head noun is an indefinite.

Key Words: coreference, e-type, anaphora, head, internal, relative

1. Introduction

It is a well-known fact that a relative clause in Korean type languages comes before the head noun, unlike English, where the word order between the two is the opposite as below in (1-2).

(1) John-un [Mary-ka e_i ssu-n]   chayk$_i$-ul ilkessta.
    John-TOP Mary-NOM   wrote-COMP book-ACC   read
    'John read a book Mary wrote.'

(2) John read a book$_i$ [which Mary wrote e$_i$]

Korean does not have any overt marker of a relative pronoun, but a gap corresponding to the head. Abstracting away from the differences, the head noun of a relative clause occurs outside of the relative clause in both languages. The structures in (1-2) fits into the rule of a relative clause in that the relative clause, which is an open sentence, is predicated of the coindexed NP (see Cooper 1975, Chomsky 1982). Interestingly, Korean has a construction as in (3) where the head noun of a relative clause appears within the clause that apparently corresponds to the relative clause in (1).

(3) John-un   [Mary-ka   chayk-ul   ssun   kes]-ul
    John-TOP Mary-NOM   book-ACC   wrote   COMP-ACC
    ilkessta.
    read
    'Mary wrote a book and John read it.'

In (3), *chayk* 'book,' the head noun of the relative clause is not outside but within it. The construction is not available in English and has been traditionally called internally headed relative clause, whose definition is given below.

(4) A (restrictive) internally headed relative clause is a nominalized
    sentence which modifies a nominal, overt or not, internal to the
    sentence. (Culy 1990: 10)

I will call the structure in (3) the internally headed relative clause only for the convenience sake. As shown below in (5), the internally headed relative clause in Korean can appear in the subject position as well.

(5) [John-i   chayk-ul   san   kes]-**i**   pissata.
    John-NOM   book-ACC   bought COMP-NOM   expensive
    'John bought a book and it was expensive.'

Since Kuroda (1975), the so called head internal relative clause construction in Korean type languages has been a topic of much research, witnessing various

proposals (Jhang 1991, Jhang 1994, Watanabe 1991, Watanabe 1992, Kuroda 1992, Murasugi 1994, Jung 1995, Hoshi 1996, Chung 1999, and Kim 2013, among others). Apparently, the internally headed relative clause constructions in (3) and (5) do not conform to the interpretive rule of a relative clause. Recall that the relative clause should be an open clause to be predicated of the head noun in the main clause, which, however, is not the case in (3) and (5). One approach to resolve the interpretive problem of the internally headed relative clause is LF raising approach (Williamson 1984 among others). With the head noun raised at LF into the head noun position corresponding to the externally headed relative clause construction, an open sentence is created, which is to be predicated with the head noun. In section 2, I will critically review the LF head raising approach, which has been widely accepted in the analysis of various languages (Broadwell 1986, Ito 1986, Cole 1987 and Williamson 1987, among others) I propose an alternative analysis in section 3 where I claim the internally headed relative clause in Korean is nothing other than an adjunct that serves as the topic of the main clause. I suggest the interpretive mechanism for the proposed structure in section 4, and Section 5 is the conclusion.

2. LF Head Raising Approach

According to LF head raising approach, internally and externally headed relative clauses are transformationally related in that raising of the head noun at LF out of the internally headed relative clause yields a structure corresponding to the externally headed relative clause, as schematically represented below in (6).

(6) [$_{NP}$ [$_{CP}$ t_i] NP$_i$]

LF head raising thus yields a structure that fits into the rule of interpretation of a relative clause. That is, the relative clause CP in (6) is an open sentence to be predicated of the coindexed head noun. The LF head raising approach, however, has nontrivial problems. One is that it cannot deal with the split antecedence below in (7), as discussed in Kuroda (1992) and Chung (1999), among others.

