HEADED NOMINALIZATIONS IN KOREAN: RELATIVE CLAUSES, CLEFTS, AND COMPARATIVES

by

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Abstract

Two strategies are commonly used across languages to form relative clauses and similar constructions. First, and most common, are externally-headed constructions, where the head appears in the higher clause and is modified by a clause containing a gap coreferent to the external head. Second are internally-headed (head-*in-situ*) constructions, where the understood head appears in the modifying clause but nevertheless receives the semantic interpretation of an external head. I will argue that Korean makes use of both strategies. This thesis discusses the syntactic and semantic aspects of three head-*in-situ* constructions in Korean—internally headed-relative clauses, internal focus clefts, and comparatives—and compares them to their externally-headed counterparts.

In Chapter 2, I give an analysis of internally-headed relative clauses. The function of the internal head is subject to conditions that are sensitive to the level of structure. This point is established by the syntactic contrasts between unaccusative and unergative and between active and passive clauses. The behavior of relative clauses with multiple readings falls out from these conditions.

In Chapter 3, I discuss two types of Korean clefts: external focus constructions (pseudo-clefts and inverted pseudo-clefts) vs. internal focus constructions (*kes*-clefts). First, for each type of cleft, I discuss structures, accessibility conditions, case effects. Next, I contrast EFCs and IFCs with respect to case, the different status of a complementizer position in the clefted clause, subject honorification, and the possibility of multiple focus constructions. Finally, I discuss the similarities and differences between clefts and relative clauses.

In Chapter 4, I discuss comparative constructions, focusing particularly on their relation to coordination. Two types of comparatives are discussed—clausal NP-comparatives and plain NP-comparatives. I show that the Korean comparative particle *pota* 'than' may act as a coordinating conjunction as well as a postposition. I also show that relative-like properties (unbounded dependencies and *wh*-island constraints) are exhibited in both externally-headed comparatives and internally-headed comparatives.

Finally, in Chapter 5, I summarize previous chapters and make some generalizations about headed nominalizations. First, I give a summary of each chapter based on three main topics: structure, accessibility, and case. Second, I present my findings, based on the characteristics of each of the headed nominalizations, regarding the status of the complementizer *kes*.

Internally-headed relative clauses have received relatively little attention in studies on Korean. This thesis fills this descriptive gap by presenting a full range of Korean data. Furthermore, it extends the concept of head-*in-situ* to clefts and comparatives, thereby making an original contribution to the study of internally-headed constructions.

To the memory of my father

and

The support of my family

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List of Abbreviations

The following abbreviations are used in the glosses of the Korean data.

ACC	accusative
adn	adnominal
BEN	benefactive
comp	complementizer
COMIT	comitative
conj	conjunctive
DAT	dative
fut	future
GEN	genitive
hon	honorific
ind	indicative
inf	infinitive suffix
INST	instrumental
lnk	linker
LOC	locative
nmz	nominalizer
NOM	nominative
pl	plural
pre	present
prog	progressive
pss	passive
pst	past
REAS	reason
QUAL	qualification
TOP	topic

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Chapter 1
Introduction

1.1 Focus of inquiry

Two strategies are commonly used across languages to form relative clauses and similar constructions. The first, and most common strategy, is an externally-headed construction, where the head appears in the higher clause and is modified by a clause containing a gap coreferent to the external head. The second strategy is an internally headed (head-*in-situ*) construction, where the understood head appears in the modifying clause but nevertheless receives the semantic interpretation of an external head. I will argue that Korean makes use of both strategies.

The goal of this thesis is to describe three constructions in Korean: relative clauses, clefts, and comparatives. Each construction is illustrated below: the (a) examples present externally-headed constructions and the (b) examples give their internally-headed counterparts.

(1) Relative clauses:

a. Externally-headed relative clause (EHRC)

John-un [__ kocangna-n] khemphyuthe-lul
J.-TOP out of order-adn computer-ACC

kochi-ess-ta
repair-pst-ind

'John repaired the computer that was out of order.'

b. Internally-headed relative clause (IHRC)

John-i [khemphyuthe-ka kocangna-n kes]-ul
J.-NOM computer-NOM out of order-adn comp-ACC

kochi-ess-ta
repair-pst-ind

'John repaired the computer that was out of order.'

(2) Cleft sentences:

a. External focus construction (EFC)

[Nay-ka ecey __ manna-n kes]-un John-i-ta
I-NOM yesterday meet-adn comp-TOP J.-be-ind

'The one I met yesterday is John.'

b. Internal focus construction (IFC)

pro [John-ul nay-ka ecey manna-n kes]-i-ta
J.-ACC I-NOM yesterday meet-adn comp-be-ind

'It is John that I met yesterday.'

(3) Comparative constructions:

a. Externally-headed comparative clauses (EHCCs)

John-i [Yumi-ka __ mek-un kes]-pota sakwa-lul (te)
J.-NOM Y.-NOM eat-adn comp-than apple-ACC more

manhi mek-ess-ta
many eat-pst-ind

'John ate more apples than Yumi ate.'

b. Internally-headed comparative clauses (IHCCs)

John-i	[Yumi-ka	sakwa-lul	mek-un	kes]-pota	(te)
J.-NOM	Y.-NOM	apple-ACC	eat-adn	comp-than	more
manhi	mek-ess-ta				
many	eat-pst-ind				

'John ate more apples than Yumi ate.'

Externally headed constructions are characterized by the presence of a gap (or a resumptive pronoun in some instances), indicated by __. In contrast, in head-*in-situ* constructions the semantic head, indicated by underlining, appears *in situ* in the embedded clause. Thus, head-*in-situ* constructions involve "gapless clauses"[1] as embedded clauses, and a nominal, which is semantically understood as an external head, remains *in situ* in the embedded clause.

Thus, head-*in-situ* constructions can be characterized as in (4):

(4) head-*in-situ* constructions in Korean:

X **[... [NP-case]$_{HEAD}$ ... V-adn kes]-case** Y

The main clause elements are represented by X and Y. The head-*in-situ* embedded clause is in bold face. This clause is nominalized; it takes an adnominal marker and the complementizer *kes.* The embedded clauses involved in these constructions have the same morphological shape and structure as other nominalized clauses. This fact is very important, since it aids in defining head-*in-situ* constructions from a cross-linguistic

[1]Note that my use of the term "gapless clauses" differs from that used in Na and Huck (1990). They use "gapless clauses" to distinguish topicalization and relativization derived from multiple nominative constructions from those derived from regular constructions.

perspective. Specifically, Culy (1990: 203) suggests that this characteristic is a necessary condition for IHRCs.

Nevertheless, these head-*in-situ* constructions differ in several respects from other nominalized complement clauses, e.g. (5):

(5) Nominalized sentential complement clause:

a. Nay-ka [khemphyuthe-ka kocangna-n kes]-ul
I-NOM computer-NOM out of order-adn comp-ACC
al-ass-ta
know-pst-ind
'I knew that the computer was out of order.'

b. Mary-nun [John-ul nay-ka ecey manna-n kes]-ul
J.-TOP J.-ACC I-NOM yesterday meet-adn comp-ACC
molu-ass-ta
not know-pst-ind
'Mary did not know that I met John yesterday.'

c. John-un [Yumi-ka sakwa-lul mek-un kes]-ul
J.-TOP Y.-NOM apple-ACC eat-adn comp-ACC
po-ass-ta
see-pst-ind
'John saw Yumi eating apples.'

Nominalized complement clauses, bracketed in (5a), (5b), and (5c), have the same structure as the head-*in-situ* constructions in (1b), (2b), and (3b) respectively. The difference is that head-*in-situ* constructions have a relative-like interpretation, whereas nominalized complement clauses do not. (See Culy 1990: 69.)

1.2 Outline of the thesis

The following is the outline of the thesis. Chapter 2 deals with relative clauses, Chapter 3 with clefts, and Chapter 4 with comparatives, and in passing, coordinate structures. In Chapter 5, I summarize the similarities and differences between externally and internally-headed constructions and compare the three head-*in*-*situ* constructions to each other.

In Chapter 2, I discuss relative clauses. Externally-headed relative clauses have received a lot of attention. S. Bak (1984), J. Han (1990), S. Hong (1985), S. Kang (1986), S. Lee (1983), Na (1986, 1990), D. Yang (1975), and I. Yang (1972), among others, have elaborated functional and structural properties of Korean EHRCs. In contrast, IHRCs have received little attention. Therefore, I concentrate in this chapter on outlining the properties of the latter. First, I discuss the syntax and semantics of Korean IHRCs from the viewpoint of linguistic typology. Second, I show that the function of the internal head is subject to a condition on the level of structure: only initial objects can be heads in subject and adjunct IHRCs. This point is established by comparing unaccusative with unergative clauses and active with passive clauses. Some relative clauses have multiple readings. This is predicted, I claim, by the general conditions on IHRC heads. Finally, I briefly discuss the status of *kes* as a complementizer. I review child language acquisition literature on this topic.

In Chapter 3, I discuss two types of Korean clefts: external focus constructions (pseudo-clefts and inverted pseudo-clefts) and internal focus constructions (*kes*-clefts). Little research is available on external focus constructions. I therefore devote the first half of this chapter to a discussion of EFCs. First, for each type of cleft, I discuss structures, accessibility conditions, case effects. Next, I contrast EFCs and IFCs with respect to case, the different status of a complementizer position in the clefted clause, subject

honorification, and the possibility of multiple focus constructions. Finally, I show the similarities and differences between clefts and relative clauses.

In Chapter 4, I discuss comparative constructions, focusing particularly on their relation to coordination and subordination. Two types of comparatives are discussed—clausal NP-comparatives and plain NP-comparatives. Some work has been published on plain NP-comparatives (S. Kim 1972 and C. Yang n.d.), but otherwise there is no discussion of Korean clausal NP-comparatives in the literature. I therefore devote the bulk of this chapter to a general treatment of comparatives. First, I show that the Korean comparative particle *pota* 'than' may act as a coordinating conjunction as well as a subordinating postposition. I also show that relative-like properties (unbounded dependencies and *wh*-island constraints) are exhibited in both externally-headed comparatives and internally-headed comparatives.

Finally, in Chapter 5, I summarize previous chapters and make some generalizations about headed nominalizations. First, I give a summary of each chapter based on three main topics: structure, accessibility, and case. Second, I present my findings, based on the characteristics of each of the headed nominalizations, regarding the status of the complementizer *kes*. Finally, I summarize the differences between externally-headed constructions and their internally-headed counterparts. Although the three constructions differ in many respects, I show that in each case the internally-headed construction has a more limited domain than its externally-headed counterpart.

Chapter 2
Internally-Headed Relative Clauses in Korean

2.1 Introduction

Wilkins (1990: 416–426) points out that the structural feature that distinguishes the different relative clause types is the position of the head noun with respect to the relative clause. He proposes four relative clause types based on data from Mparntwe Arrernte (an Australian language): (i) fully embedded relative clauses (1), (ii) relative clauses with discontinuity between the head and the relative clause (2), (iii) headless relatives (3), and (iv) internally-headed relatives (4).

(1) Kele m-ikwe petyalpe-me-le [ulyentye [re-rle
O.K. mother-3KinPOSS come back-npp-SS shade 3sgA-REL
ampe kweke re-nhe iwe-rle. Ihe-ke]$_{Srel}$-werne]$_{NP}$ ...
child little 3sg-ACC throw away-DO&GO-pc-ALL
'When its mother came to the shade where she had dropped the body off.' [ALL in main = gapped DAT in S_{rel}[1]]

(2) Irrkwentye [arelhe-ke angke-rle.ne-me [newe
police woman-DAT speak-CONT-npp spouse
ikwere-rle ulyepere tanthe-ke]$_{Srel}$-ke
3sgDAT(O)-REL thigh(O) spear-pc-DAT
'The policeman is talking to the woman that stabbed her husband.'
[DAT in main = gapped A in S_{rel}]

(3) Kele artwe alethenge re apwerte kertne-ke antye-nhe-ke

[1]The S_{rel} means a relative clause. See Keenan (1985) for the notion and definition.

O.K. man stanger 3sgS hill top-DAT climb-DO pst-pc

[artwe anew-ikwe re-rle ane-tyeme]$_{Srel}$-werne

man spouse-3KinPOSS 3sgS-REL sit-pp-ALL

'So the stranger (while going past) climbed up the hill towards (the place) where the woman's husband was sitting.'

[ALL in main = gapped LOC in S_{rel}]

(4) Warlpele mape-le peke awe-tyenhenge

white=person pl-ERG maybe hear-SBSQNT

[evidence-rle anwerne arrerne-me]$_{Srel}$-ke

evidence(O)-REL 1plA put-nnp-DAT

'Then white people might attempt to listen to the evidence that we're putting (in court).' [DAT in main = overt O in S_{rel}]

At least two of these four types of relative clauses are transparently exhibited in Korean.[2] (5) exemplifies an externally-headed relative clause (EHRC) and (6) an internally-headed relative clauses (IHRC); the relativized NP in the IHRC is underlined:

(5) John-un [[__ kocangna-n]$_{Srel}$ khemphyuthe]$_{NP}$-lul kochi-ess-ta

J.-TOP out of order-adn computer-ACC repair-pst-ind

---

[2]Based on data from Andrews (1975), Culy (1990), and Keenan (1985), I give a small sample of languages categorized according to their strategies of relativization:

(i) strategies for relativization

a. A-type: languages with externally-headed relativization only: English, French, and other Indo-European languages (SVO)

b. B-type: languages with internally-headed relativization only: Dogon (SOV), Lakhota (SOV)

c. C-type: languages with both strategies: Diegueño (SOV), Navajo (SOV), Japanese (SOV), Quechua (SOV), Mparntwe Arrernte (SOV), Dagbani (SVO), Mooré (SVO), American Sign Language (SVO),

It is argued here that Korean (SOV) is a C-type language.

'John repaired the computer that was out of order.'

(6) John-un [[khemphyuthe-ka kocangna-n]$_{Srel}$ kes]$_{NP}$-ul
J.-TOP computer-NOM out of order-adn comp-ACC
kochi-ess-ta
repair-pst-ind
'John repaired the computer that was out of order.'

With regard to the four relative clause types given by Wilkins, Korean EHRCs like (5) are parallel to fully embedded relative clauses like (1), in which the head (*ulyentye* 'shade') and the relative clause are both elements of a single NP. Korean IHRCs like (6) are parallel to Mparntwe Arrernte IHRCs like (4), in which the head (*evidence*) is embedded within the relative clause. Furthermore, I will discuss a type of pseudo-cleft structure in the next chapter which parallels headless relatives as in (3).

The following examples further illustrate the two types of relatives:

(7) EHRC:
John-i [[__ pang-eyse nao-n]$_{Srel}$ totwuk]$_{NP}$-ul cap-ass-ta
J.-NOM room-from come out-adn thief-ACC arrest-pst-ind
'John arrested the thief who came out of the room.'
[ACC in main clause = gapped NOM in S_{rel}]

(8) IHRC:
John-i [[[totwuk-i pang-eyse nao-n]$_{Srel}$ kes]$_{S'}$]$_{NP}$-ul
J.-NOM thief-NOM room-from come out-adn comp-ACC
cap-ass-ta
arrest-pst-ind
'John arrested the thief who came out of the room.'

[ACC in main clause = overt NOM in S_{rel}]

(9) EHRC:

[[Totwuk-i	__	hwumchi-n $]_{Srel}$	posek$]_{NP}$-i	kacca-i-ta
thief-NOM		steal-adn	jewelry-NOM	fake-be-ind

'The jewelry that the thief stole is fake.'
[NOM in main = gapped ACC in S_{rel}]

(10) IHRC:

[[[Totwuk-i	posek-ul	hwumchi-n$]_{Srel}$	kes$]_{S'}]_{NP}$-i	kacca-i-ta
thief-NOM	jewelry-ACC	steal-adn	comp-NOM	fake-be-ind

'The jewelry that the thief stole is fake.'
[NOM in main = overt ACC in S_{rel}]

There are several similarities between EHRCs and IHRCs. Both types of Korean relative clauses lack relative pronouns corresponding to those in English. However, Korean relative clauses have a relative marker functioning as an adnominal suffix.[3] This suffix signals the tense in the relative clause: *nun* is used if the tense is nonpast, *(u)n* if past.[4]

---

[3]Korean adjective phrases in prenominal position also take adnominal markers:

(i)

Olaytoy-n	cip
old-adn	house

'old house'

[4]Under current analyses of embedded clauses in Korean (Ahn and Yoon 1989, Choe 1988, and others), adnominal markers used in the embedded clause are taken as INFL (adnominal verbal tense inflection): *nun* for the present tense, *(u)n*, *tun*, and *esstun* for the past tense, and *(u)l* for the future. Thus, I assume that adnominal ending markers like *(n)un* are tense markers, not Comp. The basic idea is that the linguistic theory of embedding must accommodate both Comp and INFL heads in underlying structure. Following current

The above data also show at least three differences in the two types of relative clauses based on the status of the gap in the relative clause, the status of the syntactic head noun,[5] and the case of the target of relativization.

First, EHRCs in Korean like (7) and (9) have a gap or a (resumptive) pronoun where one would otherwise expect to find the NP that is co-referential with the head.[6, 7] In contrast, in (8) and (10), the nominal that is understood as the head (here, *totwuk*) occurs in a position internal to the S_{rel}. Thus IHRCs like (8) and (10) do not have a gap or resumptive pronoun because the NP that is interpreted as the head occurs within the S_{rel}.

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standard assumptions, it is also reasonable to propose that the adnominal ending markers like *(n)un* are not Comp but tense markers.

[5]This notion of syntactic head differs from that of "head" that will be used in the discussion to follow. The latter is a semantic notion in that the head noun denotes the semantic class of the restricted noun (cf. Keenan 1985: 142).

[6]There are two types of relative clause with respect to word order cross-linguistically: namely, the postnominal type where the relative clause follows its head (as in English), and the prenominal type noted in (7). See Keenan (1985) for details.

[7]As noted by S. Lee (1984), resumptive pronouns can sometimes appear in subject, object, and certain oblique positions inside embedded clauses containing in relative clauses, or can occur insde postpositional phrases. For example, a resumptive pronoun can appear in the subject position of the embedded clause in (ia), and it can appear in the the object position of oblique in the main clause in (ib).

(i) a. [[(ku/caki-ka) toytola ka-ss-ul ttay] motwu-ka
he/self-NOM return go-pst-adn time all-NOM
pankawaha-ss-ten] nanpongkwun
welcome-pst-adn libertine
'the libertine who all welcomed when he returned'

b. [John-i kunye-lul wihay chayk-ul sa-n] Mary
J.-NOM she-BEN book-ACC buy-adn M.
'Mary, who John bought a book for'

A second difference involves the status of the syntactic head noun with respect to a particle *kes*. EHRCs like (7) and (9) are not usually followed by the particle *kes*.[8] On the other hand, IHRCs like (8) and (10) are always followed by the particle *kes* instead of a full NP. It is controversial whether *kes* is a proform or a complementizer (Comp). I take the latter position here (see section 2.5).

A final difference concerns case: the relativized nominal in IHRCs has case, but the gap in EHRCs, of course, does not have surface case, although an overt resumptive pronoun may have case.

Korean EHRCs have been well-studied. In contrast, Korean IHRCs have received relatively little attention. IHRCs are much less common than EHRCs or free relatives, especially in formal speech. Their acceptability in colloquial speech varies from speaker to speaker. Nevertheless, many speakers use IHRCs in some instances.

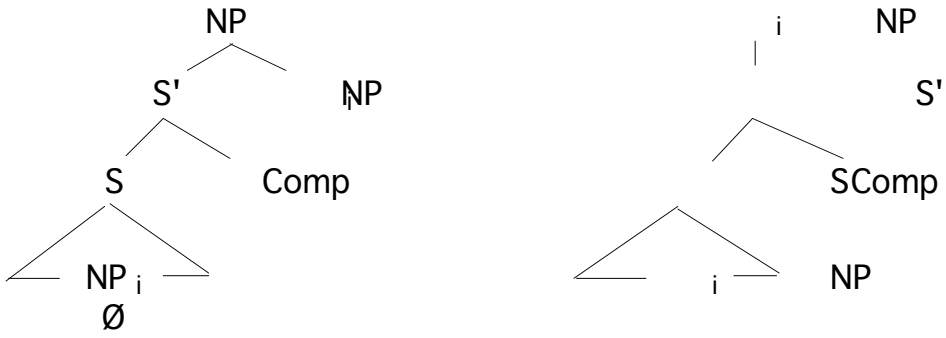
Although syntactic, semantic, and pragmatic aspects of IHRCs should be considered, this chapter deals with syntactic properties and only briefly touches on the semantics. I concentrate in this chapter on outlining the properties of Korean IHRCs, and then on comparing Korean IHRCs with their externally-headed counterparts.

2.1.1 The structure of IHRCs in Korean

Now, we shall briefly examine the syntactic structure of the two types of relative clauses in Korean. These two types, which are illustrated in (5)–(10), can be roughly schematized, as in (11):

(11) a. EHRC b. IHRC

[8]Even in the case of EHRCs, the morpheme *kes* can sometimes co-occur with a lexical head in colloquial speech. Examples will be given later (section 2.3.1).



As shown in (11a), EHRCs contain an overt external head (NP_i), coindexed with a gap ($_{NP_i}Ø$) or resumptive pronoun inside the relative clause. In IHRCs like (11b), on the other hand, some NP inside the subordinate structure is indexed as coreferential with the higher NP which dominates it. The higher NP can then function as an argument in its own clause. Thus, in the case of EHRCs, the syntactic argument of a main verb serves as the head noun. In IHRCs, on the other hand, the syntactic argument of a main predicate is the entire embedded clause followed by the particle *kes*, but its semantic head is inside the embedded clause.[9]

The surface structure of IHRCs given in (11b) can also be represented as follows:[10]

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[9]Hirose (1992) treats this characteristic of IHRCs as a discrepancy between their syntax and semantics. She argues that this discrepancy distinguishes IHRCs from event nominalizations.

[10]Kuroda (1976: 269)'s discusses a similar structure for the so-called "headless relative clause" in Japanese:

(i)	Boku-wa	[sutoobu-kara	hi-ga	dete-iru	no]-o
	I-TOP	stove-from	fire-NOM	exiting-be	NO-ACC
	kesita				
	extinguished				

'I extinguished the fire that was coming out of the stove.'

He analyzes such examples as in (ii).

(12) $[...[[[...NP_i\text{-}case_x...V_1\text{-}adn]_{Srel}$ kes$]_{S'}]_{NPi}\text{-}case_y...V_2]$

where the **NP_i** is the nominal that is understood as the head,

$case_x$ and **$case_y$** are case markers,

V_1 is a predicate of the relative clause,

adn stands for an adnominal marker (i.e. *nun* is used if the tense is nonpast, *(u)n* if past),

the **S_{rel}** is a restrictive relative clause,

kes is a complementizer,[11] and

V_2 is a predicate of the main clause.

An IHRC, shown as the S_{rel} in (12), is a gapless clause followed by the morpheme *kes* instead of by a lexical noun. $NP_i\text{-}case_x$ is phonetically realized in the S_{rel}, representing the target of relativization (i.e. the internal head), and its case marker is retained for the role of the target within the S_{rel}. On the other hand, $case_y$ after the morpheme *kes* indicates the role of the target in the S_{main}.

(ii) $[_{NP}\ [_S$ ...] *no*]

In (ii) *no* is a nominalizing complementizer. This analysis has been adopted in the recent Japanese literature (Hirose and Ohori 1992, Ohara 1994, and others). On the other hand, Kitagawa and Ross (1982) propose the following underlying structure:

(iii) $[_{NP}\ [_S$ ... $][_{NP}$ PRO]]

Under their view, the PRO in (iii) may quite naturally be interpreted as referring either to the entire modifying sentence or to an NP within that sentence. Similarly, Ishii (1988) argues that a relative clause like (i), the head-internal relative clause, has a structure as in (iv), and this empty head is subject to the Empty Category Principle (ECP).

(iv) $[_{NP}\ [[_{IP}. . .\ ]$ no$]\ [_{NP}$ e]]

[11]The controversial status of the morpheme *kes* is discussed in section 2.3.

2.1.2 Typological properties of IHRCs

The syntactic properties of IHRCs in Korean conform to the previously proposed cross-linguistic definitions of IHRCs (Culy 1990, Wilkins 1990). Let us first look at the definition of IHRCs given in Culy (1990: 27).

(13) Definition of IHRCs

A (restrictive) internally-headed relative clause is a nominalized sentence which modifies a nominal, overt or not, internal to the sentence.

A nominalized sentence is one that can occur with the morphosyntactic markings of a common noun (e.g. case, determiners). Culy argues that (13) captures the essential characteristics of IHRCs and furthermore distinguishes them from EHRCs and correlatives, as well as from other nominalized sentences.

Let us apply the definition of IHRCs given above to the Korean data. Examples (14) and (15) are factive complements of verbs of belief and perception, (16) is a free relative, and (17) is an IHRC:

(14) John-un [sonyen-i kongpwuha-ko-iss-nun kes]$_{NP}$-ul
J.-TOP boy-NOM study-prog-be-adn comp-ACC
mit-ess-ta
believe-pst-ind
'John believed (the fact) that a boy was studying.'

(15) John-un [sonyen-i kongpwuha-ko-iss-nun kes]$_{NP}$-ul po-ass-ta
J.- TOP boy-Nom study-prog-be-adn comp-ACC see-pst-ind
'John saw that the boy was studying.'
'John saw the boy who was studying.'

(16) [Sonyen-i kongpwuha-ko-iss-nun kes]$_{NP}$-un swuhak-i-ta
boy-NOM study-prog-be-adn comp-TOP mathematics-be-ind
'What the boy was studying is mathematics.'

(17) John-un [sonyen-i kongpwuha-ko-iss-nun kes]$_{NP}$-ul ttali-ess-ta
J.-TOP boy-NOM study-prog-be-adn comp-ACC hit-pst-ind
'John hit the boy who was studying.'

In (14)–(17), all clauses represented as [...]$_{NP}$ are nominalized sentences; they are formed with an adnominal marker *(n)un* and the Comp *kes*, and they are typically followed by a case marker. Hence, Korean IHRCs like (17) accord with the definition given in (13). Interestingly, (15) is ambiguous between an event nominalization reading (the predominant reading) and an IHRC reading, as the English translations suggest.[12] Furthermore, an important point to notice is that an IHRC like (17) superficially looks like any other nominalized sentence, for example, (14)–(15). These facts are consistent with a **necessary condition for IHRCs**[13] proposed by Culy, which roughly states that

[12]It is significant that we see this phenomenon in other languages with IHRCs. For example, the Quechua example (i) below taken from Culy (1990: 67 (6c), originally from Weber 1983: 89 (293)) is ambiguous between the complement reading (a) and the IHRC reading (b).

(i) Chawra maman-shi willapaq wamran-ta
then his:mother-REPORT she:tells:him her:son-DAT
[marka-chaw tiya-shan-ta]
town-LOC live-SUB-ACC
(a) 'Then his mother told her son that she had lived in a town.'
OR (b) 'Then his mother told her son about the town in which she had lived.'

[13]Culy (1990: 203) points out that a necessary condition for a language having IHRCs can be stated as in (i):

any language with IHRCs will also have similar nominalized sentences used in one or more independent constructions. Examples include indirect discourse complements (indirect questions, complements of saying, believing, etc.) and factive complements ('the fact that', etc.). Note that Culy classifies free relatives like (16) as null-headed IHRCs. Korean IHRCs, however, seem to differ significantly from free relatives in several respects, as detailed in Jhang (1992).[14] I assume that Korean IHRCs can be defined as nominalized sentences that modify an **overt** nominal internal to the sentence.

In sum, the relationship between IHRCs and nominalized sentences in Korean follows a necessary condition proposed by Culy. Furthermore, Culy (1990: 199) observes that languages with IHRCs usually demonstrate the following properties: (i) they show a large degree of nominalization, and in particular, have nominalized sentences in other constructions; (ii) they have basic SOV word order, and the noun phrases, at least, are left branching; (iii) they are "pro-drop" languages. Korean meets all of these conditions.

2.1.3 Semantic properties of IHRCs

Let us now turn to the semantic properties of IHRCs. If the relative clause contains more than one NP, there is more than one potential head, and the relative clause is thus ambiguous:

(i) Independency condition for IHRCs: A language will have IHRCs only if it also has other similar nominalized sentences with the independency properties.

Culy's "independency properties" include the following; (a) the reference of the arguments in an IHRC is independent of the other arguments in the main clause, and (b) the tense, aspect, and mood of an IHRC are independent of the tense, aspect, and mood of the main clause.

[14]See Ito (1986) for a discussion on this point for Japanese.

(18) John-i [[koyangi-ka cwi-lul ccoch-ko-iss-nun]$_{Srel}$ kes]$_{NP}$-ul
J-NOM cat-NOM mouse-ACC chase-prog-be-adn comp-ACC
cap-ass-ta
catch-pst-ind
'John caught the cat that was chasing the mouse.'
'John caught the mouse that the cat was chasing.'

As the translation suggests, (18) has two readings according to which NP in the S_{rel} is semantically regarded as the nominal that is understood as the head. In other words, either the subject (*koyangi* 'cat') or the object (*cwi* 'mouse') of the S_{rel} can be the object of the main verb. This property is characteristic of several languages with IHRCs, e.g. Diegueño (Gorbet 1976; Keenan 1985: 163), Japanese (Kuroda 1975-76: 93, 1976: 275-278), Lakhota (Williamson 1987: 172) and Navajo (Platero 1974).[15]

Of course, in a given context, the IHRC is disambiguated. Furthermore, when an adverbial expression like *mence* 'in advance' precedes the main verb as in (19), the subject-oriented interpretation is greatly preferred.[16]

(19) pro [Koyangi-ka cwi-lul ccoch-ko-iss-nun kes]-ul
cat-NOM mouse-ACC chase-prog-be-adn comp-ACC
mence cap-ass-ta
in advance catch-pst-ind
'(X) caught the mouse before the cat was chasing it.'

Thus, while IHRCs can be ambiguous in principle, in practice, they seldom are.

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[15]Although IHRCs with multiple readings have not been reported for all languages that have IHRCs, I nevertheless assume that this is a characteristic property of IHRCs.

[16]A similar result is also observed in the Japanese counterpart. See Ohori (1991) for a similar observation.

The occurrence of IHRCs with multiple readings in Korean is very limited with respect to main clause function and relative clause function. There is an asymmetry between IHRCs occurring in the object position in the main clause and those occuring in the subject or adjunct position in the main clause in that only the former IHRCs are ambiguously headed. This asymmetry will be discussed in section 2.2.3.

Nevertheless, multiple readings are possible in Korean IHRCs, and thus IHRCs contrast with EHRCs, which are never ambiguous.[17]

2.1.4 Chapter outline

Having introduced the basic syntactic, typological, and semantic properties of Korean IHRCs, I further examine their properties in the following sections. First, in section 2.2, I consider syntactic conditions on the internal head of Korean IHRCs. I give data showing that the distribution of Korean IHRCs is very limited. The conditions given here motivate an asymmetry in relative clauses involving multiple readings.

In section 2.3, I debate the status of the particle *kes* following IHRCs. I present evidence that *kes* is a complementizer rather than a proform. I also review two studies on the acquisition on the Korean relative clauses by children.

In section 2.4, I give a brief summary of this chapter.

2.2 Syntactic conditions on the function of the internal head

Compared to EHRCs, IHRCs show a very limited syntactic distribution in Korean. In this section, I will consider syntactic conditions on the function of the internal head, based mainly on unaccusativity tests proposed in the literature, and then show that

[17]Hirose and Ohori (1992) also mention that the identification of the target of relativization is one of differences between EHRCs and IHRCs, citing Kuroda (1975-76: 93, 1976: 278).

they can explain an asymmetry with respect to multiple readings between Object IHRCs, that is, IHRCs occurring in the object position of the main clause, and Subject/Adjunct IHRCs, that is, IHRCs occurring in the subject or adjunct position of the main clause.

2.2.1 Distributional restrictions on Korean IHRCs.

Let us first consider the distributional restrictions on Korean IHRCs. An IHRC usually occurs either as the subject or the direct object of a main clause, as shown in (20) and (21) respectively.[18]

(20) **Subject IHRCs**

[Totwuk-i	posek-ul	hwumchi-n	kes]-i	kacca-i-ta
thief-NOM	jewelry-ACC	steal-adn	comp-NOM	fake-be-ind

'The jewelry that the thief stole is fake.'
[NOM in main = overt ACC in S_{rel}]

(21) **Object IHRCs**

John-un [	ai-ka	wul-ko-iss-nun	kes]-ul	tallay-ss-ta

[18]In fact, IHRCs are much more restrictive than EHRCs with regard to semantics of higher verbs. EHRCs are possible with a full range of higher verbs. In contrast, IHRCs are sometimes impossible:

(i) *[Totwuk-i posek-ul hwumchi-n kes]-i phal-li-ta
thief-NOM jewelry-ACC steal-adn comp-NOM sell-pss-ind
'The jewelry that the thief stole was sold.'

Given the syntactic restrictions on IHRCs discussed here, (i) should be allowed. However, IHRCs seem to be possible only when there is a semantic link between the relative clause and the higher verb. This is in keeping with the special semantics properties of IHRCs. I do not discuss the semantics and pragmatics of IHRCs here.

J.-TOP baby-NOM cry-prog-be-adn comp-ACC soothe-pst-ind

'John soothed the baby that is crying.'
[ACC in main = overt NOM in S_{rel}]

IHRCs can sometimes occur in adjunct position, but here they seem to be strictly limited to instruments and *by*-agents, as seen in (22) and (23).

Adjunct IHRCs

(22) John-i [sonyen-i mwul-ul kkulhi-n kes]-ulo khephi-lul
J.-NOM boy-NOM water-ACC boil-adn comp-with coffee-ACC

mantul-ess-ta
make-pst-ind

'John made coffee with water which the boy boiled.'
[INST in main = overt ACC in S_{rel}]

(23) Changmwun-i [sonyen-i tol-ul tenci-n kes]-ey/eyuyhay
window-NOM boy-NOM stone-ACC throw-adn comp-DAT/by

kkay-ci-ess-ta
break-pss-pst-ind

'The window was broken by the stone that the boy threw.'
[BY-AGENT in main = overt ACC in S_{rel}]

In contrast, IHRCs apparently cannot occur in other adjunct positions such as source, goal, etc., as in (24) and (25).

(24) *Mwul-i [John-i chencang-ul kochi-n kes]-eyse
water-NOM J.-NOM ceiling-ACC repair-adn comp-from

tteleci-n-ta

leak-pre-ind

'Water is leaking from the ceiling that John repaired.'

(25) *John-i [uysa-ka Mary-lul manna-n kes]-ey/eykey
J.-NOM doctor-NOM M.-ACC meet-adn comp-to

chaca-ka-ss-ta
visit-go-pst-ind

'John went to the doctor who met Mary.'

Nor can Korean IHRCs occur in the indirect object position of the main clause.[19]

(26) *John-i [Mary-ka sonyen-ul ttayli-n kes]-eykey
J.-NOM M.-NOM boy-ACC hit-adn comp-DAT

chayk-ul cwu-ess-ta
book-ACC give-pst-ind

'John gave the book to the boy that Mary hit.'

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[19]Interestingly, there are no Korean IHRCs based on the goal in double accusative constructions either, as the ungrammaticality of the following example shows:

(i) *John-i [Mary-ka sonyen-ul ttayli-n kes]-ul chayk-ul
J.-NOM M.-NOM boy-ACC hit-adn comp-ACC book-ACC

cwu-ess-ta
give-pst-ind

'John gave [the boy who Mary hit] [a book].'

In contrast, an EHRC in the same position is acceptable to those speakers who accept double object constructions:

(ii) (?)John-i [Mary-ka __ ttayli-n] sonyen-ul chayk-ul cwu-ess-ta
J.-NOM M.-NOM hit-adn boy-ACC book-ACC give-pst-ind

'John gave [the boy who Mary hit] [a book].'

In sum, Korean IHRCs can occur as subjects or direct objects. Adjuncts fall into two types: those like instruments and *by*-phrases, which can be IHRCs, and those like goal and source, which cannot be IHRCs.

2.2.2 NP accessibility in Korean IHRCs

In this section, I examine NP accessibility in Korean IHRCs, focusing on the contrasts between unaccusative vs. unergative and active vs. passive clauses in the relative clause. I show that this fact provides an explanation of why only Object IHRCs have multiple readings.

2.2.2.1 Unaccusatives vs. unergatives

The Unaccusative Hypothesis (henceforth UH), initially proposed within Relational Grammar and subsequently adopted by other frameworks, claims that there are two types of intransitive clauses, i.e. unaccusative and unergative.[20] This intransitive split has been used to show a systematic dichotomy in natural languages, i.e. unaccusative subjects sometimes behave syntactically like direct objects while unergative subjects behave like transitive subjects.

Some evidence for positing a syntactic distinction between two classes of intransitives has been given for Korean, based on possessor ascension (Choi 1988, Chun 1986, B. Yang 1991, Youn 1989), locative inversion constructions (Gerdts and Youn

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[20]For an explication of the UH in Relational Grammar, see Perlmutter (1978). Under this hypothesis, unaccusative verbs are analyzed as having an initial 2 (direct object) but no 1 (subject), as opposed to unergative verbs, which have an initial 1 but no 2.

In the Government and Binding framework, the S-structure subject of an unaccusative verb is its D-structure direct object, as in (iia), while the S-structure subject of an unergative verb is its D-structure subject, as in (iib).

(ii) a. Unaccusative $[_S[_{NP}\ e]\ [_{VP}\ V\ NP]]$ b. Unergative $[_S\ NP\ [_{VP}\ V]]$

1989, B. Yang 1991, Youn 1989), quantifiers with numeral classifiers (Lee 1989, B. Yang 1991), agentivity (Y. Kim 1990), duration/frequency adverbs (Gerdts 1992, B. Yang 1991, based on I. Yang 1972 and Maling 1989), light verb alternations -*hata*/-*toyta* (Choi 1988, B. Yang 1991), and the resultative attribute (Ahn 1990). In Korean, Subject and Adjunct IHRCs (though not Object IHRCs) are sensitive to unaccusativity.

Let me first illustrate two of these unaccusativity tests—locative inversion and duration/frequency adverbs. Gerdts and Youn (1989) and Youn (1989) propose that only unaccusatives like *tteleci-ta* 'fall' in (27a), and not unergatives like *nao-ta* 'come out', allow locative inversion (their "OBL-2-1 advancement").

(27) a.

I	chencang-eyse/i	mwul-i	tteleci-n-ta
this	ceiling-LOC/NOM	water-Nom	fall-pre-ind

'Water drips from this ceiling.' (Youn 1989: 168)

b.

I	pang-eyse/-*i	totwuk-i	nao-ss-ta
this	room-LOC/NOM	thief-NOM	come out-pst-ind

'The thief came out of this room.'

Under their analysis, case alternation on a locative, as in (27a) is symptomatic of locative inversion.

Second, B. Yang (1991) proposes that if a duration/frequency adverb can bear nominative case in an intransitive clause, the clause is initially unaccusative. In (28a) the frequency adverb, if it takes case at all, can be marked nominative, but in (28b) it cannot.

(28) duration/frequency adverb case-marking

a.

I	chencang-eyse	mwul-i	cokumssik
this	ceiling-LOC	water-NOM	little by little

seypen-(i) tteleci-ess-ta
three times-(NOM) fall-pst-ind

'Water dripped little by little three times from this ceiling.'

b. I kwumeng-eyse kathun paym-i twupen-(*i)
this hole-from same snake-NOM two times-(NOM)
nao-ss-ta
come out-pst-ind

'The same kind of snake came out of this hole two times.'

Thus the two tests suggest that *tteleci-ta* 'fall' is an unaccusative verb while *nao-ta* 'come out' is not.

Let us now examine how the notion of split intransitivity can be applied to Korean IHRCs. When intransitive clauses are embedded in Subject IHRCs, they differ in acceptability, as shown in (29a-b).

(29) a. [Kam-i kamnamwu-eyse tteleci-n
persimmon-NOM persimmon tree-from fall down-adn
kes]-i ssek-ess-ta
comp-NOM rot-pst-ind

'The persimmon which fell down from a persimmon tree rotted.'

b. *[Totwuk-i pang-eyse nao-n kes]-i kyeytan-eyse
thief-NOM room-from come out-adn comp-NOM stair-from
nemeci-ess-ta
fall-pst-ind

'The thief who came out of the room fell down from stairs.'

