

A Complement Analysis of the Head Internal Relative Clauses

Daeho Chung * †
Hanyang University

Daeho Chung. 1999. A Complement Analysis of the Head Internal Relative Clauses. *Language and Information* 3.2, 1–12. There have been two opposing views on the structure of the so-called head internal relative construction (HIRC) in Korean/Japanese, i.e., a view that analyzes the HIRC categorially as a nominal projection and functionally as an argument (Kuroda 1992, Watanabe 1992, Hoshi 1996, Jhang 1991/1994, among others) vs. a view that analyzes the HIRC categorially as an adjunct clause and functionally as a non-argument (Murasugi 1994). This paper on the one hand points out several phenomena indicating that Murasugi's analysis is more viable, while on the other hand proposing a more complex structure than Murasugi's to account for other facts as well. The *no/kes* clause in the HIRC will be analyzed as the complement of a null perception verb whose projection constitutes part of an adjunct clause. (Hanyang University)

1. Introduction

There have been two opposing views on the structure of the head internal relative construction (HIRC) in languages like Korean and Japanese, e.g., α in (1) below:

- (1) a. John-un [α sakwa-ka cepsi-wiey iss-nun kes]-ul tule, ...
J.-Top apple-Nom dish-on exist-Adn C-Acc pick;up
'John picked up an apple which was on a plate, and ...'
- b. Taroo wa [α ringo ga sara no ue ni atta no o]
T. Top apple Nom dish Gen on at exist NO Acc
totte, ... (Kuroda (1992):147)
pick;up
'Taro picked up an apple which was on a plate and ...'

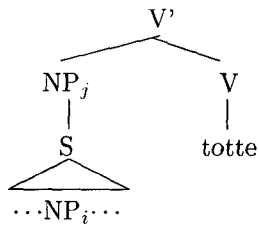
Some linguists analyze the structure α in (1) categorially as a nominal projection and functionally as an argument of the matrix predicate, while others analyze it as an adjunct and posits pro as a matrix argument. Kuroda (1992), Watanabe (1991), Watanabe (1992), Hoshi (1996), and Jhang (1991), Jhang (1994) belong to the first camp, albeit they differ as to the internal structure of α , as schematically illustrated in (2)¹

* This paper is a revision of Chung (1996b). I have benefited a great deal from many people including professors David Basilio, Jong-Bok Kim, Chungmin Lee, Byung-Soo Park, Jaehak Yoon and two anonymous reviewers. All errors are mine, of course.

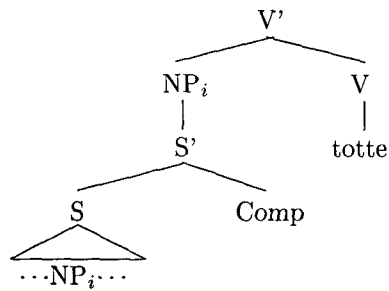
† 425-791 경기 안산시 사1동 1271번지 한양대학교 영어영문학과, E-mail: cdaeho@mail.hanyang.ac.kr
1. Due to the space limit, I am unable to discuss the motivations for each of the structures.

(2) Argument Analyses

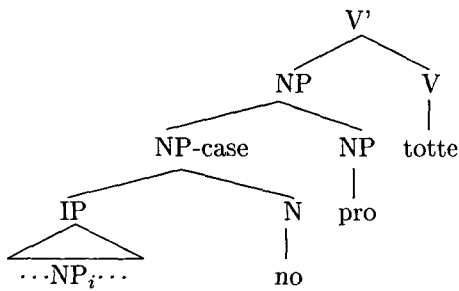
a. Kuroda (1992)



b. Jhang (1991: 271)

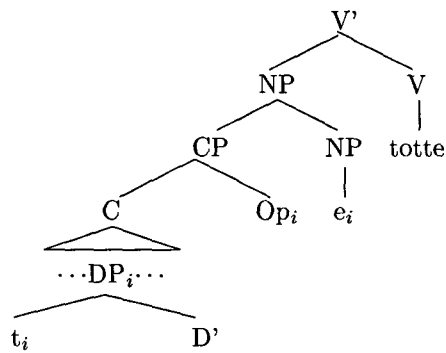


c. Hoshi (1996:261)