(7) Kyengchal-un [Tom-i   Bill-ul   mannanun kes]-ul
    police-TOP   Tom-NOM   Bill-ACC meet   COMP-ACC
    hyencang-eyse twul ta   cheyphohayssta.
    scene-at   two   both   arrested
    'The police arrested both Tom and Bill at the scene where they met
    each other.'

According to the LF head raising approach, the head noun of the internally
headed relative clause is raised at LF to serve as the argument of the matrix
predicate. It then follows that two head nouns are raised to serve as the sole
argument of the matrix predicate, which is simply impossible, given that the
two head nouns do not form a constituent, to begin with. Moreover, quantifier
scope interaction poses an additional problem to the LF head raising approach.
Note that the relative scope of quantifiers is determined by the S structure
c-command relation in Korean type languages as shown in (8-9) (Huang 1982,
Hoji 1985, Nishigauchi 1990, Kim 1991, among others).

(8) Taypwupwun-uy   haksayng-i   sey   kay-uy
    most-POSS   student-NOM   three   CL-POSS
    swukcey-lul   ceycwulhayssta.
    assignment-ACC   submitted
    'Most students submitted three assignments.'
    (*three > most, most > three)

(9) Sey   myeng-uy   haksayng-i   taypwupwun-uy
    three   CL-POSS   student-NOM   most-POSS
    swukcey-lul   ceycwulhayssta.
    assignment-ACC   submitted
    'Three students submitted most assignments.'
    (three   > most, *most > three)

(8) has the reading where most students are such that they submitted three
assignments, but not vice versa, whereas (9) has the opposite scope reading.
With the scope fact in Korean in mind, consider the following in (10-11):[1)]

(10) John-un   [taypwupwun-uy haksayng-i   sey   kay-uy
     John-TOP   most-POSS   student-NOM   three CL-POSS
     swukcey-lul   ceycwulhan kes]-ul   onul achimey
     assignment-ACC submited   COMP-ACC   this morning
     chaycemhayssta.
     graded
     (*three > most, most > three)

(11) John-un   [taypwupwun-uy haksayng-i   ceycwulhan]
     John-TOP   most-POSS   student-NOM   submitted
     sey   kay-uy   swukcey-lul]   onul   achimey
     three CL-POSS   assignment-ACC   today   morning
     chaycemhayssta.
     graded
     (three > most, *most > three)

(10) is an internally headed relative clause and (11) is an externally headed relative clause. The former has the reading where *taypwupwun-uy haksayng* 'most students' has scope over *sey kay-uy swukcey* 'three assignments' but not the other way round, whereas the scope fact in the latter is the opposite, with *sey kay-uy swukcey* 'three assignments' scoping over *taypwupwun-uy haksayng* 'most students.' The diverging scope fact in (10-11) between the two types of relative clauses, along with the split antecedence in (7), thus serves to crucially undermine the LF head raising approach.

3. Proposal

It is clear that the internally headed relative clause cannot be transformationally related with the externally headed relative clause in Korean, although the LF head raising approach apparently yields a structure conforming to the interprettive rule of a relative clause. One may then suggest the structure below in (12) for the internally headed relative clause above in (3)

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1) I will not use the standard existential quantifier *nwukwunka* 'someone' to avoid its specific construal intervening the scope fact in (8-11).

and (5). The head noun of the internally headed relative clause in (12) stays in situ, with *pro* coindexed with it occupying the head noun position of the externally headed relative clause, a structure very much in agreement with the proposal by Hoshi (1996), among others.

(12)   [$_{NP}$ [$_{CP}$ ...... NP$_i$ ......]   pro$_i$]

With the introduction of *pro*, the structure in (12) can deal with the split antecedence in (7), since a pronoun can take split antecedence as below in (13).

(13) John$_i$ told Bill$_j$ that they$_{i+j}$ should leave.