That is, in the case of Subject IHRCs, unaccusative subjects (29a) can be relativized while unergative subjects (29b) cannot be.

Consider the following examples:

(30) a. Na-nun [kam-i kamnamwu-eyse
I-TOP persimmon-NOM persimmon tree-from

tteleci-n kes]-ulo swul-ul tam-ass-ta
fall down-adn comp-INST liquor-ACC brew-pst-ind

'I brewed liquors with persimmons which fell down from a persimmon tree.'

b. *Ku mwun-i [totwuk-i pang-eyse nao-n
the door-NOM thief-NOM room-from come out-adn

kes]-eyuyhay tat-hi-ess-ta
comp-by close-pss-pst-ind

'The door was closed by the thief who came out of the room.'

Examples (30a) and (30b) contain Adjunct IHRCs that occur as an instrument and a *by*-agent of the main clause, respectively. The contrast between the pair of examples above in (30) is consistent with that of Subject IHRCs in (29).

Moreover, subjects of a transitive relative clause cannot be relativized either in Subject IHRCs (31) or in Adjunct IHRCs (32).[21]

(31) *[Sonyen-i kong-ul cha-n kes]-i meli-ka-ss-ta
boy-NOM ball-ACC kick-adn comp-NOM far-go-pst-ind

'The boy who kicked the ball went far away.'

[21]In these examples, the underlining of the subject means that it is the intended head. These examples are grammatical if the object is the intended head, as discussed below.

(32) *Changmwun-i [sonyen-i kong-ul cha-n kes]-eykey/eyuyhay
window-NOM boy-NOM ball-ACC kick-adn comp-by

kkay-ci-ess-ta[22]
break-pss-pst-ind

'The window was broken by the boy who kicked the ball.'

In sum, Subject IHRCs and Adjunct IHRCs (instruments and *by*-agents only) are sensitive to the status of a subject. We have seen that unaccusative subjects—but not unergative subjects or transtive subjects—can be relativized.

In the case of Object IHRCs, on the other hand, there is no such restriction in relative clauses since any kind of subject can be relativized, as in (33).

(33) a. John-i [kam-i kamnamwu-eyse
J.-NOM persimmon-NOM persimmon tree-from

tteleci-n kes]-ul palp-ass-ta
fall down-adn comp-ACC tread-pst-ind

'John stepped on the persimmon that fell down from a persimmon tree.'

b. Kyengchalkwan-i [totwuk-i pang-eyse nao-n
policeman-NOM thief-NOM room-from come out-adn

kes]-ul cap-ass-ta
comp-ACC catch-pst-ind

'The policeman caught the thief who came out of the room.'

[22]It was pointed out to me by William O'Grady that (32) is acceptable to some Korean speakers if *kes*-clause marked with *-eyuyhay(se)* presents an event reading 'by the boy's kicking the ball'.

c. John-i [totwuk-i cap-hi-n kes]-ul
J.-NOM thief-NOM catch-pss-adn comp-ACC
phwulecwu-ess-ta
release-pst-ind
'John released the thief who was caught.'

d. John-i [sonyen-i kong-ul cha-n kes]-ul
J.-NOM boy-NOM ball-ACC kick-adn comp-ACC
cap-ass-ta
catch-pst-ind
'John caught the boy who kicked the ball.'

As seen in (33a-d), the subject of an unaccusative, an unergative, a passive, and a transitive predicate, respectively, can be relativized. Thus, the subject of any type of verb can be accessible to the head in the Object IHRCs. Notably, (33d) is an IHRC with multiple readings, since either *sonyen* 'boy' or *kong* 'ball' can be the head.

2.2.2.2 Actives vs. passives

Turning to active and passive clauses in relative clauses, we see that both the direct object in the active clause and its counterpart in the passive clause can be the head in all types of Korean IHRCs, as seen in (34)–(36):

(34) Subject IHRCs

a. [Sonyen-i kong-ul cha-n kes]-i
boy-NOM ball-ACC kick-adn comp-NOM
changmwun-ul kkay-ss-ta
window-ACC break-pst-ind

'The ball that the boy kicked broke the window.'
(Not) 'The boy who kicked the ball broke the window.'

b. [Kong-i sonyen-eyuyhay cha-ci-n kes]-i
ball-NOM boy-by kick-pss-adn comp-NOM
changmwun-ul kkay-ss-ta
window-ACC break-pst-ind
'The ball that was kicked by the boy broke the window.'

(35) Adjunct IHRCs[23]

a. Changmwun-i [sonyen-i kong-ul cha-n kes]-ey/eyuyhay
window-NOM boy-NOM ball-ACC kick-adn comp-by
kkay-ci-ess-ta
break-pss-pst-ind
'The window was broken by the ball that the boy kicked.'
(Not) 'The window was broken by the boy who kicked the ball.'

b. Changmwun-i [kong-i sonyen-eyuyhay cha-ci-n
window-NOM ball-NOM boy-by kick-pss-adn
kes]-ey/eyuyhay kkay-ci-ess-ta
comp-by break-pss-pst-ind
'The window was broken by the ball that was kicked by the boy.'

(36) Object IHRCs

a. John-i [koyangi-ka cwi-ul ccoch-ko-iss-nun
J.-NOM cat-NOM mouse-ACC chase-prog-be-adn

[23]Note that examples (35a) and (35b) are still bad if the *kes*-clause are marked with dative case (*-eykey*).

kes]-ul cap-ass-ta
comp-ACC catch-pst-ind

'John caught the mouse that the cat was chasing.'
'John caught the cat that was chasing the mouse.'

b. John-i [cwi-ka koyangi-eykey ccoch-ki-ko-iss-nun
J.-NOM mouse-NOM cat-by chase-pss-prog-be-adn

kes]-ul cap-ass-ta
comp-ACC catch-pst-ind

'John caught the mouse that was being chased by the cat.'

From these data, we can observe that the heads in Subject/Adjunct IHRCs have a common property: subjects of unaccusatives or passives—but not subjects of unergatives or transitives—and direct objects can head IHRCs. That is, only what are referred to as "initial objects" in Relational Grammar can be heads in Subject/Adjunct IHRCs. Note that Object IHRCs are freer in this respect: either subjects or objects are eligible heads in this kind of IHRC.

2.2.3 Multiple readings

I turn now to the asymmetry between Object IHRCs and Subject/Adjunct IHRCs with regard to multiple readings. Subject/Adjunct IHRCs are not ambiguous, even if the S_{rel} contains more than one NP:

(37) a. [Sonyen-i kong-ul cha-n kes]-i changmwun-ul
boy-NOM ball-ACC kick-adn comp-NOM window-ACC

kkay-ss-ta
break-pst-ind

'The ball that the boy kicked broke the window.'

(Not) 'The boy who kicked the ball broke the window.'

b. Changmwun-i [sonyen-i kong-ul cha-n kes]-ey/eyuyhay
window-NOM boy-NOM ball-ACC kick-adn comp-by
kkay-ci-ess-ta
break-pss-pst-ind
'The window was broken by the ball that the boy kicked.'
(Not) 'The window was broken by the boy who kicked the ball.'

(37a) presents a Subject IHRC, and (37b) an Adjunct IHRC. In each, only the first gloss, where the object is relativized, and not the second gloss, where the subject is relativized, is possible.

Moreover, there are cases which show a sharp difference between Object IHRCs and Subject IHRCs with regard to multiple readings. The passivization derived from the main clause of an Object IHRC in (36a), where an ambiguous reading is allowed, manifests this point in that its passive counterpart has only one reading, as the English translations in (38) show:[24]

(38) [Koyangi-ka cwi-ul ccoch-ko-iss-nun kes]-i
cat-NOM mouse-ACC chase-prog-be-adn comp-NOM
John-eykey cap-hi-ess-ta
J.-DAT catch-pss-pst-ind
'The mouse that the cat was chasing was caught by John.'
(Not) 'The cat that was chasing the mouse was caught by John.'

[24]Korean speakers consulted by William O'Grady give different judgements on (38); only an event reading is possible. In other words, (38) can be interpreted as 'The fact that the cat was chasing the mouse was caught by John'.

Unlike an Object IHRC such as (36a) above, a Subject IHRC in a main clause passive like (38) permits the object *cwi* 'mouse', but not the subject *koyangi* 'cat' to be to the head. That is, example (38) should be interpreted not as 'The cat that was chasing the mouse was caught by John' but rather as 'The mouse that the cat was chasing was caught by John'.

Why are IHRCs with multiple readings allowed in Object IHRCs like (36a) but not in Subject/Adjunct IHRCs like (37) and (38)? The syntactic condition discussed here provides an answer. The lack of multiple potential heads in Subject/ Adjunct IHRCs is due to the fact that only "initial objects" are eligible to be the head. Unlike Subject/Adjunct IHRCs, on the other hand, Object IHRCs allow either subjects or objects to be accessible to be the head. For this reason, only Object IHRCs can have multiple readings.

2.2.4 Summary

I summarize NP accessibility in Korean IHRCs according to the syntactic position of the head and the syntactic position of the IHRC in the main clause in Table 1.[25]

Table 1: NP accessibility in Korean IHRCs

Main Clause Function	**Relative Clause Function**
Subject IHRCs or Adjunct IHRCs	Subject (unaccusatives and passives only) or Direct Object
DO IHRCs	Subject or Direct Object

[25]See also Jhang (1991).

Table 1 shows which NP within the S_{rel} may be understood as the head based on the relevant grammatical functions in the main and relative clause. The distribution in Table 1 accounts for the asymmetry between Object IHRCs and Subject/Adjunct IHRCs with regard to multiple readings. Only Object IHRCs can be multiply headed since they allow both the subject and the object in a transitive clause to be the head. Thus, this asymmetry is motivated by the conditions given above.

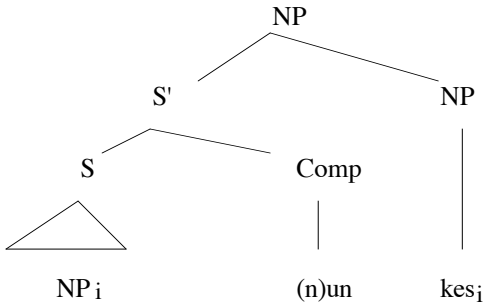
2.3 The status of *kes*.

Before concluding this chapter, the issue of the status of *kes* must be addressed. There has been much controversy in the literature about the status of the particle *kes*. Traditionally, it has been called a "bound" or "formal" noun. In current parlance, it could be viewed as either a proform or a Comp.[26] This subsection argues for the latter position.

The status of the particle *kes* following IHRCs is crucial in determining the structure of this kind of relative clause. If *kes* is a proform, the S-structure of IHRCs would be as follows:

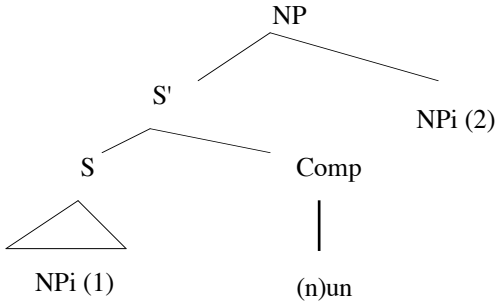
[26]The pronominal analysis is adopted by I. Lee (1980), B. Yang (1993), D. Yang (1975), and others. On the other hand, the Comp analysis is adopted by K. Lee (1991), S. Lee (1983), Lee et al. (1990), I. Yang (1972), H. Yoon (1991), and others.

(39)



According to (11a), the structure of IHRCs like (39) would be the same as that of EHRCs. Thus, B. Yang (1993) proposes that Korean EHRCs and IHRCs have the same clause structure, as in (40).

(40)



He claims that in the case of EHRCs the external NP (NP2) is realized as a lexical NP and the internal NP (NP1) is realized as a gap or a resumptive pronoun. On the other hand, in the case of IHRCs, the external NP (NP2) is realized as the proform *kes* and the internal head (NP1) is *in situ* in the embedded clause.

2.3.1 Arguments for a Comp analysis

This section contrasts the Comp analysis and the proform analysis with respect to three issues.

First, if *kes* is a proform, we expect other proforms of the same type to appear in the same position. However, syntactic head nouns like *salam* or *nom* referring to human beings cannot be substituted for *kes*, as seen in (41).[27]

(41) John-un [[sonyen-i pang-eyse nao-n]
J.-TOP boy-NOM room-from come out-adn
kes/*salam/*nom]-ul cap-ass-ta
comp/person/one-ACC catch-pst-ind
'John caught the boy who came out of the room.'

Moreover, head nouns like *kos* 'place' or *ttay* 'time' cannot be replaced by the morpheme *kes* either, as in (42)–(43).[28]

(42) I tapang-i [wuli-ka __ cheumulo manna-n]
this coffee shop-NOM we-NOM for the first time meet-adn
kos/*kes-i-ta
place/comp-be-ind
'This coffee shop is the place where we met for the first time.'

[27]The judgments on the grammaticality of this sentence may vary across dialects. B. Yang (1993), a speaker of the Chunla dialect of southwestern Korea, claims that such data are grammatical, and thus they support the proform analysis. However, I have consulted speakers of several other dialects and have found no one who accepts such data.

[28]Pseudo-clefts, on the other hand, as I discuss in Chapter 3, sometimes allow either *kes* or a "light" lexical noun like *salam*. In Korean clefts, I treat "light" lexical nouns like *salam* as if they were relative pronouns, as in English.

(43) 1939 nyen-i [i yenghwa-ka __ mantul-e ci-n]
year-NOM this movie-NOM make-pss-adn
ttay/*kes-i-ta
time/comp-be-ind
'1939 is when this movie was made.'

(41) is an IHRC. (42) and (43) are inverted pseudo-clefts (see chapter 3). B. Yang (1993) has claimed that *kes* is a proform, replacing other proforms like *nom* or *kos*. However, the latter have different distributions: proforms like *nom* and *kos* cannot be replaced with *kes* either in IHRCs like (41) or in inverted pseudo-clefts like (42) and (43). Therefore, Yang's proposal that *kes* is a proform is untenable.

Second, taking *kes* to be a proform creates a problem for binding Condition C. According to S. Lee (1984), Korean relative clauses allow overt resumptive pronouns in certain cases, as in (44).

(44) [Nay-ka caki/ku-uy meyngchal-ul tteyepeli-n] haksayng
I-NOM self/he-GEN name card-ACC take off-adn student
'the student whose name card I took off' (S. Lee 1984)

If the resumptive pronoun is replaced with an r-expression, the result is unacceptable, as in (45).

(45) *[Nay-ka haksayng$_i$-uy meyngchal-ul tteyepeli-n] caki/ku$_i$
I-NOM student-GEN name card-ACC take off-adn self/he
'*he$_i$, who I took off the student$_i$'s name card' (S. Lee 1984)

It is obvious that the unacceptability of (45) can be explained by virtue of a Condition C violation: an r-expression (*haksayng* 'student') is c-commanded and coindexed with the head noun (overt resumptive pronoun (*caki/ku*)).[29] Using the same logic, the pronominal analysis is also expected to result in a Condition C violation since the external head (a proform *kes*) of the relative clause binds the internal head (an r-expression).[30] However, this prediction is wrong since the data in (41) above are grammatical. In contrast, if we analyse *kes* as a Comp, Condition C is not relevant.

Third, the morpheme *kes* may occur in EHRCs as well as IHRCs. The morpheme *kes* can sometimes co-occur with a lexical head in colloquial speech, as in (46).[31]

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[29]For this reason, Lee et al. (1990: 319) suggest that, across languages, relative clauses never have both an external and an internal head. But this claim appears to be false. This fact was pointed out to me by Christopher Culy (personal communication). Culy (1990: 264), citing from Gorbet (1976: 63), presents such an example from Diegueño (Imperial Valley dialect):

(i) [[i:pac a:k(+ø) wi:+m tuc]+pu a:k]+pu(+ø)
man bone(+OBJ) rock+COMIT hit+DEM bone+DEM+OBJ
si:nʸ+c wyaw
woman+SUBJ found
'The woman found the bone that the man hit with the rock.'

An example like (i) is an instance of an EHRC. Unlike EHRCs that allow a gap or (overt/covert) resumptive pronoun in the relative clause, however, the internal NP is realized as the same lexical NP (e.g. *a:k* 'bone' in (i)) as the (external) syntactic head noun. Gorbet (1976) gives an analysis of this kind of construction, but I do not try to evaluate his analysis since Korean has no such examples. What I want to note is the fact that Diegueño has a relative construction where both the (external) syntactic head and the lower occurrence of the same NP are lexically present. As a result of this, Lee et al. (1990)'s claim cannot be maintained. A new theory will be needed to explain the grammaticality of (i) typologically. I leave this open for a future study.

[30]This argument rests on the status of Condition C, a subject of current debate.

[31]Note that *kes* is usually pronounced *ke*, and case markers can frequently be omitted in colloquial speech.

(46) pro_i [pro_i Ecey __ ilk-un]-ke sinmwun edi
yesterday read-adn-comp newspaper where
twu-ess-e?
put-pst-Q
'Where did (you) put the newspaper (you) read yesterday?'
(K. Lee 1991: 50)

Such data pose a paradox for the proform analysis. As K. Lee (1991) points out, *kes* cannot be the head noun since *sinmwun* 'newspaper' already fills this position. Under the Comp analysis, however, it could be posited that EHRCs generally involve an S' containing a null Comp modifying an NP head. Thus, data like (46) present no problem for the Comp analysis.

2.3.2 The grammaticalization of *kes*

What the above discussion shows is that the Comp analysis of *kes* is to be preferred over the pronominal analysis. The Comp analysis is further motivated conceptually by cross-linguistic research on the grammaticalization[32] of complementizers. As Ransom (1988) and Heine et al. (1991) point out, full lexical content words (nouns or verbs) and lexical function words (pronouns or determiners) in many languages can be

[32]To clarify the term "grammaticalization", I cite the following paragraph from Heine et al (1991: 3). They state (italics are mine)

> [I]n a number of works, the term refers only to the initial phase of the process, that is, to *the development from lexical to grammatical structure*. Thus, for Samuels (1971: 58), gramaticalization "consists of intake from lexis"; it takes place when a word becomes "*sufficiently empty of lexical meaning*." According to Sankoff (1988: 17), it is present when "the once content-words or open-class morphemes of the language have become function words, or closed class morphemes."

viewed as representing a certain stage of complementizer development. (47) below, based on Ransom (1988: 365), shows the stages of complementizer development.

(47) stages of complementizer development

Stage A		Stage B		Stage C
Full Lexical Meaning and Form	----->	Partially Reduced Lexical Meaning and Form	----->	Reduced Lexical Meaning and Form

Full lexical content words lie in Stage A, lexical function words in Stage B, and more abstract functions in Stage C. Conceptual manipulation leads from lexical or less grammatical meanings to more grammatical ones. This process is unidirectional.

Ransom (1988) claims that the Korean morpheme *kes* is one such example.[33]

(48) Ku kes-un chayk-i-ta
that thing-TOP book-be-ind
'That (thing) is a book.'

(49) Na-nun [ku-ka o-nun kes]-ul a-n-ta
I-TOP he-NOM come-adn comp-ACC know-pre-ind
'I know (the fact) that he is coming.'

(50) Na-nun ku_i-eykey [pro_i ka-l kes]-ul myenglyengha-ess-ta
I-TOP he-DAT go-adn comp-ACC order-pst-ind
'I ordered him to go.'

[33]Brackets are mine.

In (48), *kes* denotes a concrete noun ('thing') or a pronoun, as the English translation shows (Stage A). On the other hand, in (49), it is ambiguous: it may be interpreted either as an abstract noun ('fact') taking an appositive clause (Stage B) or as a complementizer marking an object clause (Stage C). However, in (50), the nominal interpretation is excluded, and *kes* functions only as a marker for signaling a subordinate clause, that is, as a complementizer (Stage C).

The idea that the particle *kes* is a noun grammaticalized into a complementizer can be extended to the discussion of head-*in-situ* constructions. The particle *kes* used in our constructions has no lexical meaning. Observe the following data:

(51) A: Khemphyuthe-ka kocangna-ss-ni?
computer-NOM out of order-pst-Q
'Was your computer out of order?'

B: Ung. Kulena, Chelswu-ka *(ku) kes-ul kochi-ess-e
yes but C.-NOM that comp-ACC repair-pst-ind
'Yes, it was. But Chelsu repaired it.'

A conversational exchange like (51) is typical in colloquial speech. As we see in speaker B's response to the question of speaker A, the pronoun *kes* cannot be used alone without a prenominal element, such as a demonstrative (for example, *ku* 'that', *ce* 'that', or *i* 'this'). On the other hand, in (52), which is an example of an IHRC, a demonstrative cannot be used before *kes*.

(52) Na-nun [khemphyuthe-ka kocangna-n (*i/*ku) kes]-ul
I-TOP computer-NOM out of order-adn this/that comp-ACC

ecey kochi-ess-ta
yesterday repair-pst-ind

'Yesterday, I repaired the computer that was out of order.'

This result is also observed in examples corresponding to (50), where *kes* is a complementizer:

(53) Na-nun ku_i-eykey [pro_i ka-l (*i/*ku) kes]-ul
I-TOP he-DAT go-adn this/that comp-ACC
myenglyengha-ess-ta
order-pst-ind

'I ordered him to go.'

These facts suggest that we can recognize that the current usage of *kes* as a concrete noun (as in (48) above) or as a pronoun (as in (51)) indicates movement toward reduced lexical meaning and form as the grammaticalization scale predicts.[34] The *kes* that appears in IHRCs corresponds to a complementizer (see (53)) and not to a pronoun (see (51)).

[34]The theory of grammaticalization may be a way to account for the variety of grammatical judgments given to IHRCs. Some speakers may regard *kes* as a concrete noun 'thing', as a pronoun with only a [-human] or [+human/-honorific] NP as its antecedent, or as a morpheme representing an abstract 'fact'. In this case, the degree of acceptability of IHRCs will be very low. However, there are many speakers who accept IHRCs without hesitation. For these speakers, *kes* can be regarded as a complementizer. In this fashion, grammaticalization may nicely explain the relative degree of acceptability of IHCRs. This explanation can be extended to other headed nominalizations such as cleft constructions (Chapter 3) and comparative constructions (Chapter 4).

2.3.3 Child language acquisition of relative clauses in Korean.

Research on the acquisition of nominalized structures such as relative clauses provide further motivation for the claim that *kes* serves as a complementizer in relative clauses.

K. Lee (1991) argues that children acquire relative clauses according to an order determined by the type of the head. The order of RC acquisition is (i) free relatives (including IHRCs) headed by *kes*, as the first stage (called FRC), (ii) the intermediate *kes* plus lexical head pattern (KLHRC), and (iii) lexically headed RCs without *kes* (LHRC) as the final stage. Lee's term LHRC is equivalent to the EHRC used in this thesis.

IHRCs are quite uncommon in adult speech in Korean. They are nevertheless robustly exemplified in children's speech. This section reviews the argument brought forth in two acquisition studies (Lee et al. 1990 and K. Lee 1991).

K. Lee (1991) proposes that free relatives appear to be acquired earlier than other relative clauses by children acquiring Korean. The results of English and Chinese first language acquisition would predict this result. That is, free relatives are acquired before EHRCs. Unlike English and Chinese, however, Korean children produce IHRCs alongside free relatives in the first stage of relative clause acquisition, although the former are much less common than the latter.[35]

Some examples of IHRCs produced by children and adults are given below; (54a–b) are from children, and (54c–d) are from adults.

(54)	a.	[Piano	ttang-ttang	ha-nun-ke]	sa-cwu-e ya-keyss-ta[36]
		Piano	ding-dong	do-adn-comp	buy-give-lin--fut-ind

[35]Lee (1991: 164, 183) reports that children produced IHRCs as about 10% of their total free relative construction output.

[36]Recall that *kes* is usually pronounced *ke*, and case markers can frequently be omitted in colloquial speech.

'(I) have to buy (for her) the one that (you) do ding-dong piano.'
(K. Lee 1990: 165, #205-11; head noun: piano)

b. Emma [pap mek-ul-ke] cwu-e
Mommy rice eat-adn-comp give-imp

'Mommy, give (me) the one that (I) eat rice.'
(K. Lee 1990: 165, #305-9; head noun: rice)

c. [Chayk pilye-ka-n-ke] nayil
book borrow-go-adn-comp tomorrow

kac-ko-o-kess-um-nita
bring-comp-come-fut-hon-ind

'Tomorrow, (I) will bring back the book that I borrowed.'
(K. Lee 1990: 33)

d. [Ecey os san ke] com po-ca
yesterday clothes buy comp little see-imp

'Let's see the clothes that (you) bought yesterday.' (Lee 1990: 33)

The examples in (54) present a very common pattern of IHRCs used in colloquial Korean.

The following are some examples of sentential complement constructions produced by children (cf. K. Lee 1991: 140):

(55) a. Ung, naynnay ha-l-kke-ta
yes, sleep do-adn-comp-(be)-ind

'Yes, it is (the case) that I will sleep.'

b. Appa-nun ka-nun kes al-ayo

Daddy-TOP go-adn comp know-ind

'For daddy, (he) knows (the fact) that (he) goes.'

According to Lee's data, 84.2% of the attested sentential complements involve *kes* as a complementizer. This result indicates that sentential nominalizations like (55a–b) are highly productive for young children from a very early stage of language acquisition.

2.3.4 Summary

The structure of IHRCs is superficially similar to the structure of nominalized clauses. In these constructions, there is no doubt that *kes* functions as a complementizer, marking a sentential complement that serves as either a subject or an object of a main predicate. In this respect its function resembles that of a nominalizer in other languages. It can be claimed that the *kes* in IHRCs also has this function. This follows from the universal analysis of IHRCs posited in Culy (1990), as discussed in section 2.2.1 above. Culy notes that that all languages with IHRCs necessarily have nominalizations and that furthermore, IHRCs always take the form of nominalizations.

2.4 Conclusion

In this chapter, I have discussed relative clauses and have claimed that they are a type of headed nominalization. I have discussed EHRCs and IHRCs, focusing on the latter, since the former have been previously treated in the literature. I have shown that Korean IHRCs conform to the cross-linguistic definition of IHRCs proposed by Culy (1990).

Second, I explored the restrictions on Korean IHRCs with respect to the main clause and relative clause function of the internal head. I claimed that the function of the internal head is subject to a condition on the level of structure: only "initial objects" can

be heads in subject and adjunct IHRCs. This point is established by comparing unaccusative with unergative clauses and active with passive clauses. I have also claimed that object IHRCs involving multiple readings are predicted from the general conditions on IHRC heads.

Finally, I turned my attention to the status of the particle *kes*. Not only does *kes* appear in IHRCs, but it also appears in nominalized clauses. This suggests that *kes* is a complementizer, not a proform. Ransom (1988) has suggested that the complementizer *kes* arose through a process of grammaticalization from a lexical noun. I extended this analysis, suggesting that the *kes* that appears in headed nominalizations is an intermediate stage of this process. Data from language acquisition also provide motivation for this view of *kes*. The stages of acquisition of Korean relatives correspond to the stages of grammaticalization of *kes*.

Chapter 3
Cleft Constructions

3.1 Introduction

The syntax, semantics, and pragmatics of cleft sentences in Korean have not been systematically studied.[1] This chapter tries to partially fill this gap by describing some important syntactic and semantic aspects of Korean cleft sentences.

I propose that there are three types of cleft sentences in Korean and that these are analogous to the three types of English clefts, as given in (1)–(3):

(1) Pseudo-cleft

[Nay-ka	ecey	__	ilk-un	kes]-un	**i**	**chayk**-i-ta
I-NOM	yesterday		read-adn	comp-TOP	this	book-be-ind

'What I read yesterday is this book.'

(2) Inverted pseudo-cleft

I	**chayk-i**	[nay-ka	ecey	__	ilk-un	kes]-i-ta
this	book-NOM	I-NOM	yesterday		read-adn	comp-be-ind

[1]Korean clefts have been used as a diagnostic for the constituency of various types of complements (cf. N. Kim 1978: 140-141), and in the discussion of the scope of delimiters (cf. Kuno & Kim-Renaud 1987: 257).

K. Im (1986) discusses the syntactic characteristics and the pragmatics of Korean pseudo-clefts using examples from texts. He regards Korean pseudo-clefts as the equivalent English *it*-clefts. He does not treat case in clefts. Thus, he does not make a distinction among the three types of clefts justified below.

There is also some work on Korean clefts within the framework of government binding theory. I. Lee (1992) offers a syntactic analysis of Korean *kes*-clefts, based on the earlier version of this chapter (Jhang 1992). R. Lee (1993) analyzes the predicate cleft construction, which has been called "VP-focus construction", as a case of XP movement.

'This book is what I read yesterday.'

(3) *Kes*-cleft

pro	[**I**	**chayk-ul**	nay-ka	ecey	__	ilk-un	kes]-i-ta
	this	book-ACC	I-NOM	yesterday		read-adn	comp-be-ind

'It is this book that I read yesterday.'

Clefted constituents are indicated in bold face, clefted clauses by brackets, and the clefted constituent's gap by underlining in the above examples.

The Korean pseudo-cleft construction in (1) is similar to an English *wh*-cleft (or pseudo-cleft) sentence. Paralleling the English *wh*-cleft, the Korean pseudo-cleft is a sentence whose subject NP is a free relative and whose main verb is *-i-* 'be'. The Korean inverted pseudo-cleft in (2) parallels the English inverted *wh*-cleft. The *kes*-cleft in (3), which superficially looks like the Korean inverted pseudo-cleft, functions like an English *it*-cleft, though, of course, there is no overt pronoun corresponding to *it* in Korean.

The three types of Korean clefts are very similiar. The examples in (1)–(3) are all headed nominalizations containing the complementizer *kes*. Pseudo-clefts and inverted-clefts, I claim, are externally headed, while *kes*-clefts are internally headed. However, as I argue below, the three clefts differ in several important respects. Here I will briefly note some superficial differences among them.

First, as shown in (4)–(6), a lexical form *salam* can be used instead of *kes*, but this option is not available in all types of clefts.[2]

(4) [Nay-ka ecey __ manna-n salam]-un **John**-i-ess-ta

[2]The difference between inverted pseudo-clefts and *kes*-clefts is very subtle and will be justified below.

I-NOM yesterday meet-adn person-TOP J.-be-pst-ind

'The one that I met yesterday was John.'

(5) **John-i** [nay-ka ecey __ manna-n salam]-i-ess-ta
J.-NOM I-NOM yesterday meet-adn person-be-pst-ind

'John was the one that I met yesterday.'

(6) pro [**John-ul** nay-ka ecey __ manna-n kes/*salam]-i-ess-ta
J.-ACC I-NOM yesterday meet-adn comp/person-be-pst-ind

'It was John that I met yesterday.'

In pseudo-clefts and inverted pseudo-clefts with [+human] clefted constituents, as in (4) and (5), the clefted clause can take a "light" lexical noun like *salam* 'person', *cangso* 'place', *sikak* 'time', *pwun* 'honorable person', *kes* 'thing', *kos* 'place', *ttay* 'time' etc.[3] However, in *kes*-clefts (6), the clefted clause cannot take the lexical noun *salam*.[4] Only

[3]In the Korean traditional grammar, the nouns such as *pwun* 'honorable person', *kes* 'thing', *kos* 'place', *ttay* 'time', etc. have been treated as bound nouns since they cannot be used alone, unlike other lexical nouns such as *salam* 'person', *cangso* 'place', *sikak* 'time'. However, since they all serve as relative pronouns, they are treated alike for the purposes of the discussion here. A more careful treatment of *kes* 'thing' is needed. *Kes* can be used as either an independent noun 'thing'/ abstract noun 'the fact' or a complementizer (cf. 2.5.2).

[4]The status of an element that fills in the Comp position of the clefted clause poses an interesting dilemma. There are two possible hypotheses. One is that Korean pseudo-clefts can be formed with either semantically "light" lexical nouns like *salam* 'person' or a complementizer *kes*.

The other is that an empty NP head is present in the clefted clause, except where there is a full lexical noun taking the neutral interpretation as in (4)–(5). The clefted clause in (1)–(2) would then be a free relative with an empty head NP containing Φ-features like [–honorific], while that of a *kes*-cleft like (3) or (6) would be headed by a null category lacking Φ-features. I take the former position in this chapter. See Ito (1986) for discussion of the latter position for a similar structure in Japanese.

kes is allowed in *kes*-clefts, hence their name.

Second, as shown in (4')–(5'), not all case marking options are available in each type of cleft when *salam* is used instead of *kes*.

(4') [Nay-ka ecey __ manna-n salam]-un
I-NOM yesterday meet-adn person-TOP

John*-i/*-ul-i-ess-ta[5]
J.-NOM/ACC-be-pst-ind

'The one that I met yesterday was John.'

(5') **John-i/*-ul** [nay-ka ecey __ manna-n salam]-i-ess-ta
J.-NOM/ACC I-NOM yesterday meet-adn person-be-pst-ind

'John was the one that I met yesterday.'

In pseudo-clefts (4'), the clefted constituent cannot take nominative case or accusative case. In inverted pseudo-clefts (5'), it can take nominative case but not accusative case.[6] Thus, the case facts suggest that inverted pseudo-clefts cannot be regarded as a simple interchanged version derived from a pseudo-cleft construction. Rather a unique structure should be posited for inverted pseudo-clefts. For the sake of convenience, however, I

[5]The notation X/*Y means that the example is grammatical if X is present but it is ungrammatical if Y is present.*X/Y means that the example is ungrammatical if X is present but it is grammatical if Y is present. *X/*Y means that the presence of either element yields an ungrammatical result.

[6]In fact, the topic marker (*n*)*un* may occur on the clefted constituent in inverted pseudo-clefts and *kes*-clefts. However, since topic marking 'replaces' the nominative and accusative cases, the clefted constitutent could either be the subject in an inverted pseudo-cleft (which whould otherwise be nominative) or the scrambled object in a *kes* cleft (otherwise marked accusative). Without further evidence, I cannot definitely posit a structure for clefts with topic marking. Hence, I omit data with topic marking in the disscussion of both inverted pseudo-clefts and *kes*-clefts.

continue to refer to structures like (2) as inverted pseudo-clefts, since they superficially appear to be the focus initial equivalents of pseudo-clefts.

These two features—case and the complementizer/"light" lexical noun distinction—will be discussed further below. By discussing a wide range of data with respect to these features, I will give a systematic classification of clefts.

We can introduce a further terminological distinction between clefts like (1) and (2) and those like (3). Note that a clefted constituent (i.e. focussed element) is present in the main clause of pseudo-clefts (1) and (4) and inverted pseudo-clefts (2) and (5), while it occurs in a position internal to the subordinate clause of *kes*-clefts (3) and (6). In this respect, pseudo-clefts and inverted pseudo-clefts can be called external focus constructions (henceforth EFCs), and *kes*-clefts can be called internal focus constructions (henceforth IFCs). In what follows, the phrase 'two types of cleft constructions' refers to EFCs and IFCs, unless otherwise specified.

Pseudo-clefts can be given the structrue as follows.

(7) Pseudo-cleft

$[_{IP}\ [_{NP}\ [_{CP}\ \ldots\ e_i\ \ldots\ ]]\quad XP_i\text{-BE}]$

As shown in all the preceding examples of pseudo-cleft sentences, the syntactic position of a clefted constituent (XP) occurs as a predicate phrase of a main verb, since it is the complement of the copula. This conclusion is further supported by the fact that structural cases like nominative and accusative cannot appear in this position.

The structure of inverted pseudo-clefts is represented in (8).

(8) Inverted pseudo-cleft

$[_{IP}\ XP_i\ [_{NP}\ [_{CP}\ \ldots\ e_i\ \ldots\ ]]\text{-BE}]$

In inverted pseudo-clefts (8), the syntactic position of a clefted constituent is a **subject** of the main clause. Hence, XP is marked nominative.

The structure of IFCs (i.e. *kes*-clefts) is given as follows.

(9) $[_{IP}$ pro $[_{NP}[_{CP}$ XP . . . $[_{C'}$ *kes*]]]-BE]

The clefted constituent (XP) appears in the leftmost position of the subordinate clause by scrambling. The subject of the main clause is an unspecified pro. In the Korean simple sentences, scrambled elements receive focus.

The clefted clause in EFCs is a relative clause. It either takes the form of a free relative, as in (1) and (2), where the complementizer *kes* appears, or semi-free relative,[7] as in (4) and (5), where a semantically "light" noun like *salam*, serves as a relative pronoun. In other words, I treat "light" lexical nouns like *salam* as if they were relative pronouns, as in English. Thus, in Korean clefts, we see two patterns of relatives parallel to the two types of relatives found in English:

(10) a. the woman [who$_i$ ø I met t_i]

b. the woman [e_i that I met t_i]

c. *the woman [who$_i$ that I met t_i]

As in (10), the Comp position is filled by either a complementizer 'that' or a relative pronoun 'who', and not by both (*10c). Similarly, as I claim below, the status of the Comp position plays a significant role in the Korean cleft formation. In EFCs, a lexical

[7]According to Smits (1989: 46), a semi-free relative is a restrictive relative construction with a pronominal and a semantically very weak head.

form like *salam* 'person' is not a head noun but a relative pronoun, though it is translated as 'the one' in English. Rather a clefted constituent (XP) is a head, as in EHRCs. Thus, EFCs are externally headed. On the other hand, *kes* used in each type of cleft construction is a complementizer as I argued in the previous chapter (cf. section 2.5). The *kes* corresponds to the English complementizer 'that' in (10). As in English (10c), a cleft with both *salam* and *kes* is impossible.

In this chapter, I concentrate on two aspects of clefts: accessibility and case effects. These are the properties chosen by Keenan and Comrie (1977) and others as the most salient in relative clause formation. The first aspect, referred to here as cleftability, pertains to which NP positions are accessible to clefts.[8] Little attention has been paid to the Accessibility Hierarchy (henceforth AH) with respect to clefts in Korean.[9] Hence, I

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[8]Luo (1992) is a recent cross-linguistic study on the cleftability hierarchy. However, he deals only with the cleft type corresponding to the English *it*-cleft and does not deal with Korean cleft sentences.

[9]To my knowledge, K. Im (1986) is the only work where the cleftability hierarchy in Korean is dealt with. He provides four hierarchies for pseudo-clefts, which he regards as corresponding to the English *it*-cleft:

(i) Noun > Clausal NP > Predicate Phrase > Adverbial

(ii) Subject > Direct/Indirect Object > Location/Time/Instrument > Source/Predicate Nominal/Qualification > *Comitative > *Object of Comparison

(iii) Case recoverability:
Some delimiters (*kkaci* 'till', or 'including', *man* 'only') > *lo(se)* as Qualification > Dative (*ey*/*eykey*) > *ACC (*ul*/*lul*) > *NOM (*i*/*ka*) > *Some delimiters (*to* 'also' or 'even', *kkaci* 'even', *mace* 'even', etc.)

(iv) Semantic function of the clefted constituent:
Definite and Specific > Definite > Specific (or referential)

He gives a detailed but somewhat complicated classification. As will be shown below, his cleftability hierarchy (i–ii) and his case recoverability hierarchy (iii) should be

examine Korean clefts to see if they obey the same AH as relativization.

Second, I discuss case effects between the cleft site in the clefted clause and the clefted constituent, which are analogous to the presence or absence of case-coding strategies for relativization. For ease of explanation, I follow Tallerman's (1990: 293, (5)) definition of case-coding relativization strategies.

(11) A [+ case] strategy signals explicitly the grammatical function of the NP relativized; a [– case] strategy does not.

It is well known that Korean relativization generally has a [– case] strategy. The one exception is the genitive NP, which requires a resumptive pronoun. In contrast, Korean clefts have [± case] strategies, depending on the choice of the Comp in the clefted clause. Hence, Korean has what I call **case effects**: the clefted constituent may in certain circumstances take its "original" case in the clefted clause.