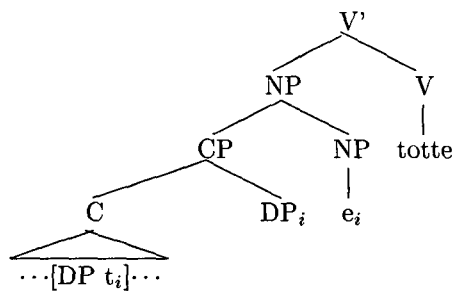


d. Watanabe (1992)

SS:

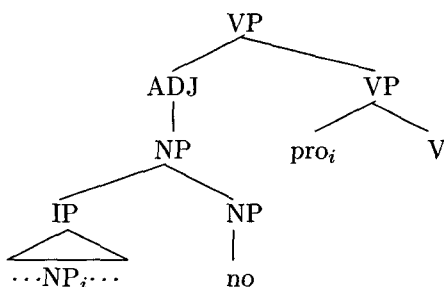


LF:



In Kuroda's structure, α is an NP that dominates a clause and is coindexed with another NP within the clause. Jhang's structure is very similar to Kuroda's except that S' and Comp are added.² In Hoshi's structure, an empty pronominal pro is adjoined to an NP headed by no which is modified by an IP and the pro is coindexed with an NP within the IP. Watanabe equates the HIRC with the head external relative construction except for the postulation of an empty operator movement at SS followed by an LF movement of the residue of the DP, which is similar to his analysis of wh-questions in wh-in-situ languages. As mentioned before, all the structures in (2) analyze α categorially as a nominal projection and functionally as an argument of the matrix predicate. Murasugi (1994), however, analyzes α as a circumstantial adjunct in the sense of Harada (1973) and posits pro as a real argument, which is anaphorically related to an NP within α .

(3) Murasugi's (1994) Adjunct Analysis:



One crucial property in Murasugi's structure is that pro is postulated independently of α .

This paper, on the one hand, points out several phenomena indicating that Murasugi's analysis is more viable, while on the other hand proposing a more complex structure than Murasugi's to account for some other relevant facts as well. The *no/kes* clause will be analyzed as the complement of a null perception verb whose projection constitutes part of an adjunct clause.

2. Facts in Favor of Murasugi's Analysis

In this section we enumerate several phenomena which point in favor of Murasugi's adjunct analysis of the HIRC.

2.1 Split Antecedence

As Kuroda (1992: 155) observes, a split pivot (head) is possible in Japanese HIRC, as in (4) below. A similar structure is possible in Korean, too, as in (5).

- (4) Zyunsa ga doroboo o kawa no hoo e oitumete itta no ga
 policeman thief river toward track-down went
 ikioi amatte hutriotomo kawa no naka e tobikonda
 power exceed both-two river in jump
 'A policeman was tracking down a thief toward the river,
 who both,losing control, jumped into the river.'

2. Kuroda's and Jhang's structures, where NP is rewritten as S/S', do not satisfy the endocentricity requirement in the tree building.

- (5) na-nun [kay-ka koyangi-wa nol-ko iss-nun kes]-ul twulta
 I-Top dog-Nom cat-with play-ing be-Adn C-Acc both
 katwu-ess-ta.
 pen-Pst-DE
 'I penned both the dog and the cat that played together.'

The sum of the two underlined parts in (4) and (5) functions as the internal heads. According to David Basilico (p.c.), there seem to be no such languages among the ones that typically allow head internal relative constructions.