The scope fact in (10-11) also follows from (12), since there is no raising of the head noun in (10) in the internally headed relative clause, which is a quantifier, into a position corresponding to the head noun position of the externally headed relative clause in (11). The structure in (12), however, is problematic in an important sense. It does not fit into the rule of interpretation of the relative clause, either. The relative clause is not an open sentence, and thus cannot be predicated of the coindexed NP, which is *pro*.

As an alternative, I propose that the internally headed relative clause above in (3) and (5) is CP headed by *kes*. Also, following the proposal by Choi (2008) that the nominative and accusaitve case morphemes *i* and *ul* are isomorphic between case and topic, I suggest that the internally headed relative clause, by combining with the topic morpheme *i* or *ul*, serves as the topic for the main clause, with the *ul*-marked internally headed relative clause above in (3) adjoined to VP and the nominative *i*-marked one above in (5) to TP. I thus suggest that what is known as an internally headed relative clause is a misnomer. Throughout, I will continue to call it an internally headed relative clause only for the descriptive convenience. I propose the following structures for the internally headed relative clause constructions in (3) and (5), respectively:

(14) a. [$_{VP}$ [$_{CP}$ ..... NP$_i$....]-ACC   [$_{VP}$ pro$_i$ V]]
       b. [$_{TP}$ [$_{CP}$ ..... NP$_i$....]-NOM   [$_{TP}$ pro$_i$ [$_{VP}$ V]]

Holding the mechanism for the interpretation of the structure till section 4, note the cross-linguistic observation in the literature (see Horvath 1981, 1985, 1995: 29, among others) that the topic or focus is somehow closely related with the syntactic category of the case assigner and its projection. Hence, it is natural to postulate the accusative *ul*-marked internally headed relative clause as adjoined to VP and the nominative *i*-marked one to TP, respectively. Note that the internally headed relative clause as a topic conveys old information, setting up the context for the interpretation of the main clause. In our system, the sentence above in (3) thus will roughly have the representation below in (15), and it reads not as 'John read a book Mary wrote,' but 'Mary wrote a book and John read it,' which is in fact what (3) means.[2][3]

(15) John-un [$_{CP}$ Mary-ka   chayk$_i$-ul   ssun   kes]-**ul**
     John-TOP   Mary-NOM book-ACC wrote   COMP-ACC
     pro$_i$ ilkessta.
            read
    'Mary wrote a book and John read it.'

At this point, one may wonder how the case morphemes *ul* and *i* in (3) and (5) serve as the topic morphemes. It used to be a standard assumption in Korean literature since Choi (1961) that *i* and *ul* are case morphemes marking nominative case, and accusative case, respectively. This view has been embraced until recently (O'Grady 1991, Yoon 1990, Yoon 1991, Yang 1999, among many others). Yet, given the standard assumption (Jesperson 1924, Chomsky 1981, 1986, 1995) that case is a system of marking nominal expressions for the relationship they have with their heads, *i* and *ul* on the adverbs in (16) and case stacking on the dative NPs with *ka* and *lul* in (17)

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2) The following example where the overt form corresponding to the null argument is optionally realized is a good piece of evidence for the existence of *pro* in (14).

  (i) John-un [Mary-ka chayk-ul   ssun   kes]-**ul**   ku   kes-ul   ilkessta
      John-TOP Mary-NOM book-ACC wrote COMP-ACC that thing-ACC read
      'Mary wrote a book and John read it.'

3) It is known that only languages with null arguments and OV word order have internally headed relative clauses (Cole 1987: 282).

which are the postvocal allomorphs of *i* and *ul* are quite puzzling conceptually, if they are case morphemes.