This chapter is organized as follows. Section 3.2 treats pseudo-clefts, 3.3 inverted pseudo-clefts, and 3.4 *kes*-clefts. For each type of cleft, I discuss which categories can be clefted, examine case effects, and posit a syntactic structure for clefted constituents (XP). The XP is a **predicate** phrase in a pseudo-cleft, a **subject** in an inverted pseudo-cleft, and an *in-situ* head in the embedded clause in a *kes*-cleft. In section 3.5, I discuss differences between inverted pseudo-clefts and *kes*-clefts, based on case, the different status of the Comp in the clefted clause, and subject honorification. Finally, in section 3.6, I discuss differences between clefts and relative clauses.

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reconsidered in light of case effects. In this chapter, I am concerned only with the first three types of hierarchies (i)–(iii).

3.2 Pseudo-cleft sentences

First I turn to pseudo-clefts. Here we consider which categories can be clefted. In section 3.2.1, I make a preliminary investigation of the accessibility facts. I show that a wide variety of constituent types can be clefted. In section 3.2.2, I look how each constituent is clefted more carefully, controlling for case and for the complementizer *kes*. A detailed classification of constituent types can be made on this basis.

3.2.1 Accessibility

In this section, I examine accessibility to pseudo-clefts for a wide range of constituents. First, I discuss the cleftibility of various nominal elements (section 3.2.1.1) and then I briefly discuss non-nominal elements (section 3.2.1.2).

3.2.1.1 Nominals

First, consider NP arguments functioning as subjects. Any type of subject can be clefted, including unaccusative subjects (12), unergative subjects (13), subjects of transitives (14), passive subjects (15), and clausal subjects (16):

(12) a. [__ Cipwung-eyse tteleci-n kes/salam]-un **John**-i-ess-ta
roof-from fall down comp/person-TOP J.-be-pst-ind
'The one that fell down from the roof was John.'

b. [__ Ecey pam-ey cwuk-un kes]-un **amso**-i-ess-ta
yesterday night-at die-adn comp-TOP cow-be-pst-ind
'What died last night was a cow.'

(13) a. [__ Ku pang-eyse nao-n kes/salam]-un
the room-from come out comp/person-TOP

totwuk-i-ess-ta
thief-be-pst-ind

'The one that came out of the room was the thief.'

b. [__ Kacang ppalli tali-n kes]-un **ce** **mal**-i-ess-ta
most fast run-adn comp-TOP that horse-be-pst-ind

'What ran fastest was that horse.'

(14) a. [__ Changmwun-ul kkay-n kes/salam]-un
window-ACC break-adn comp/person-TOP

John-i-ess-ta
J.-be-pst-ind

'The one that broke the window was John.'

b. [__ John-ul cap-un kes/pwun]-un
J.-ACC catch-adn comp/person(hon)-TOP

sensayngnim-i-si-ess-ta
teacher-be-hon-pst-ind

'The one who caught John was a teacher.'

c. [__ Ku kay-lul cwuki-n kes]-un **nuktay**-i-ess-ta
that dog-ACC kill-adn comp-TOP wolf-be-pst-ind

'What killed the dog was a wolf.'

(15) a. [__ Sensayngnim-eykey cap-hi-n kes/salam]-un
teacher-DAT catch-pss-adn comp/person-TOP

John-i-ess-ta
J.-be-pst-ind

'The one that was caught by the teacher was John.'

b. [__ John-eyuyhayse kkay-ci-n kes]-un
J.-by break-pss-adn comp-TOP

changmwun-i-ess-ta
window-be-pst-ind

'What was broken by John was the window.'

(16) [__ Na-lul kacang koylophi-n kes]-un
I-ACC most disturb-adn comp-TOP

ku-ka **malepsi** **ttena-n** **kes**-i-ess-ta
he-NOM word without leave-adn nmz-be-pst-ind

'What disturbed me most was that he left without a word.'

Direct objects (17) and clausal objects (18) can also be clefted:

(17) a. [Nay-ka __ manna-n kes/salam]-un **John**-i-ess-ta
I-NOM meet-adn comp/person-TOP J.-be-pst-ind

'The one that I met was John.'

b. [Nay-ka __ sa-n kes]-un **say** **cha**-i-ess-ta
I-NOM buy-adn comp-TOP new car-be-pst-ind

'What I bought was a new car.'

(18) [Nay-ka al-ko iss-nun kes]-un **John-i** **nolay-lul**
I-NOM know-prog be-adn comp-TOP J.-NOM song-ACC

cal **ha-nun** **kes**-i-ta
well do-adn nmz-be-ind

'What I know is that John sings well.'

In addition, most oblique phrases, for example, the indirect object in (19), the locative in (20), the benefactive in (21), the comitative in (22) and the *by*-agent in (23) can be clefted:

(19) [John-i chayk-ul __ cwu-n kes/salam]-un **Tom**-i-ess-ta[10]
J.-NOM book-ACC give-adn comp/person-TOP T.-be-pst-ind

'To whom John gave a book was Tom.'

(20) [Wuli-ka __ cheumulo manna-n kes]-un
we-NOM for the first time meet-adn comp-TOP

i **tapang-eyse**-i-ess-ta
this coffee shop-LOC-be-pst-ind

'The place where we met for the first time was this coffee shop.'

(21) [Nay-ka say cha-lul __ sa-n kes]-un
I-NOM new car-ACC buy-adn comp-TOP

na-uy **anay-lul wuyhayse**-i-ess-ta
I-GEN wife-BEN-be-pst-ind

'Who I bought a new car for was my wife.'

[10]The detailed discussion of the indirect object will be made in the next section 3.2.2.2.

(22) [John-i __ yenghwakwan-ey ka-n kes]-un
J.-NOM theatre-to go-adn comp-TOP

Mary-hako-i-ess-ta[11]
M.-COMIT-be-pst-ind

'Who John went to the theatre with was Mary.'

(23) [Ku pemin-i __ cap-hi-n kes]-un
that criminal-NOM arrest-pss-adn comp-TOP

kyengchalkwan-eyuyhayse-i-ess-ta
policeman-by-be-pst-ind

'Who the criminal was arrested by was a policeman.'

Likewise, adverbials of instrument (24), reason (25), qualification (26), manner (27), and time (28) can also be clefted.

(24) [John-i i thakca-lul __ mantu-n kes]-un
J.-NOM this table-ACC make-adn comp-TOP

namwu-lo-i-ess-ta
wood-INST-be-pst-ind

'What John made this table with was wood.'

(25) [John-i __ cwuk-un kes]-un **am-ulo**-i-ess-ta
J.-NOM die-adn comp-TOP cancer-REAS-be-pst-ind

'What John died of was cancer.'

[11]In Korean, comitative markers are either *-(k)wa* or *-hako*. The latter is more usually used in colloquial speech than the former.

(26) [Kim kyoswunim-i __ Chelswu-lul chwungkoha-n kes]-un
K. professor-NOM C.-ACC advise-adn comp-TOP

chinkwu-lose-i-ess-ta
friend-QUAL-be-pst-ind

'What professor Kim advised Chelsu as was a friend.'

(27) [Ku-ka kunye-lul __ talwu-n kes/pangpep]-un
he-NOM she-ACC treat-adn comp/manner-TOP

chincelhakey-i-ess-ta
kindly-be-pst-ind

'The way in which he treated her was kindly.'

(28) [I yenghwa-ka __ mantul-e ci-n kes/ttay]-nun
this movie-NOM make-pss-adn comp/time-TOP

1939 nyen-i-ess-ta
year-in-be-pst-ind

'When this movie was made was in 1939.'

Moreover, clausal adverbials of time (29) and reason (30) can also be clefted.

(29) [Ku-ka __ o-n kes/ttay]-nun **phati-ka**
he-NOM come-adn comp/time-TOP party-NOM

kkuthna-n **hwu**-i-ess-ta
finish-adn after-be-pst-ind

'When he came was after the party was finished.'

(30) [Ku-ka __ ttena-n kes/iyu]-un **wuli-ka** **ku-lul**
he-NOM leave-adn comp/reason-TOP we-NOM he-ACC

miwehay-ss-ki-ttaymwun-i-ess-ta
dislike-pst-nmz-because-be-pst-ind

'Why he left was because we disliked him.'

Let us now consider genitive NPs. These can be clefted only if the relative gap is the subject of the clefted clause and the clefted constituent is the possessor of that subject (see (31)).

(31) a. [Caki-(uy) cip-i phal-li-n kes/salam]-un
self-(GEN) house-NOM sell-pss-adn comp/person-TOP

Mary-i-ess-ta
M.-be-pst-ind

'The one whose house was sold was Mary.'

b. [Caki-(uy) apeci-ka pwuca-i-n kes/salam]-un
self-(GEN) father-NOM rich-be-adn comp/person-TOP

John-i-ess-ta
J.-be-pst-ind

'The one whose father was rich was John.'

Furthermore, a resumptive pronoun must appear in the clefted clause.[12] If it does not

[12]In (31), a resumptive pronoun *caki* is required when the relationship of possessor is alienable. It might appear that it is optional when the relationship of possessor is inalienable and the clefted constituent is the possessor of that subject, as in (i).

(i) [(Caki-(uy)) nwun-i yeppu-n kes/salam]-un Mary-i-ta
self-GEN eye-NOM pretty-adn comp/person-TOP M.-be-ind
'The one whose eyes are pretty is Mary.'

appear, the result is ungrammatical, as in (31').

(31') a. *[__ Cip-i phal-li-n kes/salam]-un
house-NOM sell-pss-adn comp/person-TOP

Mary-i-ess-ta
M.-be-pst-ind

'The one whose house was sold was Mary.'

b. *[__ Apeci-ka pwuca-i-n kes/salam]-un **John**-i-ess-ta
father-NOM rich-be-adn comp/person-TOP J.-be-pst-ind

'The one whose father was rich was John.'

However, even when there is a resumptive pronoun in the clefted clause, a non-subject genitive NP cannot be clefted, as seen in (32a–b).[13]

However, an alternative analysis is available for sentences like (i) when no resumptive pronoun is present. That is, they could derive from a double nominative construction, such as (ii), instead:

(ii) Mary-ka nwun-i yeppu-ta
M.-NOM eye-NOM pretty-ind
'Mary's eyes are pretty.'

[13]Again, it might appear that this principle is violated in the case of inalienable possession, since data like (i) exist (from O'Grady 1991: 73, (12)):

(i) [Kay-ka tali-lul mwul-un kes]-un Mary-i-ess-ta
dog-NOM leg-ACC bite-adn comp-TOP M.-be-pst-ind
'Who the dog bit on the leg was Mary.'

O'Grady claims that an ACC and not a GEN possessor underlies this form. This is supported by the fact that a resumptive pronoun cannot occur in such examples:

(32) a. *[John-i (caki-uy) cip-ul sa-n kes/salam]-un
J.-NOM (self-GEN) house-ACC buy-adn comp/person-TOP

Mary-i-ess-ta
M.-be-pst-ind

'The one whose house John bought was Mary.'

b. *[Nay-ka (caki-uy) tongsayng-eykey chayk-ul cwu-n
I-NOM (self-GEN) brother-DAT book-ACC give-adn

kes/salam]-un **John**-i-ess-ta
comp/person-TOP J.-be-pst-ind

'?*Whose brother I gave a book to was John.'

Let us now turn to objects of comparison. Unlike Korean relativization, objects of comparison are permitted in pseudo-cleft formation, as shown in (33).[14]

(ii) [Kay-ka (*caki-(uy)) tali-lul mwul-un kes/salam]-un
dog-NOM self-GEN leg-ACC bite-adn comp/person-TOP

Mary-i-ta
M.-be-ind

'Who the dog bit on the leg was Mary.'

[14]Korean does not allow relativization on objects of comparison, as in (i) and (ii), because of the recoverability constraint.

(i) *[John-i __ cal tali-n] Tom
J.-NOM well run-adn T.

'Tom, who John runs as well as'

(ii) *[John-i khi-ka __ khu-n] Tom
J.-NOM height-NOM tall-adn T.

'Tom, who John is taller than'

In contrast, Korean cleft formation relies on case effects rather than case recoverability. Hence, objects of comparison can be clefted.

(33) a. [John-i __ cal tali-n kes]-un **Tom-mankhum**-i-ta
J.-NOM well run-adn comp-TOP T.-Degree-be-ind
'The one that John ran as well as is Tom.'

b. [John-i khi-ka __ khu-n kes]-un **Tom-pota**-i-ta
J.-NOM height-NOM tall-adn comp-TOP T.-than-be-ind
'The one that John is taller than is Tom.'

In the case of NPs, all grammatical positions are available: subject, object, oblique NP, genitive NP, and object of comparison. This result is summarized in Table 2 below.

Table 2: The cleftability hierarchy in pseudo-clefts

	SUB	DO	IO	OBL	GEN	OComp
kes/lexical N	√	√	√	√	√ (sub)	√

(The symbol √ (sub) means that the resumptive pronoun must appear in subject position in the clefted clause.)

3.2.1.2 Other categories

Predicate nominals can be clefted, as shown in (34),[15] and, as in English, VPs can be pseudo-clefts, invoking the proform *ha* 'do' in the cleft clause to fill the VP gap, as seen in (35).[16]

(34) [Ku-ka kyelkwuk __ toy-n kes]-un **cangkwun**-i-ess-ta
he-NOM eventually become-adn comp-TOP general-be-pst-ind
'What he became was a general.'

(35) [John-i ha-n kes]-un **hakkyo-ey** **phyenci-lul**
J.-NOM do-adn comp-TOP school-DAT letter-ACC
ponay-n **kes**-i-ess-ta
send-adn nmz-be-pst-ind
'What John did was send a letter to the school.'

Not all categories can be clefted constituents. Although we see in (34) that predicate nominals can be clefted, not all predicate attributes can be. For example, APs functioning as predicate attributes cannot be clefted, as seen in (36).

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[15]In contrast, predicate nominals cannot be relativized:

(i) Ku-ka kyelkwuk cangkwun-i toy-ess-ta
he-NOM eventually general-NOM become-pst-ind
'He eventually became a general.'

(ii) *[Ku-ka kyelkwuk __ toy-n] cangkwun
he-NOM eventually become-adn general
'*the general that he eventually became'

[16]In the case of a VP clefted constituent, the VP is always nominalized by *kes*. Of course, Korean has another device to form a VP cleft using a nominalizer *-ki* and contrastive topic marker *-(n)un* or delimiter *-to* 'also'. This construction has been called "the VP-focus construction," (M. Kang 1988) or "the predicate cleft construction" (R. Lee 1993).

(36) a. *[Mary-ka __ poi-n kes]-un **phikonha-ye**-i-ta
M.-NOM seem-adn comp-TOP tired-inf-be-ind

'What Mary seems is tired.'

b. *[Nay-ka Mary-lul __ yeki-nun kes]-un
I-NOM M.-ACC consider-adn comp-TOP

isangha-key-i-ta
strange-inf-be-ind

'??*What I consider Mary to be is strange.'

c. *[Nay-ka Mary-lul __ mantu-n kes]-un
I-NOM M.-ACC make-adn comp-TOP

hwana-key-i-ess-ta
angry-inf-be-pst-ind

'*What I made Mary was angry.'

Moreover, PP functioning as predicate attributes cannot be clefted either, as shown in (37) and (38):[17]

(37) *[Mary-ka __ poi-nun kes]-un **haksayng-ulo**-i-ta
M.-NOM seem-adn comp-TOP student-INST-be-ind

'What Mary seems to be is a student.'

(38) *[Nay-ka Mary-lul __ yeki-nun kes]-un **papo-lo**-i-ta
I-NOM M.-ACC consider-adn comp-TOP fool-INST-be-ind

[17]For different analyses of the status of predicates in Korean, see N. Kim (1986) and M. Jo (1986).

'*What I consider Mary as is a fool.'

In sum, I have shown that pseudo-clefts can be formed on a wide variety of constituent types. In addition to nominals, it is worthwhile to note here that predicate nominals and VPs can also cleft, whereas AP and PP as predicate attributes cannot.

3.2.2 Case

Although it was pointed out above that pseudo-clefts can be based on a wide variety of NPs, the various clefted constituents do not behave alike with respect to case marking. In this section, I will classify Korean pseudo-clefts into four types with regard to case effects. Type A has no case effects regardless of whether the Comp position is filled by the complementizer *kes* or a "light" lexical noun serving as a relative pronoun. Type B shows case effects depending on the choice of Comp. Type C shows case effects only if the clefted clause is formed with *kes*; "light" nouns are not used in this type of cleft. Finally, Type D shows case effects regardless of the choice of the Comp in the clefted clause.

3.2.2.1 Type A

First, it can be noted that S-case never appears on the clefted constituent. Thus, subjects and objects, which would be marked nominative and accusative respectively, do not appear with case in a pseudo-cleft:[18]

(39)	[__	Cipwung-eyse	ttelci-n	kes/salam]-un	**John-(*i)**-i-ess-ta
		roof-from	fall down	comp/person-TOP	J.-NOM-be-pst-ind

[18]The notation (X) means that the presence of X is optional. *(X) means that the absence of X yields an ungrammatical construction; conversely, (*X) means that the presence of X makes the example ungrammatical.

'The one that fell down from the roof was John.'

(40) [Nay-ka __ sa-n kes]-un **say** **cha-(*lul)**-i-ess-ta
I-NOM buy-adn comp-TOP new car-ACC-be-pst-ind

'What I bought was a new car.'

This generalization also accounts for the lack of case on clefted predicate nominals:

(41) [Ku-ka kyelkwuk __ toy-n kes]-un
he-NOM eventually become-adn comp-TOP

cangkwun-(*i)-i-ess-ta
general-NOM-be-pst-ind

'What he became was a general.'

Like S-case marked NPs, adverbials of time (42) can also be clefted.

(42) [I yenghwa-ka __ mantul-e ci-n kes/ttay]-nun
this movie-NOM make-pss-adn comp/time-TOP

1939 nyen-(*ey)-i-ess-ta
year-in-be-pst-ind

'When this movie was made was in 1939.'

In this instance, no oblique marker appears, regardless whether *kes* or a lexical noun is used.[19] Clausal adverbials of time (43) and reason (44) show the same property; the cefted

[19]"Light" lexical nouns such as *sikan /ttay* 'time', *cangso/kos* 'place', *iyu* 'reason', and *pangpep* 'manner' can be used instead of *kes* in the clefted clause if the relative gap is an adverbial of time, location, reason, or manner. However, not all lexical nouns behave like *kes* with respect to case effects. For example, lexical nouns such as *cangso/kos* 'place' affect case retention or omission, as we see below.

constituents do not take oblique case markers:

(43) [Ku-ka __ o-n kes/ttay]-nun **phati-ka**
he-NOM come-adn comp/time-TOP party-NOM

kkuthna-n **hwu-(*ey)**-i-ess-ta
finish-adn after-at-be-pst-ind

'When he came was after the party was finished.'

(44) [Ku-ka __ ttena-n kes/iyu]-un **wuli-ka** **ku-lul**
he-NOM leave-adn comp/reason-TOP we-NOM he-ACC

miwehay-ss-ki-ttaymwun-(*ey)-i-ess-ta
dislike-pst-nmz-because-at-be-pst-ind

'Why he left was because we disliked him.'

3.2.2.2 Type B

Next, I turn my attention to indirect objects. At first glance, the dative marker seems to be optional when an indirect object NP is clefted, as in (45).

(45) [John-i chayk-ul __ cwu-n kes]-un **Tom-(eykey)**-i-ess-ta
J.-NOM book-ACC give-adn comp-TOP T.-DAT-be-pst-ind

'To whom John gave a book was Tom.'

However, the status of dative case in a ditransitive clause needs to be discussed further. A non-cleft sentence counterpart to (45) might be assumed to be either (46a) or (46b).

(46) a. John-i chayk-ul Tom-eykey cwu-ess-ta
J.-NOM book-ACC T.-DAT give-pst-ind

'John gave a book to Tom.'

b. John-i chayk-ul Tom-ul cwu-ess-ta
J.-NOM book-ACC T.-ACC give-pst-ind
'John gave Tom a book.'

Example (46b) is called a "double accusative construction". However, I claim that when the recipient *Tom* in (46a) and (46b) is clefted, the pseudo-cleft counterparts will be (47a) and (47b) respectively.

(47) a. [John-i chayk-ul __ cwu-n kes]-un **Tom-eykey**-i-ess-ta
J.-NOM book-ACC give-adn comp-TOP T.-DAT-be-pst-ind
'To whom John gave a book was Tom.'

b. [John-i chayk-ul __ cwu-n kes]-un **Tom**-i-ess-ta
J.-NOM book-ACC give-adn comp-TOP T.-be-pst-ind
'To whom John gave a book was Tom.'

As expected, the clefted constituent *Tom* in (47b) is caseless since the cleft site in the clefted clause would be marked ACC in the corresponding non-cleft clause. We saw this result in object pseudo-clefts, which lack accusative case. On the other hand, the dative on the clefted constituent *Tom* in (47a) is retained. Hence, I claim that dative case is not optional but obligatorily retained when the clefted clause is formed with *kes*.

This analysis is supported by an examination of pseudo-clefts on verbs like *mwut-ta* 'ask', which allow a DAT-ACC but not an ACC-ACC case pattern:

(48) a. John-i kil-ul Tom-eykey mwul-ess-ta

J.-NOM road-ACC T.-DAT ask-pst-ind

'John asked Tom for directions.'

b. *John-i kil-ul Tom-ul mwul-ess-ta
J.-NOM road-ACC T.-ACC ask-pst-ind

'John asked Tom for directions.'

The following pseudo-cleft sentences (49a) and (49b) correspond to the non-cleft sentences (48a) and (48b) respectively.

(49) a. [John-i kil-ul __ mwul-un kes]-un **Tom-eykey**-i-ess-ta
J.-NOM road-ACC ask-adn comp-TOP T.-DAT-be-pst-ind

'The one that John asked for directions was Tom.'

b. *[John-i kil-ul __ mwul-unkes]-un **Tom**-i-ess-ta
J.-NOM road-ACC ask-adn comp-TOP T.-be-pst-ind

'The one that John asked for directions was Tom.'

As the contrast in grammaticality of (49a–b) shows, dative case is not optional in pseudo-clefts. Therefore, I conclude that dative case must be retained in pseudo-cleft formation with *kes*.

On the other hand, when the clefted clause takes the lexical noun *salam* 'person', dative case must be omitted.

(50) a. [John-i chayk-ul __ cwu-n salam]-un
J.-NOM book-ACC give-adn person-TOP

Tom-(*eykey)-i-ess-ta

T.-DAT-be-pst-ind

'The one that John gave a book to was Tom.'

b. [John-i kil-ul __ mwul-un salam]-un
J.-NOM road-ACC ask-adn person-TOP

Tom-(*eykey)-i-ess-ta
T.-DAT-be-pst-ind

'The one that John asked for directions was Tom.'

Like indirect object NPs, adverbials of location, the instrument, and the [+ reciprocal] comitative can also be clefted. Their oblique markers must be retained if the clefted clause is formed with *kes*, whereas they must be omitted if it is formed with the lexical noun. Observe adverbials of location, as in (51).

(51) a. [Wuli-ka __ cheumulo manna-n kes]-un
we-NOM for the first time meet-adn comp-TOP

i tapang-*(eyse)-i-ess-ta
this coffee shop-LOC-be-pst-ind

'The place where we met for the first time was this coffee shop.'

b. [Wuli-ka __ cheumulo manna-n kos/cangso]-nun
we-NOM for the first time meet-adn place/place-TOP

i tapang-(*eyse)-i-ess-ta
this coffee shop-LOC-be-pst-ind

'The place where we met for the first time was this coffee shop.'

In (51b), where *kes* appears, the case marker is present. In contrast, in (51a), where a "light" lexical noun *cangso* or *kos* 'place' is used, case is omitted.

Next, look at the instrument. The example is given in (52).[20]

(52) a. [John-i i thakca-lul __ mantu-n kes]-un
J.-NOM this table-ACC make-adn comp-TOP

[20]A tool-type instrumental, like a material-type instrumental (52), can be clefted as well; the oblique marker is retained, as in (ia), when *kes* is used, whereas it is omitted when a lexical noun like *tokwu* 'tool' is used, as in (ib).

(i) a. [John-i i thakca-lul pwuswu-n kes]-un
J.-NOM this table-ACC break-adn comp-TOP
haymme*-(lo)-i-ess-ta
hammer-INST-be-pst-ind
'What John broke the table with was a hammer.'

b. [John-i i thakca-lul pwuswu-n tokwu]-nun
J.-NOM this table-ACC break-adn tool-TOP
haymme-(*lo)-i-ess-ta
hammer-INST-be-pst-ind
'The tool that John broke the table with was a hammer.'

However, tool-type and material-type instrumentals contrast with manner-type instrumental with regard to case effects. That is, the case marker of the former must be retained, whereas the case marker of the latter is optional, as in (ii).

(ii) [Ne-ka __ i kes-ul ha-l-swu-iss-nun kes]-un
you-NOM this thing-ACC do-adn-ability-be-adn comp-TOP
i pangpep-(ulo)- i-ta
this manner-INST-be-ind
'How you are able to do this is this way.'

Interestingly, manner adverbials with no case (i.e. adverbials formed by a suffix *-key*) are usually used when the lexical noun *pangpep* 'manner' is used instead, as in (iii = 27).

(iii) [Ku-ka kunye-lul __ talwu-n pangpep]-un
he-NOM she-ACC treat-adn manner-TOP
chincelhakey-i-ess-ta
kindly-be-pst-ind
'The way in which he treated her was kindly.'

namwu-*(lo)-i-ess-ta
wood-INST-be-pst-ind

'What John made this table with was wood.'

b. [John-i i thakca-lul __ mantu-n caylyo]-nun
J.-NOM this table-ACC make-adn material-TOP

namwu-(*lo)-i-ess-ta
wood-INST-be-pst-ind

'The material that John made this table with was wood.'

Similiarly, when an instrument is clefted, the oblique marker is retained, as in (52a), when *kes* is used, whereas it is omitted when a lexical noun like *caylyo* 'material' is used, as in (52b).[21]

Finally, consider the [+ reciprocal] comitative given in (53).[22]

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[21]There is another convincing example of this case pattern. Example (i) below is a category of "extended material instrumental".

(i) a. [John-i ku swuep-ul __ kanguyha-n kes]-un
J.-NOM that class-ACC lecture-adn comp-TOP

yenge-*(lo)-i-ess-ta
English-INST-be-pst-ind

'What John lectured that class in was English.'

b. [John-i ku swuep-ul __ kanguyha-n ene]-nun
J.-NOM that class-ACC lecture-adn language-TOP

yenge-(*lo)-i-ess-ta
English-INST-be-pst-ind

'The language that John lectured that class in was English.'

[22]The reciprocity resides not only in certain verbs such as *akswuha-ta* 'shake hands', *kyelhonha-ta* 'marry' but also in certain adverbs such as *kathi*/*hamkkey* 'together'. Thus, the same case effects shown in (53) are also found in examples where these types of adverbs are used in the construction which lacks a reciprocal verb. Compare (i) with (54) below.

(53) a. [John-i __ akswuha-n kes]-un **Mary-*(hako)**-i-ess-ta
J.-NOM shake-hands-adn comp-TOP M.-COMIT-be-pst-ind
'The one that John shook hands with was Mary.'

b. [John-i __ akswuha-n salam]-un
J.-NOM shake-hands-adn person-TOP
Mary-(*hako)-i-ess-ta
M.-COMIT-be-pst-ind
'The one whom John shook hands with was Mary.'

As with adverbials of location and the instrument, the [+reciprocal] comitative shows a case effect between the relative gap and a clefted constituent *Mary*, as in (53a), when the cleft is formed with *kes*. On the other hand, as in (53b), the comitative marker on the clefted constituent *Mary* must be omitted when the lexical noun *salam* is used instead.

3.2.2.3 Type C

Next, I turn to a third type of pseudo-cleft; Type C contains adverbials which

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(i) a. [John-i __ kathi/hamkkey yenghwakwan-ey ka-n
J.-NOM together/together theatre-to go-adn
kes]-un **Mary-*(hako)**-i-ess-ta
comp-TOP M.-COMIT-be-pst-ind
'Who John went to the theatre (together) with was Mary.'

b. [John-i __ kathi/hamkkey yenghwakwan-ey ka-n
J.-NOM together/together theatre-to go-adn
salam]-un **Mary-(*hako)**-i-ess-ta
person-TOP M.-COMIT-be-pst-ind
'The one whom John went to the theatre (together) with was Mary.'

have *kes* but no lexical noun in the clefted clause. This type consists of the [– reciprocal] comitative in (54), the benefactive in (55), the *by*-agent in (56), and adverbials of qualification (57).

(54) a. [John-i __ yenghwakwan-ey ka-n kes]-un
J.-NOM theatre-to go-adn comp-TOP

Mary-*(hako)-i-ess-ta
M.-COMIT-be-pst-ind

'Who John went to the theatre with was Mary.'

b. *[John-i __ yenghwakwan-ey ka-n salam]-un
J.-NOM theatre-to go-adn person-TOP

Mary(-hako)-i-ess-ta
M.-COMIT-be-pst-ind

'The one that John went to the theatre with was Mary.'

(55) a. [Nay-ka say cha-ul __ sa-n kes]-un
I-NOM new car-ACC buy-adn comp-TOP

na-uy anay-*(lul wuyhayse)-i-ess-ta
I-GEN wife-BEN-be-pst-ind

'Who I bought a new car for was my wife.'

b. *[Nay-ka say cha-ul __ sa-n salam]-un
I-NOM new car-ACC buy-adn person-TOP

na-uy anay-(lul wuyhayse)-i-ess-ta
I-GEN wife-BEN-be-pst-ind

'The one whom I bought a new car for was my wife.'

(56) a. [Ku pemin-i __ cap-hi-n kes]-un
that criminal-NOM arrest-pss-adn comp-TOP

kyengchalkwan-*(eyuyhayse)-i-ess-ta
policeman-by-be-pst-ind

'Who the criminal was arrested by was a policeman.'

b. *[Ku pemin-i __ cap-hi-n salam]-un
that criminal-NOM arrest-pss-adn person-TOP

kyengchalkwan-(eyuyhayse)-i-ess-ta
policeman-by-be-pst-ind

'The one that the criminal was arrested by was a policeman.'

(57) a. [Kim kyoswunim-i __ Chelswu-lul chwungkoha-n
K. professor-NOM C.-ACC advise-adn

kes]-un **chinkwu-*(lose)**-i-ess-ta
comp-TOP friend-QUAL-be-pst-ind

'What professor Kim advised Chelsu as was a friend.'

b. *[Kim kyoswunim-i __ Chelswu-lul chwungkoha-n
K. professor-NOM C.-ACC advise-adn

salam]-un **chinkwu-(lose)**-i-ess-ta
person-TOP friend-QUAL-be-pst-ind

'The man whom professor Kim advised Chelsu as was a friend.'

As seen in (54)–(57), these adverbials can be clefted only if their oblique markers are retained, and only if the clefted clause is formed with *kes*. However, they cannot be clefted, regardless of the retention or omission of their oblique markers, if the clefted clause is formed with the lexical noun. This fact is illustrated by the contrast between (a)

and (b) of each example (54)–(57).

Interestingly, objects of comparison are also members of Type C. They can be clefted only if the comparative particles *mankhum* 'as' and *pota* 'than' are retained. But a lexical noun like *salam* 'person' cannot appear in these constructions, as shown in (58)–(59).

(58) a. [John-i __ cal tali-n kes]-un **Tom-*(mankhum)**-i-ta
J.-NOM well run-adn comp-TOP T.-Degree-be-ind
'The one that John runs as well as is Tom.'

b. *[John-i __ cal tali-n salam]-un **Tom-(mankhum)**-i-ta
J.-NOM well run-adn person-TOP T.-Degree-be-ind
'The one that John runs as well as is Tom.'

(59) a. [John-i khi-ka __ khu-n kes]-un **Tom-*(pota)**-i-ta
J.-NOM height-NOM tall-adn comp-TOP T.-than-be-ind
'The one that John is taller than is Tom.'

b. *[John-i khi-ka __ khu-n salam]-un **Tom-(pota)**-i-ta
J.-NOM height-NOM tall-adn person-TOP T.-than-be-ind
'The one that John is taller than is Tom.'

Before turning to type D, I would like to note that differences between Type B and C show interesting parallels with the constraints on relativization of their non-cleft counterparts. The big difference is that the non-cleft counterparts of Type B could generally be relativized, whereas the non-cleft counterparts of Type C could not. This fact is illustrated by the following contrast; the examples in (60) are relativizations for

non-cleft counterparts of Type B, and the examples in (*61) are for non-cleft counterparts of Type C:

(60) a. Indirect object:

[John-i __ kil-ul mwul-un] yeca
J.-NOM road-ACC ask-adn woman

'the woman whom John asked for directions'

b. Adverbials of location:

[Wuli-ka __ cheumulo manna-n] i tapang
we-NOM for the first time meet-adn this coffee shop

'this coffee shop where we met for the first time'

c. Adverbials of instrument:

[John-i i thakca-lul __ mantu-n] namwu
J.-NOM this table-ACC make-adn wood

'the wood that John made this table with'

d. [+ reciprocal] comitative:

[John-i __ akswuha-n] yeca
J.-NOM shake hands-adn woman

'the woman whom John shook hands with'

(61) a. [– reciprocal] comitative:

*[John-i __ yenghwakwan-ey ka-n] yeca
J.-NOM theatre-to go-adn woman

'the woman whom John went to the theatre with'

b. Benefactive:

*[Nay-ka say cha-ul __ sa-n] na-uy anay
I-NOM new car-ACC buy-adn I-GEN wife

'my wife whom I bought a new car for'

c. *By*-agent:

*[Ku pemin-i __ cap-hi-n] kyengchalkwan
that criminal-NOM arrest-pss-adn policeman

'the policeman whom the criminal was arrested by'

d. Adverbials of qualification:

*[Kim kyoswunim-i __ Chelswu-lul
K. professor-NOM C.-ACC

chwungkoha-n] chinkwu
advise-adn friend

'a friend whom professor Kim advised Chelsu as'

e. Object of comparison:

*[John-i __ cal tali-n] wuntongsenswu
J.-NOM well run-adn sportsman

'the sportsman whom John runs as well as'

I assume that this difference between Type B and Type C stems from the possibility of pseudo-cleft formation with the lexical noun.

3.2.2.4 Type D

Finally, I turn to a fourth type of pseudo-cleft. This type involves adverbials of reason. The adverbial marker *(u)lo* is used for 'reason'. Consider the following:

(62) a. [John-i __ cwuk-un kes]-nun **am-*(ulo)**-i-ess-ta
J.-NOM die-adn comp-TOP cancer-REAS-be-pst-ind
'What John died of was cancer.'

b. [John-i __ cwuk-un iyu]-nun **am-(ulo)**-i-ess-ta
J.-NOM die-adn reason-TOP cancer-REAS-be-pst-ind
'The reason that John died was cancer.'

As in (62a), the adverbial marker *(u)lo* must be retained if the cleft is formed with *kes*. Contrary to Types A and B, however, case can be present even if the clefted clause takes the lexical noun *iyu* 'reason'.[23]

However, it is worthwhile to compare pseudo-clefts and relativization of such adverbials. As noted in I. Yang (1972: 267), in the case where the NP with the adverbial marker *(u)lo* 'reason' is relativized, the degree of the grammaticality of the relativization varies. Compare the following:

(63) a. [John-i __ cwuk-un] am
J.-NOM die-adn cancer
'cancer of which John died'

b. *[John-i __ kyelsekha-n] kamki
J.-NOM absent-adn flu

[23]I have no explanation for this fact.

(lit: 'the flu because of which John was absent')

(I. Yang 1972: 267, (13c'))

Example (63a), which parallels (62), is acceptable, but (63b) is not. I. Yang (1972) argues that this contrast in grammaticality depends on the degree of coherency of the head noun and the predication in terms of cause and effect. Unlike relativization (63b), the pseudo-cleft counterpart corresponding to (63b) is acceptable, as in (64), but only if case is present.

(64) a. [John-i __ kyelsekha-n kes]-un **kamki-*(lo)**-i-ess-ta
J.-NOM absent-adn comp-TOP flu-REAS-be-pst-ind
'Why John was absent was because of the flu.'

b. [John-i __ kyelsekha-n iyu]-nun **kamki-(lo)**-i-ess-ta
J.-NOM absent-adn reason-TOP flu-REAS-be-pst-ind
'The reason for John's absence was the flu.'

So far we have seen that case effects distinguish four types of case markers: A, B, C, and D.[24] Table 3 summarizes case effects based on the clefted clause formed by *kes* and a lexical noun.

Table 3: Case effects in pseudo-clefts

[24]I did not examine genitive NPs here. More research is needed to clarify the nature of the omission of genitive case in the pre-copular position. We could simply assume that genitive case is omitted in this position. On the other hand, an alternative analysis is possible: omission of this case stems from a double nominative construction or a double accusative construction, not from the genitive case of its original position in the clefted clause. This alternative view has been illustrated in the previous discussion (cf. footnotes 12 and 13).

	Type A	Type B	Type C	Type D
	NOM, ACC, TIME (*-ey*), and REASON (*-ey*)	DAT, LOC, INST, and [+ recip] COMIT	[–recip] COMIT, BEN, *by*-agent, QUAL, and CMP	REASON (*-(u)lo)*
kes	–	+	+	+
lexical N	–	–	*	(±)

(The symbol – means that the case marker is omitted, + means that it is retained, (±) means that it is optional, and * means that a lexical noun cannot appear in the clefted clause.)

3.2.3 Summary

The following are some of the syntactic characteristics of pseudo-cleft sentences:

(i) A clefted constituent is a predicate phrase.

(ii) The subject is a clefted clause functioning as a free relative or semi- free relative.

(iii) Clefted constituents can be any category including VP, with the exception of APs and PPs that function as predicate attributes.

(iv) Genitive NPs can be clefted only if a resumptive pronoun is left in the subject position of the clefted clause. Thus, genitive NP cleft seems to be sensitive to the position of the relative gap.

(v) There is a partial case effect in that Types B, C, and D show case effects: most oblique case markers must be retained when the cleft is formed with *kes*. Type D has a unique property in that an oblique marker *(u)lo* for 'reason' is optional when the clefted clause takes the lexical noun *iyu* 'reason'.

3.3 Inverted pseudo-cleft sentences

I turn now to inverted pseudo-cleft sentences. The name "inverted" pseudo-clefts is borrowed from the English literature. One might claim that inverted pseudo-cleft

sentences are the interchanged versions of pseudo-cleft sentences.[25] In fact, it is problematic to claim this for Korean. Given this claim, it might be assumed that for every pseudo-cleft a corresponding inverted pseudo-cleft should be possible. However, such is not the case. I show here that the categories that can be clefted are more limited in inverted pseudo-clefts than in pseudo-clefts.

3.3.1 Accessibility

This section presents data showing the accessibility facts for Korean inverted pseudo-clefts. First, I discuss the cleftibility of various nominal elements (section 3.3.1.1), and then I briefly discuss non-nominal elements (section 3.3.1.2). For purposes

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[25]K. Im (1986) suggests that inverted pseudo-cleft sentences are the interchanged versions of pseudo-cleft sentences. He notes that cleft sentences differ from adnominal clauses (noun complement clauses (i) and EHRCs (ii)). The examples below are taken from K. Im (1986: 162).

(i) a. [Chelswu-ka kyelhonha-ss-ta-nun somwun]-un kecis-i-ta
C.-NOM marry-pst-ind-adn rumor-TOP untruth-be-ind
'The rumor that Chelsu married is false.'

b. *Kecis-un [Chelswu-ka kyelhonha-ss-ta-nun somwun]-i-ta
untruth-TOP C.-NOM marry-pst-ind-adn rumor-be-ind
'False is the rumor that Chelsu married.'

(ii) a. [Yenghwa-lul cohaha-nun Chelswu]-nun haksayng-i-ta
movie-ACC like-adn C.-TOP student-be-ind
'Chelsu, who likes a movie, is a student.'

b. *Hanksayng-un [Yenghwa-lul cohaha-nun Chelswu]-i-ta
student-TOP movie-ACC like-adn C.-be-ind
'*A student is Chelsu, who likes a movie.'

As (*ib) and (*iib) show, noun complement clauses and EHRCs have no inverted versions, unlike pseudo-clefts.

of examining accessibility to inverted pseudo-clefts, I construct examples which are parallel to the data presented for pseudo-clefts in the previous section.