Murasugi, who assumes *pro* as a matrix element independently of the *no/kes* clause, predicts the existence of the split pivot since *pro*, as a pronominal, may have split (scattered) antecedents. Although the example is taken from Kuroda, his structure is mute about this. If, as he claims, there were some sort of predication relation between the internal head and the rest of the clause, it would not be clear about how the predication relation could be captured in the split antecedence sentences. Jhang's structure will face the same difficulty. Watanabe, who assumes a null operator movement out of a DP at SS followed by an LF movement of the residue of the DP, does not account for this without postulating some sort of absorption process as in multiple interrogative constructions, which seems unavailable in relativization in general.³ As far as the split pivot phenomenon is concerned, Hoshi's structure seems as equally viable as Murasugi's since *pro* is involved. But notice that his structure includes a configuration where binding condition (C) is violated. Hoshi assumes along with Cole (1987) that the condition is nullified when names precede their binder. This, however, seems to be conceptually untenable, precedence being irrelevant at LF. Empirically also, a pronominal head noun cannot be coindexed with an NP inside the relative clause, as was observed by Saito (1985: 45) and pointed out by Murasugi (1994: 432).⁴

- (6) *[John_i -no hahoya-ga genkidatta koro]-no kare_i
 -Gen mother-Nom was;fine time-Gen he
 'Lit. John of the time when his mother was well
 = John as he was when his mother was well.'

2.2 Partitive Reading of Floating Quantifiers

A second fact in favor of Murasugi is that floating numeral quantifiers (FNQs) apparently associated with α only have a partitive reading as in (7), as observed by Hoshi (1996: 264):

- (7) na-nun [α John-i sakwa-lul sao-n kes-ul] twu kay mek-ess-ta.
 I-Top J.-Nom apple-Acc buy-Adn C-Acc two cl eat-Pst-DE
 'I ate two apples, among those which John bought.'

To have a partitive reading only, FNQs must be locally associated with a null argument, as was observed by Kitagawa and Kuroda (1992).⁵ Therefore, the FNQ in (7) must be

3. In case of the across-the-board movement, an element in a landing site binds two or more positions in the launching sites. The empty operator movement in the context of split pivots, however, does not entertain the privilege due to the fact that the split antecedents may take different grammatical functions within the clause.

4. Furthermore, his structure in (2c), where α is properly embedded under another NP, has difficulty in accounting for the case morphology. Note that α would not have any structural relation with the case assigner, e.g., the matrix predicate.

5. This does not exclude the possibility that FNQs associated with an overt NP have a partitive reading.

associated with a null argument. This conforms to Murasugi's structure, which posits *pro* independently of α . It is not compatible with Kuroda's and Jhang's structure since no null element is at hand. Apparently, Hoshi's and Watanabe's structures are workable since they contain a null element, *e* in (2d) and *pro* in (2c). But notice that a numeral quantifier, once floated, is associated with the top node of a nominal expression. In other words, the association of a numeral quantifier with an element properly contained in another category is not generally allowed in Japanese and Korean. Thus the FNQ in (7) can be associated with the top node, but not exclusively with the null element, in Hoshi's or Watanabe's structure. The top node containing a lexical content in their structures, the sole partitive reading that (7) has cannot be explained.⁶

2.3 Realization of the Matrix Argument

A third fact in favor of Murasugi is that the matrix argument can be overtly realized independently of α :

- (8) [α nayngcangko an-ey cyusu-ka iss-nun kes-ul] sikthak
 refrigerator in-at juice-Nom exist-Adn C-Acc table
wi-uy mul-man masi-ess-ta.
 on-Gen water-only drink-Pst-DE
 '(Not knowing) that juice was in the refrigerator, I only drank water on the table.'

Murasugi predicts the co-existence of α and the underlined matrix argument in (8), and the non-constituency of the two elements, since the matrix element can simply be regarded as a replacement of *pro*. The co-existence of the two elements is unexpected in the other analyses. In Kuroda's and Jhang's structures, α itself is conceived of as the matrix argument. Although Hoshi's and Watanabe's structures posit a null element, the null element and α form a constituent in their structures. Thus, none of the four analyses properly accounts for the co-existence of the *no/kes* clause and the matrix argument and the non-constituency of the two elements.⁷

2.4 A Test with Pseudo-Cleft Constructions

A test with pseudo-cleft constructions also conforms to Murasugi's structure but not to the other analyses. Note that α is hardly cleft, as exemplified in (9) below:

- (9) *[nay-ka e cip-ulo mosyeo-n kes]-un [α emeni-ka
 I.-Nom home-to take;in-Adn C-Top mother-Nom
konghang-ey tochakha-n kes]-i-ess-ta
 airport-at arrive-Adn C-be-Pst-DE
 '(Roughly) It was my mother, who arrived at the airport, that I took home.'