(16) a. Seoul-un   onul-**i**   hanul-i   malkta.
        Seoul-TOP today-NOM   sky-NOM   clear
        'Today, the sky is clear in Seoul.'
    b. Mary-ka kaccumssik-**ul**   John-ul pangmwunhanta.
        Mary-NOM occasionally-ACC John-ACC visit
        'Mary occasionally visits John.'
(17) a. Mary-eykey-**ka**   John-i   cochta.
        Mary-DAT-NOM   John-NOM like
        'Mary likes John.'
    b. John-un   Mary-eykey-**lul**   chayk-ul   cwuessta.
        John-TOP Mary-DAT-ACC   book-ACC   gave
        'John gave Mary a book.'
        (Choi 2013: 51-52)

Drawing from this state of affairs, Choi (2008, 2011, 2013), among others, suggests that they are topic morphemes isomorphic with the nominative case morpheme *i*, and the accusative case morpheme *ul*, respectively, a view very much in tandem with the independent proposal in Schütze (2001). With this view, it is not a surprise that *i* and *ul* as topic morphemes can attach not only to the adverbial expressions above in (16), but to the already case marked dative NPs, realized as their postvocal allomorphs *ka* and *lul* as shown above in (17). The observation that *i* and *ul* are isomorphic between case and topic is not something of a surprise, especially given the fact that case inflections are commonly derived from other categories cross-linguistically (see Heine 2009: 468). These morphemes themselves may thus be deployed for further functions such as topicality which Choi (2013) suggests is the case in Korean. The present proposal that morphemes *i* and *ul* above in (3) and (5) are topic markers isomorphic between case and topic is further supported by the fact there is a prosodic boundary of a lengthened pause right after *ul* and *i*-marked adjunct clause in (3) and (5), exactly like the topic marked NP *Mary-nun* in (18).

(18) John-i   Mary-nun   coahanta.
     John-NOM Mary-TOP   like
     'John likes Mary.'

Throughout, I will continue notating *i* and *ul* morphemes that mark the internally headed relative clauses as case morphemes only for convenience sake. Now turning to *kes* in (3) and (5), I glossed it as a compementizer so far without discussion. It should be noted that Korean (also Japanese) complementation can be characterized by the extensive use of nominalization since it uses nominalizers to form complement clauses as shown in (19) (see Horie 2000: 14).

(19) a. Mary-nun [CP John-i   Jane-ul mannanun kes]-ul
        Mary-TOP   John-NOM Jane-ACC meet   COMP-ACC
        anta.
        know
        'Mary knows John is meeting Jane.'
     b. Mary-nun [CP John-i   Jane-ul   manna ki]-lul
        Mary-TOP   John-NOM Jane-ACC meet COMP-ACC
        palanta.
        hope
        'Mary hopes that John meets Jane.'

Hence, it is only natural to treat *kes* as in (3) and (5) as an instance of a nominal complementizer. [4] In a way, the present proposal is in agreement with Murasugi (1994) and Chung (1999) in that *pro* projects as the argument of the matrix predicate, not part of the relative clause. However, there are nontrivial differences between the present proposal and theirs. Chung (1999) suggests that the internally headed relative clause as in (3) and (5) is a complement CP of a null perception verb like *know*, *see*, *realize*, *not know*, etc, which in turn projects an adjunct clause. According to Chung (1999) (3) will roughly have the following structure:

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4) Lee (1970) maintains that *nun kes* as a whole as in (19a) is a complementizer (see Suh 2013: 1315ff for the related discussion).

(20) John-un   [ADJUNCT [Mary-ka   chayk$_i$-ul   ssun
     John-TOP   Mary-NOM   book-ACC   wrote
     kes]-ul   PRED]] pro$_i$ ilkessta.
     COMP-ACC   read
     'John read a book Mary wrote.'

According to Chung (1999), (20) can either mean 'knowing that Mary wrote a book, John read it,' or 'not knowing Mary wrote a book, John read it.' (20), however, simply means 'Mary wrote a book and John read it.' Chung's (1999) claim is problematic in another important respect. Note that one can replace *kes* with *sasil* 'fact' for the clause headed by *kes* when it serves as the complement of a predicate as shown in (21) ((21) a modification from Chung 1999)), since *kes* encodes *realis* as compared with *ki* encoding *irrealis.*

(21) Mary-nun John-i   cip-ey   eps-nun {kes / sasil}-ul
     Mary-TOP John-NOM home-at not-be {COMP /fact}-ACC
     molu-ko   cenhwahayssta.
     not know-COMP   called
     'Not knowing John was not at home, Mary called him up.'