3.3.1.1 Nominals

Let us examine examples of plain pseudo-clefts in which unaccusative subjects are clefted (cf. section 3.2.1). To simplify the discussion, we now need to make a distinction between [+human] and
[–human] clefted constituents in pseudo-clefts. First, consider the case of a pseudo-cleft with a [+human] clefted constituent. Examples (65a–b) below correspond to (12a).

(65) a. **John-i** cipwung-eyse tteleci-n kes-i-ess-ta
J.-NOM roof-from fall down comp-be-pst-ind
'It is John that fell down from the roof.' (cf. 12a)

b. **John-i** [__ cipwung-eyse tteleci-n salam]-i-ess-ta
J.-NOM roof-from fall down person-be-pst-ind
'John was the one that fell down from the roof.' (cf. 12a)

It is clear that example (65b), where the clefted clause takes the lexical noun *salam* 'person', is an inverted pseudo-cleft; I have represented this by means of brackets. However, it is not immediately clear whether (65a) is an inverted pseudo-cleft or a *kes*-cleft.[26] I will argue in section 3.5 that (65a) is, in fact, a *kes*-cleft.

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[26]In addition to its major function as a "light" noun referring to a [–human referent], *kes* can sometimes refer to a human being when the speaker treats somebody contemptuously, as in (i).

(i) Yocum celmun kes-tul-un pelus-i eps-ta
these days young KES-pl-TOP manner-NOM lack-ind
'These days, young persons are ill-mannered.'

Now consider the case of pseudo-clefts with a [–human] clefted constituent. For instance, example (66) below corresponds to (12b).

(66)	**Amso-ka**	[__	ecey	pam-ey	cwuk-un	kes]-i-ess-ta
	cow-NOM		yesterday	night-at	die-adn	comp-be-pst-ind

'A cow was what died last night.' (cf. 12b)

Unlike (65a), which has a [+human] clefted constituent, example (66), which has a [–human] clefted constituent, involves an ambiguous structure:[27] it can be analyzed as either an inverted pseudo-cleft or a *kes*-cleft. This ambiguity stems from the status of *kes*. (See section 2.5 of the previous chapter for a detailed dicussion.) That is, if *kes* is taken as a "light" lexical noun referring to a [–human] referent (parallel to a "light" lexical noun like *kos* 'place'), (66) is interpreted as an inverted pseudo-cleft. If *kes* is taken as a complementizer, (66) is interpreted as a *kes*-cleft.

By the same token, other subjects can be clefted constituents in an inverted pseudo-cleft formation: i.e. unergative subjects (67), subjects of transitives (68), passive subjects (69), and clausal subjects (70):

(67)	**Ce**	**mal-i**	[__	kacang	ppalli	tali-n	kes]-i-ess-ta
	that	horse-NOM		most	fast	run-adn	comp-be-pst-ind

'That horse was what ran fastest.' (cf. 13b)

One could perhaps argue that (65a) is an inverted pseudo-cleft with a derogatory reading of *kes*.

[27]In fact, sentence (66) is at least three-ways ambiguous. In addition to the two-way ambiguity discussed in the text, (66) may have another reading like 'It was a fact that a cow died last night'. This reading can be obtained when *kes* is taken as an abstract noun meaning 'fact' (cf. section 2.5.2 of the previous chapter).

(68) **Nuktay-ka** [__ ku kay-lul cwuki-n kes]-i-ess-ta
wolf-NOM that dog-ACC kill-adn comp-be-pst-ind

'A wolf was what killed the dog.' (cf. 14c)

(69) **Changmwun-i** [__ John-eyuyhayse kkay-ci-n kes]-i-ess-ta
window-NOM J.-by break-pss-adn comp-be-pst-ind

'The window was what was broken by John.' (cf. 15b)

(70) **Ku-ka** **malepsi** **ttuna-n** **kes-i**
he-NOM word without leave-adn nmz-NOM

[__ na-lul kacang koylophi-n kes]-i-ess-ta
I-ACC most disturb-adn comp-be-pst-ind

'That he left without a word was what disturbed me most.' (cf. 16)

Next, I turn to direct objects. A [+human] object NP cannot be clefted when an inverted version corresponds to a pseudo-cleft formed with *kes*, as in (71a). However, it may be clefted when the clause is formed with a lexical noun, as in (71b).

(71) a. ***John-i** [nay-ka __ manna-n kes]-i-ess-ta
J.-NOM I-NOM meet-adn comp-be-pst-ind

'John was the one that I met.' (cf. 17a)

b. **John-i** [nay-ka __ manna-n salam]-i-ess-ta
J.-NOM I-NOM meet-adn person-be-pst-ind

'John was the one that I met.' (cf. 17a)

On the other hand, [–human] object NPs and clausal objects can be clefted, as in (72) and

(73) respectively.

(72) **Say cha-ka** [nay-ka __ sa-n kes]-i-ess-ta
new car-NOM I-NOM buy-adn comp--be-pst-ind
'A new car was what I bought.' (cf. 17b)

(73) **John-i nolay-lul cal ha-nun kes-i**
J.-NOM song-ACC well do-adn nmz-NOM
[nay-ka __ al-ko iss-nun kes]-i-ta
I-NOM know-prog be-adn comp-be-ind
'That John sings well is what I know.' (cf. 18)

Let us now consider indirect objects. The same observation that I made in direct object examples like (71) above appears to hold for indirect objects. Indirect objects cannot be clefted constituents in inverted pseudo-clefts with *kes*, since indirect objects usually refer to [+human] NPs,[28] as in (74a). However, indirect objects can be clefted constituents in inverted pseudo-clefts with a lexical noun, as in (74b).

(74) a. ***Tom-i** [John-i chayk-ul __ cwu-n kes]-i-ess-ta
T.-NOM J.-NOM book-ACC give-adn comp-be-pst-ind
'Tom was who John gave a book to.' (cf. 19)

[28]In Que Lee has pointed out to me that in the case of inverted pseudo-clefts, not only [+human] indirect objects but any [+ animate] NP is not accessible.

(i) *Kay-ka [nay-ka pap-ul __ cwu-n kes]-i-ta
dog-NOM I-NOM food-ACC give-adn comp-be-ind
'A dog is what I gave food.'

b. **Tom-i** [John-i chayk-ul __ cwu-n salam]-i-ess-ta
T.-NOM J.-NOM book-ACC give-adn person-be-pst-ind
'Tom was the one that John gave a book to.' (cf. 19)

We now turn our attention to oblique NPs. No oblique NP can be a clefted constituent in inverted pseudo-clefts with *kes*, whereas most oblique phrases except Type C can be clefted in inverted pseudo-clefts formed with a lexical noun. This fact is illustrated by the following contrast; the locative in (75), the instrument in (76), the [+reciprocal] comitative in (77), plain adverbials of time in (78), and the reason marked -*(u)lo* in (79) can be clefted only when the clefted clause takes a lexical noun:

(i) Locative

(75) a. ***I** **tapang-i** [wuli-ka __ cheumulo
this coffee shop-NOM we-NOM for the first time
manna-n kes]-i-ta
meet-adn comp-be-ind
'This coffee shop is where we met for the first time.' (cf. 51a)

b. **I** **tapang-i** [wuli-ka __ cheumulo
this coffee shop-NOM we-NOM for the first time
manna-n kos/cangso]-i-ta
meet-adn place/place-be-ind (cf. 51b)
'This coffee shop is the place where we met for the first time.'

(ii) Instrument

(76) a. ***Namwu-ka** [John-i i thakca-lul __ mantu-n
wood-NOM J.-NOM this table-ACC make-adn
kes]-i-ta

comp-be-ind

'Wood is what John made this table with.' (cf. 52a)

b. **Namwu-ka** [John-i i thakca-lul __ mantu-n
wood-NOM J.-NOM this table-ACC make-adn
caylyo]-i-ta
material-be-ind

'Wood is the material that John made this table with.' (cf. 52b)

(iii) [+reciprocal] comitative

(77) a. ***Mary-ka** [John-i __ akswuha-n kes]-i-ess-ta
M-NOM J.-NOM shake-hands-adn comp-be-pst-ind

'Mary was who John shook hands with.' (cf. 53a)

b. **Mary-ka** [John-i __ akswuha-n salam]-i-ess-ta
M.-NOM J.-NOM shake-hands-adn person-be-pst-ind

'Mary was the one that John shook hands with.' (cf. 53b)

(iv) Reason marked *-(u)lo*

(78) a. ***Am-i** [John-i __ cwuk-un kes]-i-ess-ta
cancer-NOM J.-NOM die-adn comp-be-pst-ind

'Cancer was what John died of.' (cf. 62a)

b. **Am-i** [John-i __ cwuk-un iyu]-i-ess-ta
cancer-NOM J.-NOM die-adn reason-be-pst-ind

'Cancer was the reason for John dying.' (cf. 62b)

Moreover, plain adverbials of time (79) as well as clausal adverbials of time (80) and *-ey*

marked reason (81) show the same property; they can be clefted constituents only when the clefted clause takes a lexical noun, but not when it takes *kes*. This contrast is shown in (79)–(81) below.

(79) a. ***1939 nyen-i** [i yenghwa-ka __ mantul-e ci-n
year-NOM this movie-NOM make-pss-adn
kes]-i-ess-ta
comp-be-pst-ind
'1939 was when this movie was made.' (cf. 42)

b. **1939 nyen-i** [i yenghwa-ka __ mantul-e ci-n
year-NOM this movie-NOM make-pss-adn
ttay]-i-ess-ta
time-be-pst-ind
'1939 was the time when this movie was made.' (cf. 42)

(80) a. ***Phati-ka kkuthna-n hwu-ka** [ku-ka __ o-n
party-NOM finish-adn after-NOM he-NOM come-adn
kes]-i-ess-ta
comp-be-pst-ind
'After the party was finished was when he came.' (cf. 43)

b. **Phati-ka kkuthna-n hwu-ka** [ku-ka __ o-n
party-NOM finish-adn after-NOM he-NOM come-adn
ttay]-i-ess-ta
time-be-pst-ind
'After the party was finished was the time when he came.'(cf. 43)

(81) a. ***Wuli-ka ku-lul miwehay-ss-ki-ttaymwun-i***
we-NOM he-ACC dislike-pst-nmz-because-NOM

[ku-ka __ ttuna-n kes]-i-ess-ta
he-NOM leave-adn comp-be-pst-ind

'Because we disliked him was why he left.' (cf. 44)

b. **Wuli-ka ku-lul miwehay-ss-ki-ttaymwun-i**
we-NOM he-ACC dislike-pst-nmz-because-NOM

[ku-ka __ ttena-n iyu]-i-ess-ta
he-NOM leave-adn reason-be-pst-ind

'Because we disliked him was the reason he left.' (cf. 44)

However, the [–reciprocal] comitative (82), the benefactive (83), the *by*-agent (84), and adverbials of qualification (85) cannot have equivalents of pseudo-clefts regardless of the choice of the Comp in the clefted clause.

(i) [–reciprocal] comitative

(82) a. ***Mary-ka** [John-i __ yenghwakwan-ey ka-n
M.-NOM J.-NOM theatre-to go-adn

kes]-i-ess-ta
comp-be-pst-ind

'Mary was who John went to the theatre with.' (cf. 54a)

b. ***Mary-ka** [John-i __ yenghwakwan-ey ka-n
M-NOM J.-NOM theatre-to go-adn

salam]-i-ess-ta
person-be-pst-ind

'The one that John went to the theatre with was Mary.' (cf. 54b)

(ii) Benefactive

(83) a. ***Na-uy** **anay-ka** [nay-ka say cha-ul __ sa-n
I-GEN wife-NOM I-NOM new car-ACC buy-adn
kes]-i-ess-ta
comp-be-pst-ind
'My wife was who I bought a new car for.' (cf. 55a)

b. ***Na-uy** **anay-ka** [nay-ka say cha-ul __ sa-n
I-GEN wife-NOM I-NOM new car-ACC buy-adn
salam]-i-ess-ta
person-be-pst-ind
'My wife was the one that I bought a new car for.' (cf. 55b)

(iii) *By*-agent

(84) a. ***Kyengchalkwan-i** [ku pemin-i __ cap-hi-n
policeman--NOM that criminal-NOM arrest-pss-adn
kes]-i-ess-ta
comp-be-pst-ind
'Who the criminal was arrested by was a policeman.' (cf. 56a)

b. ***Kyengchalkwan-i** [ku pemin-i __ cap-hi-n
policeman-NOM that criminal-NOM arrest-pss-adn
salam]-i-ess-ta
person-be-pst-ind (cf. 56b)
'The one that the criminal was arrested by was a policeman.'

(iv) Qualification

(85) a. ***Chinkwu-ka** [Kim kyoswunim-i __ Chelswu-lul
friend-NOM K. professor-NOM C.-ACC
chwungkoha-n kes]-i-ess-ta
advise-adn comp-be-pst-ind
'What professor Kim advised Chelsu as was a friend.' (cf. 57a)

b. ***Chinkwu-ka** [Kim kyoswunim-i __ Chelswu-lul
friend-NOM K. professor-NOM C.-ACC
chwungkoha-n salam]-i-ess-ta
advise-adn person-be-pst-ind (cf. 57b)
'The one that professor Kim advised Chelsu as was a friend.'

As seen in (82)–(85), these types of adverbials cannot be clefted constituents in inverted pseudo-clefts. As noted in section 3.2.2, adverbials classified as Type C differ in several respects from other types of adverbials in lacking (i) relativizations, (ii) pseudo-clefts formed with a lexical noun, and (iii) inverted pseudo-clefts.

Now I consider genitive NPs. As in pseudo-clefts, a genitive NP can be the clefted constituent in an inverted pseudo-cleft. Furthermore, as in pseudo-clefts, it must be in the subject position of the clefted clause and it must leave a resumptive pronoun. This is shown in (86)–(87).[29]

[29]However, as in accessibility to inverted pseudo-clefts with *kes* in the subject position, the same situation arises here since a genitive NP must be in the subject position of the clefted clause. Hence, a careful treatment is needed to determine whether each of (i) and (ii) below is an inverted pseudo-cleft or a *kes*-cleft.

(i) **Mary-ka** caki-(uy) cip-i phal-li-n kes-i-ta
M.-NOM self-GEN house-NOM sell-pss-adn comp-be-ind
'It is Mary whose house was sold.'

(ii) **John-i** caki-(uy) apeci-ka pwuca-i-n kes-i-ta

(86) **Mary-ka** [caki-(uy) cip-i phal-li-n salam]-i-ta
M.-NOM self-GEN house-NOM sell-pss-adn person-be-ind
'Mary is the one whose house was sold.' (cf. 31a)

(87) **John-i** [caki-(uy) apeci-ka pwuca-i-n salam]-i-ta
J.-NOM self-GEN father-NOM rich-be-adn person-be-ind
'John is the one whose father was rich.' (cf. 31b)

However, as in pseudo-clefts, if a resumptive pronoun does not appear in the clefted clause formed with a lexical noun, the result is ungrammatical, as in (88)–(89).

(88) ***Mary-ka** [__ cip-i phal-li-n salam]-i-ta
M.-NOM house-NOM sell-pss-adn person-be-ind
'Mary is the one whose house was sold.' (cf. 31a')

(89) ***John-i** [__ apeci-ka pwuca-i-n salam]-i-ta
J.-NOM father-NOM rich-be-adn person-be-ind
'John is the one whose father was rich.' (cf. 31b')

Moreover, as in pseudo-clefts, an inverted pseudo-cleft of a genitive NP is not

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J.-NOM self-GEN father-NOM rich-be-adn comp-be-ind
'It is John whose father was rich.'

As I claim later (see section 3.5), a genitive NP as the clefted constituent in an inverted pseudo-cleft is possible only if the cleft is formed with a lexical noun, as in examples (86) and (87) above. Thus, it is claimed that (i) and (ii) are not inverted pseudo-clefts but rather *kes*-clefts. This claim parallels what we discussed a subject as the clefted constituent in an inverted pseudo-cleft.

possible with non-subject positions, regardless of the status of the Comp in the clefted clause. This fact is shown in (90)–(91) below.

(90) ***Mary-ka** [John-i (caki-uy) cip-ul sa-n
M.-NOM J.-NOM (self-GEN) house-ACC buy-adn
kes/salam]-i-ta
comp/person-be-ind
'Mary is the one whose house John bought.' (cf. 32a)

(91) ***John-i** [nay-ka (caki-uy) tongsayng-eykey chayk-ul cwu-n
J.-NOM I-NOM self-GEN brother-DAT book-ACC give-adn
kes/salam]-i-ta
comp/person-be-ind
'John is the one whose brother I gave a book to.' (cf. 32b)

Let us now turn to objects of comparison. Unlike pseudo-clefts, objects of comparison cannot be clefted constituents in inverted pseudo-clefts, regardless of the status of the Comp in the clefted clause, as in (92).

(92) a. ***Tom-i** [John-i __ cal tali-n kes/salam]-i-ta
T.-NOM J.-NOM well run-adn comp/person-be-ind
'Tom is the one that John runs as well as.' (cf. 33a)

b. ***Tom-i** [John-i khi-ka __ khu-n kes/salam]-i-ta
T.-NOM J.-NOM height-NOM tall-adn comp/person-be-ind
'Tom is the one that John is taller than.' (cf. 33b)

So far I have examined inverted pseudo-clefts formed with *kes* and with lexical

nouns. This result is summarized in Table 4 below.

Table 4: The cleftability hierarchy in inverted pseudo-clefts

	SUB	DO	IO	OBL	GEN	OComp
kes	?	√(–human)	*	*	*	*
lexical N	√	√	√	√/*	√(sub)	*

Inverted pseudo-clefts with *kes* are very limited. The only clear cases of inverted pseudo-clefts with *kes* involve the clefting of a [–human] object (cf. 72). Inverted pseudo-clefts based on [–human] subjects may also be possible, depending on whether *kes* in these examples is taken to be a complementizer or a lexical noun (cf. 66). When the cleft is formed with a lexical noun, on the other hand, all grammatical relations except objects of comparison are clefted.

Inverted pseudo-clefts with a lexical noun are like EHRCs in that some oblique NPs classified as Type C and objects of comparision cannot be clefted. Moreover, inverted pseudo-clefts are unlike pseudo-clefts. Not every pseudo-cleft has a corresponding inverted pseudo-cleft. That is, we have seen that the categories to be clefted are more limited in inverted pseudo-clefts than in pseudo-clefts.

3.3.1.2 Other categories

Now I turn my attention to categories other than NP. As in pseudo-clefts, VPs can be clefted in inverted pseudo-clefts, as in (93).

(93) **Hakkyo-ey** **phyenci-lul** **ponay-n** **kes-i**
school-DAT letter-ACC send-adn nmz-NOM

[John-i ha-n kes]-i-ta
J.-NOM do-adn comp-be-ind

'Send a letter to the school is what John did.' (cf. 35)

However, unlike pseudo-clefts, inverted pseudo-clefts are not possible with predicate nominals, as in (94).

(94) ??***Cangkwun-i** [ku-ka kyelkwuk __ toy-n
general-NOM he-NOM eventually become-adn
kes]-i-ess-ta
comp-be-pst-ind
'A general is what he eventually became.' (cf. 34)

Let us now turn to predicate attributes. Recall that APs and PPs that function as predicate attributes cannot be pseudo-clefted. (95)–(96) below show that such APs and PPs also cannot be clefted in inverted pseudo-clefts.

(95) a. ***Phikonha-ye-ka** [Mary-ka __ poi-n kes]-i-ta
tired-inf-NOM M.-NOM seem-adn comp-be-ind
'Tired is what Mary seems to be.' (cf. 36a)

b. ***Isangha-key-ka** [nay-ka Mary-lul __ yeki-nun
strange-inf-NOM I-NOM M.-ACC consider-adn
kes]-i-ta
comp-be-ind
'??Strange is what I consider Mary.' (cf. 36b)

(96) a. ***Haksayng-i** [Mary-ka __ poi-nun kes/salam]-i-ta
student-NOM M.-NOM seem-adn comp/person-be-ind
'A student is what Mary seems to be.' (cf. 37)

b. ***Papo-ka** [nay-ka Mary-lul __ yeki-nun
fool-NOM I-NOM M.-ACC consider-adn
kes/salam]-i-ta
comp/person-be-ind
'(?)A fool is what I consider Mary.' (cf. 38)

In sum, in addition to nominals, we have also seen that inverted pseudo-clefts are not possible with predicate nominals, APs, or PPs functioning as predicate attributes, whereas they are possible with VPs.

3.3.2 Case

I claim that the syntactic role of a clefted constituent in the inverted pseudo-cleft is that of **subject** of the main verb, i.e. the copula *-i-* 'be'. It follows from this claim that the clefted element will be marked NOM (or alternatively as TOP as discussed in footnote 6). Thus, there is no case effect in inverted pseudo-clefts, since oblique markers do not occur on the clefted constituents, as seen in the data given in the previous section.

Further support for the claim that the clefted element is the subject comes from subject honorific agreement. Observe the following data:

(97) **Ku sensayngnim-i** [__ na-lul po-si-n pwun]-i-si-ta
the teacher-NOM I-ACC see-hon-adn person (hon)-be-hon-ind
'The teacher is the one that saw me.'

(98) **Ku sensayngnim-i** [nay-ka __ po-n pwun]-i-si-ta
the teacher-NOM I-NOM see-adn person (hon)-be-hon-ind
'The teacher is the one that I saw.'

(99) **Ku sensayngnim-i** [nay-ka chayk-ul __ cwu-n
the teacher-NOM I-NOM book-ACC give-adn
pwun]-i-si-ta
person (hon)-be-hon-ind
'The teacher is the one that I gave a book to.'

As can be seen in the above examples, regardless of whether the clefted element corresponds to the subject (97), direct object (98), or the indirect object (99) in the embedded clause, it controls subject honorification in the main clause. This supports the claim that it is, in fact, the subject of the cleft.

3.3.3. Summary

The following are some of the syntactic characteristics of inverted pseudo-clefts:

(i) A clefted constituent in an inverted pseudo-cleft is the subject of the main verb, i.e. the copula, and it is nominative marked.

(ii) The categories that can be clefted are more limited in the inverted pseudo-cleft than in the pseudo-cleft. Accessibility was examined in two ways: with the cleft formed with a complementizer *kes* and with the cleft formed with a "light" lexical noun. When the clefted clause is formed with *kes*, indirect objects, oblique NPs, genitive NPs, and objects of comparison cannot be clefted. Moreover, a direct object can be clefted only if it is [–human]. However, it is not clear if a subject can be clefted even if it is [–human]. When the clefted clause is formed with a lexical noun, all grammatical relations are available except Type C obliques and objects of comparison.

(iii) Predicate nominals and APs or PPs functioning as predicate attributes can be clefted in an inverted pseudo-cleft, whereas VPs cannot be.

(iv) There is no case effect: the clefted constituent is the subject of the main clause and is thus marked nominative (or as a topic).

(v) When a genitive NP is clefted, as in pseudo-clefts, it must be in the subject position of the clefted clause, and it obligatorily leaves a resumptive pronoun.

3.4 *Kes*-cleft sentences

So far I have discussed external focus constructions (i.e. pseudo-clefts and inverted pseudo-clefts). Now I turn my attention to internal focus constructions (i.e. *kes*-clefts).

Korean inverted pseudo-clefts and *kes*-clefts are relatively rare in formal speech, whereas pseudo-clefts are very common. Nevertheless, both inverted pseudo-clefts and *kes*-clefts can be often used in colloquial speech in some circumstances. For example, an inverted pseudo-cleft or a *kes*-cleft is used to focus a certain element of the previous context or debate.

Kes-clefts and IHRCs are similar morphologically, syntactically and semantically. Morphologically and syntactically, both contain embedded clauses followed by the particle *kes*. Semantically, the semantic head in both *kes*-clefts and IHRCs is located inside the embedded clause. In *kes*-clefts, the entire *kes*-marked subordinate clause is the complement of the copula. The XP appearing in the leftmost position inside the subordinate clause is taken as the semantic head. This fact is parallel to a characteristic of IHRCs in that the syntactic argument of a main predicate is the entire embedded clause followed by the particle *kes*, but its semantic head is inside the embedded clause, as discussed in the previous chapter.

The structure of internal focus constructions (IFCs) is given as follows. (cf. 9)

(100) [$_{IP}$ pro [$_{NP}$[$_{CP}$ XP . . . [$_{C}$ *kes*]]]-BE],

where the focus (XP) appears in the leftmost position inside the subordinate clause, and the subject of the main clause is an unspecified pro.

3.4.1 Accessibility

This section presents data showing the accessibility facts for *kes*-clefts. First, I examine the cleftibility of various nominal elements (section 3.4.1.1) and then I briefly discuss non-nominal elements (section 3.4.1.2).

3.4.1.1 Nominals

Let us now turn our attention to the categories that can be clefted in *kes*-clefts. The data here parallel the data in the previous sections (cf. 3.2 and 3.3).

First, I turn my attention to subject nominals. Subject NPs (101–103) as well as clausal subjects (104) can be clefted:

(101) pro [**Amso-ka** __ ecey pam-ey cwuk-un kes]-i-ess-ta
cow-NOM yesterday night-at die-adn comp-be-pst-ind

'It was a cow that died last night.' (cf. 12b and 66)

(102) pro [**Totwuk-i** __ ku pang-eyse nao-n kes]-i-ta
thief-NOM the room-from come out comp-be-ind

'It was the thief that came out of the room.' (cf. 13a)

(103) pro [**Changmwun-i** __ John-eyuyhayse kkay-ci-n
window-NOM J.-by break-pss-adn
kes]-i-ess-ta

comp-be-pst-ind

'It was the window that was broken by John.' (cf. 15b and 69)

(104) pro [**Ku-ka** **malepsi** **ttena-n** **kes-i** __ na-lul
he-NOM word without leave-adn nmz-NOM I-ACC

kacang koylophi-n kes]-i-ta
most disturb-adn comp be-ind

'It is that he left without a word that disturbs me most.' (cf. 16 and 70)

Next, I turn to nominals other than the subject. Direct object (105), and indirect object (106) nominals as well as clauses (107) can be clefted.

(105) pro [**I** **say** **cha-lul** nay-ka __ sa-n kes]-i-ta
this new car-ACC I-NOM buy-adn comp-be-ind

'It is this new car that I bought.' (cf. 17b and 72)

(106) pro [**Tom-eykey** John-i chayk-ul __ cwu-n kes]-i-ta
T.-DAT J.-NOM book-ACC give-adn comp-be-ind

'It is Tom that John gave a book to.' (cf. 19 and 74a)

(107) pro [**John-i** **nolay-lul** **cal** **ha-nun** **kes-ul**
J.-NOM song-ACC well do-adn nmz-ACC

nay-ka __ al-ko-iss-nun kes]-i-ta
I-Nom know-prog-be-adn comp-be-ind

'It is the fact that John sings well that I know.' (cf. 18 and 73)

Next, let us turn to oblique NPs. All adverbials can be clefted, even when they are clausal, as seen in (108).

(108) a. pro [**Namwu-lo** John-i i thakca-lul __ mantu-n
wood-INST J.-NOM this table-ACC make-adn

kes]-i-ta
comp-be-ind

'It is wood that John made this table with.'

b. pro [**I** **pangpep-ulo** ne-ka __ i kes-ul
this manner-INST you-NOM this thing-ACC

ha-l-swu-iss-nun kes]- i-ta
do-fut-ability-be-adn comp-be-ind

'It is this way that you are able to do this.'

c. pro [**Na-uy** **anay-lul wuyhayse** nay-ka
I-Gen wife-BEN I-NOM

say cha-ul __ sa-n kes]-i-ta
new car-ACC buy-adn comp-be-ind

'It is my wife whom I bought a new car for.'

d. pro [**Mary-hako** John-i __ yenghwakwan-ey ka-n
M.-COMIT J.-NOM theatre-to go-adn

kes]-i-ta
comp-be-ind

'It is Mary that John went to the theatre with.'

e. pro [**I** **tapang-eyse** wuli-ka __ cheumulo
this coffee shop-LOC we-NOM for the first time
manna-n kes/*kos]-i-ta
meet-adn comp/place-be-ind
'It is in this coffee shop that we met for the first time.'

f. pro [**1939** **nyen-ey** i yenghwa-ka __ mantul-e ci-n
year-in this movie-NOM make-pss-adn
kes/*ttay]-i-ta
comp/time-be-ind
'It is in 1939 that this movie was made.'

g. pro [**Wuli-ka** **ku-lul** **miwehay-ss-ki-ttaymwun-ey**
we-NOM he-ACC dislike-pst-nmz-because-at
ku-ka __ ttena-n kes/*iyu]-i-ta
he-NOM leave-adn comp/reason-be-ind
'It is because we disliked him that he left.'

h. pro [**Phati-ka** **kkuthna-n** **hwu-(ey)** ku-ka __ o-n
party-NOM finish-adn after-at he-NOM come-adn
kes]-i-ta
comp-ind
'It is after the party was finished that he came.'

As previously discussed, in pseudo-clefts formed with *kes*, the complementizer *kes* can be used when the oblique case marker is retained. On the other hand, in pseudo-clefts formed with a lexical noun, the oblique case marker is omitted. However, in *kes*-clefts, only the complementizer *kes* can be used when adverbials such as location (108e), time

(108f), or reason (108g) are clefted constituents. This fact further motivates the distinction between *kes*-clefts and pseudo-clefts in Korean since *kes*-clefts are always possible with the complementizer *kes* and not a lexical noun.

The same point can be made with inverted pseudo-cleft data. Compare the *kes*-clefts in (108e–g) with the inverted pseudo-clefts in (109a–c) respectively:

(109) a. **I** **tapang-i** [wuli-ka __ cheumulo
this coffee shop-NOM we-NOM for the first time

manna-n *kes/kos]-i-ta
meet-adn comp/place-be-ind

'This coffee shop is the place where we met for the first time.'

b. **1939** **nyen-i** [i yenghwa-ka __ mantul-e ci-n
year-NOM this movie-NOM make-pss-adn

*kes/ttay]-i-ta
comp/time-be-ind

'1939 is when this movie was made.'

c. **Wuli-ka** **ku-lul** **miwehay-ss-um-i**
we-NOM he-ACC dislike-pst-nmz-NOM

[ku-ka __ ttena-n *kes/iyu]-i-ta[30]
he-NOM leave-adn comp/reason-be-ind

'That we disliked him is the reason that he left.'

In (109a–c), where the clefted constituents are adverbials of location, time, and reason,

[30]The different morphological form of a clefted constituent is due to the different syntactic properties of the nominalizers *-ki* and *-um*.

inverted pseudo-clefts contain clefted clauses taking the "light" lexical nouns *iyu* 'reason', *kos* 'place' or *ttay* 'time', respectively. Unlike *kes*-clefts, inverted pseudo-clefts are not always possible with *kes*. The different status of the Comp in these two constructions leads us to the conclusion that the syntactic structures of inverted pseudo-clefts and *kes*-clefts are different.

Next, let us consider genitive NPs. As in EFCs, the genitive NP is to some extent restricted. When the genitive NP is clefted, it obligatorily leaves a resumptive pronoun in the subject position of the clefted clause, as the contrast between (110a) and (110b) shows.

(110) a. *pro [**Mary-ka** __ cip-i phal-li-n kes]-i-ta
M.-NOM house-NOM sell-pss-adn comp-be-ind
'It is Mary whose house was sold.'

b. pro [**Mary-ka** caki-(uy) cip-i phal-li-n
M.-NOM self-(GEN) house-NOM sell-pss-adn
kes]-i-ta
comp-be-ind
'It is Mary whose house was sold.'

Examples (111a-b) show that the genitive NP in object position cannot be clefted.

(111) a. *pro [**Mary-ka** John-i (caki-uy) cip-ul sa-n
M.-NOM J.-NOM (self-GEN) house-ACC buy-adn
kes]-i-ta
comp-be-ind
'It is Mary whose house John bought.'

b. *pro [**John-i** nay-ka (caki-uy) tongsayng-ul
J.-NOM I-NOM self-GEN brother-ACC
ecey manna-n kes]-i-ta
yesterday meet-adn comp-be-ind
'It is John whose brother I met yesterday.'

Let us now turn to objects of comparison. As in pseudo-clefts, objects of comparison are permitted in *kes*-cleft formation, as shown in (112).

(112) a. pro [**Tom-mankhum** John-i __ cal tali-n kes]-i-ta
T.-Degree J.-NOM well run-adn comp-be-ind
'It is Tom that John ran as well as.' (cf. 33a)

b. pro [**Tom-pota** John-i khi-ka __ khu-n kes]-i-ta
T.-than J.-NOM height-NOM tall-adn comp-be-ind
'It is Tom that John is taller than.' (cf. 33b)

3.4.1.2 Other categories

Now I turn to other categories to be clefted. Let us first consider predicate nominals. They cannot be clefted in a *kes*-cleft:

(113) *pro [**Cangkwun-i** ku-ka kyelkwuk __ toy-n
general-NOM he-NOM eventually become-adn
kes]-i-ess-ta
comp-be-pst-ind
'*It was a general that he eventually became.'

This comes from the fact that predicate nominals in Korean cannot scramble over the

subject in non-cleft sentences, as in (114).

(114) *Cangkwun-i ku-ka kyelkwuk __ toy-ess-ta
general-NOM he-NOM eventually become-pst-ind
'He eventually became a general.'

In this respect, *kes*-clefts are like inverted pseudo-clefts and English *it*-clefts.

Next, consider VPs. Like VPs in pseudo-clefts, VPs can be clefted in *kes*-clefts, as in (115).

(115) pro [**Hakkyo-ey** **phyenci-lul** **ponay-n** **kes-ul**
school-DAT letter-ACC send-adn nmz-ACC
John-i ha-n kes]-i-ta
J.-NOM do-adn comp-be-ind
'*It is send a letter to the school that John did.'

As suggested in the English gloss, English *it*-clefts cannot have a VP as the clefted constituent. Nonetheless, we find that Korean VP-cleft formation is similar to English in that nominalized VPs in *-ing* as in 'It is collecting stamps that John likes' can be clefted in English.

I turn to predicate attributes. APs that function as predicate attributes cannot be clefted, as shown in (116)

(116) a. *pro [**Phikonha-ye** Mary-ka __ poi-n kes]-i-ta
tired-inf M.-NOM seem-adn comp-be-ind
'*It is tired that Mary seems to be.'

b. *pro [**Isangha-key** nay-ka Mary-lul __ yeki-nun

strange-inf I-NOM M.-ACC consider-adn

kes]-i-ta
comp-be-ind

'*It is strange that I consider Mary.'

Together with the data in (116), these facts lead us to the following descriptive generalization: neither predicate nominals nor secondary predicate APs can precede the subject.

In contrast, PPs functioning as predicate attributes can be clefted. This contrasts with pseudo-clefts like (37) and (38).[31]

(117) a. pro [**Haksayng-ulo** Mary-ka __ poi-n kes]-i-ta
student-as M.-NOM seem-adn comp-be-ind

'??It is a student that Mary seems to be.'

b. pro [**Papo-lo** nay-ka Mary-lul __ yeki-nun kes]-i-ta
fool-as I-NOM M.-ACC consider-adn comp-be-ind

'??It is a fool that I consider Mary.'

To sum up, the following chart gives a comparison of non-nominal clefted constituents:

Table 5: Comparison of non-nominals that can be clefted in Korean

predicate attributes

[31]Examples (117a–b) also contrast with the equivalent English *it*-clefts, as suggested in the glosses.

Types of Clefts		VP	AP	PP
EFCs				
	pseudo-cleft	√	*	*
	inverted pseudo-cleft	√	*	*
IFCs				
	kes-cleft	√	*	√

3.4.2 Scrambling

As shown in the above examples, clefted constituents appear in the leftmost position in the subordinate clause through scrambling.[32] The original case markers must be retained.

Note that in Korean simple sentences, elements put in the initial position of the sentence through scrambling usually receive focus:

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[32]In these examples, clefted constituents can also be placed in the leftmost position in the subordinate clause through topicalization. If topicalization takes place, the topic marker *(n)un* appears. As previously noted in footnote 6, topic marker on clefted constituents makes it unclear whether the sentence is an inverted pseudo-cleft or a *kes*-cleft, as in (i); compare (i) with (72) and (105):

(i) **I** **say** **cha-nun** nay-ka __ sa-n kes-i-ta
this new car-TOP I-NOM buy-adn comp-be-ind
'This car is what I bought' (cf. 72) OR
'It is this new car that I bought.' (cf. 105)

On the other hand, if case stacking takes place, it is clear that topic-marked NPs are clefted constituents in *kes*-clefts and not in inverted pseudo-clefts, as in (ii) below.

(ii) pro [**Tom-eykey-nun** John-i chayk-ul __ cwu-n kes]-i-ta
T.-DAT-TOP J.-NOM book-ACC give-adn comp-be-ind
'It is Tom that John gave a book to.' (cf. 106)

In the following discussion, to avoid the confusion, I will exclude topic-marked NPs on the clefted constituent for both inverted pseudo-clefts and *kes*-clefts.

(118) Tom-eykey John-i chayk-ul __ cwu-ess-ta
T.-DAT J.-NOM book-ACC give-pst-ind
'To Tom, John gave a book.'

As I. Lee (1992) points out, adopting Kang's (1986) assumption that scrambling is a syntactic movement to A'-position, Korean scrambling in non-cleft sentences allows for iterative application adjoining to IP, as in (119).

(119) [$_{IP}$ Tom-eykey$_j$ [$_{IP}$ chayk-ul$_i$ [$_{IP}$ John-i t_i t_j cwu-ess-ta]]]
T.-DAT book-ACC J.-NOM give-pst-ind
(lit.: 'To Tom, a book, John gave.')

I. Lee (1992) extends multiple scrambling to *kes*-clefts. Suppose that clefted constituents in *kes*-clefts appear in the leftmost position in the subordinate clause through scrambling. Then, the focus position in *kes*-clefts is permitted to occur more than once, as in (120) below.

(120) [$_{IP}$ pro [$_{NP}$ [$_{CP}$ [$_{IP}$ **Tom-eykey**$_j$ [$_{IP}$ **chayk-ul**$_i$ [$_{IP}$ John-i t_i t_j cwu-n]]]
T.-DAT book-ACC J.-NOM give-adn
kes]]-i-ta]
comp-be-ind
'It is **Tom** that John gave **a book** to.'

The fact that, in the case of *kes*-clefts, clefted constituents obtained by scrambling is supported by the possibility of multiple-focus. This property of IFCs (*kes*-clefts) is also distinct from EFCs (pseudo-clefts and inverted pseudo-clefts). The multiple-focus interpretation is possible only in *kes*-clefts and not in inverted pseudo-clefts or in

pseudo-clefts.[33] This fact is illustrated in the following ungrammatical examples of pseudo-clefts (121) and inverted pseudo-clefts (122).

(121)	*[John-i __ __	cwu-n	kes]-un	**Tom-eykey**	**chayk-(ul)**-i-ta
	J.-NOM	give-adn	comp-TOP	T-DAT	book-ACC-be-ind

'*What John gave is a book to Tom.'

(122)	***Tom-eykey**	**chayk-i**	[John-i	__ __	cwu-n	kes]-i-ta
	T-DAT	book-NOM	J.-NOM		give-adn	comp-be-ind

'*A book to Tom is what John gave.'

As in (121), pseudo-clefts cannot allow a double-focus interpretation since a non-constituent does not appear in the pre-copular position. Likewise, as in (122), inverted pseudo-clefts cannot have this property since the subject of the main clause is available for only one position.

3.4.3 Summary

The following are some of the syntactic characteristics of the *kes*-cleft sentences discussed here:

(i) A clefted constituent, i.e. the semantic head, appears in the leftmost position of the subordinate clause through scrambling. Multiple focus constructions are possible, thus more than one nominal can be clefted.

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[33]As noted in Ball and Prince (1977) and Hedberg (1993b), the possibility of double-focus differentiates *it*-clefts and pseudo-clefts in English. Ball and Prince (1977) initially point out this difference but they make no attempt to explain it. The difference between English and Korean clefts with regard to a double focus interpretation is that the English double-focus interpretation is possible in either *it*-clefts or inverted pseudo-clefts. See Hedberg (1993b) for a detailed discussion.

(ii) The subject of the main clause is an unspecified pro.

(iii) Any constituent that can be scrambled, including VP, may be clefted.