By "local association" Kitagawa and Kuroda mean linear adjacency. Thus, the structural function that FNQs assume is irrelevant, whether they function as predicates of the associated NP (Miyagawa (1988)) or as adverbs (Fukushima (1991)).

A reviewer conjectures that elements with *-ul/-lul* tend to be stored as old (background) information and this is responsible for the partitive reading sentences like (7) have. But I do not see any clear correlation between the two.

6. This goes against Hoshi's original intent to capture the exclusive partitive reading of the sentence in terms of his structure.

7. A reviewer claims that the structure in (1) differs from that in (8), observing that a pause comes after α in (8) but not after α in (1). But I find her claim too strong: (1) and (8) seem to be acceptable with or without the pause. Furthermore, the relation between pauses and sentence structures needs to be further studied. Note, for example, that a pause may intervene between head nouns and restrictive relative clauses, despite their syntactic constituency.

Murasugi predicts the unacceptability of the sentence (9) in the following way. It would take the structure in (10a) or (10b), depending on whether or not *pro* is cleft along with α (= [emeni-ka konghang-ey tochakha-n kes]):

- (10) a. *[John-i e_i e_j mosieo-n kes]-un α_i pro_j-i-ess-ta.
 b. *[John-i e_i pro_j mosieo-n kes]-un α_i -i-ess-ta.

The pronominal element *pro* is cleft along with α in (10a), while it is not in (10b). Neither cleaving more than one element nor backward pronominalization is allowed, as exemplified in the following Korean sentences:

- (11) a. *[John-i e_i e_j mek-un kes]-un ecey_i sakwa_j-i-ta.
 J.-Nom eat-Adn C-Top yesterday apple-be-DE
 ‘It was yesterday and apples that John ate.’
 b. *[John-i e ku_i-uy tongsayng-eykey cwu-n-kes]-un Bill_i-uy B.-Gen
 J.-Nom he-Gen brother-to give-Adn-C-Top B.-Gen
 chayk-i-ta.⁸
 book-be-DE
 ‘It was Bill’s book that John gave e to his brother.’

The unacceptability of the sentence in (9) is a burden to the other analyses since there is no a priori reason for a nominal argument not to be cleft.

2.5 Non-Nominal Properties of α

Fifth, there are indications that α is not a nominal projection. For example, relativization or genitivization of α is impossible:

- (12) a. *[John-i e cip-ulo mosieo-n] [α sensayngnim-i konghang-ey
 J.-Nom home-to take-Adn teacher-Nom airport-at
 tochakha-n kes] ...
 arrive-Adn C
 ‘the teacher who arrived at the airport that John took to his home’
 b. * [α sensayngnim-i konghang-ey tochakha-n kes]-uy anay
 teacher-Nom airport-at arrive-Adn C-Gen wife
 ‘the wife of the teacher who arrived at the airport’

Murasugi is able to account for these since α , being an adjunct clause, is neither relativized nor genitivized. With the other analyses, however, there is no a priori reason for a nominal projection not to be relativized or genitivized.

3. α as a Complement CP of a Perception Verb

Despite the essential correctness of Murasugi’s analysis, I propose a more complex structure to accommodate other facts as well as the ones discussed in the previous section. The structure I propose for the sentence in (1) is (13) below, where α is analyzed as the complement CP of a null perception verb (PRED) like KNOW, SEE, REALIZE, etc. whose projection constitutes part of an adjunct clause.

- (13) ...[ADJ e_j... [α =_{CP} ...NP_i...no/kes] PRED...] [_{VP} pro_i V] ...