As one can see, however, *sasil* 'fact' cannot replace *kes* in (22), although *kes* heads a complement clause, according to Chung (1999).[5]

(22) Mary-nun John-i   cip-ey eps-nun {kes/ *sasil}-ul
     Mary-TOP John-NOM home-at not-be {COMP/fact}-ACC
     cenhwahayssta.
     called
     'Not knowing John was not at home, Mary called him up.'

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5) An anonymous reviewer finds that the sentence in (22) with the choice of *kes* is ungrammatical, too. It is reported by Chung (1999) that a sentence similar to the one in (22) with *kes* is reported as grammatical. I should point out that it is fine with a relatively long pause after *kes-ul*.

This state of affairs suggests that one cannot treat the internally headed relative clause as the complement of a predicate. Murasugi (1994), in the meantime, suggests that Japanese *no* corresponding *kes* in Korean heads a nominal projection, which is not the case since *kes* is a nominal complementizer projecting CP, not an NP, as shown in (19). As we saw so far, the internally headed relative clause serves as an adjunct marking topic for the main clause by combining with either *i* or *ul*. The prediction then is it can appear elsewhere as well, where it can serve as an adjunct for the main clause (also see Jhang 1991, 1994). As a matter of fact, the following paradigm in (23) shows that the internally headed relative clause can appear as the object of a postposition, serving as an adjunct that marks topic for the main clause.

(23) a. Mary-ka [CP John-i mwul-ul tephin kes]-ulo
Mary-NOM John-NOM water-ACC warmed COMP-by
seswu-lul hayssta.
face-washing-ACC did
'John warmed the water and Mary washed her face with it.'
b. Elum-i [CP John-i mwul-ul tephin kes]-eyuyhayse
ice-NOM John-NOM water-ACC warmed COMP-by
nokassta.
melted
'John warmed the water and the ice melted by it.'
c. Mary-ka [CP John-i coffee-lul than kes]-ey
Mary-NOM John-NOM coffee-ACC mixed COMP-to
mwul-ul te neessta.
water-ACC more added
'John made a coffee and Mary added more water on it.'

It should be noted that the sentences in (23) will have no *pro* in the main clauses, quite unlike those in (3) and (5). Nothing in the grammar requires the existence of *pro* in the main clauses in (23), given the argument structure of the main predicates.[6] Incidentally, also note that the case morpheme serving as

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6) An anonymous reviewer brought to my attention the issue of *pro* projection in the main clause in (23).

topic can be optionally added to some of the topic clauses in (23), as in (24).7)

(24) a. Mary-ka   [John-i   mwul-ul   tephin
       Mary-NOM   John-NOM   water-ACC   warmed
       kes]-ulo-(?**lul**)   seswu-lul   hayssta.
       COMP-by   face-washing-ACC   did
       'John warmed the water and Mary washed her face with it.'
   b. Mary-ka   [John-i   coffee-lul   than
       Mary-NOM   John-NOM   coffee-ACC   mixed
       kes]-ey-(?**lul**)   mwul-ul   te   neessta.
       COMP-to   water-ACC   more   added
       'John made a coffee and Mary added more water on it.'

With the proposed structure for the internally headed relative clause in Korean, let us move on to another important question: how to interpret *pro* in the internally headed relative clause construction.

4. Interpreting the Structure

Now the question we have to answer is what mechanism is behind for interpreting the covert pronoun *pro* with respect to its antecedent. For this, consider the sentence above in (3), with its schematic structure in (15), repeated as (25) and (26), respectively.