(iv) The clefted constituent, since it is *in situ* in the embedded clause, appears in its clause-internal case, except for genitive-marked NPs.

(v) Only genitive NPs within the subject position can be clefted. They appear in the nominative case and leave a resumptive pronoun in the subject position of the clefted clause.

Kes-clefts can be formed on a variety of nominals. As in pseudo-clefts, all grammatical positions are available: subject, object, oblique NP, genitive NP, and object of comparison. This result is summarized in Table 6 below.

Table 6: The cleftability hierarchy in *kes*-clefts

	SUB	DO	IO	OBL	GEN	OComp
kes	√	√	√	√	√(sub)	√

3.5 A comparison of inverted pseudo-clefts and *kes*-clefts

This section briefly discusses differences between inverted pseudo-clefts and *kes*-clefts.

It was noted above that when a cleft has*kes* and a subject gap, the structure is ambiguous: it can be analyzed as either an inverted pseudo-cleft or a *kes*-cleft. We found this with respect to a [–human] subject clefted element (see 66–70). However, in the case of a pseudo-cleft with a [+human] clefted constituent, I claim that its corresponding version is a *kes*-cleft and not an inverted pseudo-cleft. Reconsider the following.

(123)	a.	[__	Cipwung-eyse	tteleci-n	kes]-un	**John**-i-ess-ta
			roof-from	fall down	comp-TOP	J.-be-pst-ind

'The one that fell down from the roof was John.' (= 12a)

b. **John-i** cipwung-eyse tteleci-n kes-i-ess-ta
J.-NOM roof-from fall down comp-be-pst-ind
'It was John that fell down from the roof.'

(123b) corresponds to a pseudo-cleft (123a). If (123b) were assumed to be an inverted pseudo-cleft—since *kes* has a derogatory meaning—then the two following expectations would be satisfied. One is the impossibility of a pseudo-cleft formed with *kes* and its corresponding version when a clefted constituent is an honorable person. The other is the possibility of an equivalent of a pseudo-cleft whose gap is a non-subject. However, I will show that the above assumption fails to achieve these expectations. Then, based on case effects and subject honorification, I will claim that equivalents like (123b) of pseudo-clefts like (123a) are best analyzed as an instance of *kes*-clefts rather than as an instance of inverted pseudo-clefts.

First, consider the expectation on which the clefted clause is formed with *kes* and an honorable person is clefted. The result would be ruled out since a clefted constituent *sensayngnim* 'teacher' is an honorable person in a pseudo-cleft (124a) and in an inverted version (124b).

(124) a. [__ John-ul cap-un kes]-un **sensayngnim-**i-si-ess-ta
J.-ACC catch-adn comp-TOP teacher-be-hon-pst-ind
'The one that caught John was a teacher.' (= 14b)

b. **Sensayngnim-i** John-ul cap-un kes-i-ess-ta
teacher-NOM J.-ACC catch-adn comp-be-pst-ind
'It was a teacher that caught John.'

However, (124a–b) are grammatical sentences. Hence, the first expectation is not satisfied, when we assume that *kes* would take a derogatory meaning as a pronoun.

The second expectation is that if (123b) were taken as an inverted pseudo-cleft, since *kes* can have a derogatory meaning, it would be expected that equivalents of pseudo-clefts with a [+human] clefted constituent whose gap is non-subject should be inverted pseudo-clefts. However, these equivalents of pseudo-clefts are ungrammatical, as seen in (125b) and (126b).

(125) a. [Nay-ka __ manna-n kes]-un **John**-i-ess-ta
I-NOM meet-adn comp-TOP J.-be-pst-ind
'The one that I met was John.' (= 17a)

b. ***John-i** [nay-ka __ manna-n kes]-i-ess-ta
J.-NOM I-NOM meet-adn comp-be-pst-ind
'John was the one that I met.' (= 71a)

(126) a. [John-i chayk-ul __ cwu-n kes]-un **Tom**-i-ess-ta
J.-NOM book-ACC give-adn comp-TOP T.-be-pst-ind
'To whom John gave a book was Tom.' (= 19)

b. ***Tom-i** [John-i chayk-ul __ cwu-n kes]-i-ess-ta
T.-NOM J.-NOM book-ACC give-adn comp-be-pst-ind
'Tom was the one that John gave a book to.' (= 74a)

As the ungrammaticality of (125b) and (126b) shows, the second expectation is not satisfied.

The ungrammaticality of (125b) and (126b) above is a problem for an analysis that claims inverted pseudo-clefts are derived from pseudo-clefts. This ungrammaticality seems to stem from the use of *kes* when the clefted constituent is [+ human]. Note that an equivalent sentence with a lexical noun like *salam* 'person' is possible. Consider the following:

(127) **John-i** [nay-ka __ manna-n salam]-i-ess-ta
J.-NOM I-NOM meet-adn person-be-pst-ind
'John was the one that I met.' (= 71b)

(128) **Tom-i** [John-i chayk-ul __ cwu-n salam]-i-ess-ta
T.-NOM J.-NOM book-ACC give-adn person-be-pst-ind
'Tom was the one that John gave a book to.' (= 74b)

This unique characteristic of a Comp in the clefted clause seems to be related to the semantic properties of the relativized XP. This means that there is a discrepancy between the status of a Comp and case effect, as seen in (129) and (130).

(129) a. **John-i/*ul** [nay-ka ecey __ po-n salam]-i-ess-ta
J.-NOM/ACC I-NOM yesterday see-adn person-be-pst-ind
'John was the one that I saw yesterday.'

b. pro [**John*-i/ul** nay-ka ecey __ po-n kes]-i-ta
J.-NOM/ACC I-NOM yesterday see-adn comp-be-ind
'It is John that I saw yesterday.'

(130) a. **Tom-i/*eykey** [John-i chayk-ul __ cwu-n salam]-i-ta

T.-NOM/DAT J.-NOM book-ACC give-adn person-be-ind

'Tom is the one that John gave a book to.'

b. pro [**Tom*-i/eykey** John-i chayk-ul __ cwu-n
T.-NOM/DAT J.-NOM book-ACC give-adn
kes]-i-ta
comp-be-ind

'It is Tom that John gave a book to.'

As seen in the above examples, the incompatibility of case effect between inverted pseudo-clefts and *kes*-clefts is due to the status of the Comp in each construction. That is, in the case of inverted pseudo-clefts, unlike pseudo-clefts and *kes*-clefts, [+human] clefted constituents cannot be associated with the complementizer *kes*. Thus [+human] clefted constituents in this construction must occur with a "light" lexical noun rather than *kes*.

Let us now turn to other examples showing a discrepancy between the Comp and case effect. These are given in (131):

(131) a. **I** **tapang-i/*eyse** [wuli-ka __ cheumulo
this coffee shop-NOM/LOC we-NOM for the first time
manna-n kos/cangso]-i-ta
meet-adn place/place-be-ind

'This coffee shop is the place where we met for the first time.'

b. pro [**I** **tapang*-i/eyse** wuli-ka __ cheumulo
this coffee shop-NOM/LOC we-NOM for the first time
manna-n kes]-i-ta
meet-adn comp-be-ind

'It is this coffee shop where we met for the first time.'

(132) a. **1939** **nyen-i/*ey** [i yenghwa-ka __ mantul-e ci-n
year-NOM/in this movie-NOM make-pss-adn

ttay]-i-ta
time-be-ind

'1939 is when this movie was made.'

b. pro [**1939** **nyen*-i/ey** i yenghwa-ka __ mantul-e ci-n
year-NOM/in this movie-NOM make-pss-adn

kes]-i-ta
comp-be-ind

'It is 1939 when this movie was made.'

There is no case effect in (131a) and (132b), since oblique markers cannot occur on the clefted constituents. This raises the question as to why case marking other than the nominative does not occur on the clefted constituents of inverted pseudo-clefts.[34] This is because the syntactic role of the clefted constituent is that of **subject** of the main verb, i.e. the copula.

Further support for this claim comes from subject honorific agreement. Compare (133a-b) with (134a-b):

(133) a. **Ku sensayngnim-i** [__ na-lul po-si-n
the teacher-NOM I-ACC see-hon-adn

pwun]-i-si-ta

[34]As previously noted in footnote 6, the topic marker (*n*)*un* may also occur on the clefted constituent in these examples.

person (hon)-be-hon-ind

'The teacher is the one that saw me.'

b. **Ku sensayngnim-i/*ul** [nay-ka __ po-n
the teacher-NOM/ACC I-NOM see-adn

pwun]-i-si-ta
person (hon)-be-hon-ind

'The teacher is the one that I saw.'

(134) a. pro [**Ku sensayngnim-i** __ na-lul po-si-n
thet teacher-NOM I-ACC see-hon-adn

kes]-i-*si-ta
comp-be-hon-ind

'It is the teacher that saw me.'

b. pro [**Ku sensayngnim*-i/ul** nay-ka __ po-n
the teacher-NOM/ACC I-Nom see-adn

kes]-i-*si-ta
comp-be-hon-ind

'It is the teacher that I saw.'

The honorific marking on the verb is possible only if the speaker owes honor to the referent of the subject NP. Honorific marking on the main verb is grammatical in (133a-b), but it is ungrammatical in (134a-b). This means that the clefted constituents of (133a-b) are subjects of the main verb, but those of (134a-b) are not, even if they are marked NOM, as in (134a).

In sum, it is evident that the inverted examples (123a) and (124b) above must be considered *kes*-clefts and not inverted pseudo-clefts. The evidence for this claim was

based on case effects and subject honorification.

I turn now to oblique case markers. As previously noted, most oblique markers, such as instrument (135a) and [+reciprocal] comitative (135b), cannot be omitted in pseudo-clefts. Even in the case of locative (135c), the oblique case marker cannot be omitted.

(135) a. [John-i i thakca-lul __ mantu-n kes]-un
J.-NOM this table-ACC make-adn comp-TOP
namwu-*(lo)-i-ta
wood-INST-be-ind
'What John made this table with is wood.' (= 24, 52a)

b. [John-i __ akswuha-n kes]-un **Mary-*(hako)**-i-ta
J.-NOM shake hands-adn comp-TOP M.-COMIT-be-ind
'The one that John shook hands with is Mary.' (= 53a)

c. [John-i __ kongpwuha-n kes]-un **tosekwan-*(eyse)**-i-ta
J.-NOM study-adn comp-TOP library-LOC-be-ind
'Where John studied is the library.'

In an inverted pseudo-cleft, however, this constituent would be a subject and should therefore be marked with nominative case. Such inverted pseudo-clefts are impossible, as (136a–c) show.

(136) a. ***Namwu-ka** [John-i i thakca-lul __ mantu-n
wood-NOM J.-NOM this table-ACC make-adn
kes]-i-ta
comp-be-ind

'Wood is what John made this table with.'

b. ***Mary-ka** [John-i __ akswuha-n kes]-i-ta
M.-NOM J.-NOM shake hands-adn comp-be-ind
'Mary is the one that John shook hands with.'

c. ***Tosekwan-i** [John-i __ kongpwuha-n kes]-i-ta
library-NOM J.-NOM study-adn comp-be-ind
'The library is where John studied.'

Unlike inverted pseudo-clefts, *kes*-cleft versions of pseudo-clefts (135) are possible, as in (137).

(137) a. pro [**Namwu-lo** John-i i thakca-lul __ mantu-n kes]-i-ta
wood-INST J.-NOM this table-ACC make-adn comp-be-ind
'It is wood that John made this table with.'

b. pro [**Mary-hako** John-i __ akswuha-n kes]-i-ta
M.-COMIT J.-NOM shake hands-adn comp-be-ind
'It is Mary that John shook hands with.'

c. pro [**Tosekwan-eyse** John-i __ kongpwuha-n kes]-i-ta
library-LOC J.-NOM study-adn comp-be-ind
'It is in the library that John studied.'

I now consider genitive NPs. As noted in section 3.3.1.1, a genitive NP as the

clefted constituent in an inverted pseudo-cleft is possible only if the clefted clause is formed with a lexical noun. On the other hand, when the clefted clause is formed with *kes*, as in subject accessibility, the result is not an inverted pseudo-cleft, but rather a *kes*-cleft. This is supported by subject honorification, as in (138).

(138) a. **Sensayngnim-i** caki-(uy) cip-i phal-li-n
teacher-NOM self-GEN house-NOM sell-pss-adn
pwun-i-si-ta
person-be-hon-ind
'The teacher is the one whose house was sold.' (cf. 86)

b. **Sensayngnim-i** caki-(uy) cip-i phal-li-n
teacher-NOM self-GEN house-NOM sell-pss-adn
kes-i-(*si)-ta
person-be-hon-ind
'It is the teacher whose house was sold.' (cf. 110b)

As (138a) shows, the honorific marking on the main verb is grammatical. However, it is ungrammatical in (138b). This means that the clefted constituent (*sensayngnim* 'teacher') in (138a) is the subject of the main verb, but it is not in (138b), even if it is marked NOM.[35]

In sum, some attention has been paid to distinguishing the syntactic structure of inverted pseudo-clefts, which contain a free relative or semi-free relative, from that of *kes*-clefts, which are superficially similar to IHRCs. Evidence for this comes from case effects based on the different status of the Comp position in the clefted clause and subject

[35]Note that as with other case markers, since the clefted constituent in an inverted pseudo-cleft is the subject of the main verb, the genitive NP must also be maked NOM when it clefts in the case of inverted pseudo-clefts.

honorific agreement. Furthermore, it was pointed out in section 3.4.2 that IFCs but not EFCs can be multiple focus constructions.

3.6 A comparison of clefts and relative clauses

In this chapter, I have tried to show some important syntactic and semantic aspects of Korean cleft sentences. I have proposed that Korean has two types of cleft constructions: external focus constructions and internal focus constructions. In addition, I have shown that there are two subtypes of EFCs: pseudo-clefts and inverted pseudo-clefts.

Some syntactic similarities between cleft constructions and relative constructions can be observed. First, consider the status of gaps in the two constructions. EFCs contain a gap, just like EHRCs do.

Second, accessibility in both constructions conforms to the universal Acccessibility Hierarchy proposed by Keenan and Comrie (1977), and Comrie (1981, 1989), among others: Subject > Direct Object > Indirect Object > Oblique NP > Genitive NP > Object of Comparison. According to Keenan and Comrie, if a language can relativize on a given constituent type on the hierarchy, then it must be able to relativize on all higher constituent types. Interestingly enough, inverted pseudo-clefts are like EHRCs in that some oblique NPs classified as Type C and objects of comparision cannot be clefted.

As discussed in the previous sections, pseudo-clefts and *kes*-clefts are possible based on objects of comparison, as shown in (139) and (140) respectively, unlike inverted pseudo-clefts and relative constructions.[36]

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[36]As previously noted in footnote 14, Korean does not allow relativization on objects of comparison, as in (i) and (ii), because of the recoverability constraint.

(i) *[John-i __ cal tali-n] Tom
J.-NOM well run-adn T.
'Tom, who John runs as well as'

(139) a. [John-i __ cal tali-n kes]-un **Tom*-(mankhum)**-i-ta
J.-NOM well run-adn comp-TOP T.-Degree-be-ind
'The one that John ran as well as is Tom.'

b. [John-i khi-ka __ khu-n kes]-un **Tom*-(pota)**-i-ta
J.-NOM height-NOM tall-adn comp-TOP T.-than-be-ind
'The one that John is taller than is Tom.'

(140) a. pro [**Tom-mankhum** John-i __ cal tali-n kes]-i-ta
T.-Degree J.-NOM well run-adn comp-be-ind
(lit.: 'It is Tom that John ran as well as.')

b. pro [**Tom-pota** John-i khi-ka __ khu-n
T.-than J.-Nom height-NOM tall-adn
kes]-i-ta
comp-be-ind
(lit.: 'It is Tom that John is taller than.')

Third, internally-headed nominalizations such as *kes*-clefts and IHRCs require an identical complementizer *kes*. However, externally headed nominalizations such as pseudo-clefts, inverted pseudo-clefts, and EHRCs do not always take this kind of complementizer.

Fourth, both constructions—except IHRCs—may have resumptive pronouns,

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(ii) *[John-i khi-ka __ khu-n] Tom
J.-NOM height-NOM tall-adn T.
'Tom, who John is taller than'

though these have a more restricted distribution in cleft constructions than in relative clauses. A resumptive pronoun (reflexive *caki* 'self') is allowed only in subject position in clefted clauses, but it is allowed in either subject (141a) or object position (141b) in relative clauses:

(141) a. [*(Caki-uy) kay-ka yengliha-n] Tom
self-GEN dog-NOM smart-adn T.
'Tom whose dog is smart'

b. [Nay-ka (caki/ku-uy) meyngchal-ul tteyepeli-n]
I-NOM (self/he-GEN) name card-ACC take off-adn
haksayng
student
'the student whose name card I took off' (from S. Lee (1984))

Finally, let us consider island constraints such as the coordinate structure constraint (CSC) and the complex NP constraint (CNPC). Both constructions are subject to the CSC, as shown by the examples (142).

(142) a. *[John-i yenge-wa __ kongpwuha-n] swuhak
J.-NOM English-and study-adn mathematics
'*mathematics that John studied English and'

b. *[John-i yenge-wa __ kongpwuha-n kes]-un
J.-NOM English-and study-adn comp-TOP
swuhak-i-ta
mathematics-be-ind
'*What John studied English and is mathematics.'

c. ***Swuhak**-i [John-i yenge-wa __ kongpwuha-n
mathethatics-NOM J.-NOM English-and study-adn

kwamok]-i-ta
subject-be-ind

'*Mathematics is the subject that John studied English and.'

d. *pro [**Swuhak-ul** John-i yenge-wa __
mathethatics-ACC J.-NOM English-and

kongpwuha-n kes]-i-ta
study-adn comp-be-ind

'*It is Mathematics that John studied English and.'

However, the CNPC is not uniformly obeyed, as seen in the data in (143):

(143) a. [[__ __ Ip-ko-iss-nun] os-i mesci-n] ku namca
wear-prog-be-adn clothes-NOM stylish-adn the man

(lit.: 'the man that the clothes that (he) is wearing are stylish')

b. *[[__ __ Ip-ko-iss-nun] os-i mesci-n kes]-un
wear-prog-be-adn clothes-NOM stylish-adn comp-TOP

ku namca-i-ta
the man-be-ind

(lit.: 'The one that the clothes that (he) is wearing are stylish is the man.')

c. **Ku namca-ka** [[__ __ ip-ko-iss-nun] os-i
the man-NOM wear-prog-be-adn clothes-NOM

mesci-n salam]-i-ta[37]
stylish-adn person-be-ind

(lit.: 'The man is the one that the clothes that (he) is wearing are stylish.')

d. pro [**Ku namca-ka** [__ __ ip-ko iss-nun] os-i
the man-NOM wear-prog be-adn clothes-NOM

mesci-n kes]-i-ta
stylish-adn comp-be-ind

(lit.: 'It is the man that the clothes that (he) is wearing are stylish.')

The examples in (143) show that pseudo-clefts are subject to the CNPC as in (143b), but other constructions (inverted pseudo-clefts, *kes*-clefts, and EHRCs) violate the CNPC, as

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[37]Note that though (143c) is grammatical, a sentence with the structure in (i) is not:

(i) *[[**ku** **namca-ka** __ ip-ko-iss-nun] os-i
the man-NOM wear-prog-be-adn clothes-NOM

mesci-n salam]-i-ta
stylish-adn person-be-ind

(lit: 'The clothes that the man is wearing are stylish person.')

Because of (i), some speakers have difficulty in accepting the grammaticality of (143c). However, if TOP marking is substituted for NOM, the desired structure is clarified, since topic preferably appear in the main rather than the embedded clause.

(ii) **ku** **namca-nun** [[__ __ ip-ko-iss-nun] os-i
the man-TOP wear-prog-be-adn clothes-NOM

mesci-n salam]-i-ta
stylish-adn person-be-ind

(lit: 'The man is the one that the clothes that (he) is wearing are stylish.')

in (143a, c, and d).[38] From this, we can conclude that Korean cleft constructions (at least pseudo-clefts) are not entirely subject to constraints shared by relative clauses.

In addition to some of the differences detailed above, there is another remarkable difference between clefts and relative clauses: most clefted constituents have a case effect but relativization lacks it. EHRCs have no case effect since all the case markers attached to the relativized NPs are obligatorily omitted along with the NP that is co-referential to the head. In contrast, each type of externally-headed cleft construction shows different case effects, as discussed earlier: the case effect is present in pseudo-clefts formed with the complementizer *kes* and absent in inverted pseudo-clefts. In IHRCs and IFCs (i.e. *kes*-clefts), on the other hand, the relativized (or cleft) NP appears in its clausal-internal

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[38]Korean IHRCs are subject to the CSC but violate the CNPC, as in (i) and (ii) respectively:

(i) *Swunkyeng-i [[somaychiki-wa totwuk-i tomangka-nun
policeman-NOM pickpocket-and thief-NOM run away-adn
kes]-ul cap-ass-ta
comp-ACC catch-pst-ind
'*The policeman caught a thief who a pickpocket and ran away.'
(not) 'The policeman caught a pickpocket and a thief who ran away.'

(ii) Swunkyeng-i [[totwuk-i __ hwumchi-n] mwulken-ul
policeman-NOM thief-NOM steal-adn thing-ACC
nalu-ko-iss-nun kes]-ul cap-ass-ta
carry-prog-be-adn comp-ACC catch-pst-ind
(lit.: 'The policeman caught the thief who (he) was carrying things that (he) stole.')

Interestingly, when *kes*-clefts can contain IHRCs, they also violate the CNPC, as in (iii):

(iii) pro [$_{IP}$[$_{NP}$[$_{CP}$ **totwuk**-i pang-eyse nao-nun kes]]-ul
thief-NOM room-from come out-adn comp-ACC
[$_{NP}$[$_{CP}$ swunkyeng-i __ cap-un kes]]]-i-ta
policeman-NOM caught-adn comp-be-ind
'*It is the thief that the policeman caught who came from the room.'

case (hence it is visible) since the head is *in situ* inside the relative clause.

The following chart summarizes the similarities and differences between cleft constructions and relative constructions:

Table 7: Similarities and differences between clefts and relatives

	clefts				relative clauses	
	EFC		IFC		EHRC	IHRC
	Pseudo	Inverted Pseudo	*kes*-cleft			
gap	yes	yes	no	yes	no	
identical COMP(*kes*)	yes/no	yes/no	yes		yes/no	yes
predicate nominal	yes	no	no	no	no	
resumptive pronoun	yes	yes	yes	yes	no	
CSC		OBED	OBED	OBED	OBED	OBED
CNPC	OBED	VIOL	VIOL	VIOL	VIOL	
case effects	yes	no	N/A	no	N/A	

in clefts
with *kes*

(Note that OBED stands for obedience, and VIOL for violation)

Chapter 4
Comparative Constructions

4.1 Introduction

This chapter discusses two types of comparative constructions: plain NP-comparatives, as in (1) and clausal NP-comparatives, as in (2):[1]

(1) John-un **Yumi-(eykey)**-pota Mary-eykey kamca-lul
J.-TOP Y.-(DAT)-than M.-DAT potato-ACC
(te) manhi cwu-ess-ta
more many give-pst-ind
'John gave more potatoes to Mary than (to) Yumi.'

(2) John-un [$_{NP}$ pro **Yumi-*(eykey)** cwu-n kes]-pota
J.-TOP Y.-DAT give-adn comp-than
Mary-eykey kamca-lul (te) manhi cwu-ess-ta
M.-DAT potato-ACC more many give-pst-ind
'John gave more potatoes to Mary than he gave to Yumi.'

In (1), the comparative particle *pota* 'than' follows an NP constituent, and in (2), *pota* follows a nominal clause headed by *kes*.[2,3] Following Hankamer (1973), this constituent is

[1]Korean comparatives have not been systematically studied. Other than S. Kim (1972)'s discussion of plain NP-comparatives, little mention has been made of this construction. This is surprising given the rich body of work on these constructions in other languages.

[2]The status of *kes* in comparatives is also controversial. As in the case of relative clauses and clefts, *kes* in comparatives can be argued to be either a complementizer or a proform. However, I want to analyze this *kes* as the former rather than the latter because internally-headed comparative clauses, which will be discussed in section 4.4, show

called the **target**. It is indicated in bold face and the compared element in the main clause by underlining.

Let us now briefly consider the properties of plain NP-comparatives vs. clausal NP-comparatives. The salient properties of both are described as follows:

(3) a. Plain NP-comparatives like (1) consist of one nominal, sometimes case-marked, followed by *pota*.

b. Clausal NP-comparatives like (2) have a full sentential structure and NPs within them take case. The verb is repeated or, in limited cases, an anaphoric verb *ha* 'do' is used.[4]

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parallel with other internally-headed constructions. Whatever its status, it does not affect my discussion in this section, since the clause followed by *kes* consists of an NP.

[3]Instead of *kes*, a nominalizer *-ki* can be used in the clausal NP-comparative. However, the meaning of the corresponding sentence with *-ki*, as in (i), is different from that of (2):

(i) John-un [$_{NP}$ pro **Yumi-*(eykey)** cwu-ki]-pota <u>Mary-eykey</u>
J.-TOP Y.-DAT give-KI-than M.-DAT
kamca-lul (*te) manhi cwu-ess-ta
potato-ACC more many give-pst-ind
(lit: 'John gave many potatoes to Mary rather than (he) gave to Yumi.')

As the English translation suggests, this kind of clausal NP-comparative functions like a *rather than* construction of English. Moreover, unlike (2), an embedded verb followed by *-ki* must be uninflected, and the word *te* in general cannot be used in (i). Therefore, it is beyond the scope of this study.

[4]Unlike English, an anaphoric *ha* verb alone is usually not used in the comparative clause, as in (i). Instead, Korean has an anaphoric verb construction *kulehkey ha* corresponding to *do so* pronominalization in English, as in (ii).

(i) *John-un [pro **Yumi-eykey** ha-n kes]-pota <u>Mary-eykey</u>
J.-TOP Y.-DAT do-adn comp-than M.-DAT
kkoch-ul (te) manhi ponay-ess-ta

c. Although Korean has no overt comparative morphology like English, *te* 'more' is optional in both types of comparatives, as in (1) and (2).

Section 4.2 presents the differences and the similarities between plain and clausal NP-comparatives. I give three differences—based on multiple comparatives, case, and word order effects—for distinguishing the two Korean comparatives. In addition, I present a generalization on the interpretation of the plain NP-comparatives that refers to word order.

The internal structure of clausal NP-comparatives in Korean is different from that of clausal comparatives in languages such as English and German. Korean clausal comparatives are headed nominalizations paralleling relative clauses: a full clause formed with a complementizer *kes* is involved, as schematized in (4):

(4) Subordinate structure:

[... [[[...]$_{XP}$ kes]$_{NP}$-pota]$_{PP}$ (te) ...]$_{YP}$

---

flower-ACC more many send-pst-ind
'John sent more flowers to Mary than he did to Yumi.'

(ii) John-un [pro **Yumi-eykey** kulehkey ha-n kes]-pota <u>Mary-eykey</u>
J.-TOP Y.-DAT do so-adn comp-than M.-DAT
kkoch-ul (te) manhi ponay-ess-ta
flower-ACC more many send-pst-ind
'*John sent more flowers to Mary than he did so to Yumi.'

Whatever the syntactic category (XP or YP), the comparative clause (NP) can be coordinated with the main clause by means of the comparative particle *pota*. Korean clausal NP-comparatives could thus be viewed as an instance of coordination.[5]

(5) Coordinate structure:

[[...]$_{XP}$ kes]$_{NP}$-pota [... (te) ...]$_{YP}$

I argue here, following Moltmann (1992), that in fact both views of Korean comparatives are correct. They are simultaneously subordinate and coordinate structures.

I motivate this claim in section 4.3 by presenting evidence for the claim that the Korean comparative particle *pota* 'than' in both clausal and plain NP-comparative constructions may act as a coordinating conjunction as well as a postposition. Following Moltmann (1992)'s discussion of English *than*, this dual function of *pota* yields two distinct simultaneous syntactic structures, namely, coordinate and subordinate structures. However, it is shown that strategies for coordination of clausal comparatives in English and Korean are systematically different: English clausal comparatives can be coordinated

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[5]The categorial mismatch seems to create a violation of the Law of the Coordination of Likes proposed by Williams (1981) because the resulting conjunction is an NP and a clause. The Law of the Coordination of Likes requires the conjuncts to be composed of like categories, so one might argue that an NP cannot be conjoined with an IP or CP. However, Goodall (1987: 46) points out, following Sag et al. (1985), that there are some sentences in which NPs are conjoined with clauses:

(i) You can depend on my assistant and that he will be on time.
(ii) We talked about Mr. Colson and that he had worked at the White House.

Notably, despite the categorial mismatch, some languages (for example, Russian) allow for coordination of two distinct categories NP and PP (i.e., [NP PP]$_{NP}$). See McNally (1993) for a detailed discussion.

with the main clause only when they occur sentence-finally, but the Korean counterparts can get coordinate structures only when they occur sentence-initially.

As with other headed nominalizations in Korean, two types of clausal NP-comparatives are exhibited, externally-headed comparative clauses (EHCCs) as in (6) and internally-headed comparative clauses (IHCCs) as in (7):

(6) Externally-headed comparative clauses (EHCCs)

John-i	[Yumi-ka	__	mek-un	kes]-pota	sakwa-lul	(te)
J.-NOM	Y.-NOM		eat-adn	comp-than	apple-ACC	more
manhi	mek-ess-ta					
many	eat-pst-ind					

'John ate more apples than Yumi ate.'

(7) Internally-headed comparative clauses (IHCCs)

John-i	[Yumi-ka	sakwa-lul	mek-un	kes]-pota	(te)
J.-NOM	Y.-NOM	apple-ACC	eat-adn	comp-than	more
manhi	mek-ess-ta				
many	eat-pst-ind				

'John ate more apples than Yumi ate.'

(lit.: 'John ate more than Yumi ate apples.')

Thus, a clausal NP headed by *kes* superficially looks like either a free relative or an IHRC depending on the presence of a gap. The NP followed by *pota* has a structure similar to that of an NP free relative if there is a gap, and that of an IHRC if there is no gap.

Section 4.4 argues for the existence of IHCCs and discusses the difference and similiarity between EHCCs and IHCCs with respect to accessibility and island effects.

We see, as with other head-*in-situ* constructions, IHCCs have a much more limited range of occurrence than EHCCs. However, they are not different with respect to island effects.

The summary and conclusions of this chapter are given in section 4.5.

4.2 Differences and similarities between plain and clausal NP- comparatives[6]

The purpose of this section is to show the differences and similarities between plain NP comparatives and clausal NP-comparatives in Korean. This discussion mirrors the results of a similar study of English comparatives (Napoli 1983). Contrasting two types of comparatives in English with those in Korean, we find that some of the evidence presented in the literature distinguishing the English comparatives is not available in Korean.

I make a comparison between the two comparatives with respect to NP accessibility and island effects. Particularly, it is shown that island effects cannot be provided as a kind of evidence for distinguishing two types of comparatives in Korean, contrary to cross-linguistic expectations. Finally, I present three kinds of evidence for making a distinction between the two, based on multiple comparatives, case, and word order effects.

Sections 4.2.1–4.2.5 show differences and similarities between the two types of comparative constructions, and section 4.2.5 discusses word order effects related to the interpretation of the plain NP-comparative when a case marker on the target is omitted. The summaries and conclusions of this study are given in section 4.2.6.

4.2.1 NP accessibility

[6]Jhang (1993a) is an earlier version of this section.

The two Korean comparative constructions allow all grammatical relations except possessive NP to be the target of the comparison. This is illustrated in (8)–(12) where the (a) examples are plain NP-comparatives and the (b) examples are clausal NP-comparatives.

(8) Subject

a. John-i **Mary**-pota khi-ka (te) khu-ta
J.-NOM M.-than height-NOM more tall-ind
'John is taller than Mary.'

b. John-i [**Mary-ka** khi-ka khu-n kes]-pota
J.-NOM M.-NOM height-NOM tall-adn comp-than
khi-ka (te) khu-ta
height-NOM more tall-ind
'John is taller than Mary is.'

(9) Object

a. John-un **emeni**-pota apeci-lul (te) salangha-n-ta
J.-TOP mother-than father-ACC more love-pre-ind
'John loves his father more than his mother.'

b. John-un [pro **emeni-lul** salangha-nun kes]-pota
J.-TOP mother-ACC love-adn comp-than
apeci-lul (te) salangha-n-ta
father-ACC more love-pre-ind
'John loves his father more than his mother.'

(10) Indirect Object

a. John-un **Mary-(eykey)**-pota Sue-eykey kkoch-ul
J.-TOP M.-DAT-than S.-DAT flower-ACC

(te) manhi cwu-ess-ta
more many give-pst-ind

'John gave more flowers to Sue than (to) Mary.'

b. John-un [pro **Mary-eykey** cuw-n kes]-pota
J.-TOP M.-DAT give-adn comp-than

Sue-eykey kkoch-ul (te) manhi cwu-ess-ta
S.-DAT flower-ACC more many give-pst-ind

'John gave more flowers to Sue than he gave to Mary.'

(11) Oblique

a. Aitul-un **aphttul-(eyse)**-pota twisttul-eyse
children-TOP front yard-LOC-than back yard-LOC

nolki-lul (te) cohaha-n-ta
play-ACC more like-pre-ind

'Children like to play in the back yard more than in the front yard.'

b. Aitul-un [pro **aphttul-eyse** nolki-lul cohaha-nun
children-TOP front yard-LOC play-ACC like-adn

kes]-pota twisttul-eyse nolki-lul (te) cohaha-n-ta
comp-than back yard-LOC play-ACC more like-pre-ind

'Children like to play in the back yard more than they like to play in the front yard.'

(12) *Possessive NPs

a. **Mary**-pota John-uy cha-ka (te) ppalli talli-n-ta

M.-than J.-GEN car-NOM more fast run-pre-ind

'John's car runs faster than *Mary's/Mary.'[7]

b. *[**Mary-uy** ppalli talli-n kes]-pota John-uy cha-ka
M.-GEN fast run-adn comp-pota J.-GEN car-NOM

(te) ppalli talli-n-ta
more fast run-pre-ind

'John's car runs faster than Mary's does.'

In sum, NP accessibility in the two Korean comparative constructions conforms to the universal Accessibility Hierarchy proposed by Keenan and Comrie (1977). The above data shows that subjects, objects, indirect objects, and oblique objects, but not genitive NPs, can be targets in comparatives.

4.2.2 Island effects

We now turn to island effects in the two types of comparative constructions. As Hankamer (1973), Napoli (1983), and others claim, English also has two types of comparatives—phrasal comparatives (corresponding to Korean plain NP-comparatives) and clausal comparatives (corresponding to Korean clausal NP-comparatives). In particular, Napoli gives several tests that distinguish them. Unfortunately, none of these tests carry over to Korean. For example, the most interesting of her tests is based on island effects.

(13) a. Who does Max like Susan more than?

[7]Examples like (12a) cannot mean that John's car runs faster than Mary's; rather it means that John's car runs faster than Mary. In other words, (12a) is ungrammatical in the intended meaning.

b. *Who is John taller than __ is?

[from Hankamer (1973: 179)]

WH-movement is possible out of the phrasal comparative (though somewhat marginal), as in (13a), while it is impossible out of the clausal comparative, as in (13b). This difference in WH-movement out of the two types of comparative constructions is evidence for this distinction: i. e. comparative clauses are islands, while phrasal comparatives are not.

As in English, Korean plain NP-comparatives are not islands with respect to WH-movement (14a). However, Korean has no such island effects in clausal NP-comparatives either:[8]

(14) a. John-i **nwukwu-pota** Mary-lul (te) cohaha-ni?
J.-NOM who-than M.-ACC more like-Q

'Who does John like Mary more than?'
'*Who does John like Mary more than likes Mary?'

b. John-i [$_{NP}$ pro **nwukwu-lul** cohaha-nun kes]-pota
J.-NOM who-ACC like-adn comp-than

Mary-lul (te) cohaha-ni?
M.-ACC more like-Q

'*Who does John like Mary more than he likes?'

In (14b), the Korean clausal NP-comparative corresponding to (13b) is grammatical when *nwukwu* (who) is associated with a Q-morpheme having a [+WH] feature. This is not

[8]Korean contrasts with Japanese in this respect. Watanabe (1992) shows that Japanese comparatives are subject to island conditions.

surprising given that Korean, like many other languages including Chinese and Japanese, does not show island effects in general, for example in relative clauses like (15).[9]

(15) a. [[[e_i e_j Ip-koiss-nun $_{CP}$] os$_j$-i $_{NP}$] mesci-n $_{CP}$] namca$_i$
wear-prog-adn clothes-NOM stylish-adn man
(lit: 'the man [who$_i$ [the clothes [that$_j$ [e_i is wearing e_j]] are stylish']]

b. [[[e_i e_j Ssu-n $_{CP}$] sosel$_j$-i $_{NP}$] nki-lul kku-n $_{CP}$] cakka$_i$
write-adn novel-NOM fame-ACC attract-adn writer
(lit: 'the writer [who$_i$ [the novel [that$_j$ [e_i wrote e_j]] are popular]]')
[from Na and Huck (1990: 35)]

It is well known that Korean, Chinese, and Japanese have complex relative clauses like (15), that violate Subjacency. See Chapter 2 for a discussion of complex relative clauses.

Therefore, some other means for distinguishing the two types of comparatives is necessary for Korean. In the following sections, I will present three kinds of evidence based on multiple comparatives, case, and word order effects.

4.2.3 Multiple comparatives

In the above discussion, we have seen examples of comparatives where one NP is compared. It is also possible to have comparatives where more than one NP is compared. These multiple comparatives are not available in both types of comparatives, however.

[9]As with relativization (see Chapter 2), if we assume Korean clausal NP-comparatives require that WH-movement takes place at LF rather than at S-structure, no subjacency violation would be entailed, and thus Korean comparatives should not exhibit island effects.

Plain NP-comparatives cannot be used for multiple comparatives, as in (16), whereas clausal NP-comparatives can, as in (17):

(16) plain NP-comparative:

*Ku sensayngnim-un **namhaksayng-tul-(eykey)**-(pota)
the teacher-TOP boy student-pl-DAT-than

yenphil-pota (te) manhun yehaksayng-tul-eykey
pencil-than more many girl student-plural-DAT

(te) manhun kongchayk-ul cwu-ess-ta
more many notebook-ACC give-pst-ind

(lit.: 'The teacher gave more notebooks to more girl-students than pencils (than) to boy students.')

(17) clausal NP-comparative:

Ku sensayngnim-un [pro **namhaksayng-tul-eykey** **yenphil-ul**
the teacher-TOP boy student-pl-DAT pencil-ACC

cwu-n kes]-pota (te) manhun yehaksayng-tul-eykey
give-adn comp-than more many girl student-pl-DAT

(te) manhun kongchayk-ul cwu-ess-ta
more many notebook-ACC give-pst-ind

'The teacher gave more notebooks to more girl-students than he had given pencils to boy-students.'

An example like (16) is ungrammatical regardless of the presence or absence of the first comparative particle *pota*. On the other hand, an example like (17) is acceptable.[10]

[10]Some native speakers may find it difficult to get the multiple comparative reading. The presence of *te* seems to help speakers get this reading.

4.2.4 Case

I now turn to case marking in the two types of comparatives. I show that case in plain NP-comparatives contrasts with that in clausal NP-comparatives in that S-Case is allowed in clausal NP-comparatives, but it is not allowed in plain NP-comparatives. On the other hand, I-Case is required in clausal NP-comparatives, as in non-comparative clauses, but it is not required in plain NP-comparatives.

4.2.4.1 Case in clausal NP-comparatives

As noted by various scholars, S-case (nominative and accusative) differs from I-case (dative, locative, instrumental, etc.) in a significant respect. As (18a) and (18b) show, S-case can be optionally omitted, but as (19a) and (19b) show, I-case is obligatorily present in simple clauses.

(18) S-Case:

a. John-(i) cip-ey ka-ss-ta
J.-NOM house-LOC go-pst-ind
'John went home.'

b. John-i sakwa-(lul) mek-ess-ta
J.-NOM apple-ACC eat-pst-ind
'John ate an apple.'