(13) accounts for all the facts discussed in the previous section since α is analyzed as a part of an adjunct clause and *pro* is posited as a matrix argument. (13) also explains various other facts which Murasugi could not explain or is silent about at best.

3.1 Overt Realization of PRED

First, PRED can be overtly realized as a perception verb with an adverbial clause ending, e.g., *po-ko* ‘see-ing’, after α :

- (14) John-i [sakwa-ka cepsi wi-ey iss-nun kes]-ul
 J.-Nom apple-Nom dish on-at exist-Adn C-Acc
 po-ko pro mek-ess-ta.
 look-ing eat-Pst-DE
 ‘John, seeing an apple on the dish, ate (it).’

The possibility of having such a predicate after the *kes* clause would not be accounted for by Murasugi’s analysis as well as the other analyses mentioned in section 2.⁹

3.2 Complementizer Selection

α in the HIRC is a clause introduced by complementizer *no/kes*, which is exactly the complementizer that perception verbs always take:

- (15) a. John-un [totwuk-i tomangka-nun kes]-ul po-ess-ta.
 J.-Top thief-Nom run;away-Adn C-Acc see-Pst-DE
 b. John-wa [doroboo-ga hashirisaru no]-o mita.
 J.-Top thief-Nom run;away C-Acc saw
 ‘John saw the thief run away.’

Thus, the postulation of a (sometimes null) perception predicate accounts for why α ends with the complementizer *no/kes* in Japanese and Korean. The other analyses including Murasugi’s are silent about this.

3.3 Case Mismatch

Third, α may have an accusative case even when the matrix predicate does not assign an accusative case:

9. A reviewer points out that *pro* in (14) can be replaced by an overt pronoun, while *pronoun insertion* is impossible in (1):

- (i) John-i sakwa-ka cepsi wiyey iss-nun kes-ul { *kukes-ul/ po-ko
 J.-Nom apple-Nom dish on exist-Adn C-Acc it-Acc see-and
 kukes-ul } mek-ess-ta.
 it-Acc eat-Pst-DE

Murasugi (1995), however, reports that Japanese allows an overt pronoun to be expressed even for the structures like (1):

- (ii) ?? keikan-wa [[dorobooi ginkoo-kara dekita] no]-o soitui-o
 policeman-Top robber-Nom bank-from came -Acc the;guy-Acc
 tukamaeta
 arrested
 ‘The policeman arrested the robber coming out from the bank.’

Thus I conclude that overt pronouns are not absolutely banned in such positions but they are not very welcome for some reason, maybe due to some sort of the avoid pronoun principle.

- (16) e [_α John-i cip-ey eps-nun kes]-ul (molu-ko)
 J.-Nom home-at not;be-Adn C-Acc not;know-ing
 cenhwaha-ess-ta.
 call-Pst-DE
 ‘(Not knowing) that John was not home, I called him up.’

The verb *cenhwaha* ‘to call up’ takes a dative, not an accusative, complement in Korean.

- (17) John-i Mary-eykey/*-lul cenhwaha-ess-ta.
 J.-Nom M.-Dat/*-Acc call-Pst-DE
 ‘John called Mary.’

The source of case on α in (16) can be attributed to the case assigning property of the (null) perception verb. Again the other analyses including Murasugi’s say nothing about this.

3.4 Case Restriction

Another fact in favor of the structure in (13) is that if the internal head denotes a human being, α bears accusative cases but not other cases like nominative and dative:

- (18) a. na-nun [_α emeni-ka konghang-ey tochakha-n
 I-Top mother-Nom air;port-at arrive-Adn
 kes]-ul cip-ulo mosieo-ess-ta.
 C-Acc home-to take-Pst-DE
 ‘I took home my mother, who arrived at the airport, called me up.’
- b. * [_α emeni-ka konghang-ey tochakha-n kes]-i
 mother-Nom airport-at arrive-Adn C-Nom
 na-eykey cenhwaha-si-ess-ta.
 I-Dat call-Hon-Pst-DE
 ‘My mother, who arrived at the airport, called me up.’
- c. * na-nun [_α emeni-ka konghang-ey tochakha-n
 I-Top mother-Nom airport-at arrive-Adn
 kes]-eykey insaha-ess-ta.
 C-Dat greet-Pst-DE
 ‘I greeted my mother, who arrived at the airport.’