(25) John-un   [Mary-ka   chayk-ul   ssun kes]-**ul**
       John-TOP Mary-NOM   book-ACC   wrote COMP-ACC
       ilkessta.
       read
       'Mary wrote a book and John read it.'

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7) One of the three anonymous reviewers finds that the sentences in (24) with *lul*- marking is
   not acceptable.

(26) John-un   [$_{CP}$ Mary-ka   chayk$_i$-ul   ssun   kes]-**ul**
     John-TOP   Mary-NOM book-ACC wrote   COMP-ACC
     pro$_i$ ilkessta.
          read
   'Mary wrote a book and John read it.'

What is the mechanism for interpreting the pronoun in (26)? There are three mechanisms in the grammar for interpreting a pronoun including coreference, bound variable anaphora, and e-type anaphora. How about coreference in (27) for the covert pronoun in (26)?

(27) John$_i$ came in. He$_i$ wanted to schedule a meeting.

It is a standard assumption that coindexing in syntax gives instructions about the identification of a pronoun, corresponding with coreference in semantics, since proper names and definite descriptions are referential expressions that pick out a specific individual in the universe of discourse. Coreference, however, is not what is responsible for the interpretation of the pronoun in (26), since the antecedent *chayk* 'a book' is a quantiifer, not a proper name or definite description. As an alternative, one may think of bound variable anaphora as in (28).

(28) Everyone$_i$ thinks he$_i$ is a genius.
   'For every x, x thinks x is a genius.'

Bound variable anaphora, however, cannot be the mechanism for the interpretation of the pronoun in (26), either, given that quantifiers are typically clause bound and that *chayk* 'a book,' the antecedent for the pronoun in (26), appears within the adjunct clause, which constitutes an island for movement (Huang 1982, Chomsky 1981, 1986). Let us try the last option, that is, e-type anaphora (Evans 1980). Note that e-type anaphora is a way to account for a pronoun outside the scope of its antecedent, which is an indefinite, as in (29).

(29) a. If a farmer$_i$ owns a donkey$_j$, he$_i$ beats it$_j$.
    b. Every farmer who owns a donkey$_i$ beats it$_i$.

According to Evans (1980), e-type anaphora is a disguised description, whose descriptive content is reconstructed, based on the antecedent. The pronoun *it* in (30a) and (30b) is thus construed as a disguised description in the parenthesis.

(30) a. If a farmer$_i$ owns a donkey$_j$, he$_i$ beats it$_j$. (= the donkey he owns).
    b. Every farmer who owns a donkey$_i$ beats it$_i$. (=the donkey he owns).

As one can see, the antecedent for the pronoun in (26) is *chayk* 'a book,' which is an indefinite exactly like *a donkey* in (30). Incidentally, note that both expressions in the two languages occur within an adjunct, showing precise parallelism in distribution. Indeed, the disguised reading for the pronoun is what we get in (26=(15)). It is construed as 'Mary wrote a book and John read the book Mary wrote.' The sentence in (10), repeated as (31) along with the structural representation in (32) also receives a straightforward interpretation via e-type anaphora.

(31) John-un   [taypwupwun-uy haksayng-i   sey   kay-uy
    John-TOP most-POSS   student-NOM three CL-POSS
    swukcey-lul   ceycwulhan kes]-**ul**   onul achimey
    assignment-ACC submited   COMP-ACC   this   morning
    chaycemhayssta.
    graded
    (*three > most, most > three)

(32) John-un [$_{CP}$ taypwupwun-uy haksayng-i   [sey   kay-uy
    John-TOP most-POSS   student-NOM three CL-POSS
    swukcey]$_i$-lul   ceycwulhan kes]-**ul**   onul achimey
    assignment-ACC submited   COMP-ACC   this   morning
    pro$_i$ chaycemhayssta.
        graded

The e-type anaphor again gives the right interpretation for the covert pronoun in (32) with an indefinite antecedent *sey kay-uy swukcey* 'three assignments,' which means 'most students submitted three papers and John graded the tree papers he or she submitted.' The e-type anaphora is the mechanism behind interpreting the pronoun in the internally headed relative clause construction in Korean is further supported by the following, whose contrast in grammaticality was first observed by Jung (1995).