(19) I-Case:

a. John-i Yumi-*(eykey) ku kil-ul mwul-ess-ta
J.-NOM Y.-DAT that road-ACC ask-pst-ind
'John asked Yumi for directions.'

b. Pwul-i kongcang-*(ey) na-ss-ta

fire-NOM factory-LOC take place-pst-ind

'Fire took place in the factory.'

The same case facts are found in the clausal NP-comparative; S-case is optionally deleted (20a-b) while I-case is obligatory present (20c-d).

(20) a. [**Mary-(ka)** hyenmyengha-n kes]-pota John-i (te)
M.-NOM smart-adn comp-than J.-NOM more
hyenmyengha-ta
smart-ind

'Mary is smarter than John is.'

b. John-i [pro **sakwa-(lul)** mek-un kes]-pota kamca-lul
J.-NOM apple-ACC eat-adn comp-than potato-ACC
(te) manhi mek-ess-ta
more many eat-pst-ind

'John ate more potatoes than he ate apples.'

c. John-i [pro **Yumi-*(eykey)** cwu-n kes]-pota Mary-eykey
J.-NOM Y.-DAT give-adn comp-than M.-DAT
senmwul-ul (te) manhi cwu-ess-ta
gift-ACC more many give-pst-ind

'John gave more gifts to Mary than he gave to Yumi.'

d. Wuli-nun [pro **tapang-*(eyse)** manna-n kes]-pota
we-TOP coffee shop-LOC meet-adn comp-than
swulcip-eyse (te) cacwu manna-ss-ta
bar-LOC more often meet-pst-ind

'We met in the bar more often than we met in the coffee shop.'

Keeping this in mind, let us now consider the deletability of the case of the target of the plain NP-comparatives.

4.2.4.2 Case in plain NP-comparatives

Consider the following examples:

(21) a. **Mary-(*ka)**-pota John-i (te) hyenmyengha-ta
M.-NOM-than J.-NOM more smart-ind

'John is smarter than Mary.'

b. John-i **sakwa-(*lul)**-pota kamca-lul (te) manhi
J.-NOM apple-ACC-than potato-ACC more many

mek-ess-ta
eat-pst-ind

'John ate more potatoes than apples.'

c. John-i **Yumi-(eykey)**-pota Mary-eykey senmwul-ul
J.-NOM Y.-DAT-than M.-DAT gift-ACC

(te) manhi cwu-ess-ta
more many give-pst-ind

'John gave more gifts to Mary than (to) Yumi.'

d. Wuli-nun **tapang-(eyse)**-pota swulcip-eyse (te) cacwu
we-TOP coffee shop-LOC-than bar-LOC more often

manna-ss-ta
meet-pst-ind

'We met in the bar more often than in the coffee shop.'

In (21a-b), the targets of comparison cannot be marked with S-Case such as NOM and ACC, whereas they can be optionally marked with I-Case such as DAT and LOC, as in (21c-d). This fact is not unique to plain NP-comparatives. This can also be observed in topicalization, as in (22), as well as in the coordinate constructions with a conjunct marker *-wa/kwa*, as in (23).

(22) Topicalization

(i) S-Case:

a. John-(*i)-un Mary-lul salangha-n-ta
J.-NOM-TOP M.-ACC love-pre-ind
'John loves Mary.'

b. Sue-(*lul)-nun Tom-i silheha-n-ta
S.-ACC-TOP T.-NOM dislike-pre-ind
'As for Sue, Tom dislikes (her).'

(ii) I-Case:

c. Yumi-(eykey)-nun John-i ku chayk-ul cwu-ess-ta
Y.-DAT-TOP J.-NOM the book-ACC give-pst-ind
'As for Yumi, John gave the book (to her).'

d. Kongcang-(ey)-nun pwul-i na-ss-ta
factory-LOC-TOP fire-NOM take place-pst-ind
'In the factory, fire took place.'

(23) Coordination

(i) S-Case:

a. John-(*i)-kwa Mary-ka hakkyo-ey ka-ss-ta
J.-NOM-conj M.-NOM school-LOC go-pst-ind
'John and Mary went to school.'

b. John-i Yumi-(*lul)-wa Mary-lul cohaha-n-ta
J.-NOM Y.-ACC-conj M.-ACC like-pre-ind
'John likes Yumi and Mary.'

(ii) I-Case:

c. John-i Yumi-(eykey)-wa Mary-eykey senmwul-ul
J.-NOM Y.-DAT-conj M.-DAT gift-ACC
cwu-ess-ta
give-pst-ind
'John gave a gift to Yumi and Mary.'

d. Wuli-nun tapang-(eyse)-wa swulcip-eyse-man
we-TOP coffee shop-LOC-conj bar-LOC-only
manna-ss-ta
meet-pst-ind
'We met only in the coffee shop and in the bar.'

As demonstrated in (22)–(23), a topic marker *(n)un* and a conjunct marker *-wa/kwa* cannot co-occur with S-Case, whereas they can optionally co-occur with I-Case. From this, the plain NP-comparative appears to be parallel to topicalization as well as to the coordinate construction with regard to case deletability.

Thus, Case in plain NP-comparatives contrasts with that in clausal NP-comparatives in that S-Case is allowed in clausal NP-comparatives, but it is not allowed in plain NP-comparatives. On the other hand, I-Case is required in clausal NP-comparatives, as in non-comparative clauses, but it is not required in plain NP-comparatives.

4.2.5 Word order effects on the multiple reading

This section deals with plain NP-comparatives having caseless targets. I show that dropping the target's case results in multiple readings. In contrast, clausal NP-comparatives are not ambiguous in this fashion.

First, consider clausal NP-comparatives. Examples (24a-c) give various word order possibilities.

(24) a. Tom-i **[$_{NP}$ pro** **Sue-lul** **cohaha-nun** **kes]-pota**
T.-NOM S.-ACC like-adn comp-than

Mary-lul (te) cohaha-n-ta
M.-ACC more like-pre-ind

'Tom likes Mary more than (he likes) Sue.'

b. **[$_{NP}$ pro** **Sue-lul** **cohaha-nun** **kes]-pota** Tom-i
S.-ACC like-adn comp-than T.-NOM

Mary-lul (te) cohaha-n-ta
M.-ACC more like-pre-ind

(=24a)

c. Tom-i Mary-lul **[$_{NP}$ pro** **Sue-lul** **cohaha-nun** **kes]-pota**
T.-NOM M.-ACC S.-ACC like-adn comp-than

(te) cohaha-n-ta
more like-pre-ind

(=24a)

Whatever the word order, the clausal NP-comparative is unambiguous. It is of course predicted that the clausal NP-comparative allows free word order as long as the verb remains final, since the target is usually marked with case, as discussed earlier.

We now turn to plain NP-comparatives. When case is present on the target, there is no ambiguity as there is in clausal NP-comparatives. For example, when an I-case such as the dative in (25) or (26) is present on the target, only one reading is possible, as expected.

(25) **Sue-eykey-pota** Tom-i Mary-eykey chayk-ul (te)
S.-DAT-than T.-NOM M.-DAT book-ACC more
manhi cwu-ess-ta
many give-pst-ind
'Tom gave more books to Mary than (to) Sue.'

(26) **Namhaksayng-eykey-pota** ku sensayngnim-i yehaksayng-eykey
boy student-DAT-than the teacher-NOM girl student-DAT
(te) manhi conkyengpat-ass-ta
more many be respected-pst-ind
'The teacher was respected by girl students more than by boy students.'

However, in plain NP-comparatives S-case does not appear on the target. This gives rise to multiple readings:

(27) Mary-lul Tom-i **Sue-pota** (te) cohaha-n-ta
M.-ACC T.-NOM S.-than more like-pre-ind

'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

I give further examples below. Examples (28a-f) test all possible word orders. As the English translations show, all of the examples are ambiguous. The target *Sue* can be interpreted either as the subject or the object of a transitive clause. In the English translations, a plus marker indicates the preferred reading. For example, two plus markers indicate a strongly preferred reading, one plus marker indicates a preferred reading, and no marker indicates that the reading is not preferred.

(28) a. **Sue-pota** Tom-i Mary-lul (te) cohaha-n-ta
S.-than T.-NOM M.-ACC more like-pre-ind
'Tom likes Mary more than (he likes) Sue.'
++ 'Tom likes Mary more than Sue does.'

b. **Sue-pota** Mary-lul Tom-i (te) cohaha-n-ta
S.-than M.-ACC T.-NOM more like-pre-ind
++ 'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

c. Tom-i **Sue-pota** Mary-lul (te) cohaha-n-ta
T.-NOM S.-than M.-ACC more like-pre-ind
++ 'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

d. Mary-lul **Sue-pota** Tom-i (te) cohaha-n-ta
M.-ACC S.-than T.-NOM more like-pre-ind
'Tom likes Mary more than (he likes) Sue.'

'Tom likes Mary more than Sue does.'

e. Tom-i Mary-lul **Sue-pota** (te) cohaha-n-ta
T.-NOM M.-ACC S.-than more like-pre-ind
+ 'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

f. Mary-lul Tom-i **Sue-pota** (te) cohaha-n-ta
M.-ACC T.-NOM S.-than more like-pre-ind
'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

From the above data, we can conclude that several factors influence the choice of readings in plain NP-comparatives. First, the compared element that is closest to the target is preferred over potential compared elements that are further away. This is seen in (28a), (28b), (28c), and (28e). Second, a compared element to the right of the target is preferred over one to the left, as (28c) shows. Third, non-subjects are preferred over subjects, as (28b), (28c), and (28e) show. I formalize these observations as the two principles in (29).

(29) **Principles for determining the compared element in a plain NP-comparative:**
(i) The closest NP to the right of the target is preferred.
(ii) Non-subjects that are adjacent to the target are preferred.

These principles compete to a certain extent. It can be claimed, however, that in the preferred reading the NP that satisfies the most principles will be the compared

element. If two compared elements satisfy the same number of principles, then there will be no preferred reading.

This point can be illustrated by re-examining the data in (28). In (28') I have indicated a nominal which satisfies a single principle by underlining it. Furthermore, I have indicated a nominal which satisfies two principles by double-underlining.[11]

(28') a. **Sue-pota** <u>Tom-i</u> Mary-lul (te) cohaha-n-ta

'Tom likes Mary more than (he likes) Sue.'
++ 'Tom likes Mary more than Sue does.'

b. **Sue-pota** <u>Mary-lul</u> Tom-i (te) cohaha-n-ta

++ 'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

c. Tom-i **Sue-pota** <u>Mary-lul</u> (te) cohaha-n-ta

++ 'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

d. <u>Mary-lul</u> **Sue-pota** <u>Tom-i</u> (te) cohaha-n-ta

'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

[11]For the most part, the strength of the reading is also accounted for by the principles in (29): double-underlined nominals are strongly preferred while single underlined nominals are not. I assume that the first principle in (29) is more important than the second one. For example, *Tom* in (28a), since it is the only nominal selected by a principle, is strongly preferred. In comparison, *Mary* in (28e), even though it is the only preferred nominal, is only mildly preferred.

e. Tom-i Mary-lul **Sue-pota** (te) cohaha-n-ta

+ 'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

f. Mary-lul Tom-i **Sue-pota** (te) cohaha-n-ta

'Tom likes Mary more than (he likes) Sue.'
'Tom likes Mary more than Sue does.'

We see in the examples (28'b), (28'c), and (28'e), that the double-underlined nominal is always the compared element in the preferred reading. In (28'a), the underlined nominal is the preferred compared element. Furthermore, in (28'd) and (28'f), where the two nominals are ranked equally, there is no preferred reading.

The examples in (30a-f), which involve a nominal with I-Case, also illustrate the principles in (29).

(30) a. **Sue-pota** Tom-i Mary-eykey chayk-ul (te) manhi
S.-than T.-NOM M.-DAT book-ACC more many
cwu-ess-ta
give-pst-ind

'Tom gave more books to Mary than (to) Sue.'
++ 'Tom gave more books to Mary than Sue did.'

b. **Sue-pota** Mary-eykey Tom-i chayk-ul . . .

++ 'Tom gave more books to Mary than (to) Sue.'
'Tom gave more books to Mary than Sue did.'

c. Tom-i **Sue-pota** Mary-eykey chayk-ul . . .

++ 'Tom gave more books to Mary than (to) Sue.'
'Tom gave more books to Mary than Sue did.'

d. Mary-eykey **Sue-pota** Tom-i chayk-ul . . .

'Tom gave more books to Mary than (to) Sue.'
'Tom gave more books to Mary than Sue did.'

e. Tom-i Mary-eykey **Sue-pota** chayk-ul . . .

+ 'Tom gave more books to Mary than (to) Sue.'
'Tom gave more books to Mary than Sue did.'

f. Mary-eykey Tom-i **Sue-pota** chayk-ul . . .

'Tom gave more books to Mary than (to) Sue.'
'Tom gave more books to Mary than Sue did.'

In the above examples, the target *Sue* can be interpreted either as the subject or the indirect object of a ditransitive clause. However, the preferred readings are predicted by the principles in (29).

In sum, in the case of plain NP-comparatives having case-dropped targets, different word orders lead to interpretations with different NPs as the compared element, and they sometimes give rise to one reading preferred over another. I have suggested that word order effects can be accounted for in terms of the factors for the interpretation of the plain NP-comparative given in (29). In contrast, clausal NP-comparatives are never ambiguous, whatever their word order, since the case marker of the target NP within the comparative clause is usually overt.

4.2.6 Summary

This section discussed some of the differences and similarities between plain NP-comparatives and clausal NP-comparatives, as summarized in Table 8 below.

Table 8: Comparison of plain and clausal NP-comparatives

	Plain NP-comparatives	Clausal NP-comparatives
NP accessibility	SU>DO>IO>OBL>*GEN	SU>DO>IO>OBL>*GEN
Island effects	no	no
Multiple comparatives	no	yes
S-case allowed	no	yes
I-case required	no	yes
word order effects	yes	no

It was shown that NP accessibility and island effects cannot be taken as evidence for distinguishing the two Korean comparatives. Both types of comparatives can be formed on subjects, direct objects, indirect objects, and obliques, but not on genitive-marked posssessors. Furthermore, contrary to cross-linguistic expectations, but consistent with Korean relativization, Korean clausal NP-comparatives are not subject to island conditions.

Nevertheless, I have presented three differences between the two types of Korean comparative constructions. Clausal NP-comparatives allow multiple comparatives, whereas plain NP-comparatives do not. Second, S-case is allowed in clausal NP-comparatives, whereas it is not allowed in plain NP-comparatives. On the other hand, I-case is required in clausal NP-comparatives, whereas it is not required in plain NP-comparatives. Moreover, it was noted that in plain NP-comparatives where the target NP is caseless, three factors—the distance, direction, and grammatical relation of the target—influence the preferentiality of certain interpretations.

4.3 The dual structure of comparatives: coordination and subordination

There has been a long history of debate concerning the appropriate structure to assign to English comparatives. The debate hinges on the status of the comparative particle *than*.[12] *Than* has a dual status: it behaves like both a preposition and a coordinator. Evidence for this claim has been given by Gazdar (1982), Goodall (1987), Hendriks (1991), Moltmann (1992), Napoli (1983), Pinkham (1982), and Ryan (1983). This body of evidence has led Moltmann (1992) to claim that comparatives involve two distinct, simultaneous syntactic structures.[13] Although I do not elaborate this theory here, what is meant by "simultaneous" is that a single structure can be assigned a dual structure. Hence, a comparative is simultaneously a coordinate structure (with *than* as a coordinating conjunction) and a subordinate structure (with *than* as a preposition, paralleling subordinating prepositions such as *after* and *since*).

Following Moltmann (1992), I propose that Korean comparatives involve simultaneous coordinate and subordinate structures. The particle *pota* 'than' in both clausal and plain NP-comparative constructions is simultaneously a coordinating conjunction and a postposition. To establish the dual nature of comparatives, first I discuss several ways comparatives behave like coordinate structures and unlike subordinate structures (section 4.3.1). Then I give several ways that comparatives are like

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[12]The syntactic status of a comparative particle *than* has also been treated as a complementizer for clausal comparatives and as a preposition for phrasal comparatives in Bresnan (1973), Chomsky (1977), Hankamer (1973), Hellan (1981), Ishii (1991), and others.

[13]Moltmann follows Goodall's (1987) view that one and the same sentence may have two distinct, simultaneous syntactic structures, a two-dimensional subordinate structure and a three-dimensional coordinate structure. Moltmann (1992) criticizes and develops his idea, and she proposes that both structures have to be semantically evaluated to yield part of the meaning of the sentence. See Moltmann (1992) for an extensive discussion.

subordinate structures rather than coordinate structures (section 4.3.2). I conclude that a simultaneous analysis, such as that proposed for English by Moltmann (1992), captures this dual nature of Korean comparatives.

4.3.1 Comparatives and coordination

This section provides four types of evidence for regarding comparatives as coordinate structures. Y. Kim (1988) has demonstrated a number of phenomena that distinguish coordination from subordination. I take two of these—gapping and the long-distance reflexive *caki*—and apply them to clausal NP-comparatives. The third piece of evidence stems from an across-the-board (ATB) principle. I conclude that these phenomena provide evidence for a coordination analysis of clausal NP-comparatives. The fourth piece of evidence I discuss, based on case matching and mismatching effects, provides an argument for the coordinate structure of plain NP- comparatives.

4.3.1.1 Gapping

It has been pointed out by Hankamer (1973), Kuno (1976), P. Huang (1977), and Hendriks (1991), among others, that gapping is allowed in coordinate but not subordinate structures. Thus, gapping is applied to a special case of coordination.[14,15] This contrast is illustrated by the following English examples:

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[14]Goodall (1987) and others argue that gapping is an instance of clausal coordination. Moltmann (1992), on the other hand, argues that gapping is an instance of phrasal coordination. See Moltmann (1992) for a discussion.

[15]In particular, I assume that Korean data are consistent with at least the two syntactic constraints on gapped constructions proposed by Kuno (1976: 318): (i) gapping can apply only to parallel coordinate structures; (ii) gapped elements must include main clause verbs.

(31) John saw Mary and Bill Sue.

(32) *John saw Mary because Bill Sue.

That gapping is possible in coordinate but not subordinate structures also holds for Korean (cf. (33) vs. (34) and (35)):

(33) Chelswu-ka chayk-ul Ø (kuliko) Yumi-ka sinmwun-ul
C.-NOM book-ACC conj Y.-NOM newspaper-ACC
ilk-ess-ta
read-pst-ind
'Chelsu read a book and Yumi a newspaper.'
(lit: 'Chelsu a book and Yumi read a newspaper.')

(34) *Chelswu-ka pap-ul Ø hwuey Yumi-ka sakwa-lul
C.-NOM rice-ACC after Y.-NOM apple-ACC
mek-ess-ta
eat-pst-ind
'*Yumi ate an apple after Chelsu the rice.'

(35) *Chelswu-ka hakkyo-ey Ø hwuey Yumi-ka cip-ey
C.-NOM school-LOC after Y.-NOM house-LOC
ka-ss-ta
go-pst-ind
'*Yumi went home after Chelsu to school.'

In traditional terms, "gapping" is simply a deletion rule that deletes a repeated verb in conjoined clauses.[16] As expected for verb-final languages, Korean has backward gapping.

Observe an example of gapping in Korean coordination with a conjunct marker -*ko*:

(36) a. John-i sakwa-lul mek-ess-ko Mary-ka panana-lul
J.-NOM apple-ACC eat-pst-conj M.-NOM banana-ACC
mek-ess-ta
eat-pst-ind
'John ate apples and Mary ate bananas.'

b. John-i sakwa-lul Ø, Mary-ka panana-lul mek-ess-ta
J.-NOM apple-ACC M.-NOM banana-ACC eat-pst-ind
'John ate apples and Mary bananas.'
(lit: 'John apples and Mary bananas ate.')

In (36b), the verb of the first of two conjoined clauses is deleted when it is identical to the verb of the second clause. Unlike English *and*, the coordinator *ko* is deleted together with the verb since it is an affix of that verb. On the other hand, gapping with the coordinating particle *kuliko* is exemplified by (37):

(37) a. John-i sakwa-lul mek-ess-ta kuliko Mary-to
J.-NOM apple-ACC eat-pst-and conj M.-also
panana-lul mek-ess-ta

[16]An alternative analysis of gapping is a pro-verb analysis, which means that the verb is base-generated as a pro rather than being deleted by a rule. However, it does not matter which position we take, since the point is to see whether clausal NP-comparatives behave like gapping with respect to the restriction on I-case deletability.

banana-ACC eat-pst-ind

'John ate apples and Mary also ate bananas.'

b. John-i sakwa-lul Ø kuliko Mary-to panana-lul
J.-NOM apple-ACC conj M.-also banana-ACC
mek-ess-ta
eat-pst-ind

'John ate apples and Mary also bananas.'
(lit: 'John apples and Mary also bananas ate.')

Unlike the affixal coordinator *-ko*, the coordinating particle *kuliko* remains after gapping. In this respect, *kuliko* is recognized as more or less independent, just like English *and*.[17]

Thus gapping in Korean can be schematized roughly as follows:

(38) [NP1 NP2 V_i]$_S$ COD [NP3 NP4 V_i]$_S$
——> [NP1 NP2 $Ø_i$]$_S$ (COD) [NP3 NP4 V_i]$_S$

In (38), COD stands for a coordinator. When an affixal coordinator like *-ko* is used, it must be deleted together with the verb in the first conjunct. When a non-affixal coordinator like *kuliko* is used, on the other hand, it may remain after gapping.

Let us look at gapping in ditransitive clauses:

(39) a. John-i Mary-eykey sakwa-lul cwu-ess-ta kuliko

[17]The coordinating particle *kuliko*, which is used as both a phrasal conjunction and a clausal conjunction, is also phonologically and syntactically an independent word. Cho and Morgan (1986) present some evidence that *kuliko* is an independent word while*(k)wa* and *-ko* are suffixes. B. Kang (1988: 75) also points out that affixal coordinators such as *(k)wa* and *-ko* are phonologically part of the first conjunct, but *kuliko* seems to be part of the second conjunct, or perhaps independent.

J.-NOM M.-DAT apple-ACC give-pst-ind conj

Tom-to Sue-eykey sakwa-lul cwu-ess-ta
T.-also S.-DAT apple-ACC give-pst-ind

'John gave apples to Mary and Tom also gave apples to Sue.'

b. John-i Mary-eykey Ø kuliko Tom-to Sue-eykey
J.-NOM M.-DAT conj T.-also S.-DAT

sakwa-lul cwu-ess-ta
apple-ACC give-pst-ind

'John gave apples to Mary and Tom also to Sue.'

c. *John-i Mary-Ø Ø Ø kuliko Tom-to Sue-eykey
J.-NOM M. conj T.-also S.-DAT

sakwa-lul cwu-ess-ta
apple-ACC give-pst-ind

'John gave apples to Mary and Tom also Sue.'

In (39b), the object and verb of the first clause are deleted since they are identical to the object and verb of the second clause. Note that an I-case such as DAT in the first conjunct cannot be deleted even if the same case appears in the second conjunct. Otherwise, the sentence will be ungrammatical, as in (39c).

This prediction is born out as we see in other examples of I-case; example (40) illustrates locative case, (41) instrument, and (42) comitative:

(40) a. John-i mikwuk-eyse kongpwuha-n-ta kuliko Mary-to
J.-NOM America-LOC study-pre-ind conj M.-also

khanata-eyse kongpwuha-n-ta
Canada-LOC study-pre-ind

'John studies in America and Mary also studies in Canada.'

b. John-i mikwuk-eyse Ø kuliko Mary-to
J.-NOM America-LOC conj M.-also

khanata-eyse kongpwuha-n-ta
Canada-LOC study-pre-ind

'John studies in America and Mary also in Canada.'

c. *John-i mikwuk-Ø Ø kuliko Mary-to khanata-eyse
J.-NOM America conj M.-also Canada-LOC

kongpwuha-n-ta
study-pre-ind

'*John studies in America and Mary also Canada.'

(41) a. John-i cangnankam-ulo wunun ai-lul tallay-ss-ta
J.-NOM toy-INST crying child-ACC soothe-pst-ind

kuliko Mary-to kwaca-lo wunun ai-lul
conj M.-also candy-INST crying child-ACC

tallay-ss-ta
soothe-pst-ind

'John soothed a crying child with a toy and Mary also soothed a crying child with candy.'

b. John-i cangnankam-ulo Ø Ø kuliko Mary-to kwaca-lo
J.-NOM toy-INST conj M.-also candy-INST

wunun ai-lul tallay-ss-ta
crying child-ACC soothe-pst-ind

'John soothed a crying child with a toy and Mary also with candy.'

c. *John-i cangnankam-Ø Ø Ø kuliko Mary-to kwaca-lo
J.-NOM toy conj M.-also candy-INST

wunun ai-lul tallay-ss-ta
crying child-ACC soothe-pst-ind

'*John soothed a crying child with a toy and Mary also candy.'

(42) a. John-i Tom-kwa tathwu-ess-ta kuliko Mary-to
J.-NOM T.-COMIT contend-pst-ind conj M.-also

Sue-wa tathwu-ess-ta
S.-COMIT contend-pst-ind

'John contended with Tom and Mary also contended with Sue.'

b. John-i Tom-kwa Ø kuliko Mary-to Sue-wa
J.-NOM T.-COMIT conj M.-also S.-COMIT

tathwu-ess-ta
contend-pst-ind

'John contended with Tom and Mary also with Sue.'

c. *John-i Tom-Ø Ø kuliko Mary-to Sue-wa
J.-NOM T. conj M.-also S.-COMIT
tathwu-ess-ta
contend-pst-ind

'*John contended with Tom and Mary also Sue.'

The same restriction on case deletability in gapping holds for the affixal coordinator -*ko*, as in (43)–(46).

(43) a. John-i Mary-eykey sakwa-lul cwu-ess-ko Tom-i

J.-NOM M.-DAT apple-ACC give-pst-conj T.-NOM

Sue-eykey sakwa-lul cwu-ess-ta
S.-DAT apple-ACC give-pst-ind

'John gave apples to Mary and Tom gave apples to Sue.'

b. John-i Mary-eykey Ø Ø Tom-i Sue-eykey sakwa-lul
J.-NOM M.-DAT T.-NOM S.-DAT apple-ACC

cwu-ess-ta
give-pst-ind

'John gave apples to Mary and Tom to Sue.'

c. *John-i Mary-Ø Ø Ø Tom-i Sue-eykey sakwa-lul
J.-NOM M. T.-NOM S.-DAT apple-ACC

cwu-ess-ta
give-pst-ind

'*John gave apples to Mary and Tom Sue.'

(44) a. John-i mikwuk-eyse kongpwuha-ko Mary-ka
J.-NOM America.-LOC study-conj M.-NOM

khanata-eyse kongpwuha-n-ta
Canada-LOC study-pre-ind

'John studies in America and Mary studies in Canada.'

b. John-i mikwuk-eyse Ø Mary-ka khanata-eyse
J.-NOM America-LOC M.-NOM Canada-LOC

kongpwuha-n-ta
study-pre-ind

'John studies in America and Mary in Canada.'

c. *John-i mikwuk-Ø Ø Mary-ka khanata-eyse kongpwuha-n-ta

J.-NOM America M.-NOM Canada-LOC study-pre-ind

'*John studies in America and Mary Canada.'

(45) a. John-i cangnankam-ulo wunun ai-lul tallay-ko
J.-NOM toy-INST crying child-ACC soothe-conj

Mary-ka kwaca-lo wunun ai-lul tallay-ss-ta
M.-NOM candy-INST crying child-ACC soothe-pst-ind

'John soothed a crying child with a toy and Mary soothed a crying child with candy.'

b. John-i cangnankam-ulo Ø Ø Mary-ka kwaca-lo
J.-NOM toy-INST M.-NOM candy-INST

wunun ai-lul tallay-ss-ta
crying child-ACC soothe-pst-ind

'John soothed a crying child with a toy and Mary also with candy.'

c. *John-i cangnankam-Ø Ø Ø Mary-ka kwaca-lo
J.-NOM toy M.-NOM candy-INST

wunun ai-lul tallay-ss-ta
crying child-ACC soothe-pst-ind

'*John soothed a crying child with a toy and Mary candy.'

(46) a. John-i Tom-kwa tathwu-ko Mary-ka Sue-wa
J.-NOM T.-COMIT contend-conj M.-NOM S.-COMIT

tathwu-ess-ta
contend-pst-ind

'John contended with Tom and Mary contended with Sue.'

b. John-i Tom-kwa Ø Mary-ka Sue-wa tathwu-ess-ta
J.-NOM T.-COMIT M.-NOM S.-COMIT contend-pst-ind
'John contended with Tom and Mary with Sue.'

c. *John-i Tom-Ø Ø Mary-ka Sue-wa athwu-ess-ta
J.-NOM T. M.-NOM S.-COMIT contend-pst-ind
'*John contended with Tom and Mary Sue.'

What the above data show is that gapping is possible (43–46b), but only if the I-case on the oblique NP is not omitted (cf. (*43–46c)).

Similar phenomena are also observed in clausal NP-comparatives. Each (b) example is derived from the (a) example by means of gapping. Moreover, as in (c) of each example group (47)–(50), the same restriction on I-case deletability in gapping holds for clausal NP-comparatives.[18]

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[18]At first glance, there appears to be a difference between coordination and clausal NP-comparatives in the process of gapping. One might think that clausal NP-comparatives allow gapping only when a nominal with I-case remains in the first conjunct, while coordination has no such restriction. However, this is not the case. Compare coordination (i) and (ii) (cf. (36) and (37)) with comparatives (iii), as in the below:

(i) John-i sakwa-lul ∅, Mary-ka panana-lul mek-ess-ta
J.-NOM apple-ACC M.-NOM banana-ACC eat-pst-ind
'John ate apples and Mary bananas.'

(ii) John-i sakwa-lul ∅ kuliko Mary-to panana-lul mek-ess-ta
J.-NOM apple-ACC conj M.-also banana-ACC eat-pst-ind
'John ate apples and Mary also bananas.'

(iii) *[John-i Mary-ul ∅]-pota Tom-i Sue-lul (te) cohaha-n-ta
J.-NOM M.-ACC -than T.-NOM S.-ACC more like-pre-ind
'Tom likes Sue more than John Mary.'

In contrast to gapping in coordinate structures ((i) and (ii)), gapping in comparatives (iii) is ungrammatical. However, the ungrammaticality of (iii) is accounted for by a general

(47) a. [John-i Mary-eykey __ cwu-n kes]-pota Tom-i
J.-NOM M.-DAT give-adn comp-than T.-NOM

Sue-eykey (te) manhun sakwa-lul cwu-ess-ta
S.-DAT more many apple-ACC give-pst-ind

'Tom gave more apples to Sue than John gave to Mary.'

b. [John-i Mary-eykey Ø]-pota Tom-i Sue-eykey (te)
J.-NOM M.-DAT -than T.-NOM S.-DAT more

manhun sakwa-lul cwu-ess-ta
many apple-ACC give-pst-ind

'Tom gave more apples to Sue than John to Mary.'

c. *[John-i Mary-Ø Ø]-pota Tom-i Sue-eykey (te)
J.-NOM M. -than T.-NOM S.-DAT more

manhun sakwa-lul cwu-ess-ta
many apple-ACC give-pst-ind

'Tom gave more apples to Sue than John Mary.'

(48) a. [John-i mikwuk-eyse __ kongpwuha-nun kes]-pota
J.-NOM America.-LOC study-adn comp-than

Mary-ka khanata-eyse (te) yelsimhi kongpwuha-n-ta

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constraint on *pota*; it cannot appear immediately following an S-case such as the accusative in (iii). Note that in a comparative like (iv), where *pota* follows an I-case, the result is grammatical.

(iv) [John-i sakwa-lul kakey-eyse ∅]-pota Mary-ka
J.-NOM apple-ACC store-LOC -than M.-NOM

panana-lul cip-eyse (te) manhi mek-ess-ta
banana-ACC house-LOC more many eat-pst-ind

'Mary ate more bananas in the house than John apples in the store.'

M.-NOM Canada-LOC more hard study-pre-ind

'Mary studies in Canada harder than John studies in America.'

b. [John-i mikwuk-eyse Ø]-pota Mary-ka khanata-eyse
J.-NOM America-LOC -than M.-NOM Canada-LOC

(te) yelsimhi kongpwuha-n-ta
more hard study-pre-ind

'Mary studies in Canada harder than John in America.'

c. *[John-i mikwuk-Ø Ø]-pota Mary-ka khanata-eyse
J.-NOM America -than M.-NOM Canada-LOC

(te) yelsimhi kongpwuha-n-ta
than hard study-pre-ind

'*Mary studies in Canada harder than John America.'

(49) a. [John-i cangnankam-ulo __ tallay-n kes]-pota Mary-ka
J.-NOM toy-INST soothe-adn comp-than M.-NOM

kwaca-lo wunun ai-lul (te) manhi tallay-ss-ta
candy-INST crying child-ACC more many soothe-pst-ind

'Mary soothed more crying children with a candy than John soothed with toys.'

b. [John-i cangnankam-ulo Ø Ø]-pota Mary-ka kwaca-lo
J.-NOM toy-INST -than M.-NOM candy-INST

wunun ai-lul (te) manhi tallay-ss-ta
crying child-ACC more many soothe-pst-ind

'Mary soothed more crying children with a candy than John with toys.'

c. *[John-i cangnankam-Ø Ø Ø]-pota Mary-ka kwaca-lo
J.-NOM toy -than M.-NOM candy-INST

wunun ai-lul (te) manhi tallay-ss-ta
crying child-ACC more many soothe-pst-ind

'*Mary soothed more crying children with candy than John toys.'

(50) a. [John-i Tom-kwa __ tathwu-n kes]-pota Mary-ka
J.-NOM T.-COMIT contend-adn comp-than M.-NOM

Sue-wa (te) cacwu tathwu-ess-ta
S.-COMIT more often contend-pst-ind

'Mary contended with Sue more often than John contended with Tom.'

b. [John-i Tom-kwa Ø]-pota Mary-ka Sue-wa (te)
J.-NOM T.-COMIT -than M.-NOM S.-COMIT more

cacwu tathwu-ess-ta
often soothe-pst-ind

'Mary contended with Sue more often than John with Tom.'

c. *[John-i Tom-Ø Ø]-pota Mary-ka Sue-wa (te) cacwu
J.-NOM T. -than M.-NOM S.-COMIT more often

tathwu-ess-ta
soothe-pst-ind

'*Mary contended with Sue more often than John Tom.'

What the above discussion has shown is that gapping in comparatives parallels gapping in coordinate structures. Furthermore, gapping is not allowed in subordinate structures, as is generally assumed cross-linguistically. The absence of gapping in

subordinate clauses in Korean is illustrated by (34)–(36) above. Thus, from the point of view of the gapping facts, comparatives behave like coordinate and not like subordinate structures.

4.3.1.2 Long-distance reflexive *caki*

The behaviour of the long-distance reflexive *caki* provides another piece of evidence for claiming that clausal NP-comparatives involve coordination.[19] The reflexive *caki* can be used either locally (51a) or non-locally (51b):

(51) a. Chelswu$_i$-ka caki$_i$-lul piphanha-ess-ta
C.-NOM self-ACC criticize-pst-ind
'Chelsu$_i$ criticized himself$_i$.'

b. Chelswu$_i$-ka [caki$_i$-ka Yumi-lul piphanha-ess-ta-ko]
C.-NOM self-NOM Y.-ACC criticize-pst-ind-comp
malha-yss-ta
say-pst-ind
'Chelsu$_i$ said that self$_i$ criticized Yumi.'

(51a) shows a local dependency between a reflexive *caki* and its antecedent *Chelswu*, whereas (51b) shows a non-local (or unbounded) dependency between them since *caki* is bound by an element outside its own clause. The latter is called the long-distance reflexive pronoun in the sense of Cole et al. (1990).

[19]It is still controversial in the literature whether *caki* 'self' is a pronoun or an anaphor. See K. Park (1988) and others for the pronominal analysis and S. Park (1985) and others for the anaphor analysis.

The asymmetrical behaviour of the long-distance reflexive *caki* between coordination and subordination is discussed in Y. Kim (1988). *Caki* in a subordinate clause may be bound by its antecedent in the main clause. For example, subordinate clauses allow only backward reflexive pronominalization in the subject position, as shown in the following contrastive pairs of examples taken from Y. Kim (1988: 103-104):

(52) a. Caki$_i$-ka ci-nikka Cheli$_i$-ka simswul-ul
self-NOM be defeated-since C.-NOM crabbedness-ACC
pwuli-n-ta
show-pre-ind
'Cheli$_i$ is cross since he$_i$ was defeated.'

b. *Chelswu$_i$-ka ci-nikka caki$_i$-ka simswul-ul
C.-NOM be defeated-since self-NOM crabbedness-ACC
pwuli-n-ta
show-pre-ind
'*He$_i$ is cross since Chelsu$_i$ was defeated.'

(53) a. Caki$_i$-ka il-ul kkuthnay-kose Toli$_i$-ka tolawa-ss-ta
self-NOM job-ACC finish-after T.-NOM return-pst-ind
'Toli returned after he finished his job.'

b. *Toli$_i$-ka il-ul kkuthnay-kose caki$_i$-ka tolawa-ss-ta
T.-NOM job-ACC finish-after self-NOM return-pst-ind
'*He$_i$ returned after Toli$_i$ finished his job.'

In coordinated clauses, however, *caki* in one conjunct cannot have an antecedent in the other conjunct.[20] For example, coordinated clauses do not allow long-distance reflexive *caki* in the same position, regardless of directionality, as illustrated in the following pairs of examples.

(54) a. *Caki$_i$-ka han son-ey kkoch-ul tul-ko Swuni$_i$-ka
self-NOM one hand-LOC flower-ACC take-conj S.-NOM
han son-ey kapang-ul tul-ess-ta
one hand-LOC bag-ACC take-pst-ind
'Self$_i$ took flowers in one hand and Suni$_i$ took a bag in the other hand.'

b. *Swuni$_i$-ka han son-ey kkoch-ul tul-ko caki$_i$-ka
S.-NOM one hand-LOC flower-ACC take-conj self-NOM
han son-ey kapang-ul tul-ess-ta
one hand-LOC bag-ACC take-pst-ind
'Suni$_i$ took flowers in one hand and self$_i$ took a bag in the other hand.'

(55) a. *Caki$_i$-ka sinmwun-ul po-kena Toli$_i$-ka capci-lul
self-NOM newspaper-ACC see-or T.-NOM magazine-ACC
ilk-nun-ta
read-pre-ind
'Self$_i$ sees a newspaper or Toli$_i$ reads a magazine.'

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[20]This constraint was first stated (for English) by Ross (1967: 253): the Reflexivization Rule is subject to the Coordinate Structure Constraint (CSC), as in (i).

(i) a. *Bill and Mary washed himself.
b. *Andy pinched Sarah and tickled herself.

b. *Toli$_i$-ka sinmwun-ul po-kena caki$_i$-ka capci-lul
T.-NOM newspaper-ACC see-or self-NOM magazine-ACC
ilk-nun-ta
read-pre-ind
'Toli$_i$ sees newspapers or self$_i$ reads a magazine.'

Now let us consider clausal NP-comparatives. I show that the same constraint on the long-distance reflexive *caki* that Y. Kim (1988) notes in coordination is also observed in clausal NP-comparatives like (56).

(56) a. *[Caki$_i$-ka Swuni-eykey cwu-n kes]-pota Toli$_i$-ka
self-NOM S.-DAT give-adn comp-than T.-NOM
Swunca-eykey (te) manhun sakwa-lul cwu-ess-ta
S.-DAT more many apple-ACC give-pst-ind
'Toli$_i$ gave more apples to Sunca than self$_i$ gave to Suni.'

b. *[Toli$_i$-ka Swuni-eykey cwu-n kes]-pota caki$_i$-ka
T.-NOM S.-DAT give-adn comp-than self-NOM
Swunca-eykey (te) manhun sakwa-lul cwu-ess-ta
S.-DAT more many apple-ACC give-pst-ind
'Self$_i$ gave more apples to Sunca than Toli$_i$ gave to Suni.'

Regardless of the directionality of reflexivization, clausal NP-comparatives do not allow the long-distance reflexive *caki*. It can be argued therefore that clausal NP-comparatives behave like coordinated clauses in this respect.