Sometimes α is compatible with non-accusative cases but it is so only when the internal head denotes a non-human thing or a human being with a derogatory or diminutive sense.

- (19) a. Mary-nun [pro mul-ul kkulhi-n kes]-ulo
 M.-Top water-Acc boil-Adn thing-with
 khephi-lul tha-ess-ta.
 coffee-Acc make-Pst-DE
 ‘Mary prepared a cup of coffee with the water that she boiled.’
- b. [ai-ka eli-n kes]-i yenge-to
 child-Nom young-Adn thing-Nom English-even
 cal ha-n-ta.
 well do-Pres-DE
 ‘The child who is young speaks English, too.’

The existence of the semantic agreement between the so-called internal head and *kes* ‘thing’ in sentences like (19) and the lack of it in sentences like (18a) indicates that they are of two different structures. The fact that α exclusively takes an accusative case conforms to our structure in (13), where PRED as a null perception verb assigns an accusative case.

4. On the Indefinite Head Requirement

There are two interrelated characteristics of typical HIRCs observed in the literature: (a) they are closed off generally by a definite determiner (Williamson (1987)) or sometimes by a universal determiner (Reinhart (1987)); and (b) internal heads are indefinite, not definite.¹⁰ The HIRCs in Korean and Japanese, however, do not seem to show either of the two characteristics. First, α ends with a complementizer, i.e., *no* in Japanese and *kes* in Korean, which are not determiners. Second, definite NPs like proper nouns can be internal heads:

- (20) ku hyengsa-nun [John-i pang-eyse nao-nun
 the detective-Top J.-Nom room-from come;out-Adn
 kes]-ul cheyphoha-ess-ta.
 C-Acc arrest-Pst-DE
 ‘The detective arrested John, who was coming out of the room.’

John, which is hardly regarded as an indefinite NP, is construed as the internal semantic head. Therefore, the indefiniteness requirement does not seem to hold in Korean.

Watanabe (1991: 70), however, does not regard Japanese proper nouns as definite, based on the fact that they can take modifiers, e.g., *kinoo-no John* ‘yesterday’s John’. He further claims that internal heads in Japanese do display the indefinite effect, based on the following contrast:

- (21) (based on Watanabe (1991): 71-72, his (153) and (154))
 [John-ga (*sono/*ichiban naggai/*youitus-no) uronbun-o
 J.-Nom the/most long/only-Gen paper-Acc
 kaita-no]-ga LI-ni notta.
 wrote-C-Nom LI-Loc appeared
 ‘{The/longest/only} paper that John wrote appeared in LI.’

As opposed to bare common nouns, an NP that is modified by *sono* ‘that’, by a superlative adjective, or by ONLY, cannot be an internal head. Thus it seems that an NP denoting a unique entity in the world is not allowed as an internal head.

A more careful examination, however, not only reveals that proper nouns do show the definiteness effect, but also that (semantically) definite NPs can be internal heads. Proper nouns behave differently from indefinite NPs in story telling contexts. A bare proper noun cannot be used in the beginning of a story. Instead, expression *X-ilanun salam* ‘a man called X’ is used:

10. Basilico (1996) tries to capture the two characteristics in terms of his quantifier analysis of the HIRCs. The determiner, semantically translated as an iota operator, requires a variable to bind. An indefinite NP, but not a definite NP, can be an internal head, since the former, but not the latter, provides a variable, along the lines of Heim (1982).

- (22) acwu olayn yesnal-ey { Ontal-ilanun salam-i/
 very long old;days-in Ontal-called man-Nom/
 *Ontal-i} sal-ess-nuntey, . . .
 Ontal-Nom live-Pst-and
 ‘Once upon a time, there lived a person called Ontal, . . .’

If proper nouns in Korean/Japanese were descriptions denoting a person having such and such a name, as Watanabe claims, both sentences in (22) should be fine, which is not true.