(33) a. John-un [nwu-ka   on   kes]-**ul**   mannass-ni?
       John-TOP who-NOM came COMP-ACC met-QM
       'Who is the person x such that x came and John met x?'
   b. ?*John-un [on]   nwukwu-lul   mannass-ni?
       John-TOP   came   who-ACC   met-QM
       'Who is the person x such that John met x?'

Incidentally, note that the head of the internally headed relative clause, quite unlike the external counterpart, is perfect with a wh-expression. It is a well-known fact that Korean wh-words are indefinites in the sense of Heim (1982), following Lewis (1975) (Choi 2002, 2007, Nishigauchi 1990). [8] (33a) will

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8) Wh-words in Korean do not have an inherent quantificational force but serve as a variable in the logical representation bound by another quantificational element in a larger domain, enabling to take scope out of syntactic islands. The following examples in (i) involving adverbs of quantification constructions illustrate the behavior of Korean wh-words as indefinites:

   (i) a. [$_{CP}$ Nwu$_i$-ka   o-myen] (pro$_i$) nul   wuli-lul   pangmwunhanta.
          who-NOM   come-if   always us-ACC   visit
          'For every x, x an individual, if x comes, x visits us.'
      b. [$_{CP}$ John$_i$-i eti-lo   oychwulha-myen] (pro$_i$) nul   nusskey tolaonta.
          J-NOM where-to go out-if   always   late   returns
          'For every x, x a place, if John goes out to x, he returns home late (from x).'
          (Choi 2002: 32)

   As one can notice, the interpretation of the wh-words in (i) as universal quantifiers is determined by the adverbial quantifier *nul* (always) in the main clause that conveys a universal quantificational force. The informal logical notations also indicate that these wh-words indeed can take scope out of the syntactic island, i.e., the adjunct clause.

have the following representation in our system:

(34) John-un [CP nwu$_i$-ka   on   kes]-**ul**   pro$_i$ mannass-ni?
     John-TOP   who-NOM came COMP-ACC   met-QM
     'Who is the person x such that x came and John met x?'

As one can see, the pronoun in (34) is again construed as a disguised description 'the person x such that x came.' The e-type anaphora construal for the internally headed relative clause construction in Korean can also deal with the ungrammaticality of the following in (35a) with the universal quantifier as its head, whose structure will be roughly the one below in (36):

(35) a. ?*John-un [motwun haksayng-i   hakkyo-ey   on
        John-TOP   every student-NOM   school-to   come
        kes]-**ul**   manassta.
        COMP-ACC   met
       *'Everyone came out and John met him.'
     b. John-un   [hakkyo-ey on]   motwun haksayng-ul
        John-TOP   school-to come   every   student-ACC
        manassta.
        'John met everyone who came to school.'

(36) John-un   [CP [motwun haksayng]$_i$-i   hakkyo-ey   on
     John-TOP   every student-NOM   school-to   come
     kes]-**ul**   pro$_i$ manassta.
     COMP-ACC   met
    *'Everyone came and John met him.'

As one can see, the head of the internally headed relative clause is a universal quantifier in (36), which is not indefinite and thus cannot serve as the antecedent of the pronoun for e-type anaphora. How about bound variable anaphora? It is not an option for the pronoun since the universal quantifier, being clause bound within the adjunct in (36), cannot c-command the pronoun in the main clause. Coreference is not an option, either, since the universal

quantifier is not a proper noun or definite description. Thus far, we saw that e-type anaphora is what is responsible for the interpretation of the pronoun in the internally headed relative clause construction in Korean. One may thus conclude that Korean internally headed relative clauses lend further support to the observation in the literature that the head noun of the internally headed relative clause is an indefinite (Williamson 1984, 1987, Watanabe 1991, 1992).