4.3.2.2. ATB principle

Next, I turn my attention to an across-the-board (ATB) principle. I show that the ATB principle constitutes one piece of evidence for coordination in Korean clausal NP-comparatives.

The Coordinate Structure Constraint (CSC) correctly predicts that (57a) is ungrammatical. However, the CSC cannot predict that (57b) is grammatical; examples (57a) and (57b) comes from van Riemsdijk and Williams (1986: 27–28):

(57) a. *Who$_i$ is Bill proud of his father and tired of t_i?

b. I wonder [which books]$_i$ Mary hates t_i and Sam likes t_i.

To predict the grammaticality of (57b), Williams (1977), following Ross (1967), defines the ATB principle as follows: "If a rule applies into a coordinate structure, then it must affect all conjuncts of that structure."

The ATB principle may also constitute one piece of evidence for coordination in English comparatives, as the contrast in (58) shows; (Napoli 1983: 682–83):

(58) a. Nancy Reagan$_i$, you saw more pictures of t_i than (you read) books about t_i.

b. *Who$_i$ did you see more pictures of t_i than (you read) books about Nancy Reagan?

The same fact holds for Korean data. Coordination with *-ko* in Korean is subject to the ATB principle, as the contrast in (59) shows.[21]

[21]However, coordination with *kuliko* is not subject to the ATB principle, as in (i):

(i) *Sakwa-lul/nun, pwunmyenghi Mary-ka __ sa-ss-ta kuliko
apple-ACC/TOP certainly M.-NOM buy-pst-ind conj
John-i __ sa-ss-ta

(59) a. Sakwa-lul/nun, pwunmyenghi Mary-ka __ sa-ss-ko,
apple-ACC/TOP certainly M.-NOM buy-pst-and

John-i __ sa-ss-ta
J.-NOM buy-pst-ind

'Apples/As for apples, certainly Mary bought __ and John bought __.'

b. *Sakwa-lul/nun, pwunmyenghi Mary-ka panana-lul
apple-ACC/TOP certainly M.-NOM banana-ACC

sa-ss-ko, John-i __ sa-ss-ta
buy-pst-and J.-NOM buy-pst-ind

'Apples/As for apples, certainly Mary bought bananas and John bought __.'

Similarly, clausal NP-comparatives allow for ATB extraction, as in (60a). However, violation of the CSC in clausal NP-comparatives yields the ungrammatical result in (60b):

(60) a. [[John-i __ manna-n kes]-pota [[Mary-ka __ (te)
J.-NOM meet-adn comp-than M.-NOM more

cacwu chacaka-n] ku sinsa]]
often visit-adn the gentleman

'the gentleman who Mary visited __ more often than John met __'

J.-NOM buy-pst-ind
'Apples/As for apples, certainly Mary bought __ and John bought __.'

At this point, I do not know why *kuliko*-coordination differs from *ko*-coordination with regard to ATB extraction.

b. *[[__ Ku sinsa-lul manna-n kes]-pota [[Mary-ka
the gentleman-ACC meet-adn comp-than M.-NOM

kyoswunim-ul (te) cacwu chacaka-n] sensangnim]]
professor-ACC more often visit-adn teacher

'*a teacher who Mary visited a professor more often than __ met the gentleman'

Therefore, clausal NP-comparatives behave like coordinate structures in that they allow ATB movement.

From the three pieces of evidence for coordination in clausal NP-comparatives discussed so far, we can draw the conclusion that clausal NP-comparatives may be coordinated with the main clause only when they occur sentence-initially. When a clausal NP-comparative is not sentence initial, a coordinate—not a subordinate—structure is involved, as discussed further in section 4.3.2 below.

4.3.1.4 Case Matching

It has been argued so far that clausal NP-comparatives behave like coordinated clauses. I have presented three pieces of evidence for this claim based on gapping, the long-distance reflexive *caki* and the ATB priniciple. Specifically, it has been argued that Korean comparatives containing sentence-initial clausal NP-comparatives involve a coordinate structure.

I now turn my attention to plain NP-comparatives. Moltmann (1992) gives several arguments that such comparatives should be analyzed as coordinate structures. The first argument, drawn from Napoli (1983), is based on parallelism to categories other than NP in English. A second argument, also originally from Napoli, is based on extraction

and fronting in English. Moltmann's third argument concerns case parallelism in German. Only the third argument is applicable to Korean.

This section shows that there is case parallelism between targets and compared elements in plain NP-comparatives in Korean. It will be argued that this parallelism can be a convincing argument for coordination rather than subordination in the plain NP-comparative. This section also concerns case matches and mismatches between targets and compared elements in plain NP-comparatives. I will show that there is a correlation between the comparative particle *pota* and the NP-coordinator *(k)wa*.

4.3.1.4.1 Case matches

Moltmann (1992: 352-353) gives evidence for coordination in the phrasal comparative construction based on case parallelism between a target NP and its antecedent. The basic idea behind her argument comes from the "biuniqueness condition for case assignment" and a selectional syntactic requirement which must be met by each conjunct NP in coordination. According to the biuniqueness condition for case assignment, a case assigner can assign case only once to an NP. However, this condition cannot be satisfied in three-dimensional theory without making a distinction between formal and meaningful planes (f-planes and m-planes respectively in Moltmann's terms).[22] For instance, it may be violated in (61) because the predicate *compared* assigns accusative

[22]Moltmann (1992) addresses the necessity of the distinction between f-planes and m-planes because it is not possible to maintain the same notion of plane and satisfy both syntactic (application of syntactic principles and conditions) and semantic (semantic interpretation of three-dimensional phrase markers and representation of scope) requirements. F-planes are required for the satisfaction of certain types of syntactic conditions such as the biuniqueness condition of Case Theory, Coordinate Structure Condition, X'-Theory, and part of Binding Theory, whereas m-planes not only play a role in semantic interpretation and representation of scope, they also influence the linearization of a sentence at PF.

case twice: once to the first conjunct *the picture* and once to the second conjunct *the photograph*.

(61) John compared the picture and the photograph.

She argues that this condition can be satisfied only in the following two f-planes of (61), which are given in (62):

(62) f-plane 1: John compared the picture.
f-plane 2: John compared the photograph.

For phrasal comparatives, the question of how an NP (= target) in a *than*-phrase gets case is also raised. Moltmann's answer to this question is that, as in coordination, an NP in a *than*-phrase of a phrasal comparative must also meet case assignment and selectional requirements imposed by the predicate of which the compared element is an argument. This claim is based on the observation that phrasal comparatives with NPs generally require the NP to receive the same case as its antecedent. This point is established by the contrast seen in the following German examples.[23]

(63) a. Hans hat dem Jungen mehr gegeben als dem Mann.
'John has given the boy (DAT) more than the man (DAT).'

b. *Hans hat dem Jungen mehr gegeben als den Mann.
'John has given the boy (DAT) more than the man (ACC).'

[23]Example (63a) is taken from Moltmann (1992: 353 (228)), and (63b) is from Peter Muntigl (personal communication)

To capture the same case relation between two elements of a single predicate, it can be argued that they should be construed as coordinate. This also appears to hold for the Korean example shown in (64):[24]

(64) a. Sensayngnim-i Mary-eykey-wa John-eykey phyenci-lul
teacher-NOM M.-DAT-conj J.-DAT letter-ACC
ssu-key ha-si-ess-ta
write-comp do-hon-pst-ind
'The teacher made Mary (DAT) and John (DAT) write letters.'

b. Sensayngnim-i Mary-eykey-pota John-eykey (te) manhun
teacher-NOM M.-DAT-than J.-DAT more many
phyenci-lul ssu-key ha-si-ess-ta
letter-ACC write-comp do-hon-pst-ind
'The teacher made John (DAT) write more letter than Mary (DAT).'

In a causative construction like (64), a target *Mary* can be marked DAT, which receives the same case as a compared element, DAT-marked *John*.[25] The prediction about this case parallelism is borne out, as the contrast in (65) shows:

[24]Against this claim, one could argue that there are some constructions which allow case alternations but seem to show no case parallelism with the same comparatives. This problem will be discussed later.

[25]To see whether or not there is case parallelism between a target and a compared element in the plain NP-comparative construction, only non-dropped I-case is used for a test since S-case must always be omitted on the target.

(65) a. *Na-nun nwui-eykey-pota tongsayng-ul wuyhayse (te)
I-TOP sister-DAT-than brother-for more

manhun cangnankam-ul mantul-ess-ta
many toy-ACC make-pst-ind

'I made more toys for my brother (BEN) than (for) my sister (DAT).'

b. Na-nun nwui-lul wuyhayse-pota tongsayng-ul wuyhayse
I-TOP sister-for-than brother-for

(te) manhun cangnankam-ul mantul-ess-ta
more many toy-ACC make-pst-ind

'I made more toys for my brother (BEN) than (for) my sister (BEN).'

The plain NP-comparative (65a) is ungrammatical since the case on the target *nwui* 'sister' is different from the case on the comparative element *tongsang* 'brother'. On the other hand, (65b) is grammatical since the target receives the same case, BEN, as its compared element.

The above discussion has shown that case parallelism is required between the target and the compared element in Korean.[26] In this respect, comparatives are like

[26]This case parallelism is also found in Japanese phrasal comparatives. Like Korean, Japanese also appears to have case matches between a *yori*-phrasal NP and its compared element. That is to say, in many instances, the case on a *yori*-phrasal NP should be identical to the case on the compared element or the sentence will be ruled out. We see this result in the following data (from Tadao Miyamoto, p.c.):

(i) Jon-ni-yori Tomu-ni takusan(-no) hon-ga yomeru
John-DAT-than Tom-DAT many book-NOM can read
'Tom (DAT) can read more books than John (DAT).'

(ii) *Jon-ni-yori Tomu-ga takusan(-no) hon-o yomeru
John-DAT-than Tom-NOM many book-ACC can read

coordinate structures, which also require such parallelism, as the contrasts in (64) versus (*65) show.

4.3.1.4.2 Case mismatches

Let us now turn to case mismatches between targets and their antecedents. As shown in the previous section, the plain NP-comparative usually requires case parallelism between the target and its antecedent, as in (65) above.

However, unlike phrasal comparatives in English and German, plain NP-comparatives in Korean sometimes allow case mismatches. For example, the case on the compared element need not match the case on the target in (66)–(68).

(66) John-i Mary-eykey-pota Sue-eykey/lul (te) manhun
J.-NOM M.-DAT-than S.-DAT/ACC more many
sakwa-lul cwu-ess-ta
apple-ACC give-pst-ind
'John gave more apples to Sue (DAT/ACC) than Mary (DAT).'

(67) Mary-eykey-pota John-eykey/i (te) manhun ton-i
M.-DAT-than J.-DAT/NOM more many money-NOM
philyoha-ta
need-ind
'John (DAT/NOM) needs more money than Mary (DAT).'

'Tom (NOM) can read more books than John (DAT).'

In potentials, either a NOM ACC (i) or DAT NOM (ii) case pattern can be used. The target of comparative must match the compared nominal in case, however, as (i) versus (ii) shows.

(68) Na-nun Sewul-ey-pota Pwusan-ey/ul (te) cacwu
I-TOP Seoul-LOC-than Pusan-LOC/ACC more often
ka-ss-ta
go-pst-ind
'I went to Pusan (LOC/ACC) more often than Seoul (LOC).'

(66) is based on a ditransitive construction. (67) is based on a dative subject construction, and (68) is based on an accusative locative construction. How can we account for case mismatches in these examples and for the lack of the case mismatches in examples like (65a)?

I claim that case mismatches are only allowed in comparatives if the non-comparative involves a case alternation. As discussed in Gerdts (1991), there are several constructions in Korean where a nominal having an oblique semantic role (such as goal or locative) is a "final argument". In these structures, the nominal can be marked with either an appropriate I-Case or the relevant S-Case (NOM if it is subject and ACC if it is object). We see this in (69)–(71), the non-comparative counterparts to (66)–(68).

(69) John-i Sue-eykey/lul sakwa-lul cwu-ess-ta
J.-NOM S.-DAT/ACC apple-ACC give-pst-ind
'John gave apples to Sue (DAT/ACC).'

(70) John-eykey/i ton-i philyoha-ta
J.-DAT/NOM money-NOM need-ind
'John (DAT/NOM) needs money.'

(71) Na-nun Pwusan-ey/ul ka-ss-ta

I-TOP Pusan-LOC/ACC go-pst-ind

'I went to Pusan (LOC/ACC).'

I claim, therefore, that case mismatches can occur only when the comparative is based on a construction that allows case alternations.[27]

Returning to examples like (65a), Gerdts (1993) has argued that DAT-marked benefactives and BEN-marked benefactives have different syntactic structures. Thus, the non-comparative counterpart of (65a) does not involve case alternation. Under her analysis, case mismatching in (65a) is correctly predicted to be ungrammatical.[28]

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[27]Japanese phrasal comparatives also have case mismatches, where case alternation is allowed; (i) involves DAT-ACC alternations on causees in causatives with intransitives, and (iia-b) involve DAT marked benefactive constructions (data from Tadao Miyamoto, p.c.):

(i) Meri-wa Jon-ni-yori Tomu-o yori ooku hatarakaseta
Mary-TOP John-DAT-than Tom-ACC more many work-caus-ind
'Mary let (or made) Tom (ACC) work more than John (DAT).'

[28]Japanese contrasts with Korean in this respect. The Japanese benefactive also shows a DAT/BEN alternation. Case mismatching is allowed in comparatives involving benefactives (data from Tadao Miyamoto, p.c.):

(ii) a. Jon-wa haha-ni-yori chichi-no tame ni purezento-o
John-TOP mother-DAT-than father-BEN present-ACC
yori ooku ka-tta.
more many buy-pst-ind
'John bought more presents for his father (BEN) than (for) his mother (DAT).'

b. Jon-wa haha-no tame ni-yori chichi-ni purezento-o
John-TOP mother-BEN-than father-DAT present-ACC
yori ooku ka-tta.
more many buy-pst-ind
'John bought more presents for his father (DAT) than (for) his mother (BEN).'

Case mismatches in clauses involving case alternation can also be observed in nominal coordination. In coordination formed with the conjunction *kuliko*, case mismatching is possible:

(72)	John-i	[Mary-eykey	kuliko	Sue-lul]	sakwa-lul	cwu-ess-ta
	J.-NOM	M.-DAT	conj	S.-ACC	apple-ACC	give-pst-ind

'John gave apples to Mary (DAT) and Sue (ACC).'

(73)	Mary-eykey	kuliko	John-i	ton-i	philyoha-ta
	M.-DAT	conj	J.-NOM	money-NOM	need-ind

'Mary and John need money.'

In contrast, in coordinate structures formed with the affixal coordinator *-(k)wa* case mismatching is not allowed:[29, 30]

(74)	*John-i	Mary-eykey-wa	Sue-lul	sakwa-lul	cwu-ess-ta
	J.-NOM	M.-DAT-conj	S.-ACC	apple-ACC	give-pst-ind

'John gave apples to Mary and Sue.'

(75)	*Mary-eykey-wa	John-i	ton-i	philyoha-ta
	M.-DAT-conj	J.-NOM	money-NOM	need-ind

'Mary and John need money.'

[29]It is well known that *(k)wa*-coordination always requires case parallelism (cf. Im (1972: 149), Yi (1989: 132), and among others).

[30]As in the plain NP-comparative construction, a test for case parallelism in *(k)wa*-coordination is also possible when an I-case appears on the first conjunct NP. As shown in (74)–(75), sentences involving *(k)wa*-coordination will be ungrammatical when the first conjunct NP does not receive the same case as the other conjunct NP.

Thus, the comparative particle *pota* behaves like the conjunction *kuliko* as far as case mismatching is concerned. It is not like the affixal coordinator -*(k)wa*, which requires case parallelism.

4.3.1.5 Summary

I have shown in the above discussion that clausal NP-comparatives in Korean behave in several respects like coordinate clauses. It has been argued that the comparative particle *pota*, which, at first glance, does not seem to be a coordinator, does in fact behave like structures coordinated with conjunctions like *kuliko*. Support for this claim has been provided by evidence from gapping and from the behaviour of the long-distance reflexive *caki*. Furthermore, it has been shown that the third piece of evidence for coordination stems from an across-the-board (ATB) principle in clausal NP-comparatives. In this argument, I have shown that clausal NP-comparatives are like coordinates formed with -*ko*, but unlike coordinates formed with *kuliko*. Finally, I examined case matching effects in plain NP-comparatives. Case matching is generally required in comparatives and thus they parallel coordinate structures formed with coordinators such as *kuliko* and -(*k)wa*. Furthermore, I discuss examples where the target and the compared element do not have the same case. This occurs in a limited set of case alternation constructions. In this respect, comparatives are like coordinates formed with *kuliko*, but unlike coordinates formed with -(*k)wa*.

4.3.2 Comparatives and subordination

In the previous sections, I presented evidence that comparatives are coordinate structures in Korean. In this section, I show that comparatives also behave like

subordinate structures. I will conclude that comparatives in Korean should be simultaneously regarded as both coordinate and subordinate structures.

4.3.2.1 Topicalization and scrambling

Before showing the Korean facts, I will summarize one argument for a subordinate structure in English comparatives. As presented in Hankamer (1973) and Napoli (1983), English permits PP complements with *than* as the prepositional head.[31] One piece of evidence follows from the fact that some *than*-complements can be topicalized, which is impossible with coordination, as the contrast in (76) shows; (Napoli 1983: 683-84):

(76) a. Than John, certainly no one has done more.[32]

b. *And/Or John$_i$, Mary saw Bill t_i.

By the same token, plain NP-comparatives in Korean can usually be topicalized or scrambled, which is impossible for *(k)wa* and *kuliko* coordination, as in (77):

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[31]As Moltmann (1992: 358) points out, Hankamer (1973) and Napoli (1983) present two pieces of evidence for a subordinate structure of phrasal comparatives in English. In addition to topicalization, the second piece of evidence comes from data involving across-the-board (ATB) violations, as in (i):

(i) Who$_i$ did John come earlier than t_i ?

If *than* in (i) is a preposition, a grammatical result is correctly predicted. If *than* is a coordinator, however, (i) should be ungrammatical as an ATB violation. However, an argument based on ATB violations is not applicable to Korean plain NP-comparatives, since Korean has no overt syntactic wh-movement.

[32]Contrary to Napoli's judgment, many English speakers seem to regard (76a) as a bad example. I thank Cliff Burgess for checking these data with several English speakers. Hence an argument based on topicalization of the English preposition *than* is questionable. However, Korean counterparts (*pota*-phrases) are freely topicalized or scrambled. This fact will be discussed below.

(77) a. John-pota(-nun) pwunmyenghi Mary-ka (te) pwucilenha-ta
J.-than(-TOP) certainly M.-NOM more diligent-ind
'*Than John, certainly Mary is more diligent.'

b. *John-kwa/kuliko(-nun) pwunmyenghi Mary-ka
J.-and(-TOP) certainly M.-NOM
pwucilenha-ta
diligent-ind
'*And John, certainly Mary are diligent.'

The fact that topicalization/scrambling is possible in comparatives suggests that the particle *pota* should be regarded as a PP.

4.3.2.2 *Caki* revisited

Now, let us turn to clausal NP-comparatives involving subordinate structures. Here, I want to briefly reconsider the position of clausal NP-comparatives with regard to the long-distance reflexive *caki*. As mentioned above, this type of comparative may have a subordinate structure unless it is in sentence-initial position. Consider example (56a) given in the previous section (4.3.1.2), which is repeated below as (78a). This is contrasted with example (78b).

(78) a. *[Caki$_i$-ka Swuni-eykey cwu-n kes]-pota Toli$_i$-ka
self-NOM S.-DAT give-adn comp-than T.-NOM
Swunca-eykey (te) manhun sakwa-lul cwu-ess-ta
S.-DAT more many apple-ACC give-pst-ind
'Toli$_i$ gave more apples to Sunca than self$_i$ gave to Suni.'

b. Toli$_i$-ka [caki$_i$-ka Swuni-eykey cwu-n kes]-pota
T.-NOM self-NOM S.-DAT give-adn comp-than
Swunca-eykey (te) manhun sakwa-lul cwu-ess-ta
S.-DAT more many apple-ACC give-pst-ind
'Toli$_i$ gave more apples to Sunca than self$_i$ gave to Suni.'

These examples show the different behaviour of the long-distance reflexive *caki* in comparatives in initial (78a) and non-initial (78b) position. *Caki* in (78a) cannot have an antecedent in the main clause of a comparative. However, in (78b), *caki* is bound by its antecedent *Toli*, the subject of the main clause.

This line of argumentation parallels the contrast between regular coordination and comparative constructions with respect to English quantifier-pronoun binding noted by Moltmann (1992: 338).

(79) a. Every student read more than his professor wrote.
b. *Every student came and his professor left.

A quantifier in the main clause of a comparative like (79a) can bind a pronoun in the comparative clause. However, this is not the case in coordination with *and*, as in (79b). This indicates that (79a) must have a subordinate structure in which the comparative clause is adjoined to the VP since the quantifier in the main clause c-commands the pronoun in the comparative clause.

Comparing Korean clausal NP-comparatives with English clausal comparatives, different strategies are used in each language. In English, clausal comparatives can be

coordinated with the main clause only when they are sentence final.[33] On the other hand, the Korean counterparts can be coordinated with the main clause only when they are sentence initial. The mirror-image nature of these restrictions on coordinate structures is attributable to the basic difference in headedness in English versus Korean phrase structure.

4.3.3 Summary

So far, I have presented three arguments for the subordinate structure of comparatives in Korean. First, topicalization/scrambling is possible with plain NP-comparatives. In addition, I have reviewed two pieces of potential arguments for the subordinate structure: that is, the position of clausal NP-comparatives with regard to the long-distance reflexive *caki*, and case mismatches in plain NP-comparatives.[34]

4.4 Internally-headed comparatives

The first three sections of this chapter have presented a general treatment of comparatives. Two types of comparatives—plain NP-comparatives and clausal NP-

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[33]Moltmann (1992: 338) points out that clausal comparatives can be coordinated with the main clause only when they are extraposed. If extraposition does not take place, constructions with clausal comparatives do not involve coordinate structures but rather subordinate ones. Consider the following:

(i) a. A better doctor than John has ever been will treat Mary.
b. More money than was offered to John was offered to Mary.
(Moltmann 1992: 337 (194))

If *than* is a coordinator, the Law of the Coordination of Likes (LCL) is violated. Nonetheless, examples (ia-b) are grammatical. Moltmann notes further that (ia-b) are not exceptions to the LCL. The LCL states that conjuncts must have the same syntactic and semantic functions.

[34]I do not review case mismatches in plain NP-comparatives as a potential argument for a coordinate structure. See section 4.3.1.4.2.

comparatives—and their relation to coordination and subordination has been discussed. This section deals with the similarities and differences between externally-headed comparative clauses (EHCCs) and internally-headed comparative clauses (IHCCs). The latter always correspond to a clausal NP comparative and not to a plain NP- comparative.

The following examples illustrate an EHCC and an IHCC in Korean; the comparativized NP (i.e. the semantic comparative head noun) in the IHCC is underlined:

(80) Externally-headed comparative clauses (EHCCs)

John-i	[Yumi-ka	__	mek-un	kes]-pota	sakwa-ul	(te)
J.-NOM	Y.-NOM		eat-adn	comp-than	apple-ACC	more
manhi	mek-ess-ta					
many	eat-pst-ind					

'John ate more apples than Yumi ate.'

(81) Internally-headed comparative clauses (IHCCs)

John-i	[Yumi-ka	<u>sakwa</u>-lul	mek-un	kes]-pota	(te)
J.-NOM	Y.-NOM	apple-ACC	eat-adn	comp-than	more
manhi	mek-ess-ta				
many	eat-pst-ind				

'John ate more apples than Yumi ate.'

(lit.: 'John ate more than Yumi ate apples.')

Semantically, example (80) compares the number of apples John ate to only the number of apples—and nothing else (bananas, etc.)—that Yumi ate. Example (81) is also interpreted in the same way. That is, the number of apples Yumi ate is compared to only the number of apples—and nothing else—that John ate. Therefore, the empty elements in EHCCs should be identified as equivalent to the empty elements in IHCCs. In this

respect, the semantic interpretation of an IHCC matches that of an EHCC, similar to the relationship between other head-*in-situ* constructions such as IHRCs and IFCs and their externally-headed counterparts such as EHRCs and EFCs in Korean.[35]

As with the constructions discussed in preceding chapters, EHCCs like (80) are characterized by the presence of a gap (indicated by "__") in the clausal NP-comparative clause. In contrast, in IHCCs like (81), the semantic comparative head appears *in situ* in the clausal NP-comparative clause. Both EHCCs and IHCCs are equally grammatical and common in colloquial speech, though IHCCs are much more restricted in terms of accessibility, as discussed in section 4.4.1. However, they are not different with respect to island effects, as discussed in section 4.4.2.

4.4.1 Accessibility

EHCCs and IHCCs do not show the same accessibility with respect to the position of the target. Each (a) example is an EHCC and each (b) is an IHCC:

Subject

(82) a. [__ Chotay-toy-n kes]-pota (te) manhun
invite-pss-adn comp-than more many
namhaksayng-tul-i o-ss-ta
male student-pl-NOM come-pst-ind

[35]Unfortunately, at the moment, I cannot find any clear syntactic evidence that Korean head-in-situ constructions, including IHCCs, undergo "head" movement (or "Head Raising") at LF in the sense of Williamson (1987) for Lakhota, Cole (1987) for Quechua and Lakhota, and Barss et al. (1990) for Navajo, or that they undergo the empty operator movement at S-structure in the sense of Watanabe (1993) for Japanese. However, these authors disagree on the landing site of the head. Williamson argues that the head is Chomsky-adjoined to the embedded clause (S'). Cole argues that the internal head is moved into the external head position. Barss et al. and Watanabe argue that the head (empty operator in the sense of Watanabe) is moved into Spec of CP. None of their arguments seem to be applicable to Korean head-*in-situ* constructions.

'More male students came than were invited.'

b. [Namhaksayng-tul-i chotay-toy-n kes]-pota (te)
male student-pl-NOM invite-pss-adn comp-than more

manhi o-ss-ta
many come-pst-ind

'More male students came than were invited.'

Object

(83) a. [Kim sacang-i __ koyongha-n kes]-pota Lee casang-i
K. boss-NOM employ-adn comp-than L. boss-NOM

(te) manhun haksayng-tul-ul koyongha-ess-ta
more many student-pl-ACC employ-pst-ind

'Boss Lee employed more students than boss Lee employed.'

b. [Kim sacang-i haksaynag-tul-ul koyongha-n kes]-pota
K. boss-NOM student-pl-ACC employ-adn comp-than

Lee casang-i (te) manhi koyongha-ess-ta
L. boss-NOM more many employ-pst-ind

'Boss Lee employed more students than boss Lee employed.'

Indirect Object

(84) a. [Nay-ka __ kwaca-lul cwu-n kes]-pota Mary-ka
I-NOM candy-ACC give-adn comp-than M.-NOM

(te) manhun ai-tul-eykey cangnankam-ul cwu-ess-ta
more many child-pl-DAT toy-ACC give-pst-ind

'Mary gave candy to more children than I gave toys.'

b. *[Nay-ka ai-tul-eykey kwaca-lul cwu-n kes]-pota
I-NOM child-pl-DAT candy-ACC give-adn comp-than

Mary-ka (te) manhi cangnankam-ul cwu-ess-ta
M.-NOM more many toy-ACC give-pst-ind

'Mary gave candy to more children than I gave toys.'

Oblique

(85) a. [Ku nongpwu-ka __ mo-lul sim-un kes]-pota
the famer-NOM rice-ACC transplant-adn comp-than

ku haksayng-i (te) manhun non-ey mwul-ul
the student-NOM more many paddy field-LOC water-ACC

toycwu-ess-ta
supply-pst-ind

'The student supplied water into more paddy fields than the farmer transplanted rice.'

b. *[Nongpwu-ka non-ey mo-lul sim-un
famer-NOM paddy field-LOC rice-ACC transplant-adn

kes]-pota haksayng-tul-i (te) manhi mwul-ul
comp-than student-pl-NOM more many water-ACC

toycwu-ess-ta
supply-pst-ind

'The student supplied water into more paddy fields than the farmer transplanted rice.'

EHCCs can allow all the above grammatical relations to be comparative gaps in clausal NP-comparatives. However, IHCCs allow only objects and perhaps subjects to be the internal head. It is not clear that the internal head occurs in the subject position, since data such as (82b) could be taken to be externally-headed comparatives instead.

The reason for this has to do with the limited domain in which a comparative quantifier (including *manhi* 'many') modifies the head noun. As we see in the above data, an adjectival form of the quantifier exists in an EHCC. The external head is preceded by the quantifier, as in (82a)–(85a), or appears as a post-head modifier, as in (80). In IHCCs, however, the quantifier is "discontinuous" from the head: the head appears in the comparative clause, but the quantifier appears in the main clause. In this case, the quantifier selects a clausemate nominal if possible. For example, in (*84b), the quantifier modifies *cangnankam* 'toy' rather than the internal head. In (81), however, where the object is the internal head, there are no quantifiable NPs in the main clause and thus the IHCC is grammatical.

In sum, although both EHCCs and IHCCs are equally grammatical and common in colloquial speech, IHCCs are much more restricted in terms of accessibility. This result is summarized in Table 9 below.

Table 9: Accessibility hierarchy in Korean clausal NP-comparatives:

			SU	DO	IO	OBL	GEN
a.	EHCCs		√	√	√	√	*
b.	IHCCs	(?)	√	*	*	*	

4.4.2 Island effects

In English, Japanese, and other languages, it has been argued (Ross 1967, Chomsky 1977, and others) that comparatives are similar to relative clauses in that both involve unbounded rules (where there is a bridge, there is an apparent violation of Subjacency) and exhibit canonical wh-movement diagnostics (leave a gap, observe the Complex NP Constraint, and observe *wh*-island constraint).

This section briefly shows that Korean comparatives also exhibit island effects (unbounded dependencies and *wh*-island constraints). It also shows that island effects do not differentiate the two types of comparative clauses in Korean.

The examples in (86) show unbounded dependencies, those in (87) show extraction out of a complex NP, and those in (88) show extraction out of a *wh*-clause.

(86) Unbounded dependency:

a. EHCC

[[Mary-ka __ ilk-ess-ta-ko] Tom-i sayngkakha-nun
M.-NOM read-pst-ind-comp T.-NOM think-adn

kes-pota] John-un chayk-ul (te) manhi ilk-ess-ta
comp-than J.-TOP book-ACC more many read-pst-ind

'John has read more books than Tom thinks that Mary read.'

b. IHCC

[[Mary-ka chayk-ul ilk-ess-ta-ko] Tom-i
M.-NOM book-ACC read-pst-ind-comp T.-NOM

sayngkakha-nun kes-pota] John-un __ (te) manhi
think-adn comp-than J.-TOP more many

ilk-ess-ta
read-pst-ind

'John has read more books than Tom thinks that Mary read.'

(87) Complex NP Constraint

a. EHCC

*Tom-i [[[Mary-ka __ ilk-ess-ta-nun] sasil]-ul
T.-NOM M.-NOM read-pst-ind-adn fact-ACC

al-koiss-nun kes-pota] John-un chayk-ul (te) manhi

know-prog-adn comp-than J.-TOP book-ACC more many

ilk-ess-ta
read-pst-ind

(lit: 'John have read more books than Tom knows the fact that Mary read.')

b. IHCC

*Tom-i [[[Mary-ka chayk-ul ilk-ess-ta-nun] sasil]-ul
T.-NOM M.-NOM book-ACC read-pst-ind-adn fact-ACC

al-koiss-nun kes-pota] John-un __ (te) manhi
know-prog-adn comp-than J.-TOP more many

ilk-ess-ta
read-pst-ind

(lit: 'John have read more books than Tom knows the fact that Mary read.')

(88) *wh*-islands

a. EHCC

*[[Nwukwu-ka __ ilk-ess-nyako] Tom-i mwul-un
who-NOM read-pst-Q T.-NOM ask-adn

kes-pota] John-un chayk-ul (te) manhi ilk-ess-ta
comp-than J.-TOP book-ACC more many read-pst-ind

'John read more books than Tom asked who read.'

b. IHCC

*[[Nwukwu-ka chayk-ul ilk-ess-nyako] Tom-i mwul-un
who-NOM book-ACC read-pst-Q T.-NOM ask-adn

kes-pota] John-un __ (te) manhi ilk-ess-ta
comp-than J.-TOP more many read-pst-ind

'John read more books than Tom asked who read.'

In each case, the externally-headed comparative in the (a) example is judged as bad as the equivalent internally-headed comparative in the (b) example. Thus, we see that island effects do not differentiate the two types of comparative clauses.

4.5 Conclusion

This chapter has dealt with two types of comparative clauses in Korean—plain NP-comparatives and clausal NP-comparatives. It was shown that NP accessibility and island effects cannot be taken as evidence for distinguishing the two Korean comparatives. Both types of comparatives can be formed on subjects, direct objects, indirect objects, and obliques, but not on genitive-marked posssessors. Furthermore, contrary to cross-linguistic expectations, but consistent with Korean relativization, Korean clausal NP-comparatives are not subject to island conditions.

Nevertheless, I have presented three differences between the two types of Korean comparative constructions. First, clausal NP-comparatives allow multiple comparatives, whereas plain NP-comparatives do not. Second, S-case is allowed in clausal NP-comparatives, whereas it is not allowed in plain NP-comparatives. On the other hand, I-case is required in clausal NP-comparatives, whereas it is not required in plain NP-comparatives. Moreover, it was noted that in plain NP-comparatives where the target NP is caseless, three factors—the distance, direction, and grammatical relation of the target—influence the preferentiality of certain interpretations.

Next, I turned to the issue of the structure of comparatives. I have argued, following Moltmann (1992), that Korean comparatives should be analyzed as simultaneous coordinate and subordinate structures. It has been argued that the comparative particle *pota*, which, at first glance, does not seem to be a coordinator, does

in factintroduce structures which behave like structures coordinated with conjunctions like *kuliko*. This claim has been supported by evidence based on gapping and on the behaviour of the long-distance reflexive *caki*. Furthermore, it has been shown that the third piece of evidence for coordination stems from an across-the-board (ATB) principle in clausal NP-comparatives. In this argument, I have shown that clausal NP-comparatives are like coordinates formed with -*ko*, but unlike coordinates formed with *kuliko*. Finally, I examined case matching effects in plain NP-comparatives. Case matching is generally required in comparatives and thus they parallel coordinate structures formed with coordinators such as *kuliko* and -(*k)wa*. Furthermore, I discussed examples where the target and the compared element do not have the same case. This occurs in a limited set of constructions with case alternation. In this respect, comparatives are like coordinates formed with *kuliko*, but unlike coordinates formed with -(*k)wa*.

I also presented three arguments for the subordinate structure of comparatives in Korean. First, topicalization/scrambling is possible with plain NP-comparatives. In addition, I have reviewed two potential arguments for the subordinate structure: that is, the position of clausal NP-comparatives with regard to the long-distance reflexive *caki*, and case mismatches in plain NP-comparatives.

Next I turned my attention to internally-headed comparative clauses. Both EHCCs and IHCCs are equally grammatical and common in colloquial speech. However, IHCCs are much more restricted in terms of accessibility. Finally, I showed that EHCCs and IHCCs do not differ with respect to island effects.

Chapter 5
Conclusion

5.1 Introduction

The chapters of this dissertation have each dealt with one type of headed nominalization: Chapter 2 discusses relative clauses, Chapter 3 clefts, and Chapter 4 comparatives. Throughout this dissertation, I do not presuppose much theoretical apparatus but rather simply look at the data directly and find generalizations. In this conclusion, I first give a summary of each chapter based on three main topics: structure, accessibility, and case (sections 5.2–5.4). Then I present my findings, based on the characteristics of each of the headed nominalizations, regarding the status of the complementizer *kes* (section 5.5). Finally, I summarize the differences between externally-headed constructions and their internally-headed counterparts (section 5.6).

5.2 Relative clauses

First, let us consider relative clauses. Examples (1) and (2) illustrate the two types of relative clauses.

(1) EHRC:

John-i [[__	pang-eyse	nao-n $]_{Srel}$	**totwuk**$]_{NP}$-ul	cap-ass-ta
J.-NOM	room-from	come out-adn	thief-ACC	arrest-pst-ind

'John arrested the thief who came out of the room.'
[ACC in main clause = gapped NOM in S_{rel}]

(2) IHRC:

John-i [[[	**totwuk**-i	pang-eyse	nao-n]$_{Srel}$	kes]$_{S'}$]$_{NP}$-ul
J.-NOM	thief-NOM	room-from	come out-adn	comp-ACC

cap-ass-ta
arrest-pst-ind

'John arrested the thief who came out of the room.'
[ACC in main clause = overt NOM in S_{rel}]

Example (1) contains an externally-headed relative clause. The head in (1) (*totwuk* 'thief') appears in the higher clause. It is modified by a clause containing a coindexed gap. On the other hand, example (2) contains an internally-headed relative clause. The head appears in the embedded clause. It nevertheless receives the semantic interpretation of an external head.

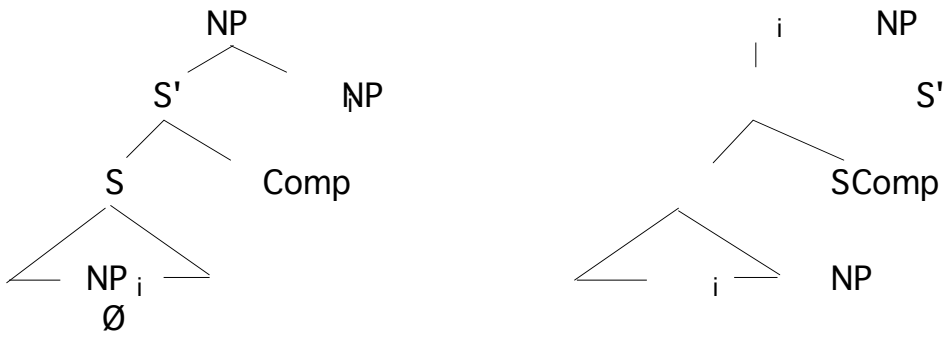
Korean EHRCs have been well-studied. S. Bak (1984), J. Han (1990), S. Hong (1985), S. Kang (1986), S. Lee (1983), Y. Na (1986, 1990), D. Yang (1975), and I. Yang (1972), among others, have elaborated functional and structural properties of Korean EHRCs. In contrast, IHRCs have received little attention. Therefore, I have focussed on IHRCs here.

IHRCs are much less common than EHRCs, especially in formal speech. Their acceptability in colloquial speech varies from speaker to speaker. Nevertheless, many speakers use IHRCs in some instances.

5.2.1 The structure of relative clauses in Korean

I briefly examined the syntactic structure of the two types of relative clauses in Korean. These two types, which are illustrated in examples (1), and (2), can be schematized as in (3).

(3) a. EHRC b. IHRC



EHRCs (3a) contain an overt external head (NP_i), coindexed with a gap ($NP_iØ$) or resumptive pronoun inside the relative clause. On the other hand, in IHRCs (3b), some NP inside the subordinate structure is indexed as coreferential with the higher NP. The higher NP can function as an argument in its own clause. Thus, in the case of EHRCs the syntactic argument of a main verb serves as the head noun. On the other hand, in IHRCs the syntactic argument of a main predicate is the entire embedded clause followed by the complementizer *kes*, but its semantic head is inside the embedded clause.

Recall that the complementizer *kes* may occur in EHRCs as well as IHRCs (section 2.3).

(4) pro_i [pro_i Ecey __ ilk-un]-ke **sinmwun** edi
yesterday read-adn-comp newspaper where
twu-ess-e?[1]
put-pst-Q
'Where did (you) put the newspaper (you) read yesterday?'

[1]As noted in Chapter 2, EHRCs can be formed with *kes* in limited cases. That is, EHRCs formed with *kes* are often used in colloquial speech but not in formal speech. Note again that *kes* is usually pronounced *ke*, and case markers can frequently be omitted in colloquial speech.

As shown in (4), the complementizer *kes* can sometimes co-occur with a lexical head in colloquial speech. However, as in (1) above, EHRCs are often used without *kes*. Hence, EHRCs involve an S' containing a Comp modifying an NP head. This complementizer is usually null. On the other hand, IHRCs require an overt Comp position filled by *kes*.