Furthermore, expressions denoting unique entities are not absolutely prohibited from functioning as internal heads. Consider the following sentences:

- (23) ku hyengsa-nun [ku totwuk-i/John-uy matatul-i
 the detective-Top the thief-Nom/John-Gen eldest;son-Nom
 pang-eyse nao-nun kes]-ul cheyphoha-ess-ta.
 room-from come;out-Adn C-Acc arrest-Pst-DE
 ‘The detective arrested the thief/Johns eldest son,
 who was coming out of the room.’

Although *ku totwuk* ‘the thief’ and *John-uy matatul* ‘John’s eldest son’ denote unique entities in the world, they can be internal heads. Superlatives and phrases modified by ONLY can also be internal heads if they are positioned in proper contexts. Consider the following sentences, for example:

- (24) [[John-i ssu-n] { yuilha-n/kacang kil-un } nonmun-i
 J.-Nom write-Adn only-Adn/most long-Adn paper-Nom
 chayksang-wiey iss-ten kes]-ul Tom-i kacyecka-ess-ta.
 desk-on exist-Adn C-Acc T.-Nom take;away-Pst-DE
 ‘Tom took away the {unique/longest} paper that was on the desk
 that John wrote.’

Nonmun ‘paper’ in (24), which is modified by *yuilhan/kacang kil-un* ‘only/most long’, functions as the external head for the most embedded relative clause and at the same time as the internal head for the next higher clause. This indicates that the indefiniteness requirement does not apply to Korean HIRCs. I conjecture that the contrast between (21) and (24) may be a reflex of subject/object asymmetries briefly discussed in section 3.4, in relation to case restrictions.

To sum up, the so called internal heads in Korean/Japanese need not be indefinite. Not only proper names but also definite descriptions may function as internal heads in HIRCs in Korean/Japanese. We have seen that proper names are not merely descriptions as Watanabe claims since in a certain context they behave differently from regular common nouns. Definite nouns are also allowed as internal heads freely or with some syntactic manipulation. Therefore, the indefiniteness requirement does not seem to apply to Korean/Japanese HIRCs.

5. Concluding Remarks

This paper has argued that the so-called head internal relative clause in Korean and Japanese is not a true head internal relative clause but is best analyzed as a complement clause of a null perception verb whose projection constitutes part of an adjunct clause.

I'd like to finish the paper with bringing up the following two questions, among many others that have not been addressed in this paper. First, how can children detect the null perception predicate postulated in (13)? It is not clear but, as alluded in the section 3.2, the type of complementizers helps to identify the type of verbs that select the complement clause. Complementizer *kes*, for example, is selected by a limited type of verbs including the perception verb type. Korean seems to allow predicate deletion in other contexts, too. For instance, predicates that take an embedded interrogative clause can sometimes be deleted, as exemplified below (See Chung and Park (1995), Chung (1996a)):

- (25) John_i-un [e [e_i mue ha-nun-ci] (molu-eto)]
 J.-Top what do-Pres-Adn-Q not;know-although
 ton-ul cal ssu-n-ta.
 money well use-Pres-DE
 '(Although I do not know) what he does, he spends money extravagantly.'

In this case also, the question morpheme *-ci* helps to identify the types of the deleted predicate.

A second question worth mentioning is whether the internal head is restricted to subjects or objects as was claimed in Jhang (1991), Jhang (1994). I claim that elements other than subjects or objects can function as internal heads, as the following sentences illustrate:

- (26) a. kyengchal-un [A -ka B -eykey noymul-ul cwu-ko
 police-Top -Nom -Dat bribe-Acc give-ing
 iss-nun kes]-ul hyencang-eyse twulta cheyphoha-ess-ta.
 be-Adn C-Acc on;the;spot both arrest-Pst-DE
 'Police arrested both A and B while the former was giving a bribe
 to the latter.'
- b. han simin-i [kangto-ka khal-lo hayngin-ul wihyepha-ko
 one citizen-Nom robber-Nom knife-with pedestrian-Acc threaten-ing
 iss-nun kes]-ul wihem-ul muluphssu-ko cayppali ppayas-ess-ta.
 be-Adn C-Acc danger-Acc risk-ing quickly snatch-Pst-DE
 'While a robber was threatening a pedestrian with a knife,
 a citizen snatched it, risking danger.'