However, in Korean, it turns out that e-type anaphora is not the only mechanism for the interpretation of the pronoun in the internally headed relative clause construction. For this, consider the example above in (7), repeated below as (37).

(37) Kyengchal-un [Tom-i   Bill-ul   mannanun kes-ul]
     police-TOP   Tom-NOM Bill-ACC meet   COMP-ACC
     hyencang-eyse twul ta   cheypohayssta
     scene-at   two both   arrested
     'The police arrested both Tom and Bill at the scene where they met each other.'

Under the present system, the sentence in (37) will roughly have the structural representation below in (38).

(38) Kyengchal-un [Tom_i-i $Bill_j$-ul   mannanun kes-ul]
     police-TOP   Tom-NOM Bill-ACC meet   COMP-ACC
     pro_{i+j} hyencang-eyse   twul ta   cheypohayssta.
            scene-at   two both   arrested
     'The police arrested both Tom and Bill at the scene where they met each other.'

As one can see, the relevant reading in (38) is coreference via coindexing. One can find an additional example of the internally headed relative clause construction where the interpretation of the pronoun is coreference. Consider the example below in (39), whose structure will be roughly like the one in (40) in our system.

(39) John-un [Mary-ka naoun kes-ul] mannassta.
John-TOP Mary-NOM come out COMP-ACC met
'Mary came out and John met her.'

(40) John-un [$_{CP}$ Mary$_i$-ka naoun kes-ul] pro$_i$ mannassta.
John-TOP Mary-NOM come out COMP-ACC met
'Mary came out and John met her.'

It thus seems to be the case that internally headed relative clause construction adopts two ways of construal for the pronoun out of the three options in the grammar: one is e-type anaphora, and the other coreference. Bound variable anaphora is not an option available given the structure of the internally headed relative clause construction in Korean where the antecedent (the head noun) appears within the adjunct where it cannot c-command the pronoun in the main clause. Before closing, recall the crosslinguistic observation in the literature, according to which the head noun of an internally headed relative clause is an indefinite (Williamson 1987, Watanabe 1991, 1992). As a matter of fact, Shimoyama (1999), for example, suggests that e-type anaphora is indeed what is responsible for the interpretation of the internally headed relative clause construction in Japanese, a language very much akin to Korean, albeit assuming a structure quite different from that of the present proposal. [9] If the observation in the literature regarding the indefiniteness for the head noun of the internally headed relative clause construction is on the right track, it may turn out to lend further support to the present thesis that the so called internally headed relative clause construction in Korean does not constitute a genuine instance of the construction, but an adjunct serving as the topic for the main clause. It is then no surprise that Korean allows not only an indefinite but also a proper noun as the head noun of the so called internally headed relative clause construction.

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9) It is controversial whether the head of the internally headed relative clause is necessarily an indefinite in Japanese. Kuroda (1992: 155) observes that a proper noun can also serve as the head of the so called internally headed relative clause in Japanese, which may suggest that the relevant construction in Japanese is not an internally headed relative clause construction, either.

5. Conclusion

I thus far suggested that the so called internally headed relative clause in Korean is a misnomer, claiming that it is an adjunct serving as the topic for the main clause, with *pro* projecting a separate projection in the argument position of the main clause. The structure as proposed in the present paper also leads to an interesting question of how to interpret the covert pronoun with respect to the head noun of the internally headed relative clause. For this, I suggested that Korean utilizes two ways of construal: coreference and e-type anaphora. Quite against the crosslinguistic observation in the literature (Williamson 1984, 1987, Watanabe 1991, 1992). Korean internally headed relative clause construction allows not only an indefinite but a proper noun as its head noun, lending further support to the present thesis that the structure in question is not an internally headed relative clause.

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