5.2.2 NP accessibility in Korean IHRCs

I discussed NP accessibility in Korean IHRCs with regard to the main clause function in section 2.2.1. While EHRCs occur in any position of the main clause, IHRCs have a more limited distribution. IHRCs occur only in subject, object, and some adjunct positions of the main clause.

Example (5) illustrates an IHRC occurring in the subject position of the main clause; Example (6) illustrates an IHRC occurring in an adjunct (namely, instrument) position of the main clause; and (7) illustrates an IHRC occurring in the object position of the main clause.

Subject IHRCs

(5) [Totwuk-i **posek**-ul hwumchi-n kes]-i kacca-i-ta
thief-NOM jewelry-ACC steal-adn comp-NOM fake-be-ind
'The jewelry that the thief stole is fake.'

Adjunct IHRCs

(6) John-i [sonyen-i **mwul**-ul kkulhi-n kes]-ulo khephi-lul
J.-NOM boy-NOM water-ACC boil-adn comp-with coffee-ACC
mantul-ess-ta
make-pst-ind

'John made coffee with water which the boy boiled.'

Object IHRCs

(7) John-un [**ai**-ka wul-ko-iss-nun kes]-ul tallay-ss-ta
J.-TOP baby-NOM cry-prog-be-adn comp-ACC soothe-pst-ind
'John soothed the baby that is crying.'

Before considering NP accessibility in Korean IHRCs with respect to the relative clause function, we compare the accessibility in EHRCs and IHRCs. A comparison of NP accessibility in EHRCs and IHRCs in Korean is given in (8) below.

(8)

		relativizable positions						
		SU	DO	IO	OBL	GEN	OComp	
a.	EHRCs √	√	√	√	√(resumptive)		*	
b.	IHRCs	√	√	*	*	*		*

As shown in (8), accessibility in IHRCs are much more limited than in EHRCs. EHRCs allow all grammatical relations—except objects of comparison—to be relative gaps. On the other hand, IHRCs allow only subjects and objects to be internal heads. Moreover, in the case of IHRCs, not all subjects can be relativized. This fact will be shown in the next section.

Now, consider NP accessibility in Korean IHRCs with respect to the relative clause function, summarized as follows.[2]

(9) Subject/Adjunct IHRCs Object IHRCs

[2]See also Table 1 summarized in section 2.2.4.

Subjects	Ergatives		*		√
	Unergatives	*		√	
	Unaccusatives	√		√	
	Passives		√		√
Direct objects		√		√	

IHRCs serving as subjects or adjuncts in the higher clause differ from IHRCs serving as objects in the higher clause with respect to the role of the relativized NP within the relative clause. Subject IHRCs and Adjunct IHRCs are sensitive to the status of a subject. They do not allow ergative (10) and unergative (11) subjects to be internal heads. However, they allow unaccusative (12) and passive (13) subjects to be internal heads.

Subject IHRCs

(10) *[**Sonyen**-i kong-ul cha-n kes]-i meli-ka-ss-ta
boy-NOM ball-ACC kick-adn comp-NOM far-go-pst-ind

'The boy who kicked the ball went far away.'

(11) *[**Totwuk**-i pang-eyse nao-n kes]-i kyeytan-eyse
thief-NOM room-from come out-adn comp-NOM stair-from
nemeci-ess-ta
fall-pst-ind

'The thief who came out of the room fell down from stairs.'

(12) [**Kam**-i kamnamu-eyse tteleci-n kes]-i
persimmon-NOM persimmon tree-from fall down-adn comp-NOM
ssek-ess-ta
rot-pst-ind

'The persimmon which fell down from a persimmon tree rotted.'

(13) [**Kong**-i sonyen-eyuyhay cha-ci-n kes]-i
ball-NOM boy-by kick-pss-adn comp-NOM
changmwun-ul kkay-ss-ta
window-ACC break-pst-ind
'The ball that was kicked by the boy broke the window.'

The heads in Subject IHRCs have a common property. That is, only what are referred to as "initial objects" in Relational Grammar can be heads in Subject IHRCs.

Next, consider IHRCs serving as objects in the higher clause. Unlike Subject IHRCs and Adjunct IHRCs, Object IHRCs allow any subject to be an internal head. This fact is illustrated in the following examples, which show that ergative (14), unergative (15), unaccusative (16), and passive (17) subjects can be relativized:

Object IHRCs

(14) John-i [**sonyen**-i **kong**-ul cha-n kes]-ul cap-ass-ta
J.-NOM boy-NOM ball-ACC kick-adn comp-ACC catch-pst-ind
'John caught the boy who kicked the ball.'
'John caught the ball which the boy kicked.'

(15) Kyengchalkwan-i [**towuk**-i pang-eyse nao-n kes]-ul
policeman-NOM thief-NOM room-from come out-adn comp-ACC
cap-ass-ta
catch-pst-ind
'The policeman caught the thief who came out of the room.'

(16) John-i [**kam**-i kamnamu-eyse tteleci-n
J.-NOM persimmon-NOM persimmon tree-from fall down-adn

kes]-ul palp-ass-ta
comp-ACC tread-pst-ind

'John stepped on the persimmon that fell down from a persimmon tree.'

(17) John-i [**towuk**-i cap-hi-n kes]-ul phwulecwu-ess-ta
J.-NOM thief-NOM catch-pss-adn comp-ACC release give-pst-ind

'John released the thief who was caught.'

In Korean IHRCs, direct objects can be relativized. Example (18) contains an IHRC serving as a subject in the higher clause. Example (19) contains an IHRCs serving as an object in the higher clause.

(18) [koyangi-ka **cwi**-ul ccoch-ko-iss-nun kes]-i
cat-NOM mouse-ACC chase-prog-be-adn comp-NOM
John-eykey cap-hi-ess-ta
J.-DAT catch-pss-pst-ind

'The mouse that the cat was chasing was caught by John.'
(Not) 'The cat that was chasing the mouse was caught by John.'

(19) John-i [**koyangi**-ka **cwi**-ul ccoch-ko-iss-nun kes]-ul
J.-NOM cat-NOM mouse-ACC chase-prog-be-adn comp-ACC
cap-ass-ta
catch-pst-ind

'John caught the mouse that the cat was chasing.'
'John caught the cat that was chasing the mouse.'

Notably, (19), along with (14) above, is an IHRC with multiple readings. In (19),

either *koyangi* 'cat' or *cwi* 'mouse' can be the head, as the English translations show. Here a question is raised as to why IHRCs with multiple readings are allowed in Object IHRCs but not in Subject IHRCs.

The generalization stated above provides an explanation for why only Object IHRCs have multiple readings. The lack of multiple potential heads in Subject IHRCs is due to the fact that only "initial objects" are eligible to be heads. Unlike Subject IHRCs, Object IHRCs allow either subjects or objects to be heads. For this reason, Object IHRCs can have multiple readings. An asymmetry between Subject IHRCs and Object IHRCs with respect to multiple readings is predicted from the general conditions on IHRC heads.

5.3. Cleft Constructions

Now consider cleft constructions. In Chapter 3, I proposed that there are three types of cleft sentences in Korean and that these are analogous to the three types of English clefts. Here, I briefly summarize the structures, accessibility, and case effects of the three types of cleft sentences.

5.3.1 The structure of cleft sentences in Korean

The Korean pseudo-cleft construction is similar to an English *wh*-cleft (or pseudo-cleft) sentence, as shown in (20).

(20) Pseudo-cleft

[Nay-ka	ecey	__	ilk-un	kes]-un	**i**	**chayk**-i-ta
I-NOM	yesterday	read-adn		comp-TOP	this	book-be-ind

'What I read yesterday is this book.'

The structure of pseudo-cleft sentences like (20) is represented in (21).

(21) $[_{IP}\ [_{NP}\ [_{CP}\ \ldots\ e_i\ \ldots\ ]]\ \ XP_i\text{-BE}]$

As shown in (21), the clefted constituent (XP) occurs as a predicate phrase of a main verb, since it is a complement of the copula. This conclusion is supported by the fact that structural cases like nominative and accusative cannot appear in this position.

On the other hand, the Korean inverted pseudo-cleft parallels the English inverted *wh*-cleft, as shown in (22).

(22) Inverted pseudo-cleft

I	**chayk-i**	[nay-ka	ecey	__	ilk-un	kes]-i-ta
this	book-NOM	I-NOM	yesterday		read-adn	comp-be-ind

'This book is what I read yesterday.'

The structure of inverted pseudo-clefts like (22) is given in (23).

(23) $[_{IP}\ XP_i\ [_{NP}\ [_{CP}\ \ldots\ e_i\ \ldots\ ]]\text{-BE}]$

The clefted constituent is the **subject** of the main clause. Hence, XP is marked with nominative case.

Finally, I proposed a third type of cleft (*kes*-clefts):

(24) *Kes*-cleft

pro	[**I**	**chayk-ul**	nay-ka	ecey	ilk-un	kes]-i-ta
	this	book-ACC	I-NOM	yesterday	read-adn	comp-be-ind

'It is this book that I read yesterday.'

The *kes*-cleft in (24), which superficially looks like the Korean inverted pseudo-cleft, functions like an English *it*-cleft. However, there is no overt pronoun corresponding to *it* in Korean. The structure of *kes*-clefts is represented in (25).

(25) $[_{IP}$ pro $[_{NP}[_{CP}$ XP . . . $[_{C'}$ *kes*]]]-BE]

The *kes*-cleft is an internal focus construction. The clefted constituent (XP) appears in the leftmost position of the relative clause. I attributed this word order to scrambling. In Korean simple sentences, scrambled elements receive focus.

5.3.2 Accessibility

Next, I addressed accessibility. Chart (26) summarizes the accessibility facts for Korean pseudo-clefts.

(26) The cleftability hierarchy in pseudo-clefts

	SUB	DO	IO	OBL	GEN	OComp
kes/lexical N	√	√	√	√	√ (sub)	√

Pseudo-clefts can be formed on a wide variety of constituent types. In the case of NPs, all grammatical positions are available.

Chart (27) shows that the categories that can be clefted are more limited in inverted pseudo-clefts than in pseudo-clefts.

(27) The cleftability hierarchy in inverted pseudo-clefts

	SUB	DO	IO	OBL	GEN	OComp

kes	?	√(–human)	*	*	*	*
lexical N	√	√	√	√/*	√(sub)	*

When the clefted clause is formed with *kes*, direct objects are available only when the they are [–human]. Moreover, it is questionable whether or not subject position is available, as recapitulated below. However, indirect object, oblique NP, genitive NP and object of comparison are not available. On the other hand, when the clefted clause is formed with a lexical noun, all grammatical relations are available except Type C obliques and objects of comparison.

Finally, chart (28) shows accessibility in *kes*-clefts.

(28) The cleftability hierarchy in *kes*-clefts

	SUB	DO	IO	OBL	GEN	OComp
kes	√	√	√	√	√(sub)	√

Like pseudo-clefts, all grammatical positions are available; any constituent that can be scrambled to the leftmost position in the relative clause can serve as the internal head of a *kes*-cleft.

5.3.3 Case

Now we consider case and pseudo-clefts. Chart (29) shows that case effects distinguish four types of case markers.

(29) Case effects in pseudo-clefts

	Type A	Type B	Type C	Type D
	NOM, ACC, TIME (*-ey*), and REASON (*-ey*)	DAT, LOC, INST, and [+ recip] COMIT	[–recip] COMIT, BEN, *by*-agent, QUAL, and CMP	REASON (*-(u)lo)*
kes	–	+	+	+
lexical N	–	–	*	(±)

Here, case effects on Korean clefting simply mean that a clefted constituent takes its original case in the clefted clause.

Here Types A and B are illustrated only. Type A is exemplified in example (30).

(30) [__ Cipwung-eyse tteleci-n kes/salam]-un
roof-from fall down comp/person-TOP

John-(*i)-i-ess-ta
J.-NOM-be-pst-ind

'The one that fell down from the roof was John.'

As in (30), nominative case never appears on the clefted constituent. Type B is illustrated in examples (31) and (32).

(31) a. [John-i kil-ul __ mwul-un kes]-un
J.-NOM road-ACC ask-adn comp-TOP

Tom-*(eykey)-i-ess-ta'
T.-DAT-be-pst-ind

'The one that John asked for directions was Tom.'

b. [John-i kil-ul __ mwul-un salam]-un
J.-NOM road-ACC ask-adn person-TOP

Tom-(*eykey)-i-ess-ta
T.-DAT-be-pst-ind

'The one that John asked for directions was Tom.'

In (31), the indirect object NP (*Tom*) is clefted. Its dative case marker must be retained if the clefted clause is formed with *kes*, whereas it must be omitted if it is formed with a lexical noun like *salam* 'person'. This fact is seen by the contrast between examples (a) and (b). In (32) below, when adverbials of location are clefted, we observe the same fact that we saw in the case of indirect objects.

(32) a. [Wuli-ka __ cheumulo manna-n kes]-un
we-NOM for the first time meet-adn comp-TOP

i tapang-*(eyse)-i-ess-ta
this coffee shop-LOC-be-pst-ind

'The place where we met for the first time was this coffee shop.'

b. [Wuli-ka __ cheumulo manna-n kos/cangso]-nun
we-NOM for the first time meet-adn place/place-TOP

i tapang-(*eyse)-i-ess-ta
this coffee shop-LOC-be-pst-ind

'The place where we met for the first time was this coffee shop.'

As the contrast between (32a) and (32b) shows, oblique markers such as LOC must be retained if the clefted clause is formed with *kes*, whereas they must be omitted if it is formed with a lexical noun like *kos* 'place'.

The three types of Korean clefts are very similiar. All three of them are headed

nominalizations containing the complementizer *kes*. I claim that pseudo-clefts and inverted-clefts are externally headed, whereas *kes*-clefts are internally headed.

However, the three clefts differ in several important respects. First, we must look at the accessibility of subject position in clefted clauses with *kes*. Consider (33).

(33) a. [__ Cipwung-eyse tteleci-n kes]-un **John**-i-ta
roof-from fall down comp-TOP J.-be-ind
'The one that fell down from the roof is John.'

b. **John-i** cipwung-eyse tteleci-n kes-i-ta
J.-NOM roof-from fall down comp-be-ind
'It is John that fell down from the roof.'

(33a) is a pseudo-cleft formed with *kes*, with a [+human] clefted constituent (John), and a subject gap. (33b) appears to be an inverted version of a pseudo-cleft in (33a). However, I argue that (33b) is not an inverted pseudo-cleft but rather a *kes*-cleft. The evidence for this claim is based on subject honorification. Consider the following examples.

(34) a. **Ku sensayngnim-i** John-ul cap-un pwun-i-**si**-ta
the teacher-NOM J.-ACC catch-adn person(hon)-be-hon-ind
'The teacher is the one that caught John.'

b. **Ku sensayngnim-i** John-ul cap-un kes-i-***si**-ta
the teacher-NOM J.-ACC catch-adn comp-be-hon-ind
'It is the teacher that caught John.'

Note that the honorific marking on the verb appears only if the speaker owes honor to the

referent of the subject NP. In (34a), the honorific marking on the main verb is grammatical. In contrast, in (34b), it is ungrammatical. This means that the clefted constituent of (34a) is a subject of the main verb, but that of (34b) is not, even if it is marked NOM.

Second, consider the cleftability of a non-subject when the clefted clause is formed with *kes* or a lexical noun. When the clefted constituent is [+human], the three types of clefts show different properties with respect to the status of the Comp position in the clefted clause. As in (35) below, pseudo-clefts allow either the complementizer *kes* or a lexical noun like *salam* 'person'.

(35) [Nay-ka __ manna-n kes/salam]-un **John**-i-ess-ta
I-NOM meet-adn comp/person-TOP J.-be-pst-ind
'The one that I met was John.'

However, in (36) below, inverted pseudo-clefts allows only a lexical noun, as the contrast between (36a) and (36b) shows.

(36) a. ***John-i** [nay-ka __ manna-n kes]-i-ess-ta
J.-NOM I-NOM meet-adn comp-be-pst-ind
'John was the one that I met.'

b. **John-i** [nay-ka __ manna-n salam]-i-ess-ta
J.-NOM I-NOM meet-adn person-be-pst-ind
'John was the one that I met.'

On the other hand, in (37) below, *kes*-clefts allow only the complementizer *kes*, and not a lexical noun, as the contrast between (37a) and (37b) shows.

(37) a. pro [**John-ul** nay-ka __ manna-n kes]-i-ess-ta
J.-ACC I-NOM meet-adn comp-be-pst-ind

'It was John that I met.'

b. *pro [**John-ul** nay-ka __ manna-n salam]-i-ess-ta
J.-ACC I-NOM meet-adn person-be-pst-ind

'It was John that I met.'

5.4 Comparative Constructions

The last construction that I treated was comparatives.

5.4.1 Differences between plain and clausal NP-comparatives

There are two types of comparative constructions in Korean—plain NP-comparatives (38) and clausal NP-comparatives (39).

(38) John-un *Yumi-(eykey)*-pota **Mary-eykey** kamca-lul (te)
J.-TOP Y.-(DAT)-than M.-DAT potato-ACC more
manhi cwu-ess-ta
many give-pst-ind

'John gave more potatoes to Mary than (to) Yumi.'

(39) John-un [$_{NP}$ pro *Yumi-*(eykey)* cwu-n kes]-pota
J.-TOP Y.-DAT give-adn comp-than
Mary-eykey kamca-lul (te) manhi cwu-ess-ta
M.-DAT potato-ACC more many give-pst-ind

'John gave more potatoes to Mary than he gave to Yumi.'

In (38), the comparative particle *pota* 'than' follows an NP constituent. In (39), *pota*

follows a nominal clause formed with *kes*. Korean clausal-comparatives like (39) are headed nominalizations paralleling relative clauses: a full clause formed with a complementizer *kes* is involved. Following Hankamer (1973), the constituent (*Yumi-(eykey)*) followed by *pota* 'than' in (38) and the corresponding element in (39) are called **targets**. The target is indicated by italics and the compared element in the main clause in bold face.

The salient properties of plain NP-comparatives vs. clausal NP-comparatives are described in (40) below.

(40) a. Plain-NP comparatives like (38) consist of one nominal, sometimes case-marked, followed by *pota*.

b. Clausal NP-comparatives like (39) have a full sentential structure and NPs within them take case. The verb is repeated or, in limited cases, an anaphoric verb *ha* 'do' is used.

c. Although Korean has no overt comparative morphology like English, *te* 'more' is optional in both types of comparatives.

I presented in 4.2 three differences—based on multiple comparatives, case, and word order effects—for distinguishing the two Korean comparatives. The chart given in (41) summarizes a comparison of plain and clausal NP-comparatives.

(41) Comparison of plain and clausal NP-comparatives

	Plain NP-comparatives	Clausal NP-comparatives
Multiple comparatives	no	yes
S-case allowed	no	yes
I-case required	no	yes
word order effects	yes	no

5.4.2 The dual structure of comparatives: coordination and subordination

We discussed the dual structure of comparatives: coordination and subordination. A coordinate structure of clausal NP-comparatives in Korean is represented in (42) below.

(42) Coordinate structure:

$[[\ ...\ ]_{XP}$ kes$]_{NP}$-pota $[\ ...\ (te)\ ...\ ]_{YP}$

Whatever the syntactic category (XP or YP), this comparative clause (NP) can be coordinated with the main clause by means of the comparative particle *pota*. I presented four types of evidence for regarding comparatives as coordinate structures. Y. Kim (1988) has demonstrated a number of phenomena that distinguish coordination from subordination. I took two of these—gapping (4.3.1.1) and the long-distance reflexive *caki* (4.3.1.2)—and applied them to clausal NP-comparatives. The third piece of evidence stems from an across-the-board (ATB) principle in clausal NP-comparatives (4.3.1.3). I concluded that these phenomena provided evidence for a coordination analysis of clausal NP-comparatives. The fourth piece of evidence, based on case matching effects (4.3.1.3.1), provides an argument for the coordinate structure of plain NP- comparatives.

On the other hand, the subordinate structure of Korean clausal NP-comparatives is represented in (43).

(43) Subordinate structure:

$[\ ...\ [[[\ ...\ ]_{XP}$ kes$]_{NP}$-pota$]_{PP}$ (te) ... $]_{YP}$

In section, 4.3.2, I presented three arguments for the subordinate structure of

comparatives in Korean. First, topicalization/scrambling is possible with plain NP-comparatives (4.3.2.1). In addition, I gave two potential arguments for the subordinate structure: the position of clausal NP-comparatives with regard to the long-distance reflexive *caki* (4.3.2.2), and case mismatches in plain NP-comparatives (4.3.1.3.2).

The internal structure of clausal NP-comparatives in Korean is different from that of clausal comparatives in languages such as English and German. However, I argued here, following Moltmann (1992)'s three dimensional model, that Korean comparatives involve simultaneous subordinate and coordinate structures.

5.4.3 Two types of clausal NP-comparatives

Next, I discussed two types of clausal NP-comparatives. Examples (44) and (45) illustrate an EHCC and an IHCC in Korean; the comparativized NP (i.e. the semantic comparative head noun) in both constructions is indicated in bold face.

(44) Externally-headed comparative clauses (EHCCs)

John-i [Yumi-ka __ mek-un kes]-pota **sakwa**-lul
J.-NOM Y.-NOM eat-adn comp-than apple-ACC

(te) manhi mek-ess-ta
more many eat-pst-ind

'John ate more apples than Yumi ate.'

(45) Internally-headed comparative clauses (IHCCs)

John-i [Yumi-ka **sakwa**-lul mek-un kes]-pota
J.-NOM Y.-NOM apple-ACC eat-adn comp-than

(te) manhi mek-ess-ta
more many eat-pst-ind

'John ate more apples than Yumi ate.'

(lit.: 'John ate more than Yumi ate apples.')

In (44), the semantic head (*sakwa* 'apple') appears in the main clause. On the other hand, in (45), the semantic head is *in situ* in the embedded clause. Semantically, example (44) compares the number of apples John ate to only the number of apples—and nothing else (bananas, etc.)—that Yumi ate. Example (45) is also interpreted in the same way. That is, the number of apples Yumi ate is compared to only the number of apples—and nothing else—that John ate. Therefore, the empty elements in EHCCs should be identified as equivalent to the empty elements in IHCCs. In this respect, the semantic interpretation of an IHCC matches that of an EHCC. IHCCs are thus similar to other head-*in*-*situ* constructions such as IHRCs and IFCs (i.e. *kes*-clefts).

5.4.3.1 Accessibility

Next I considered accessibility in two types of clausal NP-comparatives. This result is given in (46) below.

(46) Accessibility hierarchy in Korean clausal NP-comparatives:

			SU	DO	IO	OBL	GEN
a.	EHCCs	√	√	√	√	*	
b.	IHCCs		(?)	√	*	*	*

As shown in (46), IHCCs are much more restricted in terms of accessibility than EHCCs, although both are equally grammatical and common in colloquial speech. EHCCs allow all grammatical relations to be comparative gaps in clausal NP-comparatives. However, IHCCs allow only objects and perhaps subjects to be internal heads. This fact is illustrated in the following examples; the (a) examples present EHCCs and the (b)

examples give their internally-headed counterparts (i.e. IHCCs). In each example, the semantic head is indicated in bold face.

Subject

(47) a. [__ Chotay-toy-n kes]-pota (te) manhun
invite-pss-adn comp-than more many

namhaksayng-tul-i o-ss-ta
male student-pl-NOM come-pst-ind

'More male students came than were invited.'

b. [**Namhaksayng-tul**-i chotay-toy-n kes]-pota
male student-pl-NOM invite-pss-adn comp-than

(te) manhi o-ss-ta
more many come-pst-ind

'More male students came than were invited.'

Object

(48) a. [Kim sacang-i __ koyongha-n kes]-pota Lee casang-i
K. boss-NOM employ-adn comp-than L. boss-NOM

(te) manhun **haksayng-tul**-ul koyongha-ess-ta
more many student-pl-ACC employ-pst-ind

'Boss Lee employed more students than boss Kim employed.'

b. [Kim sacang-i **haksayng-tul**-ul koyongha-n kes]-pota
K. boss-NOM student-pl-ACC employ-adn comp-than

Lee casang-i (te) manhi koyongha-ess-ta
L. boss-NOM more many employ-pst-ind

'Boss Lee employed more students than boss Kim employed.'

Indirect Object

(49) a. [Nay-ka __ kwaca-lul cwu-n kes]-pota Mary-ka (te)
I-NOM candy-ACC give-adn comp-than M.-NOM more

manhun **ai-tul**-eykey cangnankam-ul cwu-ess-ta
many child-pl-DAT toy-ACC give-pst-ind

'Mary gave candy to more children than I gave toys.'

b. *[Nay-ka **ai-tul**-eykey kwaca-lul cwu-n kes]-pota
I-NOM child-pl-DAT candy-ACC give-adn comp-than

Mary-ka (te) manhi cangnankam-ul cwu-ess-ta
M.-NOM more many toy-ACC give-pst-ind

'Mary gave candy to more children than I gave toys.'

Oblique

(50) a. [Ku nongpwu-ka __ mo-lul sim-un kes]-pota
the famer-NOM rice-ACC transplant-adn comp-than

ku haksayng-i (te) manhun **non**-ey
the student-NOM more many paddy field-LOC

mwul-ul toycwu-ess-ta
water-ACC supply-pst-ind

'The student supplied water into more paddy fields than the farmer transplanted rice.'

b. *[Ku nongpwu-ka **non**-ey mo-lul sim-un
the famer-NOM paddy field-LOC rice-ACC transplant-adn
kes]-pota haksayng-tul-i (te) manhi
comp-than student-pl-NOM more many
mwul-ul toycwu-ess-ta
water-ACC supply-pst-ind
'The student supplied water into more paddy fields than the farmer transplanted rice.'

It is not clear that the internal head can occur in subject position. Let us first take a look at (47b). If we suppose that there is a subject which is phonetically unrealized in the comparative clause, the embedded subject is a pro, coindexed with a subject *namhaksayng-tul* 'boy-students' in the main clause. Thus, data such as (47b) could be taken to be an externally headed comparative instead.

Why are IHCCs more restricted than EHRCs? The reason has to do with the limited domain in which a comparative quantifier (including *manhi* 'many') modifies the head noun. In (47a)–(50a), the external head is preceded by the quantifier. As in (44), a comparative quantifier also appears as a post-head modifier. However, in the case of IHCCs, the quantifier is "discontinuous" from the head: the head appears in the comparative clause but the quantifier appears in the main clause. In this case, the quantifier selects a clausemate nominal if possible. For example, in (*49b), the quantifier modifies *cangnankam* 'toys' rather than the internal head. In (45) and (48b), however, where the object is the internal head, there are no quantifiable NPs in the main clause and thus the IHCC is grammatical.

5.4.3.2 Case

As noted by various scholars, S-case (nominative and accusative) differs from I-case

(dative, locative, instrumental, etc.) in a significant repect. As (51a) and (51b) show, S-case can be optionally omitted, but as (52a) and (52b) show, I-case is obligatorily present in simple clauses.

(51) S-Case:

a. John-(i) cip-ey ka-ss-ta
J.-NOM house-LOC go-pst-ind
'John went home.'

b. John-i sakwa-(lul) mek-ess-ta
J.-NOM apple-ACC eat-pst-ind
'John ate an apple.'

(52) I-Case:

a. John-i ku kil-ul Yumi-*(eykey) mwul-ess-ta
J.-NOM that road-ACC Y.-DAT ask-pst-ind
'John asked Yumi for directions.'

b. Pwul-i kongcang-*(ey) na-ss-ta
fire-NOM factory-LOC take place-pst-ind
'Fire took place in the factory.'

The same case facts are found in clausal NP-comparatives. S-case is optionally deleted, as in (53a-b), whereas I-case is obligatory present, as in (53c-d).

(53) a. [*Mary-(ka)* hyenmyengha-n kes]-pota **John-i** (te)
M.-NOM smart-adn comp-than J.-NOM more

hyenmyengha-ta
smart-ind

'Mary is smarter than John is.'

b. John-i [pro *sakwa-(lul)* mek-un kes]-pota **kamca-lul**
J.-NOM apple-ACC eat-adn comp-than potato-ACC

(te) manhi mek-ess-ta
more many eat-pst-ind

'John ate more potatoes than he ate apples.'

c. John-i [pro *Yumi-*(eykey)* cwu-n kes]-pota **Mary-eykey**
J.-NOM Y.-DAT give-adn comp-than M.-DAT

senmwul-ul (te) manhi cwu-ess-ta
gift-ACC more many give-pst-ind

'John gave more gifts to Mary than he gave to Yumi.'

d. Wuli-nun [pro *tapang-*(eyse)* manna-n kes]-pota
we-TOP coffeeshop-LOC meet-adn comp-than

swulcip-eyse (te) cacwu manna-ss-ta
bar-LOC more often meet-pst-ind

'We met in the bar more often than we met in the coffee shop.'

5.5 The status of *kes*

This dissertation has dealt with headed nominalizations in Korean, which are clearly different from non-headed nominalizations. Both nevertheless make use of the complementizer *kes*.

5.5.1 Non-headed nominalizations

In Korean, nominalized clauses are used for a variety of complement types:

(54) Nay-ka [khemphyuthe-ka kocangna-n kes]-ul
I-NOM computer-NOM out of order-adn KES-ACC
al-ass-ta
know-pst-ind
'I knew (the fact) that the computer was out of order.'

(55) Na-nun [ku-ka o-nun kes]-ul a-n-ta
I-TOP he-NOM come-adn comp-ACC know-pre-ind
'I know (the fact) that he is coming.'

(56) Na-nun ku_i-eykey [pro_i ka-l kes]-ul myenglyengha-ess-ta
I-TOP he-DAT go-adn comp-ACC order-pst-ind
'I ordered him to go.'

We see the complementizer *kes* in the above examples which illustrated non-headed nominalizations in Korean. The status of *kes* was discussed in section 2.3. As Ransom (1988) points out, the Korean morpheme *kes* is an example of a complementizer that developed from an independent noun. As a noun, *kes* means 'the thing' (57) or 'the fact' (54').

(57) Ku kes-un chayk-i-ta
that thing-TOP book-be-ind
'That (thing) is a book.'

(54') Nay-ka [khemphyuthe-ka kocangna-n kes]-ul
I-NOM computer-NOM out of order-adn KES-ACC

al-ass-ta
know-pst-ind

'I knew (the fact) that the computer was out of order.'

In other words, we can say that an independent noun *kes* is decategorialized to a complementizer.

5.5.2 Headed nominalizations

This complementizer also appears in a variety of headed constructions, for example, relative clauses (58), clefts (59), and comparatives (60). These constructions are illustrated in examples (58)–(60). The (a) examples present externally-headed constructions and the (b) examples give their internally-headed counterparts. In each example, the semantic head is indicated in bold face.

(58) Relative clauses:

a. Externally-headed relative clause (EHRC)

pro_i [pro_i	Ecey	__	ilk-un]-ke	**sinmwun**	edi
	yesterday	read-adn-comp		newspaper	where

twu-ess-e?
put-pst-Q

'Where did (you) put the newspaper (you) read yesterday?'
(K. Lee 1991: 50)

b. Internally-headed relative clause (IHRC)

John-i	[**khemphyuthe**-ka	kocangna-n	kes]-ul
J.-NOM	computer-NOM	out of order-adn	comp-ACC

kochi-ess-ta
repair-pst-ind

'John repaired the computer that was out of order.'

(59) Cleft sentences:

a. External focus construction (EFC)

[Nay-ka	ecey	__	manna-n	kes]-un	**John**-i-ta
I-NOM	yesterday	meet-adn		comp-TOP	J.-be-ind

'The one I met yesterday is John.'

b. Internal focus construction (IFC)

pro	[**John**-ul	nay-ka	ecey	manna-n	kes]-i-ta
	J.-ACC	I-NOM	yesterday	meet-adn	comp-be-ind

'It is John that I met yesterday.'

(60) Comparative constructions:

a. Externally-headed comparative clause (EHCC)

John-i	[Yumi-ka	__	mek-un	kes]-pota	**sakwa**-ul
J.-NOM	Y.-NOM		eat-adn	comp-than	apple-ACC

(te)	manhi	mek-ess-ta
more	many	eat-pst-ind

'John ate more apples than Yumi ate.'

b. Internally-headed comparative clause (IHCC)

John-i	[Yumi-ka	**sakwa**-lul	mek-un	kes]-pota
J.-NOM	Y.-NOM	apple-ACC	eat-adn	comp-than

(te)	manhi	mek-ess-ta
more	many	eat-pst-ind

'John ate more apples than Yumi ate.'

(lit.: 'John ate more than Yumi ate apples.')

As shown in these data, externally headed constructions are characterized by the presence of a gap (or a resumptive pronoun in some instances), indicated by underlining. In contrast, in internally-headed constructions, the semantic head appears *in situ* in the embedded clause. Thus, internally-headed constructions involve "gapless clauses" as embedded clauses, and a nominal, which is semantically understood as an external head, remains *in situ* in the embedded clause.

On the other hand, headed nominalizations can be characterized as nominalized clauses which take an adnominal marker and the complementizer *kes* co-occurring with either an external head or with an internal head. The nominalized complement clauses in (55)–(57) have the same structure as the head-*in*-*situ* constructions (internally-headed constructions) in (58b), (59b), and (60b) respectively. The difference is that head-*in*-*situ* constructions have a relative-like interpretation, whereas nominalized complement clauses do not.

5.5.3 Differences between *kes* and a "light" lexical noun

Given the history of *kes*, especially its use as a lexical noun, one might want to claim that *kes* is, in fact, parallel to other lexical nouns that are used in a semantically "light" fashion in Korean. These include *salam* 'person', *kos* 'place', and *ttay* 'time'. However, there are at least four differences between *kes* and "light" nouns like *salam*.

First, *kes* occurs in internally-headed constructions, whereas "light" lexical nouns do not. This contrast is shown in (61)–(63) below.

(61) IHRC

John-i [**totwuk**-i pang-eyse nao-n kes/*salam]-ul
J.-NOM thief-NOM room-from come out-adn comp/person-ACC

cap-ass-ta
arrest-pst-ind

'John arrested the thief who came out of the room.'

(62) IFC

pro [**John-ul** nay-ka __ manna-n kes/*salam]-i-ess-ta
J.-ACC I-NOM meet-adn comp/person-be-pst-ind

'It was John whom I met.'

(63) IHCC

[Kim sacang-i **haksayng-tul**-ul koyongha-n kes/*salam]-pota
K. boss-NOM student-pl-ACC employ-adn comp/person-than

Lee casang-i (te) manhi koyongha-ess-ta
L. boss-NOM more many employ-pst-ind

'Boss Lee employed more students than boss Kim employed.'

The second difference is that *kes* can co-occur with a head in EHRCs like (58a) above, whereas lexical nouns do not, as (64) shows.

(64) Kyengchalkwan-un [__ hakkyo-eyse
policeman-TOP school-LOC

nao-si-nun]-*salam/*pwun **ku** **sensayngnim**-ul
come out-hon-adn-person/person the teacher-ACC

cap-ass-ta
arrest-pst-ind

'The policeman arrested the teacher who came out of the school.'

In order to see the contrast between *kes* and lexical nouns in the case of EHRCs, we must consider [+human] NP relativization. Unlike (58a), (64) shows that lexical nouns like *salam* 'person' and *pwun* 'honorable person' do not co-occur with a head (*ku sensayngnim* 'the teacher').

The third difference is that *kes* co-occurs with case in clefts, whereas a "light" lexical noun does not. We saw this fact in section 3.2.2, as summarized in Table 3 showing case effects based on the clefted clause formed by *kes* and a lexical noun.

Table 3: Case effects in pseudo-clefts

	Type A	Type B	Type C	Type D
	NOM, ACC, TIME (*-ey*), and REASON (*-ey*)	DAT, LOC, INST, and [+ recip] COMIT	[–recip] COMIT, BEN, *by*-agent, QUAL, and CMP	REASON (*-(u)lo)*
kes	–	+	+	+
lexical N	–	–	*	(±)

In Table 3, Type B clearly shows this difference. For example, dative and locative case effects are shown in (65) and (66) respectively.

(65) a. [John-i kil-ul __ mwul-un kes]-un
J.-NOM road-ACC ask-adn comp-TOP

Tom-*(eykey)-i-ess-ta
T.-DAT-be-pst-ind

'The one that John asked for directions was Tom.'

b. [John-i kil-ul __ mwul-un salam]-un
J.-NOM road-ACC ask-adn person-TOP

Tom-(*eykey)-i-ess-ta
T.-DAT-be-pst-ind

'The one that John asked for directions was Tom.'

(66) a. [Wuli-ka __ cheumulo manna-n kes]-un
we-NOM for the first time meet-adn comp-TOP

i tapang-*(eyse)-i-ess-ta
this coffeeshop-LOC-be-pst-ind

'The place where we met for the first time was this coffeeshop.'

b. [Wuli-ka __ cheumulo manna-n kos/cangso]-nun
we-NOM for the first time meet-adn place/place-TOP

i tapang-(*eyse)-i-ess-ta
this coffee shop-LOC-be-pst-ind

'The place where we met for the first time was this coffee shop.'

In (65), an indirect object NP (*Tom*) is clefted. Its oblique markers must be retained if the clefted clause is formed by *kes*, whereas it must be omitted if the clefted clause is formed by a "light" lexical noun like *salam* 'person'. This is seen by the contrast between each example (a) and (b). In (66), when adverbials of location are clefted, we observe the same range of data.

Finally, *kes* is a complementizer and not a co-indexed form. Thus multiple

comparatives are possible, as shown in (67).

(67) Ku sensayngnim-un [pro **namhaksayng-tul-eykey** **yenphil-ul**
the teacher-TOP boy.student-pl-DAT pencil-ACC

cwu-n kes]-pota (te) manhun yehaksayng-tul-eykey
give-adn comp-than more many girl.student-pl-DAT

(te) manhun kongchayk-ul cwu-ess-ta
more many notebook-ACC give-pst-ind

'The teacher gave more notebooks to more girl-students than he gave pencils to boy-students.'

As discussed in section 4.2.3, when more than one NP is compared, clausal NP-comparatives can be used for multiple comparatives. If we assume that *kes* is a proform like a "light" lexical noun, *kes* would be co-indexed with its antecedent. Under this assumption, we expect clausal NP-comparatives not to have multiple comparatives since a co-indexed form takes only one antecedent. However, data such as (67) show that this expectation fails. Hence, the existence of multiple comparatives in clausal NP-comparatives strongly supports the claim that *kes* is not a co-indexed "light" noun or proform but rather a complementizer.

In sum, *kes* used in headed nominalizations is not a proform, and does not behave like lexical nouns *salam* or *pwun* 'person'.[3] From the four differences between *kes* and a

[3]This *kes* also does not behave like an English relative pronoun because it is not co-indexed with the semantic head. This fact also assumes that *wh*-comparatives in English should not allow for multiple comparatives, as in (ib).

(i) a. Mary gave more books to Sue than what John did.
b. *Mary gave more books to more children than what John did.

Some dialects of American English normally have *wh*-comparatives such as (ia). Note that *wh*-comparatives are originally provided by Chomsky (1977) as a piece of evidence of

"light" lexical noun, I conclude that the *kes* used in relative clauses, clefts, and comparatives is a complementizer.

5.6 Externally-headed versus internally-headed constructions

Three internally-headed (head-*in*-*situ*) constructions (IHRCs, IFCs, and IHCCs) in Korean were discussed here. In each case, they were compared to their externally-headed counterparts, focusing on structure, accessibility, and case.

Although internally-headed constructions parallel externally-headed ones in that they all have a relative-like interpretations, they nevertheless do not all exhibit the same range of behaviour. In each case, I have shown that internally-headed constructions have a much more limited domain of occurrence than their externally-headed counterparts with respect to the accessibility hierarchy. The limited range of occurrence of internally-headed constructions is not surprising given the extra load of assigning a semantic interpretation in such constructions.

The syntax and semantics of head-*in*-*situ* constructions, which have been neglected in the study of Korean grammar, require further research. Nevertheless, I hope to have contributed to an understanding of their properties in this work.

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wh-movement. However, such dialects cannot permit *wh*-comparatives to have multiple comparatives, as in (ib), since a co-indexed form *what* takes only one antecedent.

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