In (26a), a dative NP is at least part of internal heads. In (26b), an instrumental NP functions as an internal head. Then why are internal heads most frequently subjects or objects? I speculate that this is so because subjects or objects are most salient among the elements in that may affect the event of the matrix clause. Other elements can be internal heads, if they receive a sufficient pragmatic saliency.

References

- Basilico, David. 1996. Head position and internally headed relative clauses. *Language* 72.3, pages 498-532.
- Chung, Daeho. 1996a. *On the Representation and Licensing of Q and Q-dependents*. Ph.D. thesis, University of Southern California, Los Angeles, CA.
- Chung, Daeho and Hong-Keun Park. 1995. An indirect question analysis of Korean \exists -/ \forall -quantifiers. *MIT working papers*, 19.
- Cole, Peter. 1987. The structure of internally headed relative clauses. *Natural Language and Linguistic Theory* 5, pages 277-302.

- Fukushima, Kazuhiko. 1991. *Generalized Floating Quantifiers*. Ph.D. thesis, University of Arizona, Tucson, AZ.
- Harada, S.I. 1973. Counter equi NP deletion. In *Annual Bulletin*, pages 113–143. Research Laboratory of Logopedics and Phoniatrics, University of Tokyo.
- Heim, Irene. 1982. *The Semantics of Definite and Indefinite Noun Phrases*. Ph.D. thesis, University of Massachusetts, Amherst, MA.
- Hoshi, Koji. 1996. The head-internal relative clause in Japanese: An empty head noun approach. *The Proceedings of the 5th Japanese/Korean Linguistics Conference*, 5:253–268.
- Jhang, Sea-eun. 1991. Internally headed relative clauses in Korean. In Susumu Kuno et al., editors, *Harvard Studies in Korean Linguistics*, volume IV, pages 269–280.
- Jhang, Sea-eun. 1994. *Headed Nominalizations in Korean: Relative Clauses, Clauses, Clefts, and Comparatives*. Ph.D. thesis, Simon Fraser University.
- Kitagawa, Yoshihisa and Shige-Yuki Kuroda. 1992. Passive in Japanese. Unpublished manuscript. University of Rochester and University of California at San Diego.
- Kuroda, Shige-yuki. 1992. *Japanese Syntax and Semantics*. Dordrecht: Kluwer Academic Publishers.
- Miyagawa, Shigeru. 1988. Predication and numeral quantifier. In William Poser, editor, *Papers from the Second International Workshop on Japanese Syntax, Center for the Study of Language and Information*. Stanford.
- Murasugi, Keiko. 1994. Head-internal relative clauses as adjunct pure complex NPs. In S. Chiba et al., editors, *Synchronic and Diachronic Approaches to Language: A Festschrift for Toshio Nakao*, Tokyo. Liber Press.
- Murasugi, Keiko. 1995. Head-internal relative clauses and the pro-drop parameter. Unpublished manuscript. Kinjo Gakuin University.
- Reinhart, Tanya. 1987. Specifier and operator binding. In E. Reuland and A.G.B.ter Meulen, editors, *The Representation of (In)definites*. MIT press, Cambridge, MA, pages 130–67.
- Watanabe, Akira. 1991. Wh-in-situ, subjacency, and chain formation. Unpublished manuscript, MIT.
- Watanabe, Akira. 1992. Subjacency and s-structure movement of wh-in-situ. *Journal of East Asian Linguistics 1*, pages 255–291.
- Williamson, Janis. 1987. An indefiniteness restriction on relative clauses in Lakota. In E. Reuland and A.G.B.ter Meulen, editors, *The Representation of (In)definites*. MIT press, Cambridge, MA, pages 168–90.

Submitted on: October 1, 1999

Accepted on: November 8, 1999